

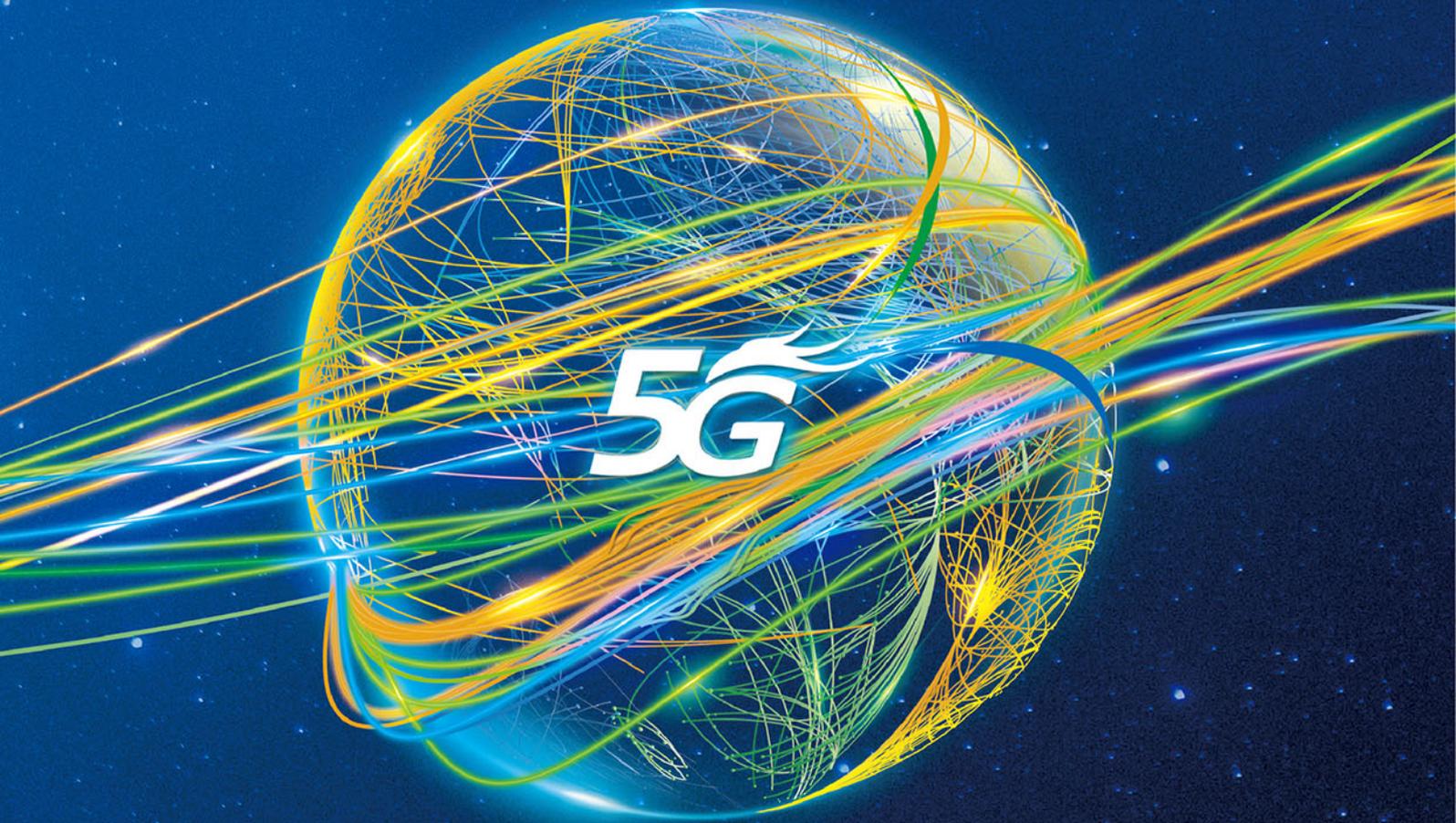
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中華電信  
Chunghwa Telecom

Annual Report 2019

# 5G: Empowering a New Era



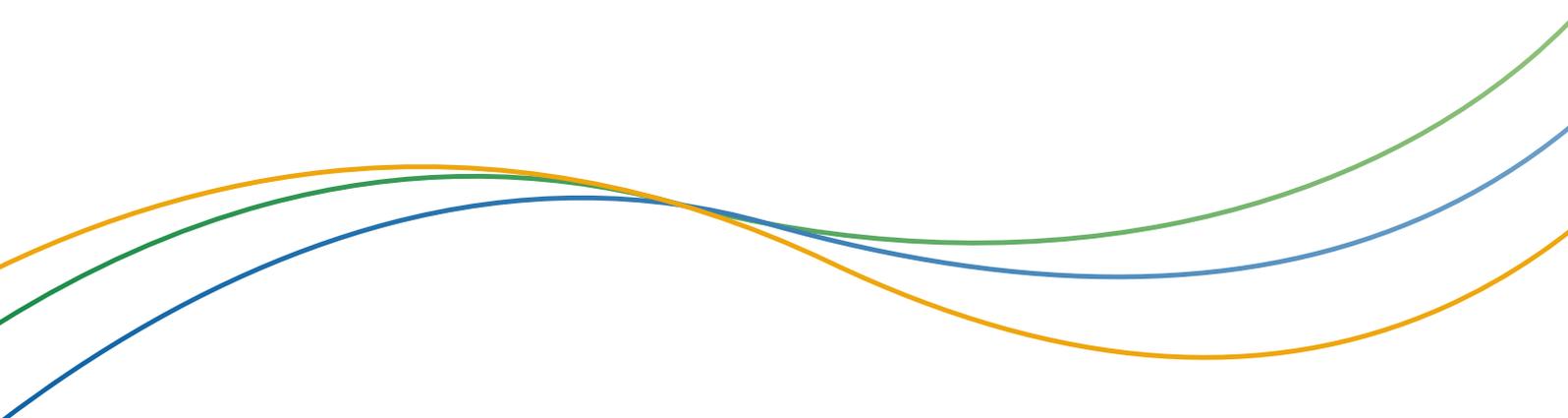
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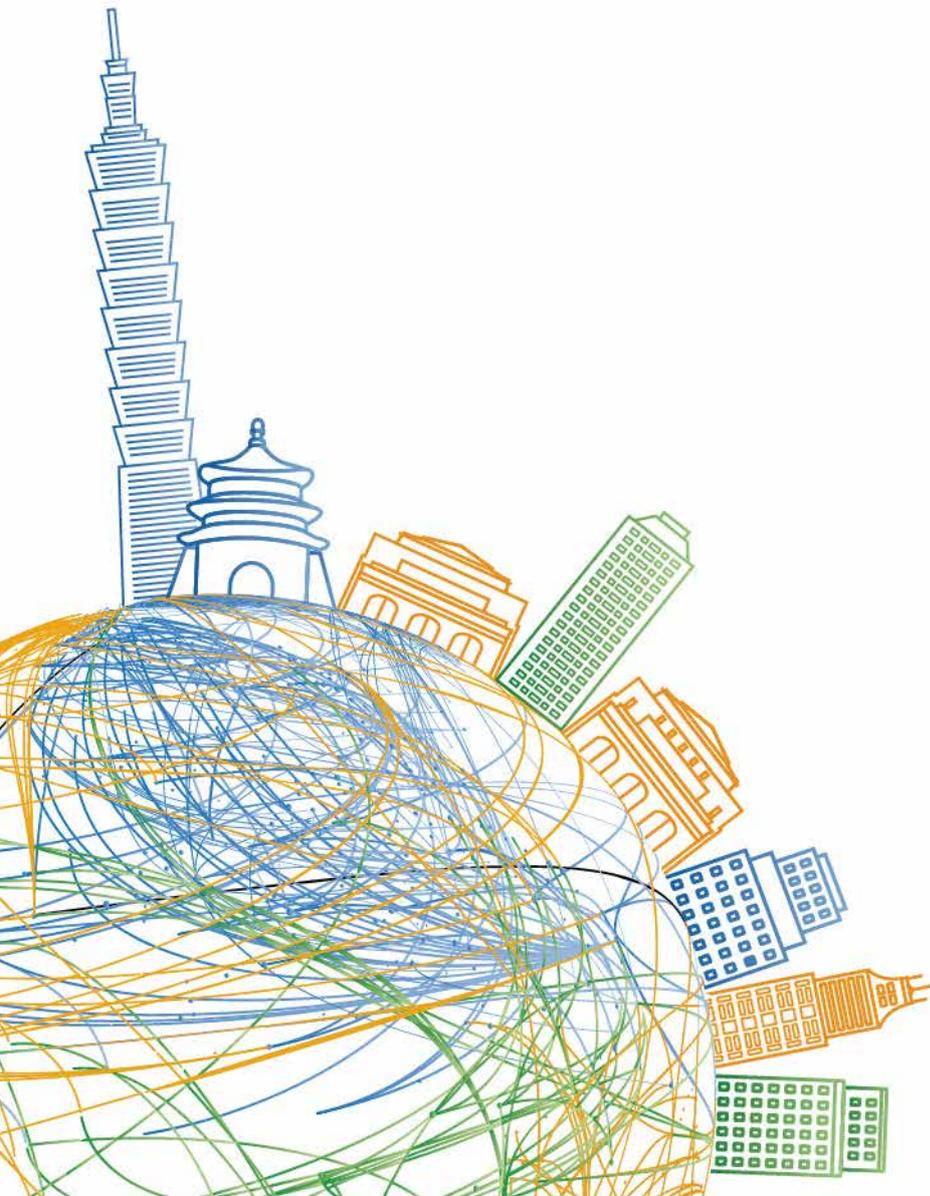




# Letter to Shareholders

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1. Operating Performance in 2019
2. Business Plan Highlights for 2020



# Letter to Shareholders

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Dear Shareholders

The telecommunications industry is experiencing ongoing change. In 2019, to lay a solid foundation for the Company's mid- to long-term development, we initiated a customer-centric transformation that focuses on the core business, emerging businesses, cost optimization, and improving our core competencies, and we have made progress on all four fronts. At the same time, we proactively responded to market challenges in spite of the continued intense competition, and successfully solidify our leading market position. In 2019, the mobile market is less competitive, but pricing structures did not change much. On the one hand, we enhanced the subscriber number of higher-price plans through bundling mobile handsets, and on the other hand furthered our development in the student demographic and new IoT applications, which successfully stimulated an increase in mobile subscriber numbers and mitigated the decrease of ARPU. At the end of 2019, total mobile subscribers number exceeded 10.649 million, and our market share by mobile subscribers and revenue continued to increase. Our mobile network quality was also acknowledged by international institutions such as Speedtest and Frost & Sullivan, who continued to award us with top honors, helping us lay a solid foundation for the upcoming 5G era.

As artificial intelligence technology and related applications continued to evolve vigorously, we believe that home-centric digital services will lie at the core of smart living solutions in the future. Therefore, in 2019, we continued to improve fixed network broadband speed and digital application services. As part of our broadband strategy, we launched higher-speed broadband offerings, encouraged users to migrate to higher speed service and increased our revenues. As of the end of 2019, the total number of broadband users was 4.405 million, which was slightly lower than that in 2018, but the number of users signing up for connection speeds of 100Mbps or higher grow by 11% year over year to 1.582 million. Customers signing up for connection speeds of 300Mbps or higher also continue to multiply, driving ARPU growth. Given our efforts, 1Gbps broadband coverage was 66.4% nationwide.

In our smart home business, the number of MOD/IPTV subscribers reached 2.082 million, and we maintained our position as the largest audio/video platform in Taiwan. In addition, we continued to develop content and price plans based on customer demand. In the third quarter, we launched

our free-to-choose channel plan to encourage users to package channels in preferences, which was well received and, together with growth in on demand content, drove MOD/IPTV revenue growth of 10.6% year over year. In the future, we will continue to leverage new technologies, including multi-view broadcasting, 4k high definition, and even VR, to broadcast major international sports events, such as the 2020 Tokyo Olympic Games, to create high-quality entertainment experiences for customers. In addition, we will continue to develop innovative applications in AIoT and FinTech, such as smart health care, cloud service of personal health record, smart speakers, and digital finance to accelerate growth in our emerging businesses.

In 2019, to further increase our capacity of revenue growth and strengthen operating efficiency in enterprise customer and ICT services business, we enhanced the synergies among our sales, products, and R&D functions, which successfully returned our ICT projects revenue back to the growth trajectory and the proportion of revenue from enterprise customers also continued to increase.

In the emerging businesses segment, our IDC, cloud, big data, and IoT services continued to develop, and sales of IoT devices grew significantly as well. For example, by offering our "Smart Security" solution, we acquired multiple police intersection monitoring projects throughout Taiwan, which solidified our position as Taiwan's largest cloud video surveillance service provider. In addition, our "IoT Platform" helped us acquire large-scale IoT bidding projects in 2019, including AMI Smart Meters Phase II, the Hsinchu 5G Smart Street Lights Project, and the Yilan Smart Parking Project. We also developed applications of air quality monitoring, street lights, and transportation infrastructure to provide IoT total solutions in various verticals to generate revenue streams for the Company. Furthermore, the IoT platform also allowed our self-developed services, including railway engineering, self-driving vehicles, smart agriculture, smart home, speech-to-text cloud and health related cloud services to further develop and expand business opportunities for the Company.

Business opportunity development was not restricted to domestic markets. In 2019, we expanded in the Southeast Asia market with a new office in Indonesia to prepare for future partnership opportunities. In addition, we formed an alliance with CAT Telecom in Thailand for smart city opportunities.



In order to accelerate our transformation, we continued to improve network construction and staff deployment by upgrading existing network of flexible expansion, agile delivery, network automation, and cloud-network integration to accomplish digital convergence. As SJC2 submarine cable system is expected to be completed in the first quarter of 2021, we will obtain additional 18 Tbps capacity entitlement for international connections. Our world-class CHT Taipei IDC has been in services since 2016, and now is in its third phase of construction due to continuously increasing demand. In addition, we have built 5G trial networks and field tests, and completed critical technology evaluation and verification, leading preparations for introducing 5G to Taiwan. We are ready to be ahead of our peers to lead Taiwan into the new era of 5G.

### Financial Performance

For full year 2019, Chunghwa Telecom's consolidated revenue was NT\$207.52 billion, representing a decrease of 3.7% compared to the prior year. This was mainly due to the impacts of continued competition in voice services and VoIP substitution, which resulted in downward pressure on revenues, and a decrease in mobile handset sales, which offset revenue

growth from ICT projects, internet services, and MOD/IPTV. Consolidated costs and expenses for full year 2019 was NT\$166.75 billion, which decreased by 3.0% compared to 2018, mainly due to a decrease in network interconnection expenses. In 2019, capital expenditures were NT\$24.17 billion, and was mainly spent on supporting business growth and consolidating market position. For example, we expanded fiber coverage, increased mobile service speed through carrier aggregation infrastructure, and strengthened procurement efficiency. As a result of the execution of our business strategies and cost control initiatives, net income attributable to stockholders of the parent company was NT\$32.79 billion, or NT\$4.23 per share.

In 2019, overall net reinvestment income was NT\$1.65 billion. We continued to focus on our broad-based alliance investment strategy, strengthen our group structure, including reinvesting in the web-only bank, the NEXT BANK, deepen our solutions for digital banking, develop financial information security, and extend our digital channel services. In addition, we built 5G accelerators to cultivate innovative 5G applications in Taiwan and to promote the creation of a 5G ecosystem.

## Achievements in Research and Development

In 2019, Chunghwa Telecom's main achievements in R&D include:

- (1) Core business: new form network, hcloud public cloud, software-defined data center, next-generation FTTH, mobile edge computing, wireless access, smart maintenance;
- (2) Emerging businesses: Intelligent Video Surveillance, technologies and applications for law enforcement, intelligent maritime port, big data traffic analysis, IoT vehicle fleet management, 3-phase smart meter, smart care, identity verification, innovative blockchain applications, enterprise information security defense, digital audio and video (MOD+OTT), AR applications, mobile payment (Hami Pay), AI semantic cloud, smart customer service for enterprise customers;
- (3) Cost optimization: software-defined network, fixed and mobile order/billing management system, enterprise customer business operations support system and online stores, smart customer service, and big data applications;
- (4) Improving fundamental capabilities: 5G connection standards, 5G-related issues testing, high-speed optical transmission system disaggregation technology, IPv6 Ready Logo Gold Badge inspection service, virtual and physical resource management;
- (5) Overall core competencies: in 2019, we applied for 178 patents and received 176 approvals. In addition, we obtained 14 major international and domestic awards.

## Fulfilling Corporate Social Responsibility

Chunghwa Telecom upholds our brand's spirit, "Always Ahead," and longstanding principles of "Sustainable Corporate Development," "Compliance with Global Environmental Trends," and "Supporting Minorities" to give back to society.

In 2019, our pioneering "I Love SDGs" (5I SDGs) initiative to align with the United Nations' 17 sustainable development goals focuses on channeling resources to remote rural areas and vulnerable ethnic groups. We established 89 "Good Digital Neighbor" programs throughout Taiwan to help community residents use technology. We have invested in the "Outpost Taiwan" project for the past 11 consecutive years, helping a total of over 500 youths record local stories with digital technology. We have also promoted the "Reading Partner" community online tutoring service for more than 11 years, allowing 4,035 college students to provide online after school tutoring to 2,577 primary school students. Moreover, our "EYE Social Innovation Customer Service Center" has helped the visually impaired with education and employment opportunities for nearly 10 years.

We took the lead in being introduced to and completing two major international environmental standards, "ISO 14046 Water Footprint Standard" and "ISO 14067 Carbon Footprint Standard," becoming the first telecom provider to simultaneously attain both international environmental standards. We are also the first company in Taiwan to promote, initiate, and act upon the "Low Carbon Economy - Sustainable Supply Chain" initiative, following ISO 20400 sustainable procurement guidelines, and joining the CDP supply chain project, through which we promoted a sustainable hierarchical management system for hundreds of suppliers and implemented sustainable procurement.

In addition, to confront the social security risks caused by the current coronavirus outbreak (COVID-19), we are proactively leveraging our technology capabilities to assist the government with epidemic prevention and enacted our corporate epidemic prevention plan. Besides, we designed a variety of web conference offerings to assist enterprises and campuses with online conferences and remote tutoring. We also help those who were in quarantine spend time well by providing them free mobile content for entertainment, aiming to help the society successfully operate under goodwill.

## Honors and Awards

Chunghwa Telecom maintains a nationwide infrastructure and service presence, and our household brand and service value is well-known in Taiwan. We require ourselves to operate in accordance with the highest standards of corporate governance. Our focus on fulfilling customer demand, to customers' satisfaction, helps us create enterprise value. Our efforts have been recognized through major international and domestic awards.

In 2019, Chunghwa Telecom received Frost & Sullivan's "Best Telecom Operator" award for Asia Pacific emerging markets, defeating all other telecom operators in the region. At the same time, we received the Taiwan country awards for Best Mobile Service and Best IDC Service Provider. We were also honored to receive the "World Brand Award" from the World Brand forum for the fifth year in a row. Our outstanding brand value and national recognition won us the "Country Brand Award" as well. In globally-renowned brand evaluation institution BrandFinance's Global 500 list of 2019, Chunghwa Telecom ranked 366 and was one of the few brands from Taiwan to be recognized. We received the "Trusted Brands" Platinum Award in the telecommunication category from Reader's Digest for the 15th year in a row, and again received first place in Business Today's "Ideal Business Brand" for the telecommunication sector. Our services were



▲ Senior executive team photo taken in March 2020 at The Center of Intelligent Future.

recognized when we regained the "5 Star Service Award" from Global Views Monthly. For the eighth year in a row, we were included in the Dow Jones Sustainability Index's Emerging Markets Index, illustrating international investors' continued recognition of Chunghwa Telecom's sustainable operations. Furthermore, we received finance magazine The Asset's Platinum Corporate Award for the seventh consecutive year, commending our achievement in areas related to financial performance, operational management, corporate governance, social responsibility, environmental responsibility, and investor relations.

### Future Outlook

In the coming year, our two-pillar "5G + Transformation" strategy will drive the Company into the 5G era. Leveraging our existing 4G advantages as a foundation, we will proactively launch 5G network construction to build a 4G/5G mobile broadband network with the largest bandwidth

and widest coverage, and deploy 5G, SDN, and other new-generation networks, to provide various convergent services to the personal, household, and enterprise markets. In addition, we will continue to invest in technology research and development, recruit and cultivate outstanding talents, and cooperate with strategic partners to build an industrial ecosystem. We aim to lead and drive the development of various emerging ICT services, expand in domestic and international markets, achieve "customer-centric value creation," realize the vision of becoming a "smart life leader and digital economy enabler," and become the most valuable and trustworthy information and communications technology company.

In 2020, we successfully obtained the most favorable frequency bands during 5G spectrum bidding, including 3.42-3.51GHz in the 3.5GHz band and 27.9-28.5GHz in the 28GHz band, establishing a competitive advantage for our long-term development for the next 20 years. In addition, we

successfully obtained broadcasting rights as Taiwan's new media platform for the 2020 Tokyo Olympic Games. This will be the first time that Taiwan combines 4K and VR technology with 5G services to broadcast the Summer Olympics, once again innovating the video viewing experience and driving the industry to develop forward.

In addition, with the advent of the 5G era, we expect the B2B2X model, in which telecom operators would team up with enterprise customers or government entities to provide services to end users together, would become the regular service. Therefore, we will continue our strategy of "alliance expansion" to develop strategic reinvestment activities. Through M&A, R&D, and alliance, we aim to develop new services and invest in digital-focused startups to build medium- and long-term growth momentum for Chunghwa Telecom Group.

We will also support the company's future growth and direction from the avenues of corporate governance and the composition of the Board of Directors. We will balance diverse education backgrounds and experiences with gender when selecting appropriate directors and independent directors. In addition, we will strengthen the operations of each committee, communications with investors, and the Company's operations in order to create value for customers, shareholders, employees, and society.

## 1. Operating Performance in 2019

### 1.1 2019 Operating Review

As of December 31, 2019, Taiwan local telephone penetration has reached 124.4% (according to the NCC's definition and calculation of "local telephone household subscribers as a percentage of total nationwide households"), of which the Company's subscribers totaled 10.163 million, representing a leading market share of 92.5%. For mobile communication, the nationwide penetration rate has reached 123.7%, of which the Company's subscribers totaled 10.649 million, representing a market share of 36.5%. The Company continues to maintain its market leadership position in terms of subscriber numbers. For data communication, the total number of households with internet access in Taiwan represents a penetration rate of 89.4% (according to the Taiwan Network Information Center report "2019 Taiwan Internet Report"), of which the Company's broadband subscribers (ADSL and FTTx) totaled 4.405 million, representing a market share of 68%; HiNet ISP subscribers totaled 4.00 million, representing a market share of 64.4%.

Overall global economic demand experienced a slowdown in 2019 due to the US-China trade war. As a result, manufacturing businesses experienced declines and export volume decreased as well in major countries. Taiwan's economy was also affected during this period. In response to external forces and in order to adapt to the fast-changing and highly competitive telecommunications industry, the Company established a strategic transformation management office to explore new opportunities and develop a solid foundation for sustainable operations in the mid- to long-term, encouraging employee collaboration and unity under the spirit of One CHT. Looking ahead into 2020, the Company's focus in the telecommunications industry includes 5G deployment amid the integration of fixed networks and mobile networks. Furthermore, the number of individuals who intend to purchase new smartphones is also expected to increase in 2020. To capture the opportunities arising from these trends, the Company has already developed 5G capabilities, including establishing trial networks in order to develop in-house critical 5G technologies. In addition, the Company has integrated international resources, including NGMN, 3GPP, and other global leading companies, to ensure the successful migration of 4G to 5G. The Company is also maintaining its leading position in Taiwan by launching 5G mobile broadband services to respond to the latest international trends and by cooperating with local industry companies to cultivate innovative applications and business models.

The Company was the first service provider to launch 4G services, commencing on May 29, 2014. The Company then successfully participated in three mobile spectrum auctions in fiscal years 2013, 2015, and 2017, respectively, accumulating the largest bandwidth coverage within the telecommunication industry in Taiwan. The Company currently has spectrum slots of 900MHz, 1800MHz, 2100MHz and 2600MHz, totaling 180 MHz bandwidth, and is considered the best frequency allocation for users' mobile experiences.

In addition, the Company received recognition from several international rankings. In January 2019, the NCC ranked Chunghwa Telecom first in all 22 counties. In February 2019, at Mobile World Congress 2019 held in Barcelona, Spain, the Company retained its ranking with Speedtest and was awarded "Taiwan's Fastest Mobile Network 2018." In July 2019, OpenSignal awarded the Company top honors for "Download Speed," "Mobile Video," "Voice Application," and "4G Network Coverage." In October 2019, the Company retained its top ranking in Next Magazine's 4G provider ranking and first place in its "16th Annual Best Service Award for Telecom 4G Operators." In December 2019, the Company maintained its

winning position in the F&S Asia Pacific Best Practice Award and received the "Taiwan's Best Mobile Service Provider of the Year" award.

For its broadband business, in November 2019, the Company's broadband business ranked first in all seven categories of InsightXplorer's "2019 Residential Broadband Internet Usage and Satisfaction Survey" (which included customer service satisfaction, customer loyalty, brand recognition, overall service satisfaction, network stability satisfaction, download speed satisfaction, and upload speed satisfaction), showing that satisfaction with the Company's broadband business leads against those of other brands. In December 2019, the Company's telecommunication services was awarded the top prize for the seventh time in a row in the "Five Star Service Award" telecommunications company category by Global Views Monthly.

In addition, the Company is actively promoting MOD. It enhances content breadth and depth through Hami Video, providing better digital convergence services. The Company continues to migrate to the higher-speed broadband access of FTTx, enable government DIGI+ national policy, construct Gbps networks, and further strengthen its nationwide broadband network capabilities. For enterprise services, the Company continues to enhance the operation of various enterprises, especially small and medium enterprises (SMEs), by providing optimal services for different industries and by innovating towards higher value services.

Strong customer support is a key success factor of Chunghwa Telecom leadership. The Company continues to deliver compassionate service, integrating it with a culture of innovation, in order to maintain voice business leadership, expand broadband and value-added services (VAS), promote enterprise ICT, and grow in overseas markets. These efforts ensure the Company's leading brand and market share within the Taiwan market and solidifies its revenue and customer growth.

The Company intends to provide more VAS for domestic fixed communication services. For broadband access with better service quality, the Company focuses on higher-speed optical fiber offerings by constructing a faster and more stable broadband network environment. As of December 31, 2019, the total broadband subscribers of the Company are approximately 4.405 million, of which approximately 1.582 million subscribers use 100Mbps and above, representing an increase of 11.3% year over year. In addition, FTTx subscribers are approximately 3.619 million, representing an increase of 0.5% year over year. Furthermore, the Company is actively

promoting MOD by expanding the breadth and depth of digital content and channels, with HiNet+MOD+Mobile 4G Triple Play integration, in order to provide ubiquitous and seamless digital convergence services across networks, platforms, and terminals. As of December 31, 2019, MOD subscribers are approximately 2.082 million, representing an increase of 3.6% year over year.

For mobile communication, the Company is the leading player, launching 4G high speed services with high quality services and mobile integration, such as Wi-Fi, and providing users with more convenient and efficient internet access. In addition, the Company continues to develop mobile VAS and to expand its mobile network infrastructure, as well as to promote Hami VAS. As of December 31, 2019, the Company's mobile broadband customer base has reached approximately 10.649 million.

For internet services, the Company continues to promote HiNet broadband access and home Wi-Fi services for FTTx customers as well as enhanced VAS, including video/audio offerings. In addition, the Company focuses on enhancing customer relations and membership operations with integrated content services to increase customer satisfaction and to enhance its product portfolio's competitive advantages.

For international fixed communications, the Company continues to improve service quality, reduce churn rates, expand international voice wholesale, promote E-Call Card, and other integrated marketing sales. In addition, the Company is actively expanding in the overseas market by offering services including international leased lines, VAS, and overseas ICT services, in order to increase international service revenues.

The Company continues to strengthen overall operating efficiency, including integrating channel subsidiaries with a focus on providing incremental service sites to match customer demand and enhancing its service advantage. In addition, the Company is consolidating service delivery into single access points-of-contact and onsite service inspections. Furthermore, the Company continues to consolidate electronic and paper bills in order to ensure more convenient and better quality telecommunication services.

For digital channel expansion, the Company's online store provides more convenient and accelerated online processing for all customers as well as online order and home delivery services, resulting in a significantly improved one-stop online experience.

In terms of operating cost discipline, the Company continues to improve operating efficiency and optimize its internal organization, enhancing headcount structure while leveraging newly hired talent. In addition, the Company has designed various incentive programs, such as corporate bonuses and additional employee compensation, in order to encourage more employee contributions.

## 1.2 Capital Expenditure

The Company's total CAPEX for 2019 was NT\$24.17 billion, including NT\$12.07 billion for domestic fixed communications (including access and broadband network), NT\$7.77 billion for mobile communications, NT\$1.43 billion for internet, NT\$1.12 billion for international fixed communications, and NT\$1.78 billion for others.

## 1.3 Revenue, Expenditure & Profit Analysis

Unit: NT\$ millions

Financial Metrics		Fiscal Year	
		2018	2019
Revenue & Expenditure	Revenues	215,483	207,520
	Gross Profit	75,938	71,568
	Income from Operations	43,644	40,646
	Non-Operating Income and Expenses	1,335	1,104
	Income before Income Tax	44,979	41,750
	Net Income	36,456	33,764
	Net Income attributable to Stockholders of the Parent	35,502	32,789
Profitability	Return on Assets (%)	7.94	7.17
	Return on Equity (%)	9.59	8.74
	Pre-tax Income to Paid-in Capital (%)	57.98	53.82
	Net Income Ratio (%)	16.92	16.27
	Earnings Per Share (NT\$)	4.58	4.23

Note: The above table is based on consolidated financial reports.

## 1.4 Research & Development

To consolidate the competitive advantages of the Company's core and emerging businesses, the Company consistently invests considerable resources in research and development. Through innovative research and development, domestic and foreign technology acquisition, and cooperation between government, industry, universities, and research institutions, the Company strives to master the key technologies in the telecommunication industry in order to improve network

performance and communication quality, achieve cost reduction, and enhance the competitive advantages of its core business. For emerging businesses, such as artificial intelligence, big data, the Internet of Things, cloud services, cyber security, and 5G, the Company actively invests in research and development, developing new products and creating innovative solutions to meet customers' demands.

In 2019, the R&D expenditure of the Company totaled NT\$3.94 billion, representing 1.9% of the consolidated revenues. The R&D investment complements the Company's focus on ICT development and operations in order to maximize the value proposition for all customers.

## 2. Business Plan Highlights for 2020

### 2.1 Operation & Strategy Outlook

Facing a structural change in the telecommunications market, the Company's operational strategy will focus on leading in the 5G era, strategic transformation, and its five strategic pillars: growing in the enterprise market, maintaining the core business, enhancing emerging businesses, improving core competencies, and expanding cooperation. In addition, the Company aims to expand in both its domestic and overseas markets, continue to deepen its involvement in corporate social responsibility, lock in on the business opportunities of digital convergence and the digital economy, and support its strategic partners. The Company is fully committed to growing its business, becoming a leader in the smart living industry, empowering the digital economy, and delivering value to customers, shareholders, employees, and society.

- **Leading in the 5G Era:** In cooperation with the early auctions of 5G spectrums, the Company will proactively build 5G networks, establish an end-to-end ecosystem, deploy innovative 5G applications, and lead in the new 5G era.
- **Strategic Transformation:** Continuously execute on the "Together, We Rise in 2021" strategic transformation plan to achieve growth.
- **Growing in the Enterprise Market:** Enhance industry-specific operations, innovate with B2B2X business models, seize the opportunities of the digital economy, and enhance the collaboration and cooperation of the sales, product, and R&D departments to improve product ownership and gross profit.
- **Maintaining the Core Business:** Enhance the customer experience, maintain the Company's leading brand image, and provide convergence services to create customer value.

- **Enhancing Emerging Businesses: Leveraging the 5G and AIoT platforms,** target the emerging businesses of IoT, cyber security, IDC/cloud, fintech, big data advertising, and smart living services to meet customer demand.
- **Improving Core Competencies:** Through digital transformation, upgrade the capabilities of the Company's networks, IT, talent pool, and organization to achieve fundamental changes in mindset, behavior, and structure, and to establish advantages for the long-term development of the Company.
- **Expanding Cooperation:** Construct open platforms to build ecosystems and to create partnerships for digital transformation, with proactive strategic investment and M&A to strengthen overall performance.

## 2.2 Key Operating Metrics Outlook

The Company estimates its 2020 operating targets as listed below, based on its current evaluation of all business segments:

Key Offerings		Subscribers/ Minutes in million
Domestic Fixed Communications	Local	9,934 Subs
	Domestic Long Distance	1,547.9 Mins
	Broadband Access	4,392 Subs
Mobile Communications	Mobile	12.129 Subs
Internet Network	HiNet ISP	3,614 Subs
International Fixed Communications	International Long Distance	140.5 Mins (Note)

Note: Only including outgoing minutes.

## 2.3 Key Product & Marketing Strategy

The Company's product, pricing, channel and marketing strategies for telecommunication and ICT services are listed below:

### (1) Products

While facing the challenges of a competitive market environment and industry regulatory limitations, the Company continues to integrate and innovate its services to improve and upgrade the customer experience as well as to explore attractive VAS opportunities to increase customer Average Revenue Per User (ARPU). In addition, the Company has expanded its product portfolio for digital life VAS to fulfill digital convergence consumption demands and to enhance its overall revenue stream.

For domestic fixed communication, the Company leverages its IP network in providing video telephone services; integrated

fixed network, data, and mobile services; and various VAS for telecommunication, entertainment, information, and enterprise customers in order to increase the overall revenue stream. In addition, MOD continued to focus on offering industry-leading exclusive content, interactivity, multi-screen, high definition (4K, HD), and other diverse features, in order to increase overall subscriptions and revenue.

For mobile communication, the Company continues to expand its mobile internet services in order to increase the overall revenue stream. The Company continues to build its mobile network, the quality of which has received recognition and is honored by numerous domestic and international awards. For 2020, the Company plans to continue constructing and optimizing its 4G high-speed broadband network, optimizing its service coverage, offering flexible rate packages, and providing more diversified mobile VAS, such as music (KKBOX, ringback tone), Hami Pass, Hami Video (movie, TV), e-book (Hami Books, children's books), mobile payment, and more, in order to better fulfill the demands of different market segments and, consequently, to increase customer contributions to the revenue stream.

For broadband and internet services, the Company focuses on broadband access upgrades and FTTx services in order to provide customers with a higher speed and more stable broadband network environment. The Company offers FTTx promotional packages as well as integrated broadband/MOD services in order to enable customers to enjoy one-stop services for their internet access and media entertainment needs. In the future, the Company plans to develop more innovative VAS and diverse digital home services to fulfill customer demands for a "smart" life.

In addition, to meet the demands generated by the trend of digital convergence, the Company is providing cloud-enabled computing and solutions as well as cloud SaaS services, including Customer Relation Management (CRM), Enterprise Resource Planning (ERP), and Point of Sale (POS). The Company continues to develop various OTT and multi-screen convergence services, such as video/audio, music, e-book, Hami Pass, mobile payment, and more, as well as personalized, localized, and cross-domain applications to provide differentiated digital convergence experiences for all customers.

For enterprise services, the Company leverages its ICT product portfolio as the core in developing advanced solutions, such as IoT, Intelligent Energy Network (iEN), Intelligent Video Surveillance Service (IVS), Intelligent Transportation System

(ITS), and eHome; cybersecurity; IDC integration; cloud computing; smart cities; and forward-looking infrastructure-related products for enterprises and governments. The Company is also continuing research efforts for emerging services, such as CHT IoT smart platform, AI, big data, health care, and CHT Gas Intelligence, in order to increase its mid- to long-term revenue growth momentum.

### (2) Pricing

The Company devises competitive product offerings with various rate plans by leveraging its comprehensive product portfolio, large customer base, and service innovations. For broadband services, the Company deploys a high-speed broadband access promotional plan, a broadband+mobile bundled package, and a broadband+MOD+content bundled package, in order to fulfill household demand for internet access and entertainment. For mobile communication, the Company has designed various voice and mobile internet promotional plans in order to upgrade customers to better services and product quality.

### (3) Sales Channel

In 2019, the Company's channel optimization efforts focused on physical store migration to better locations in downtown areas. As of December 31, 2019, the Company has 714 service outlets, of which 459 are directly operated service centers and 255 are exclusive service stores, in order to offer broadband, MOD, mobile, and other services.

In 2020, for the online channel, the Company will continue to expand its online store presence and mobile apps for better service coverage, and optimize its apps and online store to provide self-help services, in order to enable more convenient access to customer-centric services, including billing inquiries, contract reviews, repair statuses, and more.

### (4) Marketing

The Company leverages physical service outlets, online channels, CRM systems, big data analysis, and others channels to fulfill different customer segment demands, as well as to conduct more effective and precise marketing and sales activities. In addition, the Company continues to expand its customer point reward program and membership management capabilities in order to increase overall customer loyalty. Furthermore, the Company enhances its public relations and targeted marketing efforts by leveraging corporate branding commercials and participating in industry exhibitions to increase customer loyalty, new product awareness and preferences, strengthen purchase intent, and accelerate the overall purchase process.

## 2.4 Impact from Regulatory Changes and Competitive Development

- (1) The domestic mobile broadband market has experienced rapid development in Taiwan, with total 4G subscribers exceeding 29.2 million at the end of 2019, and the Company maintained its market leadership. The intense competition in the mobile broadband market is fully expected.
- (2) On December 10, 2019, the NCC commenced auctions for broadband business licenses, with the first wave of 5G spectrums releasing a total of 1,870MHz of bandwidth, which were comprised of 3.5GHz and 28GHz frequencies. The two stage bidding process, known as quantity-based and location-based bidding were concluded on January 16 and February 21, 2020, respectively. The allocation of the 5G spectrum and initiation of 5G services will begin a new wave of industry development. Market share, business models, and fee structures may all change. The Company has acquired the largest bandwidth with the best frequency location, including 3.42 - 3.51 GHz and 27.9 - 28.5 GHz, which will ensure that it has an advantageous foundation in mobile broadband services in order to lead technology innovation and further drive industrial development.
- (3) In conjunction with the release of the 5G 3.5GHz frequency band, the Company's ST-2 satellite will remove two transponders in the C band starting May, 2020. The Company will adjust existing customers to other transponders to provide continual services and will seek compensation from the government.
- (4) As of the end of 2019, most domestic cable television operators had completed their digitization processes. These cable operators and other fixed network operators tend to use a price differential strategy to gain in the fixed broadband market, resulting in market fluctuation. The Company leverages network quality to launch broadband upgrades and improve broadband upload and download speeds, fulfilling consumer demand for higher quality network services and helping to usher in the new era of broadband services in Taiwan.
- (5) The primary goals of the Executive Yuan of Taiwan's "Digital Nation and Innovative Economic Development Program (2017-2025)" (the "DIGI+ plan") are to facilitate the expansion of the scale of Taiwan's digital economy, expand the broadband network, ensure that all Taiwanese citizens have broadband internet access, and strengthen Taiwan's information technology capabilities. Specifically, development strategies include: constructing

an environment that is beneficial for digital innovation ("DIGI+ Infrastructure") and establishing Taiwan's ultra-high-speed broadband service target of "1Gbps coverage of 90% by 2020; 2Gbps coverage of 90% by 2025." These targets will impact the Company's financial performance and broadband competitiveness. After analysis, the Company responded to the government's DIGI+ gigabyte-level broadband coverage policy goal. In 2019, the Company increased a portion of its G-era fixed broadband network spending in order to encourage customer broadband speeds to increase to 300M-1Gbps, further solidifying the competitive advantages of its fixed broadband network.

- (6) Fixed broadband services, VAS applications, and mobile internet access are rapidly attracting consumers to use online services, change their lifestyles, and improve their quality of life. In addition, the popularity of free online communication software is reducing the size of the traditional voice-only services market. The Company not only develops new commercial opportunities in high-growth markets such as broadband and VAS, but also extensively analyzes customer demand and trends for telecommunications services to launch bundles sales plans, thereby meeting customer needs while minimizing the impact from the decline in voice services.
- (7) On November 16, 2017, through the drafts of the "Telecommunications Management Act" and the "Digital Communications Act," the Executive Yuan of Taiwan also invited the Legislative Yuan for deliberation. The "Telecommunications Management Act" was passed on May 31, 2019, and will come into effect on July 1, 2020. The draft of the "Digital Communications Act" had not been passed by the latest (9th) legislator by its term. Being subject to the principle of term non-renewal, the draft was returned to the NCC. Future amendments related to digital convergence regulations are trending towards deregulation, reducing market entry barriers and revising the special permission/approval system to an approval/register system. The Company has established a task force to deliver viable responses to potential changes in the competitive environment due to regulatory reforms.
- (8) On December 29, 2017, the Legislative Yuan approved the "Financial Technology Development and Innovation Experimentation Act" ("Fintech Regulatory Sandbox") in order to promote financial technology innovation. In December 2018, the Company and KGI Bank jointly launched the "Realizing Inclusive Finance:

Pioneering Identity Authentication through Mobile Telecommunications" regulatory sandbox experiment. In addition to becoming the first fintech regulatory sandbox experiment, it became the first successful project to come from the regulatory sandbox in August 2019. The Company has established business partnerships with other financial firms by copying this financial innovation model, and, upon customer agreement, leverages customer data to enhance the value of telecommunications data, facilitate cross-industry partnerships, and provide customers with high quality comprehensive services.

- (9) On June 6, 2018, Taiwan's president announced the drafting of the "Information and Communication Security Management Act." Key provisions of the act, which applies to all government and certain non-government systems, include establishing and implementing a cybersecurity maintenance plan and formulating a security breach notification and response mechanism. The Executive Yuan would also set cyber security responsibility levels and measures for each agency as well as have the ability to audit the security maintenance plans and implementation statuses of specific non-government entities. This act and all related regulations was implemented on January 1, 2019, and the Company has complied with the regulation. In addition, to further the government's policies towards developing the domestic cyber security industry, the Company's cybersecurity subsidiary, "CHT Security Co., Ltd.", or CHTSC, is charged with the mission of matching demand with supply in order to drive the growth of the cybersecurity industry. In addition, CHTSC effectively broadens the Company's cybersecurity business opportunities and creates sales growth while strengthening the country's national cybersecurity defense capabilities. Furthermore, the Company is able to assist government entities and commercial businesses in enacting appropriate cybersecurity mechanisms and establish cyber security maintenance plans.
- (10) The spirit of the "Unmanned Vehicle Technology Innovation Experiment Regulations" regulatory sandbox, implemented by the Ministry of Economic Affairs, is to assist in the development of friendly regulations and innovation test fields in Taiwan by building a comprehensive, safe, and innovative domestic experimental environment. The Company not only proactively strives to cooperate with local governments to develop autonomous vehicle solutions, it also collaborates with industry partners to team up to develop

autonomous vehicles and new business opportunities in a timely fashion. With the Company's reinvestment, KingwayTek Technology Co., Ltd obtained Taiwan's first operational license of self-driving car test on February 13, 2020.

- (11) On June 26, 2017, the Department of Transportation amended Articles 11 and 71 of its "Vehicle Safety Test Benchmarks" to stipulate that, commencing January 1, 2018, all new large passenger vehicles and heavy trucks must install vision-assist systems and turning/reversing alarm devices. This new requirement would be implemented for both existing and new models starting

January 1, 2019. Also starting January 1, 2019, the requirement would be implemented on all trucks without differentiating between existing and new models. The purpose of the amendment is to improve vehicle safety through cameras on vehicles so that drivers can see their surroundings and decrease the existence of blind spots. The Company is planning products related to vehicle vision-assist systems that utilize the cloud to provide vehicle management systems and leverage information, communication, navigation, control, and other advanced technologies for managing vehicles in order to guarantee driver rights and effectively increase car safety.

# 2 Company Profile

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1. Date of Incorporation
2. Company Milestones



# Company Profile

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Chunghwa Telecom is the largest integrated telecommunication service provider in Taiwan. The Company's primary businesses include fixed communication, mobile communication, broadband, and internet services. The Company also provides information and communication services to enterprise customers through technologies such as big data, information security, cloud computing, and IDC. At the same time, it is expanding into emerging technology services such as IoT and AI to create an optimal communication environment and a brilliant and convenient digital lifestyle for customers, as well as to serve as an important partner for international telecommunication service providers. In recent years, the Company has been actively involved in Corporate Social Responsibility (CSR) initiatives and has attained various domestic and international awards and recognition. The Company aims to realize its ambitions and implement full scale CSR by formulating and implementing a systematic governance framework inspired by CSR best practices.

## 1. Date of Incorporation

The Company was officially established on July 1, 1996.

## 2. Company Milestones

### 2.1 Merger and Acquisitions, Strategic Investments in Affiliated Enterprises for the most recent year and up to the Publication Date of this Annual Report

- (1) The Company acquired 70% equity interest in CHIEF Telecom Inc. ("CHIEF") on September 6, 2006. In 2018, the Company and its subsidiary Chunghwa Investment Co., Ltd. ("CHI") cooperated with CHIEF for share distribution in May and did not participate in CHIEF capital increase in June. In addition, CHIEF issued new shares for employee share options in 2018 and 2019. Therefore, as of December 31, 2019, the Company consolidated equity interest in CHIEF has declined to 60%.
- (2) The Company established 100% equity interest in Chunghwa Yellow Pages (International) Co., Ltd. on January 2, 2007, now renamed as CHYP Multimedia Marketing & Communications Co., Ltd. ("CHYP").
- (3) The Company acquired 32% equity interest in Senao International Co., Ltd. ("SENAO") on January 15, 2007. SENAO transferred treasury stock to employees in June, 2018. Therefore, the Company's equity interest in SENAO has declined to 28%.
- (4) The Company acquired 100% equity interest respectively in Chunghwa System Integration Co., Ltd., Chunghwa Telecom Global, Inc., and Donghwa Telecom Co., Ltd. on December 20, 2007.
- (5) The Company increased equity interest in Spring House Entertainment Tech. Inc. ("SHE") from 30% to 56% on January 17, 2008.
- (6) The Company established 100% equity interest in Light Era Development Co., Ltd. ("LED") on February 12, 2008.
- (7) The Company established 100% equity interest in Chunghwa Telecom Singapore Pte. Ltd. on July 9, 2008.
- (8) The Company established 100% equity interest in Chunghwa Telecom Japan Co., Ltd. on October 1, 2008.
- (9) The Company increased equity interest in Chunghwa Investment Co., Ltd. ("CHI") from 49% to 89% on September 9, 2009.
- (10) The Company established 100% equity interest in Chunghwa Telecom (China) Co., Ltd. ("CTC") in People's Republic of China on March 28, 2011.
- (11) The Company established 100% equity interest in Chunghwa Telecom Vietnam Co., Ltd. on May 31, 2011.
- (12) The Company acquired 51% equity interest in Chunghwa Sochamp Technology Inc. ("CHST") on July 1, 2011.
- (13) The Company acquired 65% equity interest in Smartfun Digital Co., Ltd. ("SFD") on August 31, 2011.
- (14) The Company established 100% equity interest in Honghwa Human Resources Co., Ltd. on January 28, 2013, now renamed as Honghwa International Co., Ltd. ("HHI").
- (15) The Company established 75% equity interest in Chunghwa Leading Photonics Tech Co., Ltd. ("CLPT") on July 28, 2016.
- (16) The Company established 100% equity interest in Chunghwa Telecom Thailand Co., Ltd. on March 3, 2017. The company's investment was increased in October 2019. After the capital increase, the company's equity interest is still 100%.
- (17) The Company established 80% equity interest in CHT Security Co., Ltd. ("CHTSC") on December 14, 2017. For more details, please also see page 75, Chapter III, Section 10, "Comprehensive Shareholding Information Relating to Company, Directors, Management, and

Companies Affiliated through Direct and Indirect Investment".

**2.2 Status of Corporate Reorganization for the most recent year and up to the Publication Date of this Annual Report**

None.

**2.3 Significant Shareholding Changes in Directors, Supervisors, or Shareholders with Greater than 10% Shareholding for the most recent year and up to the Publication Date of this Annual Report**

None.

**2.4 Changes in Managerial Control for the most recent year and up to the Publication Date of this Annual Report**

None.

**2.5 Material Changes in Business Operation, or Service Offerings for the most recent year and up to the Publication Date of this Annual Report**

None.

**2.6 Other Matters of Material Significance that could Affect Shareholders' Interest for the most recent year and up to the Publication Date of this Annual Report**

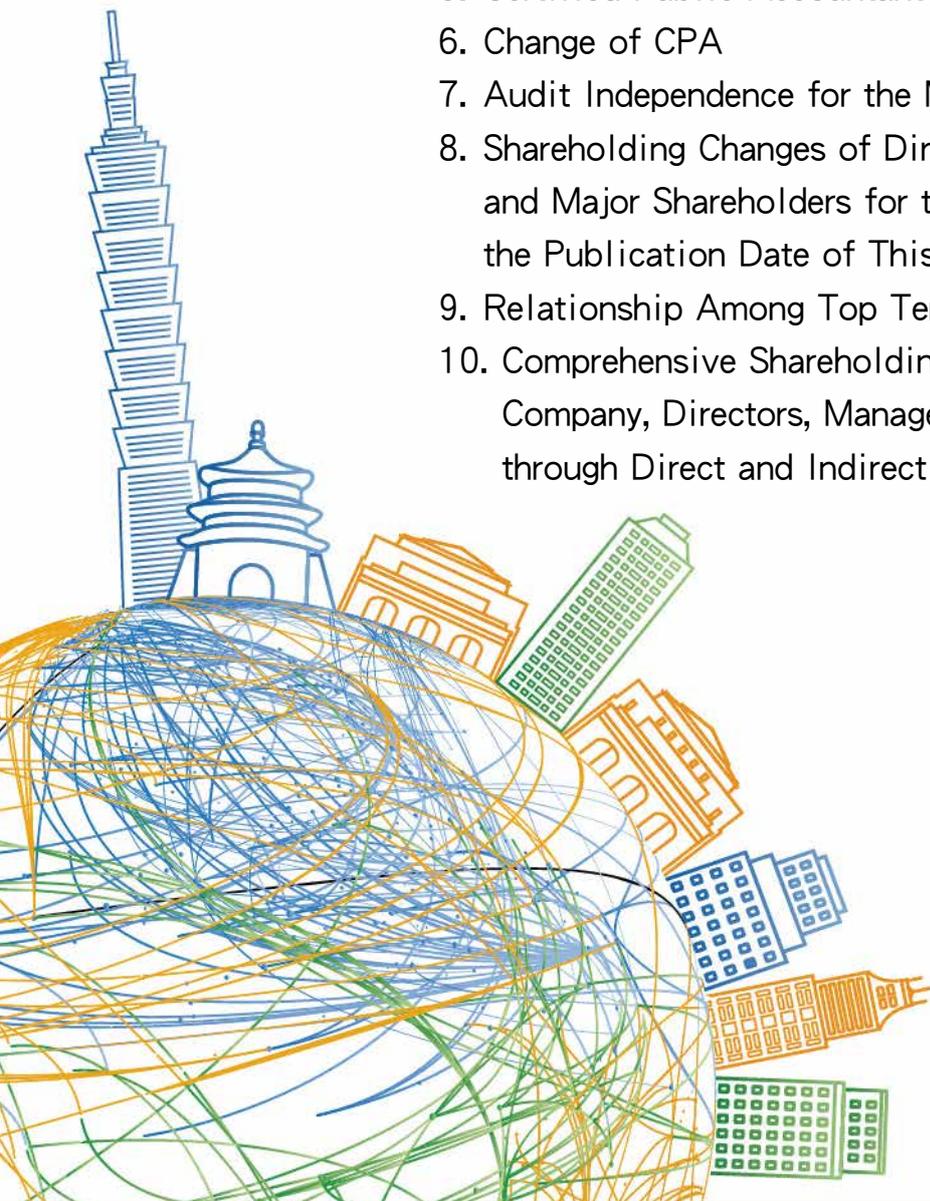
None.



# 3 Corporate Governance Report

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1. Organization Structure
2. Directors, President, Senior Executive Vice Presidents, Vice Presidents, Assistant Vice Presidents, Senior Directors, and Department Heads
3. 2019 Compensation of Directors (including Independent Director), President, Senior Executive Vice Presidents, and Other Management Officers
4. Corporate Governance
5. Certified Public Accountant (CPA) Professional Fees
6. Change of CPA
7. Audit Independence for the Most Recent Year
8. Shareholding Changes of Directors, Supervisors, Management, and Major Shareholders for the Most Recent Year and up to the Publication Date of This Annual Report
9. Relationship Among Top Ten Shareholders
10. Comprehensive Shareholding Information Relating to Company, Directors, Management, and Companies Affiliated through Direct and Indirect Investments

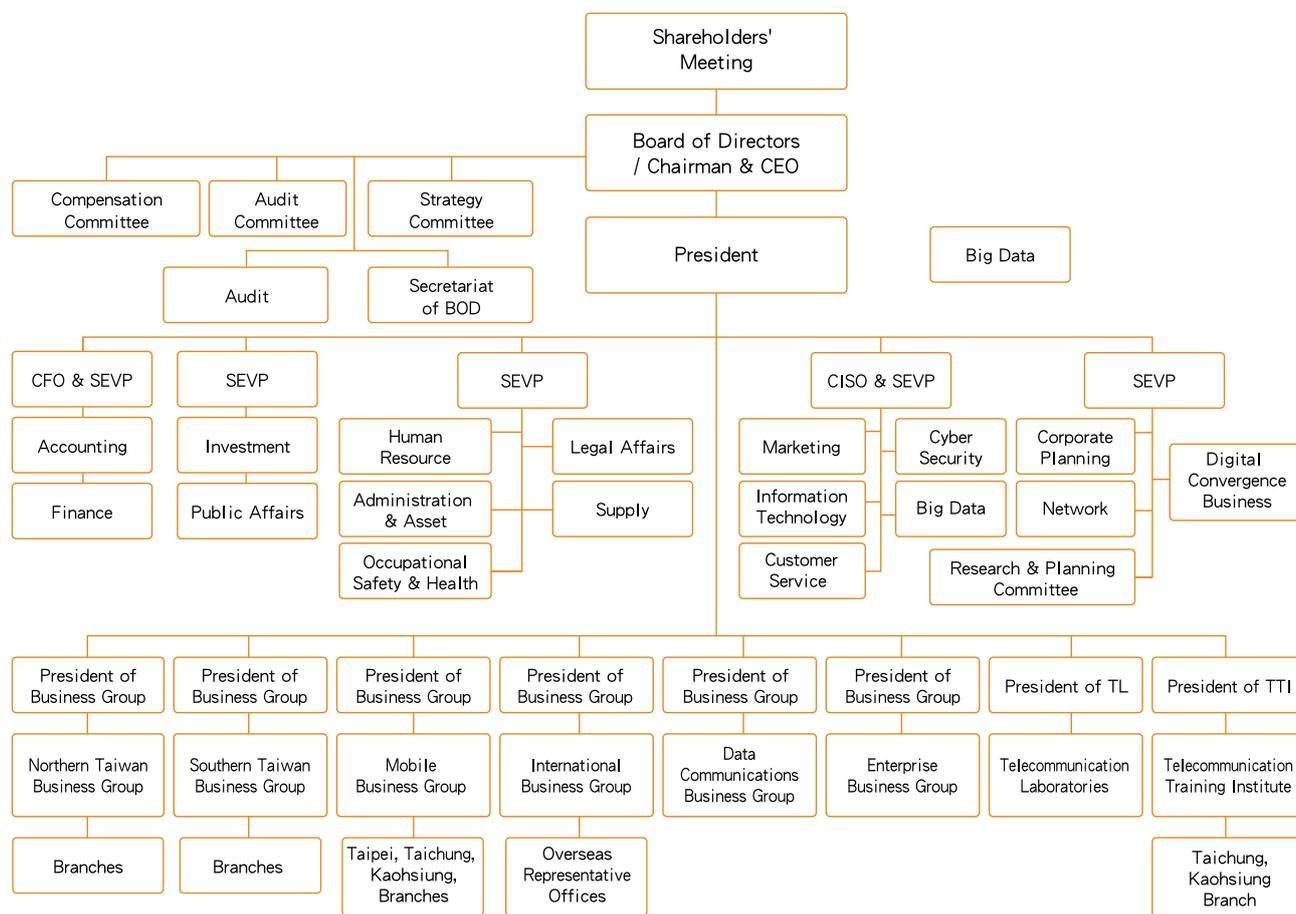


# Corporate Governance Report

## 1. Organization Structure

### 1.1 Organization Chart

Chunghwa Telecom Organization Chart



### 1.2 Principal Lines of Business

- Northern Taiwan Business Group: local telephone, domestic long distance, public phone, leased lines, ADSL, FTTx, intelligent network, MOD, Hami Video, enterprise solution, mobile communication, and data communication
- Southern Taiwan Business Group: local telephone, domestic long distance, public phone, leased lines, ADSL, FTTx, intelligent network, MOD, Hami Video, enterprise solution, mobile communication, and data communication
- Mobile Business Group: mobile handset, short messaging service, or SMS, value-added services, roaming services, mobile data, mobile VAS (call-answer, multimedia, e-book, mobile payment, digital content), Mobile Virtual Private Network/Mobile Data Virtual Private Network, or MVPN/MDVPN, and Mobile-Internet of Things (M-IoT), and enterprise mobile services
- International Business Group: International Direct Dial, or IDD, Super eCall, international calling card, international

- internet card (Let u Tour), conference call, TWGate, International Private Leased Circuit (IPLC), Internet Protocol Virtual Private Network, or IPVPN, satellite transponder leasing, satellite VAS, satellite mobile communication, enterprise integrated services, and others.
- Data Communications Business Group: internet, data communication, data telecommunication VAS, IDC, cloud computing, IoT, AI, smart care, big data, multimedia, information system, information security, commercial application, integrated services for government entities and enterprises, and others.
- Enterprise Business Group: ICT solution, ICT project management and implementation, standardized and customized integration services for enterprise clients, cross-domain emerging businesses development, and others.
- Telecommunication Laboratories: primary focus on research and development, including wireless communication, broadband network, digital convergence, network management, customer service information, cyber security,

operating strategy, enterprise solutions, accounting information, intelligent internet, cloud computing, and others.

- Telecommunication Training Institute: employee training and education, professional talent selection, relevant

training and consultation for operation, management, technology, sales/marketing, commissioned training programs, skill assessment, training material and journal design, publication, registration and distribution, and others.

## 2. Directors, President, Senior Executive Vice Presidents, Vice Presidents, Assistant Vice Presidents, Senior Directors and Department Heads

### 2.1 Directors

#### (1) Director Profile

Title (Note 1)	Nationality	Name	Gender	Date Elected	Tenure	Date First Elected (Note 2)	Shareholding when Elected		Current Shareholding	
							Shares	%	Shares	%
Director	R.O.C.	MOTC	-	June 21, 2019	June 20, 2022	June 11, 1996	2,737,718,976	35.29%	2,737,718,976	35.29%
Chairman, Chief Executive Officer and Director	R.O.C.	Chi-Mau Sheih (Representative of the MOTC)	M	June 21, 2019	June 20, 2022	Succeeded as a director on January 4, 2017 Succeeded as the Chairman & CEO on April 22, 2019	72,054	0	72,054	0
Chairman, Chief Executive Officer and Director	R.O.C.	Yu Cheng (Representative of the MOTC)	M	December 15, 2016	April 21, 2019	June 15, 2007-March 6, 2009 Succeeded as a director again on August 2, 2016 Succeeded as the Chairman & CEO on December 15, 2016 (Note 2)	0	0	0	0
President, Chief Financial Officer and Director	R.O.C.	Shui-Yi Kuo (Representative of the MOTC)	M	June 21, 2019	June 20, 2022	April 26, 2019	0	0	0	0
Director	R.O.C.	Yu-Lin Huang (Representative of the MOTC)	M	June 21, 2019	June 20, 2022	February 13, 2019	0	0	0	0
Director	R.O.C.	Chen-Yuan Chang (Representative of the MOTC)	M	August 10, 2018	January 22, 2019	August 10, 2018	0	0	0	0
Director	R.O.C.	Shin-Yi Chang (Representative of the MOTC)	M	June 21, 2019	June 20, 2022	January 16, 2017 to August 9, 2018 (Note 2)	0	0	0	0
Director	R.O.C.	Mu-Han Wang (Representative of the MOTC)	M	November 14, 2017	June 20, 2019	November 14, 2017	0	0	0	0
Director	R.O.C.	Ho-Ting Huang (Representative of the MOTC)	F	June 21, 2019	September 15, 2019	June 21, 2019	0	0	0	0
Director	R.O.C.	Lien-Chuan Lee (Representative of the MOTC)	M	September 16, 2019	June 20, 2022	September 16, 2019	0	0	0	0
Director	R.O.C.	Wei-Ming Chang (Representative of the MOTC)	M	August 2, 2017	June 20, 2019	August 2, 2017	0	0	0	0

As of February 29, 2020

	Spouse & Minor Shareholding		Shareholding by Nominee Arrangement		Major Experience & Education (Note 3)	Other Position	Executives, Directors or Supervisors who are Spouses or within Two Degrees of Kinship			Remarks (Note 4)
	Shares	%	Shares	%			Title	Name	Relation	
	0	0	0	0	-	-	-	-	-	
	0	0	0	0	Chairman and Chief Executive Officer, Chunghwa Telecom Co., Ltd. MBA degree, National Taiwan University	Director, Industrial Technology Research Institute	-	-	-	-
	0	0	0	0	Mid-Career Fellow, Woodrow Wilson School of Princeton University, U.S.A.	Independent Director, Formosa Petrochemical Corp. Independent Director, Formosa Taffeta Co., Ltd. Independent Director, Formosa Advanced Technologies Co., Ltd.	-	-	-	-
	0	0	0	0	President, Chunghwa Telecom Co., Ltd. Master's degree in Accounting, National Chengchi University	Director, Cornerstone Ventures Co., Ltd.	-	-	-	-
	0	0	0	0	Political Deputy Minister, MOTC Ph.D. degree in Civil and Environmental Engineering, University of California at Berkeley, U.S.A.	Director, Straits Exchange Foundation Director, Taiwan International Ports Corp.	-	-	-	-
	0	0	0	0	Director General, Taiwan Railways Administration, MOTC Ph.D. degree in Department of Traffic and Transportation, National Chiao Tung University	Director, Taiwan Navigation Co., Ltd. Director, Taipei Rapid Transit Corp.	-	-	-	-
	0	0	0	0	Director, Department of Accounting, MOTC Master's degree in Accounting, National Taiwan University	Supervisor, Taiwan International Ports Corp.	-	-	-	-
	0	0	0	0	Counselor & Director General, Department of Science and Technology Advisors, MOTC Ph.D. degree, Purdue University, U.S.A.	Supervisor, Taipei Rapid Transit Corp.	-	-	-	-
	0	0	0	0	Director, Department of General Affairs, MOTC Master's degree of Laws, National Chung Hsing University	Director, Chunghwa Post Co., Ltd.	-	-	-	-
	0	0	0	0	Vice Minister, MOC Master's degree in Economics, National Chengchi University	Director, Memorial Foundation of 228	-	-	-	-
	0	0	0	0	Director, Department of Planning, DGBAS, Executive Yuan Master's degree of Accounting, Tamkang University	Director, Chinese B.A.S. Coordination and Development Society	-	-	-	-

Title (Note 1)	Nationality	Name	Gender	Date Elected	Tenure (Years)	Date First Elected (Note 2)	Shareholding when Elected		Current Shareholding		
							Shares	%	Shares	%	
Director	R.O.C.	Sin-Hong Chen (Representative of the MOTC)	M	June 21, 2019	June 20, 2022	June 21, 2019	0	0	0	0	
Director	R.O.C.	Yi-Bing Lin (Representative of the MOTC)	M	June 24, 2016	June 20, 2019	May 22, 2009	0	0	0	0	
Director	R.O.C.	Hung-Yi Hsiao (Representative of the MOTC)	M	June 21, 2019	June 20, 2022	June 21, 2019	0	0	0	0	
Director	R.O.C.	Yih-Yu Lei (Representative of the MOTC)	F	April 27, 2017	June 20, 2019	April 27, 2017	0	0	0	0	
Director	R.O.C.	Chin-Tsai Pan (Representative of the MOTC)	M	June 21, 2019	June 20, 2022	March 22, 2017	2,000	0	2,000	0	
Independent Director	R.O.C.	Kuo-Long Wu	M	June 24, 2016	June 20, 2019	June 24, 2016	0	0	0	0	
Independent Director	R.O.C.	Lo-Yu Yen	M	June 21, 2019	June 20, 2022	June 24, 2016	0	0	0	0	
Independent Director	R.O.C.	JenRan Chen	M	June 21, 2019	June 20, 2022	June 24, 2016	0	0	0	0	
Independent Director	R.O.C.	Yu-Fen Lin	F	June 21, 2019	June 20, 2022	June 23, 2017	0	0	0	0	
Independent Director	R.O.C.	Chung-Chin Lu	M	June 21, 2019	June 20, 2022	June 15, 2018	0	0	0	0	
Independent Director	R.O.C.	Yi-Chin Tu	M	June 21, 2019	June 20, 2022	June 21, 2019	0	0	0	0	

Note 1: For institutional shareholder, the name of the institution and the name of its representatives are listed separately, as shown in the table below.

Note 2: Fill in the first time the person served as director or supervisor, please provide explanation for any gaps within the terms of the office.

Table 1: Major Shareholders of Chunghwa Telecom's Institutional Shareholders

As of February 29, 2020

Name of Institutional Shareholders	Major Shareholders of the Institutional Shareholders
Ministry of Transportation and Communications, or MOTC	NA

	Spouse & Minor Shareholding		Shareholding by Nominee Arrangement		Major Experience & Education (Note 3)	Other Position	Executives, Directors or Supervisors who are Spouses or within Two Degrees of Kinship			Remarks (Note 4)
	Shares	%	Shares	%			Title	Name	Relation	
	0	0	0	0	Acting President of National Chiao Tung University Ph.D. degree in Electrical Engineering, Texas Tech University in Lubbock, Texas, U.S.A.	Managing Director, Industrial Technology Research Institute	-	-	-	-
	0	0	0	0	Vice Chancellor of the University System, National Chiao Tung University Ph.D. degree in Computer Science, University of Washington, U.S.A.	Independent Director, Information Technology Total Services Co., Ltd. Director, National Applied Research Laboratories	-	-	-	-
	0	0	0	0	Dean of Student Affairs, Soochow University Ph.D. degree in Law, Soochow University	Independent Director, China Electric Manufacturing Corp.	-	-	-	-
	0	0	0	0	Master's degrees in Laws, University of Pennsylvania, U.S.A.	None	-	-	-	-
	0	0	0	0	Executive Director, Chungghwa Telecom Workers' Union Kaohsiung Industrial High School	None	-	-	-	-
	0	0	0	0	Advisor, National Information Infrastructure Enterprise Promotion Association (NII) MS, Computer Science Department, Columbia University of New York, U.S.A. MS, Mathematics, University of Cincinnati, U.S.A.	None	-	-	-	-
	0	0	0	0	Co-founder, AAMA Taipei Cradle Program Master's degree in Accounting, National Cheng Chi University	Independent Director, The Eslite Spectrum Co. Independent Director, Sinyi Realty Inc. Director, Social Enterprise Insights Director, Chinese Television System Inc.	-	-	-	-
	0	0	0	0	Executive Board Director, Pixnet Digital Media Technology Co., Ltd. Master's degree in Sociology, National Taiwan University	Independent Director, Ezfly International Travel Agent Co., Ltd. Director, Trinity Investment Corp. Executive Board Director, Institute for Information Industry (III)	-	-	-	-
	0	0	0	0	Managing Partner, Lex & Honor Law Offices Bachelor of Laws and Bachelor of Political Science, National Taiwan University	Independent Director, Bank SinoPac Co., Ltd. Independent Director, ShareHope Medicine Co., Ltd.	-	-	-	-
	0	0	0	0	Professor, National Tsing Hua University Ph.D. degree in Electrical Engineering, University of Southern California, U.S.A.	None	-	-	-	-
	0	0	0	0	Founder of Taiwan AI Labs, computer software (AI) industry Master's degree in Computer Science and Information Engineering, National Taiwan University	Director, Taiwan Creative Content Agency	-	-	-	-

Note 3: If any of the current and past experiences involve part of the auditing CPA firms or any of the Company affiliates, please provide details for the person's title and responsibilities.

Note 4: When the chairman and the president, or manager of the same level (the executive management), are the same person, or a spouse or relative, there should be a clear explanation on the reason, rationale, necessity, measures for future improvement, and other relevant information.

## (2) Director Independence

As of February 29, 2020

Criteria	Meet One of the Following Professional Qualification Requirements, Together with at Least Five Years Work Experience			Independence Criteria(Note 2)										Number of Other Public Companies in which the Individual is Concurrently Serving as an Independent Director
	An Instructor or Higher Position in a Department of Commerce, Law, Finance, Accounting, or Other Academic Department Related to the Business Needs of the Company in a Public or Private Junior College, College or University	A Judge, Public Prosecutor, Attorney, Certified Public Accountant, or Other Professional or Technical Specialist Who has Passed a National Examination and been Awarded a Certificate in a Profession Necessary for the Business of the Company	Have Work Experience in the Areas of Commerce, Law, Finance, or Accounting, or Otherwise Necessary for the Business of the Company	1	2	3	4	5	6	7	8	9	10	
Name (Note 1)														
Chi-Mau Sheih	-	-	V	-	V	V	V	V	V	V	V	V	V	0
Shui-Yi Kuo	-	V	V	-	-	V	V	V	V	V	V	V	V	0
Yu-Lin Huang	V	-	V	V	V	V	V	-	V	V	V	V	V	0
Shin-Yi Chang	V	-	V	V	V	V	V	-	V	V	V	V	V	0
Lien-Chuan Lee	V	V	V	V	V	V	V	V	V	V	V	V	V	0
Sin-Horng Chen	V	V	V	V	V	V	V	V	V	V	V	V	V	0
Hung-Yi Hsiao	V	-	V	V	V	V	V	V	V	V	V	V	V	1
Chin-Tsai Pan	-	-	V	-	V	V	V	V	V	V	V	V	V	0
Lo-Yu Yen	V	V	V	V	V	V	V	V	V	V	V	V	V	2
JenRan Chen	-	-	V	V	V	V	V	V	V	V	V	V	V	1
Yu-Fen Lin	-	V	V	V	V	V	V	V	V	V	V	V	V	2
Chung-Chin Lu	V	-	V	V	V	V	V	V	V	V	V	V	V	0
Yi-Chin Tu	-	-	V	V	V	V	V	V	V	V	V	V	V	0

Note 1: The corresponding boxes are checked only if applicable.

Note 2: Please mark "V" if applicable to the directors or supervisors during the two years prior to being elected or during the term of the office.

Criteria 1: Not an employee of the Company or its affiliates.

Criteria 2: Not a director or supervisor of the Company or any of its affiliates. This does not apply in cases where the person is an independent director of the Company, its parent company, or any subsidiary in which the Company holds, directly or indirectly, more than 50% of the voting shares.

Criteria 3: Not a natural-person shareholder who holds shares, together with those held by the person's spouse, minor children, or held by the person under others' names, in an aggregate amount of 1% or more of the total number of issued shares of the Company or ranking in the top 10 in shareholdings.

Criteria 4: Not a spouse, relative within the second degree of kinship, or lineal relative within the third degree of kinship, of any of the persons in the preceding specified in criteria 1 to 3.

Criteria 5: Neither a director, supervisor, or employee of an entity that directly and/or indirectly holds 5% or more of total number of issued shares of the Company, or rank among the top 5 shareholdings.

Criteria 6: Not a director, supervisor, officer, or shareholder holding 5% or more of the outstanding shares of any entity that has financial or business relations with the Company.

Criteria 7: Not an owner, partner, director, supervisor, officer, or spouse of any of sole proprietorship, partnership, company, or institution that provides commercial, legal, financial or accounting services or consultations to the Company or its affiliates. However, members of the Compensation and Nomination Committee are not covered by this restriction per Article 7 of the Regulations Governing the Appointment and Exercise of Powers by the Compensation and Nomination Committee of a Company Whose Stock is listed on the Stock Exchange or Traded over the Counter.

Criteria 8: Not a spouse or relative within second degree of kinship to any other directors of the Company.

Criteria 9: Not in contravention to Article 30 of the Company Law.

Criteria 10: Not a governmental, or an institutional shareholder or its representative pursuant to Article 27 of the Company Law.

### (3) Director Overall Qualifications

Expertise Name	Core Competencies							
	Operating Judgment	Accounting & Finance	Operating Management	Crisis Management	Industry Knowledge	Global Market Knowledge	Leadership	Decision-making
Chi-Mau Sheih	V	V	V	V	V	V	V	V
Shui-Yi Kuo	V	V	V	V	V	V	V	V
Yu-Lin Huang	V	V	V	V	V	V	V	V
Shin-Yi Chang	V	V	V	V	*	V	V	V
Lien-Chuan Lee	V	V	V	V	V	V	V	V
Sin-Horng Chen	V	*	V	V	V	V	V	V
Hung-Yi Hsiao	V	*	*	V	V	*	V	V
Chin-Tsai Pan	V	*	V	V	V	V	V	V
Lo-Yu Yen	V	V	V	V	V	V	V	V
JenRan Chen	V	V	V	V	V	V	V	V
Yu-Fen Lin	V	V	V	V	V	V	V	V
Chung-Chin Lu	V	*	V	V	V	V	V	V
Yi-Chin Tu	V	V	V	V	V	V	V	V

Note: \* indicates partial competencies.

## 2.2 Profiles of President, Senior Executive Vice Presidents, Vice Presidents, Assistant Vice Presidents, Senior Directors and Department Heads

Title (Note 1)	Nationality	Name	Gender	Effective Date	Current Shareholding		Spouse & Minor Shareholding		Shareholding by Nominee Arrangement	
					Shares	%	Shares	%	Shares	%
President and Chief Financial Officer	R.O.C.	Shui-Yi Kuo	M	May 8, 2019	0	0	0	0	0	0
Senior Executive Vice President	R.O.C.	Kuo-Feng Lin	M	November 11, 2016	42,771	0	0	0	0	0
Senior Executive Vice President	R.O.C.	Chau-Young Lin	M	August 22, 2019	12,888	0	0	0	0	0
Senior Executive Vice President	R.O.C.	Hong-Chan Ma	M	August 10, 2018	0	0	0	0	0	0
Vice President	R.O.C.	Kuo-Chiang Chung	M	January 2, 2019	70,456	0	0	0	0	0
Vice President	R.O.C.	Shu-Ling Chen	F	September 30, 2017	152	0	0	0	0	0
Vice President	R.O.C.	Shih-Chung Chang	M	March 1, 2017	0	0	0	0	0	0
Vice President	R.O.C.	Shih-Mo Leu	F	September 17, 2019	38,594	0	0	0	0	0
Vice President	R.O.C.	Chun-Te Lee	M	July 18, 2019	4	0	0	0	0	0
Vice President	R.O.C.	Wen-Wang Tseng	M	January 1, 2015	2,603	0	1,547	0	0	0
Vice President	R.O.C.	Jeu-Yih Jeng	M	December 25, 2018	33,816	0	1,000	0	0	0
Vice President	R.O.C.	Chung-Yung Kang	M	January 2, 2020	79	0	0	0	0	0
Vice President	R.O.C.	Ruey-Shu Chiu	M	January 2, 2019	48,249	0	0	0	0	0
Vice President	R.O.C.	Rong-Yih Chen	M	January 2, 2019	0	0	0	0	0	0
Vice President	R.O.C.	Wu-Sung Kao	M	March 16, 2018	0	0	0	0	0	0

	Major Experience & Education (Note 2)	Other Position	Officers who are Spouses or within Two Degrees of Kinship			Remarks (Note 3)
			Title	Name	Relation	
	Senior Executive Vice President and Chief Financial Officer, Chunghwa Telecom Master, Accounting, National Chengchi University	Director of Cornerstone Ventures Co., Ltd	-	-	-	-
	President, Mobile Business Group, Chunghwa Telecom Electronic Engineering, Provincial Taipei Institute of Technology	Director of Light Era Development Co., Ltd. Director of Chunghwa Investment Co., Ltd. Director of Chunghwa Precision Test Tech. Co., Ltd.	-	-	-	-
	President, Southern Taiwan Business Group, Chunghwa Telecom Ph.D., Electronic and Computer Engineering, National Taiwan University of Science and Technology	Director of Taipei Financial Center Corp. Chairman of Taiwan Telecommunications Association Chairman of International Telecommunications Development Company	-	-	-	-
	President, Data Communications Business Group, Chunghwa Telecom Master, Management Science, National Chiao Tung University	Director of CHIEF Telecom Inc. Chairman of Chunghwa Sochamp Technology Inc. Director of CHT Security Co., Ltd.	-	-	-	-
	Assistant Vice President, Legal Affairs Department, Chunghwa Telecom Master, Electrical Engineering, National Taiwan University	Supervisor of Light Era Development Co., Ltd. Supervisor of Taiwan Telecommunications Association Supervisor of Chunghwa Telecom Vietnam Co., Ltd.	-	-	-	-
	Assistant Vice President, Accounting Department, Chunghwa Telecom Bachelor, Accounting, Soochow University	Director of Taiwan Telecommunications Association Supervisor of CHT Security Co., Ltd.	-	-	-	-
	Special Assistant of Chairman, YeaShin International Master, Political Science, Soochow University	Supervisor of Taiwan International Standard Electronics Co., Ltd. Director of Taipei Financial Center Corp. Chairman of CHYP Multimedia Marketing & Communications Co., Ltd. Chairman of Clickforce Corp.	-	-	-	-
	Assistant Vice President, Human Resource Department, Chunghwa Telecom Master, Business and Management, National Chiao Tung University	Director of Taiwan Telecommunications Association	-	-	-	-
	Managing Director, Administration Management Department, Northern Taiwan Business Group, Chunghwa Telecom Master, Information Management, Yuan Ze University	Director of Light Era Development Co., Ltd. Director of Taiwan Telecommunications Association Director of International Telecommunications Development Company	-	-	-	-
	Vice President, Occupational Safety & Health Department, Chunghwa Telecom Master, Safety Health and Environment Engineering, National Yunlin University of Science and Technology	None	-	-	-	-
	Assistant Vice President, Information Technology Department, Chunghwa Telecom Ph.D., Computer Science, National Chiao Tung University	Director of International Integrated System, Inc. Director of Chunghwa System Integration Co., Ltd.	-	-	-	-
	Assistant Vice President, Network Department, Chunghwa Telecom Master, Information Management, National Taiwan University	Director of Honghwa International Co., Ltd. Director of So-net Entertainment Taiwan Limited	-	-	-	-
	Vice President, Customer Service Department, Chunghwa Telecom Master, Management Science, National Chiao Tung University	Director of Spring House Entertainment Tech. Inc. Director of Honghwa International Co., Ltd. Supervisor of Dian Zuan Integrating Marketing Co., Ltd. Director of 4Gamers Entertainment Inc.	-	-	-	-
	Assistant Vice President, Corporate Planning Department, Chunghwa Telecom Ph.D., Electrical Engineering, National Tsing Hua University	Director of Honghwa International Co., Ltd.	-	-	-	-
	MOD Executive Director, Chairman Office, Chunghwa Telecom Bachelor, Business Administration, National Taiwan University	None	-	-	-	-

Title (Note 1)	Nationality	Name	Gender	Effective Date	Current Shareholding		Spouse & Minor Shareholding		Shareholding by Nominee Arrangement	
					Shares	%	Shares	%	Shares	%
Assistant Vice President	R.O.C.	Ya-Chien Hsueh	F	January 29, 2019	0	0	0	0	0	0
Assistant Vice President	R.O.C.	Lii-Jia Guo	M	March 1, 2018	2,448	0	0	0	0	0
Assistant Vice President	R.O.C.	Fu-Fu Shen	F	February 24, 2015	9,840	0	0	0	0	0
Assistant Vice President	R.O.C.	Yuan-Kai Chen	M	May 8, 2017	22,075	0	0	0	0	0
Assistant Vice President	R.O.C.	Ze-Run Liu	M	September 17, 2019	0	0	0	0	0	0
Assistant Vice President	R.O.C.	Chi-Hsien Huang	M	September 19, 2016	2,000	0	0	0	0	0
Assistant Vice President	R.O.C.	Chih-Hsiung Huang	M	June 30, 2017	3,612	0	0	0	0	0
Assistant Vice President	R.O.C.	Ru-Kuen Lee	M	January 2, 2019	15,073	0	0	0	0	0
Assistant Vice President	R.O.C.	Ching-Hsu Wang	M	May 1, 2019	20,056	0	2,424	0	0	0
Assistant Vice President	R.O.C.	Petrina Chong	F	August 31, 2015	0	0	0	0	0	0
Assistant Vice President	R.O.C.	Vincent Chen	M	November 6, 2017	0	0	0	0	0	0
Assistant Vice President	R.O.C.	Timothy Horng	M	March 20, 2018	0	0	0	0	0	0
Assistant Vice President	R.O.C.	Wen-Ming Chuang	M	August 14, 2018	136	0	0	0	0	0
Assistant Vice President	R.O.C.	I-Fang Wu	F	February 16, 2017	21,136	0	0	0	0	0
Assistant Vice President	R.O.C.	Shu-Ling Chen	F	March 16, 2018	1,000	0	0	0	0	0
Assistant Vice President	R.O.C.	Hui-Chen Wei	F	March 16, 2018	0	0	0	0	0	0
Assistant Vice President	R.O.C.	Yeh-Chin Ho	M	August 27, 2019	37,228	0	0	0	0	0

	Major Experience & Education (Note 2)	Other Position	Officers who are Spouses or within Two Degrees of Kinship			Remarks (Note 3)
			Title	Name	Relation	
	Executive Law Director, HTC Corporation Master, Law, Soochow University	None	-	-	-	-
	Managing Director, Accounting Department, Southern Taiwan Business Group, Chunghwa Telecom Supplementary Open Junior College For Public Administration National Cheng chi University	Supervisor of Chunghwa Investment Co., Ltd. Supervisor of Cornerstone Ventures Co., Ltd Supervisor of Clickforce Corp.	-	-	-	-
	Senior Director, Public Affairs Department, Chunghwa Telecom Master, Information System Technology, Indiana University, U.S.A.	None	-	-	-	-
	Senior Director, Corporate Planning Department, Chunghwa Telecom Ph.D., Computer Science, National Chiao Tung University	Director of Chunghwa System Integration Co., Ltd. Director of Chunghwa Investment Co., Ltd. Supervisor of CHYP Multimedia Marketing & Communications Co., Ltd. Director of Cornerstone Ventures Co., Ltd. Director of Chunghwa Hsingta Co., Ltd. Director of Prime Asia Investments Group Ltd.	-	-	-	-
	Managing Director, Human Resource Department of Southern Taiwan Business Group, Chunghwa Telecom Bachelor, Transportation and Communication Management Science, National Chung Kung University	None	-	-	-	-
	Senior Finance Director, HTC Corporation Master, Industrial Administration, Carnegie Mellon University, U.S.A.	Director of Chunghwa System Integration Co., Ltd. Supervisor of Honghwa International Co., Ltd.	-	-	-	-
	Managing Director, Convergence Services Laboratory, Telecommunication Laboratories, Chunghwa Telecom Ph.D., Electrical Engineering, National Central University	None	-	-	-	-
	Senior Director, Corporate Planning Department, Chunghwa Telecom Master, Photonics, National Chiao Tung University	None	-	-	-	-
	Senior Director, Corporate Planning Department, Chunghwa Telecom Ph.D., Applied Physics, National Chiao Tung University	None	-	-	-	-
	Senior Director, Global Integrated Marketing Communication Center & EC Head Master, Technology Management, National Chengchi University	None	-	-	-	-
	Senior Manager, Enterprise Innovation Office, Data Communications Business Group, Chunghwa Telecom Master, Business Administration, Strayer College, U.S.A.	Director of CHYP Multimedia Marketing & Communications Co., Ltd. Director of Senao International Co., Ltd.	-	-	-	-
	Managing Director, Marketing Department, Northern Taiwan Business Group, Chunghwa Telecom Bachelor, Public Administration, Tamkang University	Director of Smartfun Digital Co., Ltd. Director of CHYP Multimedia Marketing & Communications Co., Ltd.	-	-	-	-
	Senior Director, Customer Service Department, Chunghwa Telecom Master, Management Science, National Chiao Tung University	None	-	-	-	-
	Senior Director, Cyber Security Department, Chunghwa Telecom Master, Operation Research, State University of New York at Stony Brook, U.S.A.	None	-	-	-	-
	MOD Senior Director, Chairman Office, Chunghwa Telecom Bachelor, English Language, Fu Jen Catholic University	None	-	-	-	-
	Senior Director, Chairman Office, Chunghwa Telecom Bachelor, Law, Fu Jen Catholic University	None	-	-	-	-
	Managing Director, Convergence Services Laboratory, Telecommunication Laboratories, Chunghwa Telecom Ph.D., Computer Science, National Chiao Tung University	None	-	-	-	-

Title (Note 1)	Nationality	Name	Gender	Effective Date	Current Shareholding		Spouse & Minor Shareholding		Shareholding by Nominee Arrangement	
					Shares	%	Shares	%	Shares	%
President of Business Group	R.O.C.	Yuan-Kuang Tu	M	November 9, 2017	81,305	0	0	0	0	0
President of Branch	R.O.C.	Jason Hsu	M	January 1, 2020	42,488	0	0	0	0	0
President of Branch	R.O.C.	Hung-Chao Tang	M	February 28, 2018	47,584	0	0	0	0	0
President of Branch	R.O.C.	Jinun-Jye Lee	M	February 28, 2018	0	0	0	0	0	0
President of Branch	R.O.C.	Nien-Yee Liu	F	February 24, 2017	30,092	0	0	0	0	0
President of Branch	R.O.C.	Jing-Ming Chen	M	January 1, 2020	5,588	0	0	0	0	0
President of Branch	R.O.C.	Sheng-Haun Chang	M	February 28, 2018	0	0	0	0	0	0
President of Branch	R.O.C.	Jimmy Shih	M	August 8, 2018	11,666	0	0	0	0	0
President of Branch	R.O.C.	Hung-Liang Yin	M	July 28, 2016	3,296	0	0	0	0	0
President of Business Group	R.O.C.	I-Feng Chang	M	August 22, 2019	27,692	0	0	0	0	0
President of Branch	R.O.C.	Chio-Fu Lai	M	May 5, 2017	10,510	0	0	0	0	0
President of Branch	R.O.C.	Chin-Tu Lin	M	May 11, 2018	577	0	0	0	0	0
President of Branch	R.O.C.	Tang Chang	M	April 23, 2019	2,000	0	0	0	0	0
President of Branch	R.O.C.	Wen-Tu Chang	M	August 14, 2019	0	0	0	0	0	0
President of Branch	R.O.C.	Ker-Chih Hwang	M	March 5, 2018	70,388	0	808	0	0	0
President of Branch	R.O.C.	Ching-Chuan Wang	M	August 14, 2019	70,000	0	24,000	0	0	0
Vice President of Business Group and President of Branch	R.O.C.	Kuan-Hsiung Liang	M	January 1, 2019	20,405	0	0	0	0	0

	Major Experience & Education (Note 2)	Other Position	Officers who are Spouses or within Two Degrees of Kinship			Remarks (Note 3)
			Title	Name	Relation	
	President, Mobile Business Group, Chunghwa Telecom Ph.D., Electrical Engineering, National Taiwan University	Chairman of Chunghwa Leading Photonics Tech Co., Ltd. Director of Honghwa International Co., Ltd. Director of Senao International Co., Ltd. Director of International Telecommunications Development Company. Chairman of Chunghwa Telecom Japan Co., Ltd.	-	-	-	-
	President, Hsinchu Branch, Chunghwa Telecom, Mechanical Engineering, Provincial Taipei Institute of Technology	None	-	-	-	-
	President, Hsinchu Branch, Chunghwa Telecom Master, Electronic Engineering, Chung Yuan Christian University	None	-	-	-	-
	Managing Director, Enterprise Business Department, Northern Taiwan Business Group, Chunghwa Telecom, Electrical Engineering, Provincial Taipei Institute of Technology	None	-	-	-	-
	Vice President, Taoyuan Branch, Chunghwa Telecom Bachelor, MBA Program, National Chengchi University	None	-	-	-	-
	Vice President, Taipei Branch, Chunghwa Telecom Ph.D., Electrical Engineering, National Taiwan University	None	-	-	-	-
	Vice President, Miaoli Branch, Chunghwa Telecom Master, Business and Management, Chung Hua University	None	-	-	-	-
	Managing Director, Customer Access Network Department, Northern Taiwan Business Group, Chunghwa Telecom Bachelor, Business, National Open University	None	-	-	-	-
	Managing Director, Marketing Department, Northern Taiwan Business Group, Chunghwa Telecom Bachelor, Transportation and Communication Management, National Cheng Kung University	None	-	-	-	-
	Chairman, Honghwa International Corporation Master, Applied Science and Technology, National Taiwan University of Science and Technology	Director of Honghwa International Co., Ltd.	-	-	-	-
	President, Changhua Branch, Chunghwa Telecom Electronic Engineering, Chin-Yi Junior College of Industry	None	-	-	-	-
	President, Yunlin Branch, Chunghwa Telecom Master, Human Resources and Public Relations, Da-Yeh University	None	-	-	-	-
	Senior Engineer, Vice President Office of Taichung Branch, Chunghwa Telecom Master, Management, Chung Hua University	None	-	-	-	-
	Vice President, Nantou Branch, Chunghwa Telecom Master, Information Management, National Yunlin University of Science and Technology	None	-	-	-	-
	President, Chiayi Branch, Chunghwa Telecom Master, Electrical Engineering, National Cheng Kung University	None	-	-	-	-
	Vice President, Yunlin Branch, Chunghwa Telecom Master, Business Administration, National Cheng Kung University	None	-	-	-	-
	Assistant Vice President, Data Communications Business Group, Chunghwa Telecom Master, Computer Science and Engineering, National Chiao Tung University	Director of Chunghwa Telecom Vietnam Co., Ltd.	-	-	-	-

Title (Note 1)	Nationality	Name	Gender	Effective Date	Current Shareholding		Spouse & Minor Shareholding		Shareholding by Nominee Arrangement	
					Shares	%	Shares	%	Shares	%
President of Branch	R.O.C.	Yeong-Jienn Maw	M	February 1, 2018	30,192	0	0	0	0	0
President of Branch	R.O.C.	Hsi-Sheng Cheng	M	November 13, 2019	42,428	0	0	0	0	0
President of Business Group	R.O.C.	Li-Show Wu	F	January 1, 2019	32,964	0	0	0	0	0
President of Business Group	R.O.C.	Ming-Shih Chen	M	November 9, 2017	25,641	0	0	0	0	0
President of Branch	R.O.C.	Kuo-Chi Huang	M	January 1, 2019	4,252	0	0	0	0	0
President of Branch	R.O.C.	Chin-Kun Lin	M	May 5, 2017	265	0	0	0	0	0
President of Branch	R.O.C.	Der-Shing Rau	M	September 10, 2013	0	0	0	0	0	0
President of Business Group	R.O.C.	Hsueh-Lan Wu	F	November 15, 2018	0	0	0	0	0	0
President of Business Group	R.O.C.	Rong-Shy Lin	M	November 15, 2018	1,361	0	39,000	0	0	0
President	R.O.C.	Wei-Kuo Hong	M	November 15, 2018	0	0	0	0	0	0

Note 1: Shall include profiles of President, Executive Vice President, Vice President, Department Heads, or any other equivalent positions within the Company.

Note 2: If any of the current and past experiences involve part of the auditing CPA firms or any of the Company affiliates, please provide details for the person's title and responsibilities.

	Major Experience & Education (Note 2)	Other Position	Officers who are Spouses or within Two Degrees of Kinship			Remarks (Note 3)
			Title	Name	Relation	
	Managing Director, Marketing Department, Southern Taiwan Business Group, Chunghwa Telecom Master, Business Management, National Sun Yat-Sen University	None	-	-	-	-
	Director, Design & Planning Department, Southern Taiwan Business Group, Chunghwa Telecom Master, Computer and Communication Engineering, National Kaohsiung University of Science and Technology	None	-	-	-	-
	Chairman, Honghua International Corporation Master, Applied Mathematics, National Chiao Tung University	Supervisor of International Telecommunications Development Company Director of Senao International Co., Ltd Director of Taiwan International Standard Electronics Co., Ltd. Director of International Integrated System, Inc. Director of CHT Security Co., Ltd.	-	-	-	-
	President, Northern Taiwan Business Group, Chunghwa Telecom Ph.D., Electrical Engineering, National Tsing Hua University	Chairman of Smartfun Digital Co., Ltd. Chairman of Donghua Telecom Co., Ltd. Director of Senao International Co., Ltd. Director of Chunghwa Sochamp Technology Inc.	-	-	-	-
	Managing Director, Engineering Department, Mobile Business Group, Chunghwa Telecom Master, Electronic Engineering Technology, National Central University	None	-	-	-	-
	Vice President, Taichung Branch (Mobile), Chunghwa Telecom Master, Applied Mathematics, National Chung Hsing University	None	-	-	-	-
	Vice President, Kaohsiung Branch (Mobile), Chunghwa Telecom Bachelor, Electronic Engineering, Chung Yuan Christian University	None	-	-	-	-
	Vice President, Enterprise Business Group, Chunghwa Telecom Master, Information Management, National Taiwan University	Chairman of Chunghwa Telecom Vietnam Co., Ltd. Chairman of Chunghwa Telecom Global, Inc. Chairman of Chunghwa Telecom (Thailand) Co., Ltd. Director of VIETTEL-CHT Company Ltd.	-	-	-	-
	President, Telecommunication Laboratories, Chunghwa Telecom Ph.D., Computer Science, National Chiao Tung University	Director of Taiwan International Standard Electronics Co., Ltd. Director of Chunghwa Sochamp Technology Inc. Director of Chunghwa Investment Co., Ltd. Director of CHT Security Co., Ltd.	-	-	-	-
	Vice President, Telecommunication Training Institute, Chunghwa Telecom Ph.D., Industrial Administration, National Tsing Hua University	None	-	-	-	-

Note 3: When the chairman and the president, or manager of the same level (the executive management), are the same person, or a spouse or relative, there should be a clear explanation as to the reason, rationale, necessity, measures for future improvement, and other relevant information.

Note 4: The above chart includes the Company's President, Senior Executive Vice Presidents, Vice Presidents, Assistant Vice Presidents and Presidents of Level 1/2 branches.

## 3. 2019 Compensation of Directors (including Independent Director), President, Senior Executive Vice Presidents and Other Management Officers

### 3.1 Compensation of Directors (including Independent Directors)

Title	Name	Compensation to Directors								Total Compensation (A+B+C+D) to Net Income (%) (Note 10)		
		Base Compensation (A) (Note 2)		Pension / Severance (B)		Directors Compensation (C) (Note 3)		Professional Fee (D) (Note 4)		Parent-only	Consolidated (Note 7)	
		Parent-only	Consolidated (Note 7)	Parent-only	Consolidated (Note 7)	Parent-only	Consolidated (Note 7)	Parent-only	Consolidated (Note 7)			
Directors	Chairman	Chi-Mau Sheih (succeeded on April 22, 2019)										
	Chairman	Yu Cheng (dismissed on April 21, 2019)										
	Director	Shui-Yi Kuo (succeeded on April 26, 2019)										
	Director	Yu-Lin Huang (succeeded on February 13, 2019)										
	Director	Chen-Yuan Chang (dismissed on January 22, 2019)										
	Director	Shin-Yi Chang (succeeded on June 21, 2019)										
	Director	Mu-Han Wang (dismissed on June 20, 2019)										
	Director	Ho-Ting Huang (succeeded on June 21, 2019) (dismissed on September 15, 2019)	892,489	892,489	-	-	35,210,397	35,210,397	30,000	30,000	0.11%	0.11%
	Director	Lien-Chuan Lee (succeeded on September 16, 2019)										
	Director	Wei-Ming Chang (dismissed on June 20, 2019)										
	Director	Sin-Hong Chen (succeeded on June 21, 2019)										
	Director	Yi-Bing Lin (dismissed on June 20, 2019)										
	Director	Hung-Yi Hsiao (succeeded on June 21, 2019)										
	Director	Yih-Yu Lei (dismissed on June 20, 2019)										
	Director	Chin-Tsai Pan										
MOTC												

Unit: NT\$

Compensation as Concurrent Employees									Total Compensation (A+B+C+D+E+F+G) to Net Income (%) (Note 10)	Compensation from investees other than subsidiaries or the Parent Company (Note 11)
Salary, Bonuses, and Allowances (E) (Note 5)		Pension / Severance (F)		Employee Compensation (G) (Note 6)						
Parent-only	Consolidated (Note 7)	Parent-only	Consolidated (Note 7)	Parent-only		Consolidated (Note 7)		Parent-only	Consolidated (Note 7)	
				Cash	Stock	Cash	Stock			
20,288,651	20,294,651	2,126,935	2,126,935	-	-	-	-	0.18%	0.18%	15,000

Title	Name	Compensation to Directors								Total Compensation (A+B+C+D) to Net Income (%) (Note 10)	
		Base Compensation (A) (Note 2)		Pension / Severance (B)		Directors Compensation (C) (Note 3)		Professional Fee (D) (Note 4)		Parent-only	Consolidated (Note 7)
		Parent-only	Consolidated (Note 7)	Parent-only	Consolidated (Note 7)	Parent-only	Consolidated (Note 7)	Parent-only	Consolidated (Note 7)		
Independent Director	Kuo-Long Wu (dismissed on June 20, 2019)	3,602,000	3,602,000	-	-	-	-	830,000	830,000	0.01%	-
Independent Director	Lo-Yu Yen										
Independent Director	JenRan Chen										
Independent Director	Yu-Fen Lin										
Independent Director	Chung-Chin Lu										
Independent Director	Yi-Chin Tu (succeeded on June 21, 2019)										

1. Please explain the policy, system, standards, and structure of independent directors' compensation, and describe the correlation with the amount of compensation based on responsibilities, risks, working hours, etc.: The compensation of independent directors of the Company is processed in accordance with the resolution of the 5th meeting of the 7th Board of Directors of the Company, and the amount of fixed part-time compensation and business execution expenses are paid separately according to position; the independent directors of the Company do not participate in the distribution of Directors' compensation.

\* Information on directors and independent directors are listed separately by position.

Compensation Range (Independent directors are excluded from the Company compensation, all other directors' compensation are distributed to MOTC, the legal entity represented by the respective directors, not as personal compensation)

Range of Compensation	Name of Directors			
	Total of (A+B+C+D)		Total of (A+B+C+D+E+F+G)	
	Parent-only (Note 8)	Consolidated (Note 9) H	Parent-only (Note 8)	Consolidated (Note 9) I
Less than NT\$1,000,000	Yu-Lin Huang, Chen-Yuan Chang, Shin-Yi Chang, Mu-Han Wang, Ho-Ting Huang, Lien-Chuan Lee, Wei-Ming Chang, Sin-Horng Chen, Yi-Bing Lin, Hung-Yi Hsiao, Yih-Yu Lei, Kuo-Long Wu, Lo-Yu Yen, JenRan Chen, Yu-Fen Lin, Chung-Chin Lu, Yi-Chin Tu		Yu-Lin Huang, Chen-Yuan Chang, Shin-Yi Chang, Mu-Han Wang, Ho-Ting Huang, Lien-Chuan Lee, Wei-Ming Chang, Sin-Horng Chen, Yi-Bing Lin, Hung-Yi Hsiao, Yih-Yu Lei, Kuo-Long Wu, Lo-Yu Yen, JenRan Chen, Yu-Fen Lin, Chung-Chin Lu, Yi-Chin Tu	
NT\$1,000,000 (inclusive) ~ NT\$2,000,000 (exclusive)			Chin-Tsai Pan	Chin-Tsai Pan
NT\$2,000,000 (inclusive) ~ NT\$3,500,000 (exclusive)				
NT\$3,500,000 (inclusive) ~ NT\$5,000,000 (exclusive)			Shui-Yi Kuo (Note 12)	Shui-Yi Kuo (Note 12)
NT\$ 5,000,000 (inclusive) ~ NT\$10,000,000 (exclusive)			Chi-Mau Sheih, Yu Cheng	Chi-Mau Sheih, Yu Cheng
NT\$10,000,000 (inclusive) ~ NT\$15,000,000 (exclusive)				
NT\$15,000,000 (inclusive) ~ NT\$30,000,000 (exclusive)				
NT\$30,000,000 (inclusive) ~ NT\$50,000,000 (exclusive)				
NT\$50,000,000 (inclusive) ~ NT\$100,000,000 (exclusive)				
Over NT\$100,000,000				
Total				

	Compensation as Concurrent Employees								Total Compensation (A+B+C+D+E+F+G) to Net Income (%) (Note 10)	Compensation from investees other than subsidiaries or the Parent Company (Note 11)	
	Salary, Bonuses, and Allowances (E) (Note 5)		Pension / Severance (F)		Employee Compensation (G) (Note 6)						
	Parent-only	Consolidated (Note 7)	Parent-only	Consolidated (Note 7)	Parent-only		Consolidated (Note 7)		Parent-only		Consolidated (Note 7)
					Cash	Stock	Cash	Stock			
	-	-	-	-	-	-	-	-	0.01%	0.01%	None
2. Compensation to Directors providing service to entities within the Company's most recent financial reporting period (such as serving as non-employee consultants), in addition to compensation disclosed in the above table: None											

Note 1: Excluding the independent directors of the Company, all other directors are representatives of the MOTC, the legal shareholding entity of the Company. All directors' names are listed separately by position, including by director and independent director, and compensation is disclosed as summaries. Mr. Shui-Yi Kuo, Director and President, is listed under "Compensation of the President, Senior Executive Vice President, Subsidiary President, and Department Heads."

Note 2: Refers to directors' fixed part-time compensation in fiscal year 2019.

Note 3: Refers to the amount of compensation for the fiscal year 2019, approved by the Board of Directors in the most recent year and distributed to MOTC, the legal shareholding entity represented by the respective directors, not as personal compensation. Independent directors did not participate in the allocation.

Note 4: Refers to directors' related business execution expenses for fiscal year 2019 (including traveling expenses, etc.)

Note 5: Refers to directors who also concurrently work as employees of the Company (including serving as President, Senior Executive Vice President, other manager or employees) in fiscal year 2019, and received salaries, commissions, severance payments, and different types of bonuses, rewards, travel expenses, special expenses, allowances, etc. The Company does not have share-based compensation as per IFRS 2, including employee stock option certificate, restricted stock, cash-based share subscription, etc.

Note 6: Refers to directors who also concurrently work as employees of the Company (including serving as President, Senior Executive Vice President, other manager or employees) in fiscal year 2019, and has received employee compensation (including stock and cash). These compensations as approved by the Board of Directors must be fully disclosed.

Note 7: Fully discloses the total amount of various director compensation items on a consolidated basis.

Note 8: Fully discloses directors' names in the compensation range table in accordance to the different compensation amounts of the respective directors.

Note 9: Fully discloses the total amount of various director compensation items on a consolidated basis; fully discloses directors' names in the compensation range table in accordance to the different compensation amounts of the respective directors.

Note 10: Net income for the year refers to net income on the 2019 parent-only financial report.

Note 11: a. This column shall clearly state the amount of compensation that Company directors received from investee Companies or the parent company (if none, please state "None").

b. If Company directors have received compensation from investee companies or the parent company, then such compensation shall be included in the compensation range table in column I, and the column heading shall be changed to "Parent and All Investee Companies".

c. Compensation refers to Company directors' compensation related to salaries, rewards (including compensation as employees, or directors, or supervisors), and business execution expenses earned while serving as directors, supervisors, managers, etc., of investee companies.

Note 12: Shui-Yi Kuo became a director on April 26, 2019. Annual remuneration includes compensation related to his service.

\*The table above is for compensation disclosure only, and is different for taxable income, so the table cannot be used for taxable income purpose.

### 3.2 Compensation of President, Senior Executive Vice President, Senior Directors

Title	Name	Salary (A) (Note 2)		Pension / Severance (B)	
		Parent-only	Consolidated (Note 5)	Parent-only	Consolidated (Note 5)
President	Shui-Yi Kuo (succeeded on May 8, 2019)	24,158,397	30,690,333	6,652,530	6,659,130
	Chi-Mau Sheih (dismissed on May 8, 2019)				
Senior Executive Vice President	Kuo-Feng Lin				
	Hong-Chan Ma				
	Chau-Young Lin (succeeded on August 22, 2019)				
	Tian-Tsair Su (dismissed on August 22, 2019)				
President of Business Group	Yuan-Kuang Tu				
	I-Feng Chang (succeeded on August 22, 2019)				
	Li-Show Wu (succeeded on January 1, 2019)				
	Hsiu-Gu Huang (dismissed on January 1, 2019)				
	Ming-Shih Chen				
	Hsueh-Lan Wu				
	Rong-Shy Lin				
President	Wei-Kuo Hong				

#### Compensation Range

Range of Compensation	Name of President, Senior Executive Vice President and Senior Directors	
	The Company (Note 6)	All Investee Companies and the Parent Company (Note 7) E
Less than NT\$1,000,000		
NT\$1,000,000 (inclusive) - NT\$2,000,000 (exclusive)		
NT\$2,000,000 (inclusive) - NT\$3,500,000 (exclusive)	I-Feng Chang, Li-Show Wu	Li-Show Wu
NT\$3,500,000 (inclusive) - NT\$5,000,000 (exclusive)	Kuo-Feng Lin, Hong-Chan Ma, Chau-Young Lin, Tian-Tsair Su, Yuan-Kuang Tu, Ming-Shih Chen, Hsueh-Lan Wu, Rong-Shy Lin, Wei-Kuo Hong	Kuo-Feng Lin, Hong-Chan Ma, Chau-Young Lin, Tian-Tsair Su, Yuan-Kuang Tu, I-Feng Chang, Ming-Shih Chen, Hsueh-Lan Wu, Rong-Shy Lin, Wei-Kuo Hong
NT\$ 5,000,000 (inclusive) - NT\$10,000,000 (exclusive)	Chi-Mau Sheih, Shui-Yi Kuo, Hsiu-Gu Huang (Note 11)	Chi-Mau Sheih, Shui-Yi Kuo
NT\$10,000,000(inclusive) - NT\$15,000,000 (exclusive)		Hsiu-Gu Huang (Note 11)
NT\$15,000,000(inclusive) - NT\$30,000,000 (exclusive)		
NT\$30,000,000(inclusive) - NT\$50,000,000 (exclusive)		
NT\$50,000,000(inclusive) - NT\$100,000,000 (exclusive)		
Over NT\$100,000,000		
Total		

	Bonuses and Allowances (C) (Note 3)		Employee Compensation (D) (Note 4)				Total Compensation (A+B+C+D) to Net Income (%) (Note 8)		Compensation from Investees other than Subsidiaries Or Parent Company (Note 9)
	Parent-only	Consolidated (Note 5)	Parent-only		Consolidated (Note 5)		Parent-only	Consolidated (Note 5)	
			Cash	Stock	Cash	Stock			
	32,101,648	34,432,276	3,720,000	-	3,720,000	-	0.20%	0.23%	330,903

Note 1: The names of the Company's President, Senior Executive Vice President, and Department Heads shall be listed separately, with summarized compensation amount as disclosed. Mr. Shui-Yi Kuo, Director and President, is listed under " Compensation for Directors (including Independent Directors)".

Note 2: Refers to salary and extra commission disbursed to the Company President, Senior Executive Vice President, and Department Heads in fiscal year 2019.

Note 3: Refers to the different bonuses, rewards, travel expenses, special expenses, and allowances received by the Company President, Senior Executive Vice President, and Department Heads in fiscal year 2019. The Company does not have share-based compensation as per IFRS 2, such as employee stock option certificate, restricted stock, cash-based share subscription, etc.

Note 4: Refers to compensation as approved in the most recent year by the Board of Directors and allocated to the Company President, Senior Executive Vice President, and Department Heads in fiscal year 2019.

Note 5: Fully discloses the total amount of various compensation items on a consolidated basis that are disbursed to the Company President, Senior Executive Vice President, and Department Heads.

Note 6: Fully discloses the Company President, Senior Executive Vice President, and Department Heads names in the compensation range table in accordance to the different compensation amounts of the respective officers.

Note 7: Fully discloses the total amount of various compensation items to the Company President, Senior Executive Vice President, and Department Heads on a consolidated basis; fully discloses respective officers' names in the compensation range table in accordance to the different compensation amounts of the respective officers.

Note 8: Fiscal year net income refers to after-tax income in fiscal year 2019 and on a parent-only basis.

Note 9: a. This column shall clearly state the amount of compensation that Company directors received from investee companies or the parent company (if none, please fill in "None").

b. If Company directors have received compensation from investee companies or the parent company, then such compensation shall be included in the compensation range table in column E, and the column heading shall be changed to "Parent and All Investee Companies".

c. Compensation refers to Company directors' compensation related to salaries, rewards (including compensation as employees, or directors, or supervisors), and business execution expenses earned while serving as directors, supervisors, managers, etc., of investee companies.

Note 10: The Company Chairman Chi-Mau Sheih succeeded as Chairman and retained his position as President on April 22, 2019 and was dismissed as President on May 8, 2019.

Note 11: Hsiu-Gu Huang retired on January 1, 2019. Annual remuneration includes pension distributed in 2019 and other related compensation.

\* The table above is for compensation disclosure only, and is different from taxable income, so the table cannot be used for taxable income purpose.

### 3.3 Compensation of Managers

(including top 10 managers names, positions and total compensation amount)

As of December 31, 2019

	Title (Note 1)	Name (Note 1)	Compensation in Stock	Compensation in Cash	Total	Total to Net Income(%)
Managers	President and Chief Financial Officer	Shui-Yi Kuo (succeeded on May 8, 2019) (Note 5)	0	14,421,904	14,421,904	0.04%
	Senior Executive Vice President	Kuo-Feng Lin				
	Senior Executive Vice President	Hong-Chan Ma				
	Senior Executive Vice President	Tian-Tsair Su (dismissed on August 22, 2019)				
	Senior Executive Vice President	Chau-Young Lin (succeeded on August 22, 2019)				
	Vice President	Kuo-Chiang Chung (succeeded on January 2, 2019)				
	Vice President	Shu-Ling Chen				
	Vice President	Shih-Chung Chang				
	Vice President	Shih-Chang Hung (dismissed on February 28, 2019)				
	Vice President	Shih-Mo Leu (succeeded on September 17, 2019)				
	Vice President	Hui-Fen Tsai (dismissed on June 30, 2019)				
	Vice President	Chun-Te Lee (succeeded on July 18, 2019)				
	Vice President	Wen-Wang Tseng				
	Vice President	Jeu-Yih Jeng				
	Vice President	Yao-Kun Chou				
	Vice President	Ruey-Shu Chiu				
	Vice President	Rong-Yih Chen (succeeded on January 2, 2019)				
	Vice President	Wu-Sung Kao				
	Assistant Vice President	Ru-Kuen Lee (succeeded on January 2, 2019)				
	Assistant Vice President	Ya-Chien Hsueh (succeeded on January 29, 2019)				
	Assistant Vice President	Lii-Jia Guo				
	Assistant Vice President	Fu-Fu Shen				
	Assistant Vice President	Yuan-Kai Chen				
	Assistant Vice President	Ze-Run Liu (succeeded on September 17, 2019)				
	Assistant Vice President	Chi-Hsien Huang				
	Assistant Vice President	Wei-Chiao Wu (dismissed on February 28, 2019)				
	Assistant Vice President	Chih-Hsiung Huang				
	Assistant Vice President	Ching-Hsu Wang (succeeded on May 1, 2019)				
	Assistant Vice President	Chung-Yung Kang				
	Assistant Vice President	Timothy Horng				
Assistant Vice President	Petrina Chong					
Assistant Vice President	Vincent Chen					
Assistant Vice President	Wen-Ming Chuang					

	Title (Note 1)	Name (Note 1)	Compensation in Stock	Compensation in Cash	Total	Total to Net Income(%)
Managers	Assistant Vice President	I-Fang Wu				
	Assistant Vice President	Yeh-Chin Ho (succeeded on August 27, 2019)				
	Assistant Vice President	Shu-Ling Chen				
	Assistant Vice President	Hui-Chen Wei				
	President of Business Group	Yuan-Kuang Tu				
	Vice President of Business Group	Wen-Chiyh Lin (succeeded on January 2, 2019)				
	Vice President of Business Group	Chih-Chin Yu				
	President of Branch	Hui-Pao Huang				
	Vice President of Branch	Ching-Min Cheng				
	Vice President of Branch	Chyi-Tian Chiou				
	Vice President of Branch	Kuan-Chun Hsieh				
	President of Branch	Hung-Chao Tang				
	Vice President of Branch	Ching-Wan Hu (dismissed on June 30, 2019)				
	Vice President of Branch	Pen-Yuang Chang				
	Vice President of Branch	Chen-Chien Su				
	President of Branch	Jinun-Jye Lee				
	Vice President of Branch	Bi-Lian Liu (succeeded on July 10, 2019)				
	President of Branch	Nien-Yee Liu				
	Vice President of Branch	Mao-Hsing Lin				
	President of Branch	Jason Hsu				
	Vice President of Branch	Victoria Liao				
	President of Branch	Sheng-Haun Chang				
	Vice President of Branch	Hung-Hsing Chen				
	President of Branch	Jimmy Shih				
	Vice President of Branch	Ling Chao (succeeded on March 15, 2019)				
	President of Branch	Hung-Liang Yin				
	Vice President of Branch	Shi-Zu Liu (succeeded on September 11, 2019)				
	President of Business Group	I-Feng Chang (succeeded on August 22, 2019)				
	Vice President of Business Group	Chin-Chun Chang Chien				
	Vice President of Business Group	Fu-Tsai Chiang (dismissed on June 30, 2019)				
	Vice President of Business Group	Kuan-Hsiung Liang				
	Vice President of Business Group	Huang-Long Hong (succeeded on August 14, 2019)				
	President of Branch	Chio-Fu Lai				

	Title (Note 1)	Name (Note 1)	Compensation in Stock	Compensation in Cash	Total	Total to Net Income(%)
Managers	Vice President of Branch	Chia-Hsin Li (succeeded on April 23, 2019)				
	President of Branch	Chin-Tu Lin				
	Vice President of Branch	Tsai-Chen Lan				
	President of Branch	Tang Chang (succeeded on April 23, 2019)				
	Vice President of Branch	Wen-Tu Chang (succeeded on August 14, 2019)				
	Vice President of Branch	Yi-Mao Lin (succeeded on November 8, 2019)				
	President of Branch	Ker-Chih Hwang				
	Vice President of Branch	Gwo-Shyan Wu (dismissed on June 30, 2019)				
	Vice President of Branch	Rong-Shuen Huang (succeeded on January 18, 2019)				
	Vice President of Branch	Jung-Huang Huang (succeeded on January 16, 2019)				
	President of Branch	Ching-Chuan Wang				
	Vice President of Branch	Chaw-Chia Chang				
	Vice President of Branch	Adorn Yeh				
	Vice President of Branch	Yu-Chen Tsai				
	President of Branch	Yeong-Jienn Maw				
	Vice President of Branch	Zhong-Xing Yan (succeeded on August 16, 2019)				
	President of Branch	Hsi-Sheng Cheng (succeeded on November 13, 2019)				
	President of Business Group	Hsiu-Gu Huang (dismissed on January 1, 2019)				
	President of Business Group	Li-Show Wu (succeeded on January 1, 2019)				
	Vice President of Business Group	Hui-Fen Lin(succeeded on April 12, 2019)				
	Vice President of Business Group	Ru-Bin Sun (succeeded on April 12, 2019)				
	Assistant Vice President of Business Group	Zhong-Yong Jia (succeeded on August 21, 2019)				
	President of Business Group	Ming-Shih Chen				
	Vice President of Business Group	Hsueh-Hai Hu				
	Vice President of Business Group	Chih-Chang Kuo (dismissed on September 6, 2019)				
	President of Branch	Kuo-Chi Huang (succeeded on January 1, 2019)				
	Vice President of Branch	Jung-Chin Kung				
	President of Branch	Chin-Kun Lin				
	Vice President of Branch	Jen-Shang Lin				
	President of Branch	Der-Shing Rau				
	Vice President of Branch	De-Ming Chen (succeeded on September 10, 2019)				
	President of Business Group	Hsueh-Lan Wu				
	President of Business Group	Rong-Shy Lin				
Vice President of Business Group	Ting-Ming Lin (succeeded on July 5, 2019)					
Vice President of Business Group	Quen-Zong Wu					

	Title (Note 1)	Name (Note 1)	Compensation in Stock	Compensation in Cash	Total	Total to Net Income(%)
Managers	Vice President of Telecommunication Training Institute	Jung-Kuei Chen				
	Vice President of Telecommunication Training Institute	Hey-Chyi Young				
	President of Telecommunication Training Institute	Wei-Kuo Hong				
	Vice President of Telecommunication Training Institute	Hong-Bin Chiou (succeeded on January 14, 2019)				

Note 1: Disclose full names and titles, with summarized compensation amount.

Note 2: Refer to key employees' compensation as approved by the Board of Directors for fiscal year 2019. Fiscal year net income refers to after-tax income in fiscal year 2019 and on the parent-only basis.

Note 3: The definitions of managers are in accordance to Security and Future Bureau Regulation 3-0920001301 issued by Financial Supervisory Commission, or FSC on March 27, 2003, and are listed below:

- (1) President and equivalent position
- (2) Vice President and equivalent position
- (3) Assistant Vice President and equivalent position
- (4) Financial Manager and equivalent position
- (5) Accounting Manager and equivalent position
- (6) Other managers with authorization

Note 4: The Company Chairman and President did not receive any employee compensation; Executive Vice President (included) and below officers have received employee compensation.

Note 5: The Company President Shui-Yi Kuo succeeded as The Company President and retained his positions as Senior Executive Vice President and Chief Financial Officer on May 8, 2019.

### 3.4 Compensation to Directors, President, and Senior Executive Vice President, as Percentage of Net Income for the most recent two years; Compensation Policy, Budget, and Risks

#### (1) Compensation of Directors, President, Senior Executive Vice President, and Senior Directors, as Percentage of Net Income:

0.39% in fiscal year 2018, 0.35% in fiscal year 2019.

#### (2) Compensation Policy and Guidelines:

##### A. Fixed compensation

As adopted by the Board of Directors, directors receive a fixed amount of compensation on a monthly basis. The compensation of senior managers is determined by the compensation committee.

##### B. Variable compensation

- According to Article 22 of the Articles of Incorporation, if the Company achieves positive profit for the relevant year, then its directors and senior managers are entitled to 1.7% to 4.3% of the distributable profit as Employees' compensation; the directors are entitled to no more than 0.17% of the distributable earnings as Directors' compensation.
- The Company allocates directors' annual compensation based on role and performance; if the Company's director is a legal representative, the individual would not receive Directors' compensation, and the compensation would be collected by the legal representative's shareholder, the Ministry of Communication.
- Independent directors are excluded from the Company's annual compensation program as approved by the Board

of Directors.

- The Chief Executive Officer and President are paid a salary and bonus as approved by the Board of Directors, but not as part of the employees' compensation.
- The salary of the Senior Executive Vice President, Department Heads, and Senior Directors are determined by the relevant employee compensation policy; bonuses and allowances are determined based on overall corporate performance and the performance of individual departments.

#### (3) Compensation Budgeting Procedure:

The Compensation Committee shall periodically review and assess compensation packages for the Board of Directors and executive management, which are then approved by the Board of Directors.

#### (4) Compensation and Performance:

- A. The performance evaluation of the directors is conducted on an annual basis, based on article 6 of the "Regulations Governing the Performance Evaluation of the Board of Directors of Chunghwa Telecom Co., Ltd." and the evaluation result is submitted to its Board of Directors the following year for review and improvement, and to serve as a reference for the selection, nomination, and compensation of directors.
- B. The compensation for a Director who is concurrently an employee of other entities is established based on the Company's performance target, financial status, and the director's respective responsibilities. Directors are excluded from, and independent directors do not participate in the allocation of, variable compensation.
- C. Compensation for management executives, employees,

the Chief Executive Officer, and President, is based on each individual's respective expertise and competencies, corporate performance, and financial status. The compensation of the Senior Executive Vice President, Department Heads, and Senior Directors are in accordance to executive performance management and guidelines, and linked to various KPI assessments, such as corporate performance, subordinate unit performance, and personal performance, with the fulfillment of Corporate Social Responsibility as an

additional reference point for changing compensation.

#### (5) Compensation and Risks:

The Company's key strategies are formulated in consideration of various risk assessments. These strategic initiatives shall drive profitability, which are linked to the compensation of the Company's executives. As a result, the compensation of Directors, the Chairman of the Board, the Chief Executive Officer, the Executive Vice President, Department Heads, and Senior Directors are directly related to risk control and management.

## 4. Corporate Governance

### 4.1 Board of Directors, or BoD Operations

#### (1) Information Regarding BoD Operations

Board of Directors convened 9 meetings (A) in fiscal year 2019, of which attendance is as follows:

Title	Name (Note 1)	Attendance in Person (B)	Attendance by Proxy	Attendance Rate (%) (A/B)	Remarks
Director	Chi-Mau Sheih	9	0	100%	-
Director	Yu Cheng	2	0	100%	Dismissed on April 21, 2019; should attend 2 meetings
Director	Shui-Yi Kuo	6	0	100%	Succeeded on April 26, 2019; should attend 6 meetings
Director	Yu-Lin Huang	7	1	88%	Succeeded on February 13, 2019; should attend 8 meetings
Director	Shin-Yi Chang	5	0	100%	Succeeded on June 21, 2019; should attend 5 meetings
Director	Mu-Han Wang	3	1	75%	Dismissed on June 20, 2019; should attend 4 meetings
Director	Ho-Ting Huang	2	0	100%	Succeeded on June 21, 2019; Dismissed on September 15, 2019; should attend 2 meetings
Director	Lien-Chuan Lee	2	1	67%	Succeeded on September 16, 2019; should attend 3 meetings
Director	Wei-Ming Chang	4	0	100%	Dismissed on June 20, 2019
Director	Sin-Hong Chen	4	1	80%	Succeeded on June 21, 2019; should attend 5 meetings
Director	Yi-Bing Lin	3	0	75%	Dismissed on June 20, 2019; should attend 4 meetings, absent once
Director	Hung-Yi Hsiao	5	0	100%	Succeeded on June 21, 2019; should attend 5 meetings
Director	Yih-Yu Lei	4	0	100%	Dismissed on June 20, 2019; should attend 4 meetings
Director	Chin-Tsai Pan	9	0	100%	-
Independent Director	Kuo-Long Wu	4	0	100%	Dismissed on June 20, 2019; should attend 4 meetings
Independent Director	Lo-Yu Yen	8	0	89%	Absent once
Independent Director	JenRan Chen	9	0	100%	-
Independent Director	Yu-Fen Lin	9	0	100%	-
Independent Director	Chung-Chin Lu	7	1	78%	Absent once
Independent Director	Yi-Chin Tu	3	1	60%	Succeeded on June 21, 2019; should attend 5 meetings, absent once

Other Matters of Importance :

1. If any of the following circumstances occur, it is necessary to specify the dates of the board meetings, sessions, contents of motion, all independent directors' opinions, and the Company's responses:
  - (1) Matters referred to in Article 14-3 of the Securities and Exchange Act.
  - (2) In addition to item (1), other matters involving objections or expressed reservations by independent directors that were recorded or stated in writing that require a resolution by the board of directors.
2. Any directors' avoidance of motions due to conflict of interest, director name, contents of motion, causes for avoidance, and voting should be specified :
  - (1) Director Chi-Mau Sheih is a public servant as per Article 2 (6) of the Act on Recusal of Public Servants Due to Conflicts of Interest and served as the Chairman of Chunghwa Telecom Co., Ltd. after the election held during the 8th special meeting of the 8th Board of Directors on April 22, 2019. According to the Act, Mr. Sheih voluntarily recused himself during the following meetings and discussions:

At the 8th special meeting of the 8th Board of Directors on April 22, 2019:

    - A. The Company's CEO will be assumed by the new Chairman of the Company
    - B. The Company's monthly compensation for its new Chairman

At the 18th meeting of the 8th Board of Directors on May 8, 2019:

The review and approval of the nominations for the Company's slate of candidates for the election of directors of the 9th Board of Directors

At the 1st meeting of the 9th Board of Directors on June 24, 2019:

The Company's CEO will be assumed by the new Chairman of the Company
  - (2) Director Shui-Yi Kuo is a public servant as per Article 2 (6) of the Act on Recusal of Public Servants Due to Conflicts of Interest and was nominated as a candidate for the 9th Board of Directors of Chunghwa Telecom Co., Ltd. by the Ministry of Transportation and Communications. Mr. Kuo was also elected as the President of the Company during the election held on the 18th meeting of the 8th Board of Directors on May 8, 2019. According to the Act, Mr. Kuo voluntarily recused himself during the following meeting and discussions:

At the 18th meeting of the 8th Board of Directors on May 8, 2019:

    - A. The review and approval of the nominations for the Company's slate of candidates for the election of directors of the 9th Board of Directors
    - B. Personnel appointment and dismissal for the Company and its investee (The appointment of the Company's President)
    - C. Extraordinary motion: The Company's monthly compensation for its new President

At the 1st meeting of the 9th Board of Directors on June 24, 2019:

The appointment for the Company's President
  - (3) Mr. Yu-Lin Huang is a public servant as per Article 2 (6) of the Act on Recusal of Public Servants Due to Conflicts of Interest. Mr. Huang attended the 18th meeting of the 8th Board of Directors of Chunghwa Telecom Co., Ltd. on May 8, 2019. Mr. Huang voluntarily recused himself during the discussion on the review and approval of the nominations for the Company's slate of candidates for the election of directors of the 9th Board of Directors.
  - (4) Mr. Chin-Tsai Pan is a public servant as per Article 2 (6) of the Act on Recusal of Public Servants Due to Conflicts of Interest. Mr. Pan attended the 18th meeting of the 8th Board of Directors of Chunghwa Telecom Co., Ltd. on May 8, 2019. Mr. Pan voluntarily recused himself during the discussion on the review and approval of the nominations for the Company's slate of candidates for the election of directors of the 9th Board of Directors.
3. Publicly-listed companies should disclose board self-evaluation (or peer-evaluation) information including cycle, period, scope, method, and content, and should fill in the attached form number two (2), Information Regarding the Implementation of the Evaluation of the Board of Directors.
4. Measures have been taken to strengthen the functioning of the Board of Directors (e.g. establishment of the Audit Committee, increasing transparency) to assist the board in carrying out its various duties; please refer to page 50, Section IV, Part 3.3 "BOARD OF DIRECTORS Composition and Responsibilities"

## (2) Information Regarding the Implementation of the Evaluation of the Board of Directors

Cycle (Note 1)	Period (Note 2)	Scope (Note 3)	Method (Note 4)	Content (Note 5)
Once a year	January 1, 2019 to December 31, 2019	Performance evaluation of the board as a whole, individual directors, and functional committees	<ol style="list-style-type: none"> <li>Self-evaluation by individual directors</li> <li>Self-evaluation by functional committees</li> </ol>	<ol style="list-style-type: none"> <li>Self-evaluation by individual directors:                             <ol style="list-style-type: none"> <li>Alignment of the goals and missions of the Company</li> <li>Awareness of the duties of a director</li> <li>Participation in the operation of the Company</li> <li>Management of internal relationship and communication</li> <li>The director's professionalism and continuing education</li> <li>Internal control.</li> </ol> </li> <li>Self-evaluation by Functional Committees:                             <ol style="list-style-type: none"> <li>Participation in the operation of the Company</li> <li>Awareness of the duties of the functional committee</li> <li>Improvement of quality of decisions made by the functional committee</li> <li>Makeup of the functional committee and election of its members</li> <li>Internal control</li> </ol> </li> </ol>
Once every three years	January 1, 2019 to December 31, 2019	Commissioning of an external professional institution to conduct an overall board performance evaluation	Commission an external professional institution to conduct the evaluation	Commissioning Taiwan Corporate Governance Association to conduct the performance evaluation of the board, including the composition, guidance, delegation, supervision, communication, internal control and risk management, self-discipline and others of the board of directors (including board meetings, support systems, etc.)

Note 1: Refers to the execution frequency of the board evaluation, for example: once a year.

Note 2: Refers to the period covered by the Board evaluation, for example: evaluating board performance from January 1, 2019, to January 31, 2019.

Note 3: Evaluation scope includes the Board of Directors, individual Board members, and functional committees.

Note 4: Evaluation method includes internal self-evaluation, peer-evaluation, evaluation by external professional organizations, experts, and other appropriate methods.

Note 5: The evaluation content includes, at minimum, the following items:

- Board of Directors performance evaluation: includes, at minimum, the degree of participation in the Company's operations, the quality of Board decisions, the composition and structure of the Board of Directors, the selection and continuous training of directors, and internal controls.
- Individual member performance evaluation: includes, at minimum, understanding of the Company's objectives and responsibilities, knowledge of director responsibilities, the degree of participation in the Company's operations, internal relationship management and communication, directors' professional and continuing education, and internal controls.
- Functional committee performance evaluation: the degree of participation in Company operations, knowledge of functional committee responsibilities, quality of functional committee decisions, functional committee composition and member selection, and internal controls.

## 4.2 Audit Committee Operation

The Audit Committee convened 8 meetings (A) in fiscal year 2019, of which attendance is as follows:

Title	Name	Attendance in Person (B)	Attendance by Proxy	Attendance Rate (%) (B/A)	Remarks
Independent Director	Lo-Yu Yen	7	0	88%	Absent once
Independent Director	JenRan Chen	8	0	100%	
Independent Director	Yu-Fen Lin	8	0	100%	
Independent Director	Chung-Chin Lu	7	1	88%	Absent once
Independent Director	Kuo-Long Wu	4	0	100%	Dismissed on June 20, 2019; should attend 4 meetings.
Independent Director	Yi-Chin Tu	3	0	75%	Succeeded on June 21, 2019; should attend 4 meetings, absent once.

Other matters of importance :

### 1.1 Matters referred to in Article 14-5 of the Securities and Exchange Act

Dates of Board meetings	Contents of motion	Resolutions of the Audit Committee, and the Company's responses to the Audit Committee's recommendations
March 19, 2019 (8-17)	<ul style="list-style-type: none"> <li>Reviewed the 2018 Internal Control Statement for the purpose of domestic regulatory and Sarbanes-Oxley Act compliance of the Company</li> <li>Reviewed the Company's 2018 operational report and financial statements</li> <li>Reviewed the Company's 2018 earnings distribution</li> <li>Reviewed the amendment to the Procedures for Acquisition or Disposal of Assets</li> </ul>	Approved by all independent directors in attendance at the 21st meeting of the 8th Audit Committee, and was submitted to the Board for review.
May 8, 2019 (8-18)	<ul style="list-style-type: none"> <li>Reviewed the change to the Company's attesting CPA</li> <li>Reviewed the amendment to The Company's Regulations Governing Lending of Funds and Making of Endorsements/Guarantees</li> <li>Reviewed the financial statements for the first quarter of 2019.</li> <li>Reviewed Personnel Appointment for the Company's Chief Audit Executive</li> </ul>	Approved by all independent directors in attendance at the 23rd meeting of the 8th Audit Committee, and was submitted to the Board for review.
August, 13, 2019 (9-2)	Reported the financial statements for the second quarter of 2019.	Approved by all independent directors in attendance at the first meeting of the 9th Audit Committee, and was submitted to the Board for review.
November 13, 2019 (9-3)	Reported the financial statements for the third quarter of 2019.	Approved by all independent directors in attendance at the second meeting of the 9th Audit Committee, and was submitted to the Board for review.
December 17, 2019 (9-4)	Reviewed CPA duties and compensation for 2020.	Approved by all independent directors in attendance at the third meeting of the 9th Audit Committee, and was reported to the Board for review.

1.2 Other matters which were not approved by the Audit Committee but were approved by more than two-thirds of all directors: None

2. Any independent directors' avoidance of motions due to conflict of interest: None during the fiscal year.

3. Communication methods between independent directors, Chief Audit Executive, and accountants :

In order to improve the Company's corporate governance and strengthen the professional knowledge of the Board, the Company established the Audit Committee during the 7th Board, which consisted of all independent directors. In addition to supervising the Company's plans for responding appropriately to internal and external changes and the design of its internal control system, and periodically inspecting and audit reports, the Audit Committee is also responsible for ensuring that the design and implementation of the internal control system is continuous and effective, for establishing communication channels and mechanisms with the internal audit supervisor and accountants, and for advancing exchanges of opinion. A summary of communication methods and recent communication subjects are as follows :

(1) Communication methods and frequency among independent directors, Chief Audit Executive, and accountants

A. Audit Committee: Regular meetings should be held at least once a quarter with special meetings to be held as necessary. During the meeting, the Company's internal Chief Audit Executive should report on the Company's implementation of internal audit processes and performance of internal controls to the independent directors. When items related to financial reports need to be discussed, accountants must attend the meeting to provide explanations about the financial reports and address questions raised by committee members.

B. Board and Auditor Meeting: The meeting should be held at least once a year and attended by all Board members and audit members. Members should review the performance of the previous year's internal controls and discuss each department's internal control self-assessment results. Members should also exchange opinions on improvements related to internal controls in order to continuously improve internal audit activities.

C. Closed Meeting with Accountants: The meeting should be held at least once a year with special meetings to be held as necessary. The Company's accountants and Audit Committee should report to independent directors the results of their review of the Company's financial reports and internal controls, and communicate whether there are financial statement adjustments or regulatory amendments that may affect accounting methods.

(2) Summary of Communications Between Independent Directors and the Chief Audit Executive:

Date	Information Communicated	Communication Results
January 28, 2019 Audit Committee (8-20) <sup>Note</sup>	1. Internal Chief Audit Executive reported on the Company's implementation of internal audit processes and internal control operations. Independent Director response: acknowledged.	Audit highlights were reported at the 16th meeting of the 8th Board.
	2. Cyber security risk assessment report on customers using Chinese-brand mobile phones. Independent Director response: suggested combining mobile phone cyber security and business opportunities.	Ask channel providers to strengthen mobile phone risk descriptions provided to customers and to tie in sales of value-added services such as anti-hacking software to alleviate the cyber security concerns of Chinese-brand phones.
March 12, 2019 Audit Committee (8-21)	1. Internal Chief Audit Executive reported on the Company's implementation of internal audit processes and internal control operations. Independent Director response: acknowledged.	Audit highlights were reported at the 17th meeting of the 8th Board.
	2. Reviewed the Company's 2018 earnings distribution. Independent Director response: approved by all independent directors in attendance, and was reported to the Board for review.	Approved to be reported at the 17th meeting of 8th Board.
	3. Reviewed draft amendments to the Company's "Procedures for the acquisition, or disposal, of assets" Independent Director response: approved by all independent directors in attendance, and was reported to the Board for review.	
March 19, 2019 Panel Discussion	Board and Internal Audit symposium highlights: 1. Reviewed 2018 internal control operations 2. Reviewed each department's internal control self-assessment results 3. Exchanged opinions related to improving internal controls. Independent Director response: Review and implement a division between the functional roles of specialized sales and procurement staff.	1. Symposium highlights were reported to the 18th meeting of the 8th Board. 2. Invite the marketing department to develop solutions for the functional division of specialized sales and procurement staff. 3. Division of sales and procurement functions to be completed by August 2019.
April 22, 2019 Audit Committee (8-22)	1. Internal Chief Audit Executive reported on the Company's implementation of internal audit processes and internal control operations. Independent Director response: Acknowledged.	Audit highlights reported at the 18th meeting of 8th Board.
	2. Reviewed accounting firm's change of financial report certifying accountant. Independent Director response: approved by all independent directors in attendance, and was reported to the Board for review.	Approved to be reported at the 18th meeting of 8th Board.
	3. Reviewed the draft amendments to the Company's Procedures Governing Lending of Funds and Procedures of Making Endorsements/ Guarantees Independent Director response: approved by all independent directors in attendance, and was reported to the Board for review.	
May 6, 2019 Audit Committee (8-23)	1. Internal Chief Audit Executive reported on the Company's implementation of internal audit processes and internal control operations. Independent Directors response: Acknowledged.	Audit highlights were reported to the 8th meeting of 8th Board.
	2. Reviewed the Company's Chief Audit Executive appointment and dismissal records. Independent Director response: approved by all independent directors in attendance, and was reported to the Board for review.	Approved to be reported at the 18th meeting of 8th Board.
August 8, 2019 Audit Committee (9-1)	Internal Chief Audit Executive reported on the Company's implementation of internal audit processes and internal control operations. Independent Director response: Acknowledged.	Audit highlights were reported to the 2nd meeting of 9th Board.
September 18, 2019 Audit Committee (9-special-1)	Reviewed the Company's "Plan for participation in the 2019 mobile broadband business (5G) spectrum auction." Independent Director response: approved by all independent directors in attendance, and was reported to the Board for review.	Approved to be reported at the 1st special meeting of 9th Board.
November 11, 2019 Audit Committee (9-2)	1. Internal Chief Audit Executive reported on the Company's implementation of internal audit processes and internal control operations. Independent Director response: Acknowledged.	Audit highlights were reported to the 3rd meeting of 9th Board.
	2. Reviewed the draft 2020 audit plan. Independent Director response: approved by all independent directors in attendance, and was reported to the Board for review.	Approved to be reported at the 3rd special meeting of 9th Board.
December 13, 2019 Audit Committee (9-3)	1. Internal assessment of the 2019 Audit Committee performance evaluation.	All committee members in attendance completed the 2019 Audit Committee performance review, and was reported to the 6th meeting of the 9th Board.
	2. Internal Chief Audit Executive reported on the Company's implementation of internal audit processes and internal control operations. Independent Director response: Acknowledged.	Audit highlights were reported to the 4th meeting of 9th Board.
	3. Reviewed CPA duties and compensation for 2020. Independent Director response: approved by all independent directors in attendance, and was reported to the Board for review.	Approved to be reported at the 4th meeting of the 9th Board.

Note : Refers to the Audit Committee session and meeting number. For example: 8-20 is the 20th meeting of the Audit Committee of the 8th Board of Directors.

(3) Summary of Communications Between Independent Directors and Accountants:

Date	Information Communicated	Communication Results
March 12,2019 Audit Committee (8-21)	1. Reviewed the Company's draft 2018 domestic and SOX internal control system statement. Independent Director response: approved by all independent directors in attendance, and was reported to the Board for review.	Approved to be reported at the 17th meeting of the 8th Board.
	2. Review the drafted operation and financial reports for 2018 Independent Director response: approved by all independent directors in attendance, and was reported to the Board for review.	
April 22,2019 Audit Committee (8-22)	1. Reviewed full 2018 IFRS financial report draft to be included in Form 20-F report. Independent Director response: approved by all independent directors in attendance. (No need to report to the Board)	The Company is listed on the New York Stock Exchange in the form of American Depositary Receipts. In accordance with U.S. Securities and Exchange Commission (SEC) rules, the Company completed its Form 20-F report, which includes financial reports, within 4 months of the fiscal year end.
	2. Reviewed and discussed draft management discussion and analysis (MD&A) of the 2018 annual report (Form 20-F). Independent Director response: approved by all independent directors in attendance. (No need to report to the Board)	(1) According to rules 303A.07 of the NYSE Listed Company Manual, the Audit Committee reviewed the contents of the MD&A in Form 20-F. (2) The Company reported Form 20-F within 4 months of its fiscal year.
May 6,2019 Audit Committee (8-23)	Reviewed first quarter 2019 financial reports. Independent Director response: no opinions from independent directors in attendance.	Reported at the 18th meeting of the 8th Board.
August 8,2019 Audit Committee (9-1)	Reviewed second quarter 2019 financial reports. Independent Director response: no opinions from independent directors in attendance.	Reported at the second meeting of the 9th Board.
November 11,2019 Audit Committee (9-2)	1. Closed Meeting between independent directors and accountants.	Reported at the third meeting of the 9th Board.
	2. Reviewed third quarter 2019 financial reports. Independent Director response: no opinions from independent directors in attendance.	

The Company's Audit Committee is established in accordance to Article 14-4 of the Securities and Exchange Act and the Regulations Governing the Exercise of Powers by Audit Committees of Public Companies, and comprises of all independent directors, with primary responsibilities of auditing and addressing the following issues:

- (i) Adopt or amend internal control systems in accordance to Article 14-1 of the Securities and Exchange Act.
- (ii) Assessment of the effectiveness of the internal control system.
- (iii) Adopt or amend, pursuant to Article 36-1 of the Securities and Exchange Act, procedures for handling financial or business activities of a material nature, such as acquisition or disposal of assets, derivatives trading, loaning of funds to others, and endorsements or guarantees of others.
- (iv) Directors' conflict of interest.
- (v) A material asset or derivatives transaction.
- (vi) A material monetary loan, endorsement, or provision of guarantee.
- (vii) The offering, issuance, or private placement of any equity-type securities.
- (viii) The hiring or dismissal of a CPA, or the compensation given thereto.
- (ix) The appointment or discharge of a financial, accounting, or internal auditing supervisor.
- (x) Annual financial reports.
- (xi) The matters regulated by the Business Mergers and Acquisitions Act.
- (xii) The first to the third quarter financial reports.
- (xiii) Communication and discussion with CPAs.
- (xiv) Resolutions of potential differences of opinions between Company management and CPAs.
- (xv) Discussing and reporting other financial information and required disclosure under the U.S. Securities Exchange Act between Company management and CPAs.
- (xvi) Approving the CPA firm's annual audit and non-audit services.
- (xvii) Any other material matter so required by the Company or relevant authorities.

### 4.3 Corporate Governance Implementation Status and Deviations from the "Corporate Governance Best-Practice Principles for TWSE/TPEX Listed Companies"

Evaluation Criteria	Implementation Status			Deviations from "Corporate Governance Best-Practice Principles for TWSE/TPEX Listed Companies" and Reasons
	Yes	No	Explanation	
1. Does the Company establish and disclose the proper corporate governance framework based on the "Corporate Governance Best-Practice Principles for TWSE/TPEX Listed Companies"?	V		Through the 50 articles of the "Code of Corporate Governance for Chunghwa Telecom Co., Ltd," the Board of Directors of the Company complies by the "Corporate Governance Best-Practice Principles for TWSE/TPEX Listed Companies". The Company's principles are available for investor review on the Company's official website under "Corporate Governance".	None
2. Shareholding structure & shareholders' rights (1) Has the Company established an internal operating procedure to address shareholders' suggestions, doubts, disputes, and litigation, with proper implementation based on this procedure?	V		The Company has designated a shareholder service team to handle shareholder suggestions and disputes. Shareholder suggestions, inquiries, disputes, and litigation are handled based on relevant standard operating procedures.	None
(2) Is the Company fully aware of its major shareholders and the ultimate owners of those shares?	V		In compliance with SEC Article 25, the Company reports changes in insider (directors, managers, and shareholders of more than 10% of shares outstanding) shareholding on a monthly basis, which is published on the designated public information website.	In accordance to Article 19, "Major Shareholders" refer to shareholders of 5% or more of shares outstanding, or top 10 shareholders in terms of shareholding percentage. The Company obtains its major shareholder list based on the book closure date for shareholder registration.

Evaluation Criteria	Implementation Status			Deviations from "Corporate Governance Best-Practice Principles for TWSE/TPEX Listed Companies" and Reasons
	Yes	No	Explanation	
(3) Does the Company adopt and execute the proper risk management and firewall system within its affiliates?	V		The Company's internal control system consists of corporate-level risk management and operational-level execution control. Also, on July 18, 2012, the then CEO approved "Chunghwa Telecom Rules and Procedures on Monitoring and Managing Subsidiaries" as risk control mechanisms. On December 17, 2013, during the 4th meeting of the 7th BoD, "Chunghwa Telecom Rules and Procedures on Conducting Transactions between Group Companies and Related Parties" were amended and approved. It consists of 15 articles and is applicable to related party transactions on procurement & sales, asset disposal, guarantees, loans, etc. On August 9, 2016, during the 2nd meeting of the 8th BoD, "Chunghwa Telecom Rules and Procedures on Investments" were amended and approved. It consists of 41 articles and is applicable to investment strategy, due diligence, valuation, agreement signing, settlement, application, integration, post-investment management, performance review, exit mechanism and penalty, etc.	None
(4) Does the Company establish internal rules against insider trading?	V		The Company prevents insider trading by controlling key points in its operations, which prevents Company insiders from exploiting non-public information to trade securities.	None
3. Board of Directors Composition and Responsibilities (1) Does the Board of Directors develop and implement a policy to promote diversity in the composition of its members	V		<p>1. Diversify Policy In order to strengthen corporate governance and promote the sound development of the composition and structure of the board of directors, the Company approved the resolution on enacting the "Code of Corporate Governance of Chunghwa Telecom Ltd. Co.," with a total of 50 articles, in the 2nd Meeting of the 4th Board of Directors on August 26, 1993. Article 20 of which: The composition of the board members shall be considered in a diversified manner and the appropriate policy on diversity should be based on the Company's business operations, operating dynamics, and development needs. It is advisable that the policy includes, without being limited to, the following criteria in two aspects: (1) Basic requirements and values: Gender, age, nationality, culture and ethnicity; (2) Professional knowledge and skills: Such as legal, accounting, industry, finance, marketing or technology Board members shall possess the necessary knowledge, skills, and experience to perform their duties.</p> <p>2. Concrete Objectives The board of directors of the Company shall direct company strategies, supervise the management, and be responsible to the Company and its shareholders. The operations and arrangements of its corporate governance system shall be able to ensure that, in exercising its authority, the board of directors complies with the provisions of laws, regulations, its Articles of Incorporation, and the resolutions of its shareholders' meetings. In order to meet the needs of the Company's business development, the board of directors of the Company shall be composed of experts and scholars in the field of industry, accounting, management, and etc. The members of the board of directors shall include at least one person in various professional fields such as innovation, business, legal affairs, accounting, and information and communication technology. In addition, the Company is also concerned about gender equality, with at least one female director in the composition of the board of directors.</p> <p>3. The implementation of the board diversity policy The Company's current board of directors consists of 13 directors, including 5 independent directors and 8 directors. At present, according to the academic background and professional experiences each director possesses, 9 directors are specialized in innovation, 6 directors specialize in information and communications technology, 5 directors are business experts, 3 directors are accounting majors, and 2 directors focus on legal affairs. Diversity policy has been implemented in the composition of the board of directors as defined in the Company's Code of Corporate Governance.</p>	None
(2) Does the Company voluntarily establish other functional committees in addition to the Compensation Committee and the Audit Committee?	V		In addition to Compensation Committee and Audit Committee, the Company has also adopted a Corporate Strategy Committee. The committee holds committee meetings to discuss key issues focusing on the Company's growth. The Corporate Strategy Committee currently consists of 8 directors, who can all provide direction on discussions of proposals.	None
(3) Does the Company establish and implement on an annual basis a set of assessments to measure the performance of the Board of Directors, report the performance evaluation results to the Board to Directors, and use it as a reference for the compensation of the Board of Directors?	V		The Company approved the "Regulations Governing the Performance Evaluation of the Board of Directors of Chunghwa Telecom Co., Ltd." on August 13, 2019, at the 2nd meeting of its 9th Board of Directors. The performance evaluation is conducted at a set date annually and, in accordance with article 6 of the Regulations, the report is submitted to its Board of Directors before the end of March of the following year for review, improvement, and to serve as a reference for the selection or nomination of directors.	None

Evaluation Criteria	Implementation Status			Deviations from "Corporate Governance Best-Practice Principles for TWSE/TPEX Listed Companies" and Reasons
	Yes	No	Explanation	
(4) Does the Company regularly evaluate the independence of its CPAs?	V		<p>The Audit Committee is authorized to evaluate the independence of the CPAs on annual basis.</p> <p>1. The evaluation mechanisms are as follows:</p> <p>(1) In accordance to U.S. Sarbanes-Oxley Act, the CPA firm must be pre-approved by the Audit Committee prior to annual audit and any other project.</p> <p>(2) In accordance to U.S. Sarbanes-Oxley Act, the CPAs shall report the audit/review content and independence to the Audit Committee on quarterly basis.</p> <p>(3) Any change of audit CPAs must strictly in compliance to the Company Corporate Governance Principles.</p> <p>(4) Periodically obtain a Confirmation of Independence from the CPAs.</p> <p>2. The evaluation results are as follows:</p> <p>(1) The CPAs and the Company have complied with the independence requirements as per U.S. SEC and Public Company Accounting Oversight Board, or PCAOB.</p> <p>(2) The CPAs haven't served as auditors for the Company for 5 consecutive years.</p>	None
(5) Has the Company adopted a succession plan for key executives?	V		<p>The Company applies a rigorous selection and evaluation mechanism for its key executive succession planning process. Its training program considers a combination of leadership potential, personal characteristics, professional knowledge, and management ability, and leverages a mentorship and Individual Development Plans (IDP) framework to discover individual potential, strengths, and weaknesses while accelerating the development of capabilities, personalities, and depth and breadth of experience. The entire key executive development program spans 2 to 3 years.</p>	None
4. Has the Company allocated suitable and sufficient corporate governance staff and appointed a manager of corporate governance responsible for corporate governance matters (including, but not limited to, furnishing information required for business execution by directors, assisting directors in complying with laws and regulations, handling matters related to board and shareholder meetings in accordance with the laws, producing minutes of board and shareholder meetings, etc.)?	V		<p>The Company has allocated an adequate number of corporate governance personnel and appointed a chief corporate governance officer to be in charge of corporate governance affairs (including, but not limited to, furnishing information required for business execution by directors, assisting directors in complying with laws and regulations, handling matters related to board and shareholder meetings in accordance with the laws, producing minutes of board and shareholder meetings, etc.).</p>	None
5. Has the Company established a communication channel and designated a website section for its stakeholders (including but not limited to shareholders, employees, customers, and suppliers) as well as to handle all CSR-related issues?	V		<p>The Company has established sections for "CSR" and "Stakeholders" on its website. It also maintains a Facebook page, customer service hotline, online platform, e-mail, instant message service, and mobile app to serve as multiple and adequate access channels for responding to stakeholders. Stakeholder negotiation results are regularly reported to the Board of Directors and disclosed on the Company website.</p>	None
6. Does the Company appoint a professional shareholder service agency to handle shareholder meeting affairs?	V		<p>The Company has engaged the registrar and transfer agency department of Yuanta Securities to handle shareholder meeting affairs.</p>	None
7. Information Disclosure (1) Does the Company have a corporate website to disclose all information regarding finances, the business, and corporate governance?	V		<p>The Company has established an official corporate website to disclose financial, business, corporate governance, and related information in a timely manner.</p>	None
(2) Does the Company have other information disclosure channels (e.g. English website, designated personnel to handle information collection and disclosure, spokesperson system, investor conference webcasts, etc.)?	V		<p>The Company has established an English version of the official corporate website and designated personnel responsible for Company information collection and disclosure. The Company implements a spokesperson system with the Chief Financial Officer (CFO) designated as spokesperson. Conference-related materials, including audio recordings, financial, and operational metrics are disclosed in the "investors" section of the website. These materials are also available on the MOPS website.</p>	None
(3) Does the Company report its annual financial report within two months after the end of the fiscal year and announce the first, second, and third quarter financial reports and monthly operating updates before the prescribed deadlines?	V		<p>In order to enhance the timeliness of information disclosure, the Company reported its annual financial report within two months after the end of the fiscal year and announced the first, second, and third quarter financial reports and monthly operating updates before the prescribed deadlines.</p>	None
8. Is there any other important information to facilitate a better understanding of the Company's corporate governance practices? (1) Employee rights	V		<p>The Company's human resources policies comply with the provisions prescribed under the law, such as the Labor Standards Act, and collective bargaining agreements, to safeguard employee rights.</p>	None

Evaluation Criteria	Implementation Status			Deviations from "Corporate Governance Best-Practice Principles for TWSE/TPEX Listed Companies" and Reasons
	Yes	No	Explanation	
(2) Employee wellness	V		Engage professional organizations to handle employee assistance programs, including psychological, legal, financial, health, and management consultations. The Company has also opened multiple channels for employees to express their opinions, creating a sense of participation and avenue for smooth, two-way communication.	None
(3) Investor relations	V		The Company's biggest goal is to safeguard shareholder rights and to treat all shareholders equally. In addition to disclosing in a timely manner all required information such as financial, operational, changes insider shareholding, etc., onto MOPS, the Company voluntarily discloses material information on the investor relations section of its website. All shareholder meetings are recorded in accordance to the relevant rules and are disclosed on the Company official website.	None
(4) Supplier relations	V		In accordance with the "Chunghwa Telecom Procurement Management Regulation" and other relevant provisions, the Company purchases various equipment from suppliers. Successful bidders fulfill deliveries and undertake contract responsibilities. The Company also evaluates suppliers on price, quality, delivery, service, the implementation of corporate social responsibility, and other criteria, establishing a stable and sustainably developed supply chain.	None
(5) Rights of stakeholder	V		In compliance with the latest domestic regulations and international trends, the Company publicly discloses related contracts and systems to ensure all stakeholder rights. The Company has established a website section for stakeholders, providing a communication channel that allows stakeholders to report and receive responses to unfair treatment or encroachment on rights. Employees: <a href="http://chtblog.cht.com.tw/mbr/index.jsp">http://chtblog.cht.com.tw/mbr/index.jsp</a> Suppliers: <a href="https://scm.cht.com.tw/outboard/">https://scm.cht.com.tw/outboard/</a> Customers: <a href="http://www.emome.net/">http://www.emome.net/</a> Investors: <a href="http://www.cht.com.tw/ir/mae-smeeeting.html">http://www.cht.com.tw/ir/mae-smeeeting.html</a>	None
(6) Directors' training record	V		The Company follows the Taiwan Stock Exchange Corporation's "Directions for the Implementation of Continuing Education for Directors and Supervisors of TWSE Listed and TPEX Listed Companies." Please refer to the appendix "Directors' Continuing Education Records for fiscal year 2019."	None
(7) Implementation of risk management policies and risk assessments	V		1. The Company's risk management policy and risk assessment measurement standards are implemented in accordance to "Chunghwa Telecom Risk Management Rules" approved by Board of Directors. 2. The Company consistently analyzes and rectifies all high-impacted risks to ensure achieving business operation targets, financial accuracy, etc.; the Company also utilizes risk management system to register, track and manage, those relevant risks to strengthen overall governance and risk management.	None
(8) Implementation of customer relations policies	V		The Company provides the highest level of comprehensive customer service, using a customer system to understand behavior, provide technology and innovative services with enhanced values, provide a high-quality network for internet communication, and provide active care for customers with convenient and accelerated two-way communication channels. Physical store service quality is inspected using the "On-site Inspection of Service Quality Protocol." In addition, the Company offers a 24x7 call center and online customer service. In order to continue to improve customer satisfaction, the Company also offers paperless payment choices, such as SMS, e-mail, voice, and others, in order to adhere to its carbon reduction policy.	None
(9) Insurance for directors and supervisors	V		To lower and disperse material damage and risk to the Company and shareholders arising from director mistakes or carelessness while executing business within the scope of their term, the Company has purchased liability insurance according to their respective terms of office. The details of the insurance coverage have also been reported to the directors.	None
9. Please explain items that have been already improved and priority measures to reinforce matters haven't been improved , in accordance to the results of the Corporate Governance Evaluation System released by the Corporate Governance Center, Taiwan Stock Exchange.				
Items already improved	The Company's Board of Directors adopted the "Regulations Governing the Performance Evaluation of the Board of Directors of Chunghwa Telecom Co., Ltd." in August 2019. On December 17, 2019, the Company commissioned an external organization, the Taiwan Corporation Governance Association, to perform the board effectiveness evaluation. The external evaluation results combined with the board members and functional committee self-evaluation results were reported to the Board of Directors in February 2020, and are disclosed on the Company's website and in the annual report (Item 2.22 and 2.23).			
Items to be improved	Disclose the average adjustment in salary of all employees on MOPS. (item 4.8)			

## 4.4 Compensation Committee Composition, Responsibilities and Operations

### (1) Compensation Committee Member Profiles

Title (Note 1)	Criteria  Name	Over 5 years of work experience and the following professional qualification requirements			Independence Criteria (Note 2)								Number of Other Public Companies in which the Individual is Concurrently Serving as Compensation Committee Member (Note 2)	Remarks	
		An instructor or higher position in a department of commerce, law, finance, accounting, or other academic department related to the business needs of the Company in a public or private junior college, college or university	A judge, public prosecutor, attorney, CPA, or other professional or technical specialist who has passed a national examination and been awarded a certificate in a profession necessary for the business of the Company	Has work experience in the areas of commerce, law, finance, or accounting, or otherwise necessary for the business of the Company	1	2	3	4	5	6	7	8			
Independent Director	Lo-Yu Yen	-	√	√	√	√	√	√	√	√	√	√	√	0	
Independent Director	JenRan Chen	-	-	√	√	√	√	√	√	√	√	√	√	0	
Independent Director	Yu-Fen Lin	-	√	√	√	√	√	√	√	√	√	√	√	0	

Note 1: In the Title column, please fill in director, independent director or other.

Note 2: Please check "√" in the corresponding boxes that apply to a member during the two years prior to being elected or during the term(s) of office.

(1) Not an employee of the Company or any of its affiliates.

(2) Not a director or supervisor of the Company or any of its affiliates; but excluding any person who is an independent director of the Company, or of its parent company, or of any subsidiaries with over 50% of direct or indirect voting shares.

(3) Not an individual shareholder whose total holdings, including those of his/her spouse, minor children, or shares held under others' names, reach or exceed 1% of the total number of outstanding shares of the Company, or an individual who ranks among the top 10 shareholders in terms of the share volume held.

(4) Not a spouse, or relatives within second degree of affinity, or within three degrees of consanguinity, to any person specified in the preceding three sub-paragraphs.

(5) Not a director, supervisor, or employee of any institution that directly or indirectly holds 5% or more of the total number of outstanding shares of the Company, or ranks among the top 5 institutional shareholders in term of share volume held.

(6) Not a director, supervisor, officer, or shareholder holding 5% or more of the shares of a specified company or institution which has a financial or business relationship with the Company.

(7) Not a professional, who is an owner, partner, director, supervisor, or officer and the spouse thereof, of a sole proprietorship, partnership, company, or institution that provides commercial, legal, financial, accounting services or consultation to the Company or to any affiliate of the Company.

(8) Not in contravention to Article 30 of the Company Act.

### (2) Compensation Committee Operation

A. The Compensation Committee is currently comprised of 3 members.

B. Current Compensation Committee Member Terms: June 21, 2019, through June 20, 2022; the committee convened 5 meetings (A) in 2019, of which attendance is as follows:

Title	Name	Attendance in Person (B)	Attendance by Proxy	Attendance Rate (%) (B/A)	Remarks
Independent Director	JenRan Chen	5	0	100%	Scope of Responsibilities: 1. Regularly formulate and review policies, systems, standards, and structures related to director and management performance assessments and compensation. 2. Regularly enact and review director and management compensation.
Independent Director	Lo-Yu Yen	4	1	80%	
Independent Director	Yu-Fen Lin	5	0	100%	

Other Matters of Importance:

1. In circumstances where the Board of Directors declines to adopt, or make modifications based on, recommendations from the Compensation Committee, specify the dates of meetings, sessions, contents of motion, Board of Directors resolutions, the Company's response to the Compensation Committee's opinion (for example, where the compensation passed by Board of Directors exceeds the recommendations of the Compensation Committee, the circumstances and reasons for the difference of opinions shall be specified): None in the current fiscal year.

2. In circumstances where resolutions of the Compensation Committee were objected to by members, or members had a reserved opinion, and were recorded or declared in writing, specify the dates of meetings, sessions, contents of motions, all member opinions, and responses to member opinions: None in the current fiscal year.

3. Compensation Committee discussions and resolutions:

In 2019, the Compensation Committee met 5 times

Dates of Compensation Committee Meetings	Contents of Motion	Resolutions of the Compensation Committee	The Company's Responses to the Compensation Committee's Recommendations
January 28, 2019 (8-11)	1. Issuance of a one-time employee incentive bonus. 2. Amendment of the "Implementation Guidelines for Special Performance-based Bonus of Chungwa Telecom" to exclude the impact of introducing the new IFRS standard when calculating the necessary compensation for capital investments.	Approved by all members in attendance.	Reported to the Board for review and approval.
March 14, 2019 (8-12)	1. Deliberation of the executive management team's final performance results for 2018. 2. Distribution of the Company's fiscal year 2018 compensation to directors.	Approved by all members in attendance.	1. Used to improve the executive management team's face-to-face discussions on performance results. 2. Reported to the Board for review and approval.
April 22, 2019 (8-Special-2)	Determination of monthly compensation for the Company's newly appointed Chairman.	Approved by all members in attendance.	Reported to the Board for review and approval.
May 8, 2019 (8-Special-3)	Determination of monthly compensation for the Company's newly appointed President.	Approved by all members in attendance.	Reported to the Board for review and approval.
June 18, 2019 (8-13)	1. Assessment of the Company's annual allocation of director compensation. 2. Assessment of the Company's annual allocation of executive management team's compensation. 3. Review of methodology to assess the performance of the Company's executive management team.	Approved by all members in attendance.	1. Used to determine the Company's annual allocation of director compensation. 2. Used to determine the Company's annual allocation of executive management team's compensation. 3. Used to improve the methodology used to assess the performance of the Company's executive management team.

#### 4.5 Corporate Social Responsibility, (CSR)

Evaluation Criteria	Implementation Status			Deviations from the "Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies" and Rationale
	Yes	No	Explanation	
1. Does the company follow principles of materiality in evaluating the risks of environmental, social, and corporate governance, and establish relevant policies or strategies?	V		In 2006, the board of directors adopted risk management rules, including the policies, scope, organizational structure and procedures of risk management, which has been promoted by the managerial department. In addition, relevant risk assessments and responses have been incorporated into the Company's key operational terms or guidelines. In 2016, the Risk Management Committee was established to further improve risk management performance. The Company conducts risk assessments for environmental, social and corporate governance issues related to its operations based on materiality principle and formulates relevant risk management policies or strategies as well. ( <a href="https://www.cht.com.tw/zh-tw/home/cht/sustainability/economic/risk-management">https://www.cht.com.tw/zh-tw/home/cht/sustainability/economic/risk-management</a> )	None
2. Has the Company established a CSR unit (full- or part-time), with a senior manager authorized by the Board of Directors to handle and report related activities to the Board of Directors?	V		1. The Company has designated a division to promote CSR with the responsibilities of establishing CSR policies, systems, and related management guidelines, and proposing, executing, and managing detailed operating plans. 2. All CSR related affairs are authorized by the Board of Directors to be handled by a senior manager, with operating status to be reported to the Board of Directors regularly. In addition, all the operating and implementation results are disclosed in the Company's annual report and on related websites.	None

Evaluation Criteria	Implementation Status			Deviations from the "Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies" and Rationale
	Yes	No	Explanation	
<p>3.Environment</p> <p>(1) Does the Company establish proper environmental management systems in line with its industry characteristics?</p>	V		<p>The Company has adopted an environmental management system based on the characteristics of the telecommunications industry:</p> <ol style="list-style-type: none"> <li>1. Environmental Sustainability Development Management System (EARTH) system: Enables the Company to manage its internal electricity use, water use, lighting equipment, recycling, tree planting, etc.</li> <li>2. Comprehensive green energy savings solution: Leverages an Intelligent Energy Network (iEN) and Power Operations Support System (POSS) to dynamically manage air conditioning energy utilization.</li> <li>3. Management system certification: <ul style="list-style-type: none"> <li>(1) ISO14001 Environmental Management System certification (Valid until 2020/12/24)</li> <li>(2) ISO50001 Energy Management System certification (Valid until 2021/08/20)</li> </ul> </li> </ol>	None
<p>(2) Is the Company committed to improving the utilization efficiency of various resources and using recycled materials with a low environmental footprint?</p>	V		<p>The Company has adopted a "5-Year Environmental Sustainability Development Strategy and Target Plan" and telecom facility energy savings plan, which include energy conservation and carbon reduction, green procurement, and environmental sustainability incentives.</p> <p>The Company intends to focus on achieving its goals of increasing resource utilization efficiency and reducing its environmental footprint.</p>	None
<p>(3) Does the Company evaluate the impact of climate change on the Company's current and future potential risks and opportunities, and adopt measures to respond to climate-related issues?</p>	V		<ol style="list-style-type: none"> <li>1. In 2008, the Company was the first telecom provider in Taiwan to initiate a comprehensive "Greenhouse Gases Inventory Plan".</li> <li>2. The Company has adopted and implemented a "5-Year Environmental Sustainability Development Strategy and Target Plan." It is a comprehensive plan for implementing energy saving initiatives for the work environment and facility offices, and also systematically manages power use, water use, lighting equipment, recycling, tree planting, etc.</li> <li>3. Since 2015, the Company has incorporated the issue of greenhouse gas reduction into risk management, continuously assessed the potential risks and opportunities of climate change, and proactively promoted energy conservation and carbon reduction, and replaced old, high-energy consumption equipment.</li> <li>4. In 2017, the Company joined the Carbon Disclosure Project (CDP)'s "Supply Chain Project" to carry out specific actions and work with suppliers towards low-carbon sustainability.</li> <li>5. In 2018, the Company became the 513th company in the world and the first telecom provider in Taiwan to sign and support the Task Force on Climate-Related Financial Disclosures (TCFD)'s initiatives.</li> </ol>	None

Evaluation Criteria	Implementation Status			Deviations from the "Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies" and Rationale																														
	Yes	No	Explanation																															
<p>(4) Does the company collect information on greenhouse gas emissions, water consumption, and total weight of waste in the past two years, and formulate policies on energy conservation and carbon reduction, greenhouse gas reduction, water usage reduction, or other waste management policies?</p>	V		<p style="text-align: right;">Unit : t-CO2e</p> <table border="1"> <thead> <tr> <th>Year</th> <th>2017</th> <th>2018</th> </tr> </thead> <tbody> <tr> <td>Direct Emissions (Scope 1)</td> <td>30,873.98</td> <td>30,469.89</td> </tr> <tr> <td>Indirect Emissions (Scope 2)</td> <td>802,113.48</td> <td>804,043.42</td> </tr> <tr> <td>Total Emissions (Scope 1+Scope 2)</td> <td>832,987.46</td> <td>834,513.31</td> </tr> </tbody> </table> <p style="text-align: right;">Unit: metric ton</p> <table border="1"> <thead> <tr> <th>Year</th> <th>2017</th> <th>2018</th> </tr> </thead> <tbody> <tr> <td>Tap Water Use</td> <td>776,377</td> <td>753,023</td> </tr> <tr> <td>Air-Conditioner Water Use</td> <td>1,742,680</td> <td>1,624,419</td> </tr> <tr> <td>Recycled Water</td> <td>7,614</td> <td>7,398</td> </tr> <tr> <td>Biological Waste</td> <td>4389</td> <td>3505</td> </tr> <tr> <td>Industrial Waste</td> <td>2,324</td> <td>2,988</td> </tr> </tbody> </table> <p>1. Management:            (1) Since 2008, the Company has implemented an annual "Greenhouse Gas Inventory Plan."            (2) Since 2015, the Company has incorporated the issue of greenhouse gas reduction into the risk management process, and continuously seeks to manage and control the issue.            (3) Utilizing the Company's own development management system EARTH for environmental sustainability to provide electronic documents and systematic management.</p> <p>2. Energy savings:            (1) The Company has adopted a "5-Year Environmental Sustainability Development Strategy and Target Plan" to proactively implement its energy saving and carbon reduction plan.            (2) Supplemented by a comprehensive "green" energy savings solution : Leverages an Intelligent Energy Network (iEN) and Power Operation Support System (POSS) to dynamically manage air conditioning energy utilization through an online system.            (3) Continuously replace old, high-energy consuming telecom-related equipment.</p> <p>3. Waste reduction:            Continue to promote consumer electronic billing and combined billing, water recycling and reuse, electronic document systems, etc.</p>	Year	2017	2018	Direct Emissions (Scope 1)	30,873.98	30,469.89	Indirect Emissions (Scope 2)	802,113.48	804,043.42	Total Emissions (Scope 1+Scope 2)	832,987.46	834,513.31	Year	2017	2018	Tap Water Use	776,377	753,023	Air-Conditioner Water Use	1,742,680	1,624,419	Recycled Water	7,614	7,398	Biological Waste	4389	3505	Industrial Waste	2,324	2,988	None
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<p>4. Social Responsibilities</p> <p>(1) Does the Company formulate appropriate management policies and procedures in accordance with relevant regulations and international human rights conventions?</p>	V		<p>1. The Company publicly supports and voluntarily follows standards including the United Nation's (UN) Universal Declaration of Human Rights (UDHR), the International Labor Organization Declaration on Fundamental Principles and Rights at Work, and the Global Compact.</p> <p>2. The Company publicly discloses human rights policies, adopts appropriate internal policies and procedures according to relevant regulations and the International Bill of Human Rights, and conducts an annual review and audit of relevant implementation activities.</p> <p>3. The Company is the only telecom provider in Taiwan with labor union that has signed a collective bargaining agreement with its employees, in accordance to the Labor Standards Act.</p> <p>4. The Company has surpassed the legal requirements in the employment of disadvantaged minority groups: in fiscal year 2019, the Company's headcount of employees with disabilities was about 3.74 times the number required by law.</p>	None																														

Evaluation Criteria	Implementation Status			Deviations from the "Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies" and Rationale
	Yes	No	Explanation	
(2) Does the company formulate and implement reasonable employee benefits (including compensation, vacation, and other benefits), and appropriately reflect operating performance or results in employee compensation?	V		<p>The Company establishes and implements reasonable employee benefits, including compensation, vacation, and other benefits, and appropriately reflects operating performance in employee compensation:</p> <ol style="list-style-type: none"> <li>1. The Company's Board of Directors has established Compensation Committee, which is responsible for compensation policies, practices, standards, and structures.</li> <li>2. Performance Appraisal: review results are used for salary, bonus, and other compensation considerations.</li> <li>3. Bonus distribution: based on a combination of corporate performance, fiscal year 2019 after-tax net profit, and employee performance.</li> </ol>	None
(3) Does the Company provide a safe and healthy working environment, and provide training on health and safety and health for its employees on a regular basis?	V		<ol style="list-style-type: none"> <li>1. Specialized teams and personnel: responsible for occupational safety and health management and implementation to promote a safe, healthy, comfortable, and friendly working environment.</li> <li>2. Chunghwa Telecommunication Training Institute: in charge of employee education, training, advocacy, and drills on topics related to safety and health.</li> <li>3. Physician and specialized nursing staff: provides on-site health related services.</li> <li>4. Medical checkups and Employee Assistance Programs (EAP): annual planning and implementation of various medical checkup plans; promote EAP to provide 1-on-1 professional consultation services. In fiscal year 2019, these services were used by 385 employees.</li> <li>5. In July 2006, the Company was the first in the telecom sector to offer paid parental leave.</li> <li>6. The Company offers family care leave, menstrual leave, miscarriage prevention leave, pre-natal examination leave, maternity leave, paternity leave, disease prevention childcare leave, on-site breastfeeding rooms etc.</li> </ol>	None
(4) Does the Company establish effective career development programs for its employees?	V		<ol style="list-style-type: none"> <li>1. Comprehensive occupational training program: includes management and 18 specialized occupational programs. Program content is continuously reviewed, expanded, and modified in order to better assist employee career development.</li> <li>2. The Company has established the concept of life-long learning and a supportive learning environment, leveraging e-learning systems to encourage all employees to learn and grow.</li> </ol>	None
(5) With respect to customer health and safety of products and services, customer privacy, marketing, and labeling, does the Company comply with relevant regulations and international standards, and formulate related consumer protection policies and appeal procedures?	V		<ol style="list-style-type: none"> <li>1. In accordance with the law, the Company has established a set of internal Corporate Marketing Standards, business rules, and service contracts. The Company implements the "Key Points for the Implementation of Mobile Broadband Business Service Quality Standards" to reach the four major categories of "Service Efficiency", "Customer Service Center", "Customer Complaint Processing", and "Accounting Services" that address a total of 25 service quality indicators to ensure consumer rights.</li> <li>2. The Company has a privacy policy, which is disclosed publicly: <a href="https://www.cht.com.tw/home/consumer/privacy">https://www.cht.com.tw/home/consumer/privacy</a></li> <li>3. To protect consumer privacy, the Company: <ol style="list-style-type: none"> <li>(1) Has adopted a management system in accordance with relevant regulations and standards;</li> <li>(2) Has designated a responsible department;</li> <li>(3) Classifies fundamental consumer information as "Highly Confidential" ;</li> <li>(4) Requires that all employees sign a "Business Confidentiality Agreement" , with direct supervisors bearing joint liability;</li> <li>(5) Has integrated privacy protection as part of employees' key performance indicators (KPIs) for performance reviews;</li> <li>(6) Has received international information security and individual privacy protection certification (such as ISO27001 and BS10012).</li> </ol> </li> <li>4. Products and services are designed to take into account of the impact of consumer overuse, and marketing material contains explanations on scope of use and other helpful reminders.</li> <li>5. To manage and ease concerns about Electromagnetic (EM) waves: <ol style="list-style-type: none"> <li>(1) Base stations comply with regulations and standards;</li> <li>(2) The public can apply for free professional measurement;</li> <li>(3) Taiwan Telecommunication Industry Development Association (TTIDA) is entrusted with touring the country to advocate for correct understanding.</li> </ol> </li> <li>6. Provides diverse customer service and appeal channels, including physical stores, a dedicated customer service line, and an online platform. The appeals filing and handling procedure has been standardized and has a target of providing satisfactory responses and resolutions within 3 business days.</li> <li>7. Conducts customer satisfaction surveys and improves service quality in a timely manner. Uses big data analysis to enhance products, services, and functionality.</li> </ol>	None

Evaluation Criteria	Implementation Status			Deviations from the "Corporate Governance Best-Practice Principles for TWSE/TPEX Listed Companies" and Rationale
	Yes	No	Explanation	
(6) Does the Company have a supplier management policy that requires suppliers to comply with and implement relevant regulations on issues such as environmental protection, occupational safety and health, or labor rights?	V		<p>1. Established the "Code of Corporate Social Responsibility for Suppliers of Chunghwa Telecom" and informed suppliers of CSR standards on ethics, labor, environment, and health and safety, and to jointly achieve the objectives of good ethical standards, respect for labor rights, and environmental sustainability.</p> <p>2. During purchase tenders, tenderers must review the "General Terms of Information on the Purchase Tender" and complete the "Basic Data and Review Form for Participating Tenderers" before participating in the tender. The tenderers self-disclose on corporate integrity, material sourcing, environmental safety, occupational safety, energy conservation and carbon reduction, and other topics, and agree to follow the Company's supplier social responsibility guidelines.</p> <p>3. Implementation:</p> <p>(1) Since 2010, the annual "Chunghwa Telecom Supplier Partner CSR Exchange" publicly recognizes outstanding CSR vendors and invites experts, scholars, and leading business representatives to share their implementation experiences to drive supply chain partners to move together toward a sustainable future.</p> <p>(2) Since 2011, suppliers with large procurement volumes or are highly influential have been required to fill out an online CSR status questionnaire and carry out a sustainability assessment. Gradually taking ESG (environmental, social, and corporate governance) into consideration during supply chain selection, the Company looks forward to working with suppliers to achieve good ethical standards, respect for labor rights of work, reach environmental sustainability goals, and more.</p> <p>(3) Since 2014, the Company has commissioned the external verification unit of SGS Taiwan to conduct a "Supplier Second Party Audit" for key suppliers. It is expected to construct a complete supply chain management mechanism through a two-pronged strategy of "understanding analysis" and "on-site visits."</p> <p>(4) Since 2016, annual supplier education and training visits have been conducted to emphasize the importance of environmental sustainability through on-site visits.</p> <p>(5) Since 2019, the "Supplier Sustainability Rating" mechanism has been launched, in order to establish a list of suppliers qualified for sustainability through ranking suppliers' ESG for internal use.</p>	None
5. Does the company refer to internationally accepted reporting standards or guidelines for compiling reports on non-financial information, such as CSR reports? Did the previous release reports obtain a confirmation or assurance opinion from a third party verifier?	V		<p>Each year, the Company creates its CSR report according to the latest version of the GRI Standards Core Option, Telecommunications Sector Supplement, and International Integrated Reporting &lt;IR&gt; Framework in both Chinese and English editions are created. In addition, SGS Taiwan verifies all content and data through a major review and assurance program, and assures its compliance with GRI Standards Core Option, AA 1000 AS (2008) Type 2 High Level Assurance, and International Integrated Reporting &lt;IR&gt; Framework. The certification statement can be found in the Company's CSR Annual Report.</p> <p>CSR Report Download: <a href="https://www.cht.com.tw/zh-tw/home/cht/sustainability/csr-report-download">https://www.cht.com.tw/zh-tw/home/cht/sustainability/csr-report-download</a></p>	None
6. If the Company has established the CSR principles based on "Corporate Social Responsibility Best-Practice Principles for TWSE/TPEX Listed Companies", please describe any discrepancy between the Principles and their implementation: No discrepancy found.				
7. Other important information to facilitate better understanding of the Company's CSR practices:				
<p>(1) Institutionalization of corporate volunteering</p> <p>Since 2019, the "2019-2021 Three-year Volunteering Plan" and "Measures for Volunteer Official Leave" have been approved and implemented accordingly.</p> <p>(2) The Company's mission of "Bridge digital divide" and "Create digital opportunities" are driving its services excellence, while encouraging "corporate volunteers" to actively participate in local community services, with detailed execution as listed below:</p> <p>A. Outpost Taiwan</p> <p>B. Digital Good Neighbors</p> <p>C. Chunghwa Telecom Eye Social Innovative Call Center</p> <p>D. Read with You - Community Network Tutoring</p> <p>E. Telecommunication Universal Services</p> <p>F. Optimization of Voice Assistant App for the Visually Impaired</p> <p>G. Social Inclusion"5I SDGs" initiatives: "I Helping, I Sharing, I Learning, I Technology and I Protecting"</p> <p>(3) Social Investment Statistics:</p> <p>Including cash donation and non-cash input conversion through commercial events, in-kind donation, corporate volunteering, charity short messages sending, free short-code services, preferential measures and convenient services for the disabled, totaling social investment of NT\$ 761 million in fiscal year 2019.</p>				

## 4.6 Ethical Corporate Management

Evaluation Criteria	Implementation Status			Deviations from "the Ethical Corporate Management Best-Practice Principles for TWSE/TPEX Listed Companies" and Reasons
	Yes	No	Explanation	
<p>1. Enactment of ethical corporate management policies and programs</p> <p>(1) Does the Company disclose its ethical corporate management policies and procedures in its official charter and material documents issued externally, as well as the commitment of the Board of Directors and management team to its implementation?</p>	V		<p>The Company has enacted the "Chunghwa Telecom Ethical Management Best Practice Principles." Its formulation and amendments were approved by the Board of Directors, reported to the shareholders' general meeting, and disclosed on MOPS as well as the Company's website. It clearly states that the Board of Directors, executive management, and employees shall comply with laws and regulations during execution of business operations that the Board and managers shall commit to proactively implement it, and to do so through internal management and external business activities.</p>	None
<p>(2) Has the Company established a mechanism to assess the risks of non-ethical conduct, regularly analyze and assess relatively high-risk non-ethical conduct and activities within its scope of business, and formulate policies to prevent unethical conduct, which at minimum covers measures to prevent the conduct mentioned in Article 7.2 of "the Ethical Corporate Management Best-Practice Principles for TWSE/TPEX Listed Companies"?</p>	V		<p>The Company has adopted the "Chunghwa Telecom Procedures for Ethical Management and Guidelines for Conduct," which the Company has implemented to provide measures for preventing unethical conduct, analyze relatively high-risk non-ethical conduct and activities within its scope of business, and strengthen relevant preventative measures.</p>	None
<p>(3) Do the Company's measures to prevent high-risk unethical misconduct clearly specify operating procedures, conduct guidelines, disciplinary and appeal mechanisms for violations? Are they implemented and are regularly reviewed for amendment?</p>	V		<p>The Company has enacted the "Chunghwa Telecom Ethical Management Best Practice Principles", which clearly specifies measures to prevent unethical conduct and include operating procedures, conduct guidelines, disciplinary and appeal systems for violations. The Company has implemented the measures and regularly reviews the plan for amendments.</p>	None
<p>2. Implementation of ethical corporate management</p> <p>(1) Does the Company evaluate business partners' ethical records and clearly indicate ethical conduct clauses in business contracts?</p>	V		<p>The Company conducts business activities based on the principles of fairness, honesty, trustworthiness and transparency. In order to implement ethical corporate management policies and proactively prevent unethical conduct, the Company has formulated the "Chunghwa Telecom Holdings Ltd Ethical Corporate Management Best Practice Principles" and "Chunghwa Telecom Holdings Ltd Procedures for Ethical Management and Guidelines for Conduct", which specifies the matters that employees should pay attention to when conducting business activities. In handling procurement case, the Company requires tenderers to declare that there is no record of unethical behavior and that it follows ethical business principles. If a supplier is found to engage in misconduct such as unethical behavior, sanctions are invoked such as contract termination or contract revocation, in accordance with the provisions of the contract.</p>	None

Evaluation Criteria	Implementation Status			Deviations from "the Ethical Corporate Management Best-Practice Principles for TWSE/TPEX Listed Companies" and Reasons
	Yes	No	Explanation	
(2) Has the Company established a dedicated unit to promote ethical corporate management under the Board of Directors, and regularly (at least once a year) report to the Board of Directors on its ethical corporate management policy, measures to prevent unethical conduct, and monitor implementation?	V		<p>1. The Company appointed the Human Resources Department to promote ethical management, which includes assisting the Board of Directors and Executive Management team in formulating and supervising the implementation of ethical management policy and codes of conduct, based on the work responsibilities and scope of each department. The department reported on the effects of policy implementation to the Board of Directors on November 13, 2019.</p> <p>2. The Company implemented the ethical management policy. Please see below for 2019 implementation details:</p> <p>(1) Education and Training In each training course, a series of training classes will be provided to employees, covering topics such as regulation, inspection, and risk management, etc., to help them learn basic legal knowledge, codes of conduct, ethical management principles and operating procedures, the total training hours are 52,113. Throughout the course, case studies are used to strengthen the conceptualization and implementation of prevention mechanisms in order to both manage and prevent dishonest behavior.</p> <p>(2) Law and Case Advocacy The Company's dedicated unit is committed to the education and promotion of all employees. In 2019, with the theme of "Strengthening Corporate Governance and Risk Control, and Establishing an Ethical Corporate Culture," the Company consolidated the ethical management principles, code of conduct, and processing standards for important internal information, using a digital learning platform to share case studies and publicize the matters that colleagues should pay attention to in day-to-day business.</p> <p>(3) Annual Test The Company conducted an online test for all employees from September 6 to October 5, 2019. The test covers the ethical management principles, ethical management operating procedures and behavior guidelines, the code of conduct, and obligations to maintain the company's confidential business matters.</p> <p>(4) Regular Inspection To prevent dishonest and unethical behavior while controlling fraud risks, the Company established an anti-fraud department to monitor and track the above behaviors. The Company implemented an anti-fraud plan for its subsidiaries, including advisory on business reform and corrections, reports of major situations, spot checks, and anti-fraud case studies. Based on the annual plan, the anti-fraud department collects all cases on monthly basis and then records, analyzes, and evaluates the performance, before evaluating the case through the internal control system, to ensure the overall operation and to prevent the occurrence of dishonest acts.</p> <p>(5) Reporting and Reporter Protection Rule</p> <ul style="list-style-type: none"> <li>Detailed reporting rules can be found within the Company's "Code of Corporate Governance," "Ethical Corporate Management Best Practice Principles," "Procedures for Ethical Management and Guidelines for Conduct," and "Code of Ethics." All the rules will be implemented actively to prevent any dishonest behaviors, in accordance with a system of checks and balances to investigate and discipline in the event of violations and employee complaints.</li> <li>The Company encourages both internal and external reporting on dishonest behavior and misconduct, and it assigns the Human Resources Department as the special unit responsible for accepting reports. The stakeholder section on the Company's website provides effective communication methods for employees, shareholders, stakeholders and external parties. In addition, the Company's website also includes contact information, including a special mailing address, email address, and phone number, for the Audit Committee, which accepts employee reports and complaints, and reports related to internal accounting and auditing. If a report involves the Board of Directors or senior executives, the case will be delivered and presented to an independent director.</li> <li>Detailed reporting and whistleblower protection rules can be found within the Company's "Code of Corporate Governance," "Ethical Corporate Management Best Practice Principles," "Procedures for Ethical Management and Guidelines for Conduct," "Code of Ethics," "Key Points for Employee Complaints Operation," and "Practicing Points for Practitioners Violating the Code of Ethics." The whistleblower's identity and personal information are kept confidential, and the Company vows to protect the whistleblower reporters from improper handling or retaliation.</li> <li>In 2019, the Company reviewed 25 cases, including 23 external reporting cases and 2 employee reporting cases. There were no major violations of ethical management.</li> </ul>	None
(3) Does the Company establish policies to prevent conflicts of interest, provide suitable channels to report such conflicts, and implement such policies?	V		The Company has a "Code of Ethics", and has established channels including a dedicated telephone line, fax, and e-mail for employees and external parties to report violations. It also conducts regular and irregular audits through its internal control system.	None

Evaluation Criteria	Implementation Status			Deviations from "the Ethical Corporate Management Best-Practice Principles for TWSE/TPEX Listed Companies" and Reasons
	Yes	No	Explanation	
(4) Has the Company established an effective accounting system and internal control system to facilitate ethical corporate management? Does its internal audit team provide risk assessment results and formulate audit plans related to unethical conduct, and audit compliance of non-ethical conduct measures, or does the Company engage external CPAs to implement such audits?	V		<ol style="list-style-type: none"> <li>The Company has established accounting policies and revise accounting policies in accordance with the amended regulations and International Financial Reporting Standards (IFRS), International Accounting Standards (IAS) endorsed and issued into effect by the Financial Supervisory Commission (FSC).</li> <li>The Company has established the control activities at entity level, with "Code of Conducts", which are amended according to changes of environment and regulations. No major violations of ethical standards are found by external audits this year.</li> <li>The audit plan for fiscal year 2019 was formulated in accordance with the Financial Supervisory Commission's "Regulations Governing Establishment of Internal Control Systems by Public Companies," the Company's "Internal Control System," and "Internal Audit Implementation Rules", and is based on assessment results that include risks such as unethical conduct. Content included audit target, scope, projects, frequency, etc., and audit results, including compliance with unethical conduct measures, and were provided in an audit report and submitted to the board of directors.</li> </ol>	None
(5) Does the Company regularly hold internal and external educational trainings on ethical corporate management?	V		<ol style="list-style-type: none"> <li>The Company organizes education and training and awareness programs on an annual basis, with online exams to be passed, in order to strengthen integrity and ethical standards. In 2019, all employees participated in digital learning programs "Code of Ethics" and "Ethical Corporate Management Best Practice Principles" with an online "Comprehensive Exam" requiring a score of 100 to indicate completion. The course and exam took a total of about 1 hour. All employees excluding those with reasonable exemptions (such as maternity leave, injury, or long-term sick leave) completed the exam, representing a 100% completion rate. The Company shall continue to enhance corporate management, risk controls, and an ethical corporate management culture for long-term sustainable corporate management.</li> <li>In 2019, the Company requested investee companies and supply partners to implement the Company's code of conduct, human rights policy, and anti-corruption policy and other commitment goals, and to convey to their respective employees the principles of strictly maintaining ethics and discipline.</li> </ol>	None
3. Reporting ethical violations (1) Has the Company formulated a concrete whistleblowing and incentive system, established a convenient whistleblowing channel, and assigned appropriate personnel to handle the cases of those who have reports raised against them?	V		<p>The Company has enacted "Operational Rules for Handling Cases in Violation of Code of Ethics" to handle violations of ethical corporate management rules, with the following reporting channels for internal and external use:</p> <ol style="list-style-type: none"> <li>Address: Room 503, No. 21-3, Sec.1 Hsinyi Rd, Taipei, 10048, R.O.C.</li> <li>Telephone: 0800-080998</li> <li>Fax: (02)23570007</li> <li>E-mail: chthr@cht.com.tw</li> </ol> <p>Cases are handled by a division of power and responsibilities, with designated personnel for processing.</p>	None
(2) Has the Company established standard operating procedures for handling whistleblowing claims and, after a complete investigation, follow-up measures and mechanisms related to maintaining confidentiality?	V		<ol style="list-style-type: none"> <li>The Company has established the "Implementation of the Violation of Code of Ethics Case Investigation and Handling Principles," which enacts active investigation, confidentiality, and disciplinary measures according to Company rules.</li> <li>After case investigation, follow-up measures to be taken are below: If evidence indicates that there were illegal activity or violations of regulations, violators with administrative responsibility will be handled according to regulations. For violators with legal responsibility, the Company will transfer the case to the prosecutor's office or file for a civil/criminal lawsuit, depending on the evidence presented.</li> </ol>	None
(3) Does the Company provide proper whistleblower protection?	V		<p>The Company has established the "Implementation of the Violation of Code of Ethics Case Investigation and Handling Principles" with objective, fair, confidential, and sensitive investigation procedures in order to protect whistleblowers from any improper treatment.</p>	None
4. Enhancing information disclosure Does the Company disclose its established ethical corporate management policies and promotion results on its website and MOPS?	V		<p>The Company has fully disclosed all ethical corporate management related content, status, and performance results on its official website and on MOPS.</p>	None
5. If the Company has established ethical corporate management policies based on the "Ethical Corporate Management Best-Practice Principles for TWSE/TPEX Listed Companies," please describe any discrepancies between the policies and their implementation: In order to establish an ethical corporate culture and business operations, the Company has reviewed extensively the "Ethical Corporate Management Best-Practice Principles for TWSE/TPEX Listed Companies" and has adopted the relevant principles for the Company to implement, with no discrepancies.				
6. Other important information to facilitate a better understanding of the Company's ethical corporate management practices: (e.g., review and amendment of the policies) (1) The Company has enacted the "Chunghwa Telecom Ethical Corporate Management Best Practice Principles" and implements a regular review process for any amendments to the principles, which includes consistently monitoring developments in domestic and international ethical corporate management standards, and by encouraging directors, management, and employees to share their recommendations, in order to improve the overall performance of corporate business ethics. (2) The Company has adopted the "Code of Corporate Social Responsibility for Suppliers of Chunghwa Telecom Co., Ltd.," which fully discloses its corporate ethical principles. In addition, these principles are communicated and emphasized in procurement bidding documents and the annual supplier partner exchange conference, so the suppliers have a clear understanding of the Company's ethical management policies and commitment to conduct business activities with integrity, transparency, and responsibilities. Furthermore, the Company expects the suppliers to adopt the "Ethical Corporate Management Best Practice Principles," or enact similar codes of ethics, with proper disclosure.				

## 4.7 Access to Corporate Governance Rules and Procedures

The Company has established the "Code of Corporate Governance for Chunghwa Telecom Co., Ltd.," which is available on the Company website at: Home > About CHT > Corporate Governance > Compliance (<https://www.cht.com.tw/en/home/cht/about-cht/corporate-governance/compliance>).

## 4.8 Other Important Information to Facilitate Better Understanding of the Company's Corporate Governance Practices

### (1) The Company's Material Information Disclosure Procedure.

The Company has enacted the "Chunghwa Telecom Insider Trading Prevention and Control" guideline, which clearly specifies material information disclosure procedures, insider trading management processes, and a requirement for strict compliance with all relevant rules and regulations of the TWSE/TPEX, in order to prohibit insider trading, any improper information disclosure, and to ensure accurate and timely disclosures. Below are key content categories:

- A. Target audience and scope of material information.
- B. Corporate confidentiality procedure.
- C. Designated responsible unit.
- D. The Company's material information disclosure procedure.

(2) In fiscal year 2019, the Company President undertook 12 hours of corporate governance related courses and training. In addition, some managers also participated in similar courses and training. In the future, the Company expects to continue such courses and training for senior executives and managers.

## 4.9 Internal Control Systems

### (1) Statement of Internal Control System

**Chunghwa Telecom Co., Ltd.**  
**Statement of Internal Control System**

Date : February 26, 2020

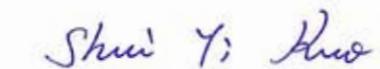
Based on the results of self-assessments, Chunghwa Telecom Co., Ltd. states the following with regard to its internal control system during the year 2019:

1. Our board of directors and management are responsible for establishing, implementing, and maintaining an adequate internal control system. Our internal control is a process designed to provide reasonable assurance over the effectiveness and efficiency of our operations (including profitability, performance and safeguarding of assets), reliability, timeliness, transparency of our reporting, and compliance with applicable rulings, laws and regulations.
2. An internal control system has inherent limitations. No matter how perfectly designed, an effective internal control system can provide only reasonable assurance of accomplishing its stated objectives. Moreover, the effectiveness of an internal control system may be subject to changes due to extenuating circumstances beyond our control. Nevertheless, our internal control system contains self-monitoring mechanisms, and we take immediate remedial actions in response to any identified deficiencies.
3. We evaluate the design and operating effectiveness of our internal control system based on the criteria provided in the Regulations Governing the Establishment of Internal Control Systems by Public Companies (herein below, the "Regulations"). The criteria adopted by the Regulations identify five key components of managerial internal control: (1) control environment, (2) risk assessment, (3) control activities, (4) information and communication, and (5) monitoring activities. Each component contains certain elements which stated in the Regulations.
4. We have evaluated the design and operating effectiveness of our internal control system according to the aforesaid Regulations.
5. Based on the results of such evaluation, we believe that, on December 31, 2019, we have maintained, in all material respects, an effective internal control system (that includes the supervision and management of our subsidiaries), to provide reasonable assurance over our operational effectiveness and efficiency, reliability, timeliness, transparency of reporting, and compliance with applicable rulings, laws and regulations.
6. This Statement is an integral part of our annual report for the year 2019 and prospectus, and will be made public. Any falsehood, concealment, or other illegality in the content made public will entail legal liability under Articles 20, 32, 171, and 174 of the Securities and Exchange Law.
7. This statement was approved by the board of directors in their meeting held on February 26, 2020, with none of the thirteen attending directors expressing dissenting opinions, and the remainder all affirming the content of this Statement.

Chunghwa Telecom Co., Ltd.



Chi-mau Sheih,  
Chairman and Chief Executive Officer



Shui-Yi Kuo,  
President

## (2) Auditor Review Report

The Company did not engage CPAs to conduct internal control audit in accordance to the "Regulations Governing Establishment of Internal Control Systems by Public Companies". However, as some of the Company's shares are also traded as American Depositary Shares on the New York Stock Exchange of the United States, which stipulates that internal controls system must comply with U.S. Sarbanes-Oxley Act. As a result, the Company has engaged qualified CPAs to audit the design and implementation of the internal control system, and no material weakness that may significantly impact financial reporting is discovered.

## 4.10 Any Penalties for Violations of Regulations or the Company's Internal Control Systems; Major Defects and the Status of Corrections of Internal Control Systems for Fiscal Year 2019 and Up To the Publication Date of This Annual Report

None.

## 4.11 Major Resolutions of Shareholders' Meetings and Board Meetings for Fiscal Year 2019 and Up To the Publication Date of This Annual Report

### (1) Major Resolutions and Execution Status of 2019 General Shareholders' Meeting

- A. The Company's 2018 business report and financial statements.
- B. The Company's 2018 earnings distribution status: for 2018 earnings distribution, cash dividend paid to the shareholders totaled NT\$34,745,603,075 (representing NT\$4.479 per share); July 31, 2019 is the ex-dividend date, August 28, 2019 is the dividend payment record date, all dividends have been paid.
- C. The Company amendment of Articles of Incorporation.  
**Status:** approved by Ministry of Economic Affairs on August 5, 2019, with proper registration and disclosure on the Company website.
- D. The amendment to the "Procedures for Acquisition or Disposal of Assets".  
**Status:** Disclosure on MOPS and the Company website on June 27, 2019.
- E. The amendment to the "Operational Procedures for Loaning Funds to Others".

**Status:** Disclosure on MOPS and the Company website on June 27, 2019.

- F. The amendment to the "Operational Procedures for Endorsements/Guarantees".

**Status:** Disclosure on MOPS and the Company website on June 27, 2019.

- G. The election of the Company's 9th term directors

#### Candidates elected:

Chi-Mau Sheih, Representative of the MOTC  
Shui-Yi Kuo, Representative of the MOTC  
Yu-Lin Huang, Representative of the MOTC  
Chin-Tsai Pan, Representative of the MOTC  
Sin-Hong Chen, Representative of the MOTC  
Ho-Ting Huang, Representative of the MOTC  
Shin-Yi Chang, Representative of the MOTC  
Hung-Yi Hsiao, Representative of the MOTC  
Lo-Yu Yen, Independent Director  
Yi-Chin Tu, Independent Director  
Yu-Fen Lin, Independent Director  
Chung-Chin Lu, Independent Director  
JenRan Chen, Independent Director

**Status:** approved by the Ministry of Economic Affairs on August 5, 2019, with proper registration and disclosure on the Company website.

- H. Release of restrictions on competitive activities on the directors of 9th Board of Directors on independent directors Lo-Yu Yen, JenRan Chen, Yu-Fen Lin, and director Shin-Yi Chang.

**Status:** Disclosure on MOPS on June 23, 2019.

- I. Shareholder propositions

#### ● Issues with 4G Communication

- 1) Chunghwa Telecom's mobile network has received several top honors and provides first-class network quality for its customers. This includes OpenSignal awarding Chunghwa Telecom the top awards for "Download Speed," "Video Experience," and "Upload Speed Experience" in the first half of 2019 and which were announced in June 2019. (Overall download rate-first: Chunghwa, 34.1 Mbps; second: FarEasTone, 26.7Mbps; third: Taiwan Mobile, 25.6 Mbps.)
- 2) In order to improve actual customer experience, the Company tracks customer complaint hot issues every week, and performs base station construction, inspection, optimization, and adjustment, as well as interference source elimination. Compared with the previous fiscal year (2018), the volume of various customer

complaints has been significantly reduced, including the number of voice interruptions, the number of complaints about voice, and the number of data complaints. The Company will continue to adhere to its "customer-centric" belief and strive for continuous improvements in network quality.

- 3) In response to the upcoming opening up of 5G licenses in Taiwan, the Company has organized a professional 5G-focused team to carry out various preparatory activities, including experimental networks, construction capabilities, frequency planning operations, etc., with the goal of launching 5G for Taiwanese businesses in 2020.

- **Responses to Issues Arising Due to the Implementation of the "Telecommunications Management Act"**

Because the purpose of the "Telecommunications Management Act" is to grow the telecommunications industry, encourage innovative services, and promote fair competition and telecommunications infrastructure, changes will include modifying the current license/permit system to a registration system and allowing domestic operators to provide services including domestic roaming, shared networks and frequency transfers, and lending or sharing mechanisms. The Company will leverage its competitive advantages and prudently respond to market competition.

## (2) Major Resolutions of Board Meetings

### A. The 16th meeting of the 8th Board of Directors on January 29, 2019:

- 1) The Company's condensed financial forecast of 2019
- 2) The Company's re-investment proposal in Internet Banking
- 3) The Company's telecommunication facilities in Nankang be relocated to a new site and co-located with a commercial building which will be constructed
- 4) The amendment to the Implementation Guidelines for Special Performance-based Bonus of Chunghwa Telecom
- 5) The distribution of one-time employee incentive bonus
- 6) The proposal to elect 13 directors (including 5 independent directors) at the 2019 Annual General Meeting

### B. The 17th meeting of the 8th Board of Directors on March 19, 2019:

- 1) The 2018 operational report and financial statement of the Company
- 2) The 2018 Internal Control Statement for the purpose of domestic regulatory and Sarbanes-Oxley Act compliance of the Company
- 3) The 2018 earnings distribution of the Company
- 4) The amendment to the Procedures for Acquisition or Disposal of Assets
- 5) The 2018 earning distribution for compensation to directors and employee
- 6) The date and agenda of 2019 Annual General Meeting
- 7) The amendment to the Article 2 of Incorporation of the Company
- 8) The amendment to the Powers and Duties Chart of Board of Directors (BOD) and the Management of the Company.
- 9) Mr. Kuo-Chiang Chung, Vice President of Legal Affairs, shall concurrently serve as the Company's head of Corporate Governance

### C. The 8th special meeting of the 8th Board of Directors on April 22, 2019:

- 1) **Election:**  
Supplementary election for the Chairman of the Company's 8th Board of Directors
- 2) **Discussion matters:**
  - The Company's CEO will be assumed by the new Chairman of the Company
  - The Company's monthly compensation for its new Chairman

### D. The 18th meeting of the 8th Board of Directors on May 8, 2019:

- 1) The amendment to partial articles of the Company's Procedures Governing Loaning of Funds and Procedures of Making Endorsements/Guarantees
- 2) The change to the Company's attesting CPA
- 3) The establishment of the Standard Operational Procedures for Responding to Requests from Directors of Chunghwa Telecom Co., Ltd.
- 4) The review and approval of the nominations for the Company's slate of candidates for the election of directors of the 9th term of Board of Directors
- 5) The nominations and the review for the Company's slate of candidates for the election of independent director of the 9th term of Board of Directors
- 6) The lift of restriction on the non-compete clauses for the Company's 9th term of directors

- 7) Personnel appointment and dismissal for the Company and its investee
- E. The 1st meeting of the 9th Board of Directors on June 24, 2019:**
- Election:**  
Elect the Chairman of the Company's 9th Board of Directors
- Discussion matter:**
- 1) The appointment for the Company's President
  - 2) The Company's CEO will be assumed by the new Chairman of the Company
  - 3) The appointment for the members of the Company's Compensation Committee
  - 4) Personnel Appointment for the Company's investee
- F. The 2nd meeting of the 9th Board of Directors on August 13, 2019:**
- 1) The Company's consolidated financial report for the second quarter of 2019
  - 2) The amendment to the Company's Segregation of Power between Board of Director and Management
  - 3) The amendment to partial articles of the Company's Code of Corporate Governance
  - 4) To formulate the Company's Rules for Performance Assessment of its Board of Directors
  - 5) The amendment to the Company's "Implementation Guidelines for Special Performance-based Bonus "
  - 6) To procure 2019 MOD Set-Top-Box from the Company's affiliated company
  - 7) Personnel appointment for the Company and its investee
- G. The 1st special meeting of the 9th Board of Directors on September 18, 2019**  
The Company to participate in the 5G license auction
- H. The 3rd meeting of the 9th Board of Directors on November 13, 2019**
- 1) The Company's 2020 Audit Plan
  - 2) The Company and the Taoyuan Municipal Government signed a land use zoning change agreement on No. 325, Dong-Liao Section, Zhongli District, Taoyuan City
  - 3) Salary increase for the Company's employees
- I. The 4th meeting of the 9th Board of Directors on December 17, 2019:**
- 1) The Company's business operation plan (including budget) for year 2020
- 2) Personnel Appointment for the Company's investee
- J. The 2nd special meeting of the 9th Board of Directors on January 8, 2020:**  
The Company to buy shares of International Integrated Systems, Inc. from Institute for Information Industry
- K. The 5th meeting of the 9th Board of Directors on January 21, 2020**
- 1) The Company's condensed financial forecast of 2020 and the amendment to the Company's 2020 business operation plan (including budget)
  - 2) The Company's 2020 short-term line of credit
- L. The 6th meeting of the 9th Board of Directors on February 26, 2020**
- 1) The Company's 2019 earnings distribution for compensation to directors and employees
  - 2) The Company's 2019 operational report and financial statements
  - 3) The 2019 Internal Control Statement for the purpose of domestic regulatory and Sarbanes-Oxley Act compliance of the Company
  - 4) The Company's 2019 earnings distribution
  - 5) The amendment to Article 2 of the Company's Articles of Incorporation
  - 6) The amendment to partial articles of the Company's Code of Corporate Governance
  - 7) The amendment to partial articles of the Company's Meeting Rules of Order of the Board of Directors
  - 8) The amendment to partial articles of the Company's Organizational Regulations for Audit Committee
  - 9) The amendment to the Company's Segregation of Power between Board of Directors and Management
  - 10) To convene the Company's 2020 Annual General Meeting at its Training Institute on May 29th, 2020
  - 11) The lift of restriction on the non-compete clauses for the Company's directors
  - 12) Personnel appointment for the Company's investee
- 4.12 Major Dissenting Comments Among Directors Over Board Meeting Resolutions for Fiscal Year 2019 and Up To the Publication Date of This Annual Repo**
- None.

#### 4.13 Resignation/Dismissal of Key Officers (including Chairman, President, Accounting Manager, Financial Manager, Internal Auditor, and R&D Manager) for Fiscal Year 2019 and Up To the Publication Date of This Annual Report

As of February 29, 2020

Position	Name	Date of Appointment	Termination Date	Reason for Resignation or Dismissal
Chairman	Cheng Yu	December 15, 2016	April 22, 2019	Resignation
President	Chi-Mau Sheih	January 4, 2017	May 8, 2019 (Note)	Job Transfer
Internal Auditor	Fu-Kuei Chung	September 30, 2017	June 30, 2019	Retirement

Note: The Company Chairman Chi-Mau Sheih succeeded as Chairman and retained his position as President on April 22, 2019 and was dismissed as President on May 8, 2019.

## 5. Certified Public Accountant, or CPA, Professional Fees

Accounting Firm	Name of CPA	Audit Period	Remarks
Deloitte & Touche	Dien-Sheng Chang and Ching-Pin Shih	January 1 ~ December 31, 2019	-

#### CPA Professional Fee Range

Unit: NT\$'000

Fee Range	Fee Items	Audit Fee	Non-audit Fee	Total
1	Under NT\$ 2,000,000	-	-	-
2	NT\$2,000,000 - NT\$4,000,000	-	-	-
3	NT\$4,000,000 - NT\$6,000,000	-	-	-
4	NT\$6,000,000 - NT\$8,000,000	-	-	-
5	NT\$8,000,000 - NT\$10,000,000	-	-	-
6	Over NT\$10,000,000	27,572	95	27,667

#### 5.1 If non-audit fees paid to CPAs, their accounting firm and its affiliates are more than one-fourth of total audit fees, specify the amount of audit and non-audit fees, as well as the scope of non-audit services

Not applicable.

#### 5.2 If the audit fees of the year in which the Company changes CPA firm is lower than that of the prior year, specify the amount of audit fee before and after, the fee reduction percentage, and the reasons

Not applicable as the Company did not change CPA firm in 2019.

#### 5.3 If the audit fee dropped year on year by more than 15%, specify the amount, percentage, and reasons for the reduction

The audit fee in 2019 for the Company was NT\$27.572 million, representing a increase of 2.2% compared to previous year.

## 6. Change of Certified Public Accountant

### (1) Former CPAs

Date of change	Approved by Board of Directors on May 8, 2019		
Reasons and Explanation of Changes	In compliance with the Sarbanes-Oxley Act of 2002, Section 203 in the United of States and internal CPA rotation mechanism of the accounting firm, the engagement partners Hung-Peng Lin and Ching-Pin Shih were replaced by Dien-Sheng Chang and Ching-Pin Shih starting from 2019.		
State whether the Appointment is Terminated or Rejected by the Consignor or CPAs	Status	Client	Consignor
	Appointment terminated automatically		Not applicable
	Appointment rejected (discontinued)		Not applicable
The Opinions other than Unmodified Opinion Issued in the Last Two Years and the Reasons for the Said Opinions	Not applicable		
Is there any disagreement in opinion with the issuer	Yes	-	Accounting principle or practice
		-	Disclosure of financial statements
		-	Auditing scope or procedures
		-	Others
	No	V	
	Explanation	-	
Supplementary Disclosure (Disclosures Specified in Article 10.6.1.4-7 of the Standards)	None		

### (2) Successor CPAs

Accounting Firm	Deloitte & Touche
CPA	Dien-Sheng Chang CPA, Ching-Pin Shih CPA
Date of Engagement	Approved by Board of Directors on May 8, 2019
Prior to the Formal Engagement, Any Inquiry or Consultation on the Accounting Treatment or Accounting Principles for Specific Transactions, and the Type of Audit Opinion that Might be Rendered on the Financial Report	Not applicable
Written Opinions from the Successor CPAs that are Different from the Former CPA's Opinions	Not applicable

### (3) The Reply of Former CPAs on Article 10.6.1 and Article 10.6.2.3 of the Standards:

Not applicable.

## 7. Audit Independence for the Most Recent Year

None.

## 8. Shareholding Changes of Directors, Supervisors, Management, and Major Shareholders with Shareholding of 10% and more for the most recent year and up to the Publication Date of this Annual Report

### 8.1 Shareholding Changes of directors, managers and major shareholders

Title	Name	2019		As of February 29, 2020	
		Shares Increase (Decrease)	Pledged Shares Increase (Decrease)	Shares Increase (Decrease)	Pledged Shares Increase (Decrease)
Major Shareholder & Director	MOTC (Note 1)	0	0	0	0
Chairman, Chief Executive Officer and Director	Chi-Mau Sheih (Succeeded on April 22, 2019) (Note 2)	0	0	0	0
Chairman, Chief Executive Officer and Director	Yu Cheng (Dismissed on April 21, 2019) (Note 2)	0	0	0	0
Director	Shui-Yi Kuo (Succeeded on April 26, 2019) (Note 2)	0	0	0	0
Director	Yu-Lin Huang (Succeeded on February 13, 2019) (Note 2)	0	0	0	0
Director	Chen-Yuan Chang (Dismissed on January 22, 2019) (Note 2)	0	0	0	0
Director	Shin-Yi Chang (Succeeded on June 21, 2019) (Note 2)	0	0	0	0
Director	Mu-Han Wang (Dismissed on June 20, 2019) (Note 2)	0	0	0	0
Director	Ho-Ting Huang (Succeeded on June 21, 2019; Dismissed on September 15, 2019) (Note 2)	0	0	0	0
Director	Lien-Chuan Lee (Succeeded on September 16, 2019) (Note 2)	0	0	0	0
Director	Wei-Ming Chang (Dismissed on June 20, 2019) (Note 2)	0	0	0	0
Director	Sin-Hong Chen (Succeeded on June 21, 2019) (Note 2)	0	0	0	0
Director	Yi-Bing Lin (Dismissed on June 20, 2019) (Note 2)	0	0	0	0
Director	Hung-Yi Hsiao (Succeeded on June 21, 2019) (Note 2)	0	0	0	0
Director	Yih-Yu Lei (Dismissed on June 20, 2019) (Note 2)	0	0	0	0
Director	Chin-Tsai Pan (Note 2)	0	0	0	0
Independent Director	Kuo-Long Wu (Dismissed on June 20, 2019)	0	0	0	0
Independent Director	Lo-Yu Yen	0	0	0	0
Independent Director	JenRan Chen	0	0	0	0
Independent Director	Yu-Fen Lin	0	0	0	0
Independent Director	Chung-Chin Lu	0	0	0	0
Independent Director	Yi-Chin Tu (Succeeded on June 21, 2019)	0	0	0	0
President	Chi-Mau Sheih (dismissed on May 8, 2019)	0	0	0	0
President	Shui-Yi Kuo (succeeded on May 8, 2019)	0	0	0	0
Senior Executive Vice President	Kuo-Feng Lin	0	0	0	0
Senior Executive Vice President	Hong-Chan Ma	0	0	0	0

Title	Name	2019		As of February 29, 2020	
		Shares Increase (Decrease)	Pledged Shares Increase (Decrease)	Shares Increase (Decrease)	Pledged Shares Increase (Decrease)
Senior Executive Vice President	Tian-Tsair Su (dismissed on August 22, 2019)	0	0	0	0
Senior Executive Vice President	Chau-Young Lin (succeeded on August 22, 2019)	0	0	0	0
Vice President	Mei-Hui Chu (dismissed on January 1, 2019)	0	0	0	0
Vice President	Kuo-Chiang Chung (succeeded on January 2, 2019)	0	0	0	0
Vice President	Shu-Ling Chen	0	0	0	0
Vice President	Shih-Chung Chang	0	0	0	0
Vice President	Shih-Chang Hung (dismissed on February 28, 2019)	0	0	0	0
Vice President	Shih-Mo Leu (succeeded on September 17, 2019)	0	0	0	0
Vice President	Hui-Fen Tsai (dismissed on June 30, 2019)	0	0	0	0
Vice President	Chun-Te Lee (succeeded on July 18, 2019)	0	0	0	0
Vice President	Ming-Fang Li (dismissed on January 1, 2019)	0	0	0	0
Vice President	Wen-Wang Tseng	0	0	0	0
Vice President	Jeu-Yih Jeng	0	0	0	0
Vice President	Yao-Kun Chou (dismissed on January 1, 2020)	0	0	0	0
Vice President	Chung-Yung Kang (succeeded on January 2, 2020)	0	0	0	0
Vice President	Ruey-Shu Chiu	0	0	0	0
Vice President	Rong-Yih Chen (succeeded on January 2, 2019)	0	0	0	0
Vice President	Wu-Sung Kao	0	0	0	0
Assistant Vice President	Ru-Kuen Lee (succeeded on January 2, 2019)	0	0	0	0
Assistant Vice President	Ya-Chien Hsueh (succeeded on January 29, 2019)	0	0	0	0
Assistant Vice President	Lii-Jia Guo	0	0	0	0
Assistant Vice President	Fu-Fu Shen	(8,000)	0	(2,000)	0
Assistant Vice President	Yuan-Kai Chen	0	0	0	0
Assistant Vice President	Ze-Run Liu (succeeded on September 17, 2019)	0	0	0	0
Assistant Vice President	Chi-Hsien Huang	0	0	0	0
Assistant Vice President	Wei-Chiao Wu (dismissed on February 28, 2019)	0	0	0	0
Assistant Vice President	Chih-Hsiung Huang	0	0	0	0
Assistant Vice President	Petrina Chong	0	0	0	0
Assistant Vice President	Vincent Chen	0	0	0	0
Assistant Vice President	Timothy Horng	0	0	0	0
Assistant Vice President	Wen-Ming Chuang	0	0	0	0

Title	Name	2019		As of February 29, 2020	
		Shares Increase (Decrease)	Pledged Shares Increase (Decrease)	Shares Increase (Decrease)	Pledged Shares Increase (Decrease)
Assistant Vice President	I-Fang Wu	(9,000)	0	(9,000)	0
Assistant Vice President	Shu-Ling Chen	0	0	0	0
Assistant Vice President	Hui-Chen Wei	0	0	0	0
Assistant Vice President	Ching-Hsu Wang (succeeded on May 1, 2019)	0	0	0	0
Assistant Vice President	Yeh-Chin Ho (succeeded on August 27, 2019)	0	0	0	0
President of Business Group	Yuan-Kuang Tu	0	0	0	0
Vice President of Business Group	Chih-Chin Yu (dismissed on January 1, 2020)	0	0	0	0
Vice President of Business Group	Zhi-Cheng Luo (succeeded on January 1, 2020)	0	0	0	0
Vice President of Business Group	Wen-Chiyh Lin (succeeded on January 2, 2019)	0	0	0	0
President of Branch	Hui-Pao Huang (dismissed on January 1, 2020)	0	0	0	0
President of Branch	Jason Hsu (succeeded on January 1, 2020)	0	0	0	0
Vice President of Branch	Kuan-Chun Hsieh	0	0	0	0
Vice President of Branch	Chyi-Tian Chiou	0	0	0	0
Vice President of Branch	Shih-Chieh Chang (succeeded on February 10, 2020)	0	0	0	0
President of Branch	Hung-Chao Tang	0	0	0	0
Vice President of Branch	Ching-Wan Hu (dismissed on June 30, 2019)	0	0	0	0
Vice President of Branch	Pen-Yuang Chang	0	0	0	0
Vice President of Branch	Chen-Chien Su	0	0	0	0
President of Branch	Jinun-Jye Lee	0	0	0	0
Vice President of Branch	Bi-Lian Liu (succeeded on July 10, 2019)	0	0	0	0
President of Branch	Nien-Yee Liu	0	0	0	0
Vice President of Branch	Mao-Hsing Lin	0	0	0	0
President of Branch	Jing-Ming Chen (succeeded on January 1, 2020)	0	0	0	0
Vice President of Branch	Victoria Liao	0	0	0	0
President of Branch	Sheng-Haun Chang	0	0	0	0
Vice President of Branch	Hung-Hsing Chen	0	0	0	0
President of Branch	Jimmy Shih	0	0	0	0
Vice President of Branch	Lai-Ding Chen (dismissed on February 1, 2019)	0	0	0	0
Vice President of Branch	Ling Chao (succeeded on March 15, 2019)	0	0	0	0
President of Branch	Hung-Liang Yin	0	0	0	0
Vice President of Branch	Karen Chin (dismissed on August 12, 2019)	0	0	0	0

Title	Name	2019		As of February 29, 2020	
		Shares Increase (Decrease)	Pledged Shares Increase (Decrease)	Shares Increase (Decrease)	Pledged Shares Increase (Decrease)
Vice President of Branch	Shi-Zu Liu (succeeded on September 11, 2019)	0	0	0	0
President of Business Group	I-Feng Chang (succeeded on August 22, 2019)	0	0	0	0
Vice President of Business Group	Fu-Tsai Chiang (dismissed on June 30, 2019)	0	0	0	0
Vice President of Business Group	Chin-Chun Chang Chien	0	0	0	0
Vice President of Business Group	Kuan-Hsiung Liang	0	0	0	0
Vice President of Business Group	Huang-Long Hong (succeeded on August 14, 2019)	0	0	0	0
President of Branch	Chio-Fu Lai	0	0	0	0
Vice President of Branch	Chia-Hsin Li (succeeded on April 23, 2019)	0	0	0	0
President of Branch	Chin-Tu Lin	0	0	0	0
Vice President of Branch	Tsai-Chen Lan	0	0	0	0
President of Branch	Wen-Tu Chang (succeeded on August 14, 2019)	0	0	0	0
Vice President of Branch	Yi-Mao Lin (succeeded on November 8, 2019)	0	0	0	0
President of Branch	Ching-Chuan Wang	0	0	0	0
Vice President of Branch	Chaw-Chia Chang	0	0	0	0
Vice President of Branch	Adorn Yeh	0	0	0	0
Vice President of Branch	Yu-Chen Tsai (succeeded on May 16, 2019)	(6,000)	0	(13,000)	0
President of Branch	Ker-Chih Hwang	0	0	0	0
Vice President of Branch	Ching-Hsi Wu (dismissed on January 1, 2019)	0	0	0	0
Vice President of Branch	Jung-Huang Huang (succeeded on January 16, 2019)	0	0	0	0
Vice President of Branch	Gwo-Shyan Wu (dismissed on June 30, 2019)	0	0	0	0
Vice President of Branch	Rong-Shuen Huang (succeeded on January 18, 2019)	0	0	0	0
President of Branch	Pao-Shan Hung (dismissed on January 1, 2019)	0	0	0	0
President of Branch	Yeong-Jienn Maw	0	0	0	0
Vice President of Branch	Kuo-Ching Tien (dismissed on January 1, 2019)	0	0	0	0
Vice President of Branch	Zhong-Xing Yan (succeeded on August 16, 2019)	0	0	0	0
President of Branch	Ru-Dar Yang (dismissed on November 13, 2019)	0	0	0	0
President of Branch	Hsi-Sheng Cheng (succeeded on November 13, 2019)	0	0	0	0
President of Branch	Tang Chang (succeeded on April 23, 2019)	0	0	0	0
Vice President of Branch	Chung-Ta Hsieh (succeeded on February 26, 2020)	0	0	0	0
President of Business Group	Hsiu-Gu Huang (dismissed on January 1, 2019)	0	0	0	0
President of Business Group	Li-Show Wu (succeeded on January 1, 2019)	0	0	0	0

Title	Name	2019		As of February 29, 2020	
		Shares Increase (Decrease)	Pledged Shares Increase (Decrease)	Shares Increase (Decrease)	Pledged Shares Increase (Decrease)
Vice President of Business Group	Ru-Bin Sun (succeeded on April 12, 2019)	0	0	0	0
Vice President of Business Group	Hui-Fen Lin	0	0	0	0
President of Business Group	Ming-Shih Chen	0	0	0	0
Vice President of Business Group	Hsueh-Hai Hu	0	0	0	0
Vice President of Business Group	Chih-Chang Kuo (dismissed on September 6, 2019)	0	0	0	0
Assistant Vice President of Business Group	Zhong-Yong Jia (succeeded on August 21, 2019)	0	0	1,000	0
President of Branch	Wen-Cheng Chen (dismissed on January 1, 2019)	0	0	0	0
President of Branch	Kuo-Chi Huang (succeeded on January 1, 2019)	0	0	0	0
Vice President of Branch	Jung-Chin Kung	0	0	0	0
President of Branch	Chin-Kun Lin	0	0	0	0
Vice President of Branch	Ching-Chuan Wang	0	0	0	0
President of Branch	Jen-Shang Lin (succeeded on January 11, 2019)	0	0	0	0
Vice President of Branch	Der-Shing Rau	0	0	0	0
Vice President of Branch	De-Ming Chen (succeeded on September 10, 2019)	0	0	0	0
President of Business Group	Hsueh-Lan Wu	0	0	0	0
President of Business Group	Rong-Shy Lin	0	0	0	0
Vice President of Business Group	Min-Gume Cheng (dismissed on June 30, 2019)	0	0	0	0
Vice President of Business Group	Ting-Ming Lin (succeeded on July 5, 2019)	0	0	0	0
Vice President of Business Group	Quen-Zong Wu	0	0	0	0
Vice President of Telecommunication Laboratories	Jung-Kuei Chen	0	0	0	0
Vice President of Telecommunication Laboratories	Hey-Chyi Young	0	0	0	0
President of Telecommunication Training Institute	Wei-Kuo Hong	0	0	0	0
Vice President of Telecommunication Training Institute	Hong-Bin Chiou (succeeded on January 14, 2019)	0	0	0	0

Note1: Major shareholders with 10% and more shareholding of the Company

Note2: Representatives of MOTC

## 8.2 Stock Trade with Related Party

None.

## 8.3 Stock Pledge with Related Party

None.

## 9. Relationship among the Top Ten Shareholders

Record Date: July 27, 2019

Name	Current Shareholding		Spouses' and Minors' Shareholding		Shareholding by Nominee Arrangement		Name and Relationship Between the Company's Top Ten Shareholders, or Spouses or Relatives Within Two Degrees		Remarks
	Shares	%	Shares	%	Shares	%	Name	Relationship	
Ministry of Transportation and Communications	2,737,718,976	35.29%	NA	NA	NA	NA	Chunghwa Post	MOTC owns 100%	
Representative of MOTC Chia-Lung Lin	0	0%	0	0%	0	0%	None	None	
Shin Kong Life Insurance Co., Ltd	579,803,184	7.47%	NA	NA	NA	NA	None	None	
Representative of Shin Kong Life Tung-Chin Wu	0	0%	0	0%	0	0%	None	None	
CTBC Bank Trust Account - CHT Employee Stock Ownership Trust Plan	320,789,789	4.14%	NA	NA	NA	NA	None	None	
JP Morgan Chase Bank, N.A., acting as depository and representative of CHT ADRS	233,908,370	3.02%	NA	NA	NA	NA	None	None	
Chunghwa Post Co., Ltd.	143,468,719	1.85%	NA	NA	NA	NA	MOTC	The only shareholder of Chunghwa Post	
Representative of Chunghwa Post Hong-Mo Wu	0	0%	0	0%	0	0%	None	None	
Cathay Life Insurance Co., Ltd.	122,849,848	1.58%	NA	NA	NA	NA	None	None	
Representative of Cathay Life Insurance Tiao-Kuei Huang	7,272	0.00009%	0	0%	0	0%	None	None	
Labor Insurance Fund, R.O.C.	121,702,644	1.57%	NA	NA	NA	NA	None	None	
Labor Pension Fund of the New Labor Pension System, R.O.C.	116,274,500	1.50%	NA	NA	NA	NA	None	None	
Fubon Life Insurance Co., Ltd.	88,518,087	1.14%	NA	NA	NA	NA	None	None	
Representative of Fubon Life Insurance Richard M. Tsai	0	0%	0	0%	0	0%	None	None	
Taiwan Life Insurance Co., Ltd.	82,612,000	1.06%	NA	NA	NA	NA	None	None	
Representative of Taiwan Life Insurance Su-Kuo Huang	0	0%	0	0%	0	0%	None	None	

## 10. Comprehensive Shareholding Information Relating to Company, Directors, Management, and Companies Affiliated through Direct and Indirect Investment

Unit: Share, %

Affiliated Companies (Note)	Investments of the Company		Direct or Indirect Investments		Total Investments	
	Shares	%	Shares	%	Shares	%
Prime Asia Investments Group Ltd. (B.V.I.) ("Prime Asia")	1,301	100%	-	-	1,301	100%
CHYP Multimedia Marketing & Communications Co., Ltd. ("CHYP")	15,000,000	100%	-	-	15,000,000	100%
Donghwa Telecom Co., Ltd. ("DHT")	402,590,005	100%	-	-	402,590,005	100%
Chunghwa Telecom Global, Inc. ("CHTG")	6,000,000	100%	-	-	6,000,000	100%
Chunghwa System Integration Co., Ltd. ("CHSI")	60,000,000	100%	-	-	60,000,000	100%
Light Era Development Co., Ltd. ("LED")	300,000,000	100%	-	-	300,000,000	100%
Chunghwa Telecom Singapore Pte., Ltd. ("CHTS")	26,382,976	100%	-	-	26,382,976	100%
Chunghwa Telecom Japan Co., Ltd. ("CHTJ")	1,000	100%	-	-	1,000	100%
Chunghwa Telecom Vietnam Co., Ltd. ("CHTV")	-	100%	-	-	-	100%
Honghwa International Co., Ltd. ("HHI")	18,000,000	100%	-	-	18,000,000	100%
Chunghwa Telecom (Thailand) Co., Ltd. ("CHTT")	1,300,000	100%	-	-	1,300,000	100%
Chunghwa Investment Co., Ltd. ("CHI")	68,085,000	89%	-	-	68,085,000	89%
CHT Security Co., Ltd. ("CHTSC")	24,000,000	80%	-	-	24,000,000	80%
Chunghwa Leading Photonics Tech. Co., Ltd. ("CLPT")	7,050,000	75%	-	-	7,050,000	75%
Smartfun Digital Co., Ltd. ("SFD")	6,500,000	65%	-	-	6,500,000	65%
CHIEF Telecom Inc. ("CHIEF")	39,425,803	57%	2,078,000	3%	41,503,803	60%
Spring House Entertainment Tech. Inc. ("SHE")	8,250,731	56%	-	-	8,250,731	56%
Chunghwa Sochamp Technology Inc. ("CHST")	2,040,000	51%	-	-	2,040,000	51%
Senao International Co., Ltd. ("SENAO")	71,773,155	28%	1,001,000	0%	72,774,155	28%
CHUNGHWA PCHOME FUND I CO., LTD.	20,000,000	50%	-	-	20,000,000	50%
Cornerstone Ventures Co., Ltd.	490,000	49%	-	-	490,000	49%
Next Commercial Bank	419,000,000	42%	-	-	419,000,000	42%
Taiwan International Standard Electronics Co., Ltd. ("TISE")	1,760,000	40%	-	-	1,760,000	40%
International Integrated System, Inc. ("IISI")	22,498,442	31%	-	-	22,498,442	31%
KKBOX Taiwan Co., Ltd. ("KKBOX TW")	4,438,286	30%	-	-	4,438,286	30%
So-net Entertainment Taiwan Limited ("So-net")	9,429,000	30%	-	-	9,429,000	30%
Viettel-CHT Co., Ltd. ("Viettel-CHT")	-	30%	-	-	-	30%
Taiwan International Ports Logistics Corporation ("TIPL")	8,000,000	27%	-	-	8,000,000	27%
KingwayTek Technology Co., Ltd. ("KWT")	7,898,007	23%	-	-	7,898,007	23%
Taiwan International Ports Logistics Corporation ("TIPL")	8,000,000	27%	-	-	8,000,000	27%
UUPON Inc. ("UUPON")	5,400,000	15%	2,400,000	7%	7,800,000	22%
Alliance Digital Tech Co., Ltd. ("ADT")	6,000,000	14%	-	-	6,000,000	14%

Note: Investment accounted for using equity-method.

## Appendix A

### Directors' Continuing Education Records for fiscal year 2019

Title	Name	Appointment Date	Training Period		Organizer	Course Name	Training Hours	In Compliance with Regulations? (Note 1)
			From	To				
Representative of Juristic Person Director (Chairman & CEO)	Chi-Mau Sheih	June 21, 2019	May 8, 2019	May 8, 2019	Taiwan Corporate Governance Association	The Development and Interpretation of Electronic Payments	6	Y (Note 2)
			August 13, 2019	August 13, 2019		Future Trends in AI and IoT		
Representative of Juristic Person Director (President)	Shui-Yi Kuo	June 21, 2019	May 8, 2019	May 8, 2019	Taiwan Corporate Governance Association	The Development and Interpretation of Electronic Payments	12	Y
			August 13, 2019	August 13, 2019		Future Trends in AI and IoT		
			September 24, 2019	September 24, 2019		Legal Matters that the Company's Board of Directors Should Understand When Conducting Their Duties and Supervising the Company: Take Care Not to Cross the Red Line of "Concerted Action"		
			October 22, 2019	October 22, 2019		Board Member Duties in Corporate Mergers and Acquisitions		
Representative of Juristic Person Director	Yu-Lin Huang	June 21, 2019	May 8, 2019	May 8, 2019	Taiwan Corporate Governance Association	The Development and Interpretation of Electronic Payments	6	N
			August 13, 2019	August 13, 2019		Future Trends in AI and IoT		
Representative of Juristic Person Director	Lien-Chuan Lee	September 16, 2019	November 5, 2019	November 5, 2019	Taiwan Corporate Governance Association	Human Resources Strategy of Corporate M&A from the Perspective of Directors and Supervisors	12	Y
			November 12, 2019	November 12, 2019		The Impact of the Latest Changes in International Tax Law on Enterprises and Corresponding Solutions		
			November 19, 2019	November 19, 2019		Behind the Scenes Promoter of Corporate Governance: Corporate Governance Staff Operating Best Practices		
			December 3, 2019	December 3, 2019		Analysis of Top Ten Global Risks		
Representative of Juristic Person Director	Shin-Yi Chang	June 21, 2019	August 13, 2019	August 13, 2019	Taiwan Corporate Governance Association	Future Trends in AI and IoT	21	Y
			September 6, 2019	September 6, 2019		Trends and Risk Management for Digital Technology and Artificial Intelligence		
			September 17, 2019	September 17, 2019		Best Practices for Director Corporate Leadership in a Rapidly Changing Technology Environment		
			November 1, 2019	November 1, 2019		Key Audit Matters and Best Practices that the Board of Directors Should Understand		
			November 19, 2019	November 19, 2019		Behind the Scenes Promoter of Corporate Governance: Corporate Governance Staff Operating Best Practices		
			November 27, 2019 (Full Day)	November 27, 2019 (Full Day)		Corporate Governance Summit Forum		

Title	Name	Appointment Date	Training Period		Organizer	Course Name	Training Hours	In Compliance with Regulations? (Note 1)
			From	To				
Representative of Juristic Person Director	Sin-Horng Chen	June 21, 2019	August 13, 2019	August 13, 2019	Taiwan Corporate Governance Association	Future Trends in AI and IoT	12	Y
			September 24, 2019	September 24, 2019		Legal Matters that the Company's Board of Directors Should Understand When Conducting Their Duties and Supervising Companies: Take Care Not to Cross the Red Line of "Concerted Action"		
			November 19, 2019	November 19, 2019		Behind the Scenes Promoter of Corporate Governance: Corporate Governance Staff Operating Best Practices		
			December 6, 2019	December 6, 2019		Provision of Company Information-Focus on Directors' Right to Information		
Representative of Juristic Person Director	Hung - Yi Hsiao	June 21, 2019	August 2, 2019	August 2, 2019	Taiwan Corporate Governance Association	Taking Corporate Governance to a Higher Level: Discussing the Roles and Responsibilities of the Head of Corporate Governance	12	Y
			August 13, 2019	August 13, 2019		Future Trends in AI and IoT		
			September 17, 2019	September 17, 2019		Best Practices for Director Corporate Leadership in a Rapidly Changing Technology Environment		
			October 1, 2019	October 1, 2019		Director Responsibilities and Risk Management Under the Latest Corporate Governance Blueprint		
Representative of Juristic Person Director	Chin-Tsai Pan	June 21, 2019	February 22, 2019	February 22, 2019	Taiwan Corporate Governance Association	Moving Towards Sustainable Corporate Governance Increases Company Long-Term Value	9	Y (Note 2)
			May 8, 2019	May 8, 2019		The Development and Interpretation of Electronic Payments		
			August 13, 2019	August 13, 2019		Future Trends in AI and IoT		
Independent Director	Lo-Yu Yen	June 21, 2019	May 8, 2019	May 8, 2019	Taiwan Corporate Governance Association	The Development and Interpretation of Electronic Payments	12	Y (Note 2)
			August 10, 2019	August 10, 2019	Taiwan Capital Management USA, Inc.	Industry Applications of IoT and Bio (Part 1)		
			August 13, 2019	August 13, 2019	Taiwan Corporate Governance Association	Future Trends in AI and IoT		
			August 17, 2019	August 17, 2019	Taiwan Capital Management USA, Inc.	Industry Applications of IoT and Bio (Part 2)		

Title	Name	Appointment Date	Training Period		Organizer	Course Name	Training Hours	In Compliance with Regulations? (Note 1)
			From	To				
Independent Director	JenRan Chen	June 21, 2019	April 30, 2019	April 30, 2019	Taiwan Corporate Governance Association	Financial Fraud Detection Techniques	12	Y (Note 2)
			May 8, 2019	May 8, 2019		The Development and Interpretation of Electronic Payments		
			August 13, 2019	August 13, 2019		Future Trends in AI and IoT		
			September 17, 2019	September 17, 2019		Best Practices for Director Corporate Leadership in a Rapidly Changing Technology Environment		
Independent Director	Yu-Fen Lin	June 21, 2019	May 17, 2019	May 17, 2019	Taiwan Corporate Governance Association	Cross-border Management and Sustainable Operations	21	Y (Note 2)
			June 28, 2019	June 28, 2019		Director Fiduciary Duty and Business Judgment Rules		
			August 13, 2019	August 13, 2019		Future Trend in AI and IoT		
			August 27, 2019	August 27, 2019	Taiwan Academy of Banking and Finance	Risk-Oriented Money Laundering Prevention Trends and Impacts		
			August 30, 2019	August 30, 2019	Taiwan Corporate Governance Association	The First Step in Assessing the Veracity of a Company's Operating Results: Financial Report Analysis and Limitations		
			September 24, 2019	September 24, 2019		Legal Matters that the Company's Board of Directors Should Understand When Conducting Their Duties and Supervising Companies: Take Care Not to Cross the Red Line of "Concerted Action"		
			October 29, 2019	October 29, 2019	Taipei Foundation Of Finance	Preventing Tax and Money Laundering -Eight Risk Patterns in National Money-Laundering		
Independent Director	Chung-Chin Lu	June 21, 2019	May 8, 2018	May 8, 2018	Taiwan Corporate Governance Association	The Development and Interpretation of Electronic Payments	6	Y
			August 13, 2019	August 13, 2019		Future Trends in AI and IoT		
Independent Director	Yi-Chin Tu	June 21, 2019	August 13, 2019	August 13, 2019	Taiwan Corporate Governance Association	Future Trends in AI and IoT	12	Y
			September 24, 2019	September 24, 2019		Legal Matters That the Company's Board of Directors Should Understand When Conducting Their Duties and Supervising Companies: Take Care Not to Cross the Red Line of "Concerted Action"		
			October 1, 2019	October 1, 2019		Director Responsibilities and Risk Management Under the Latest Corporate Governance Blueprint		
			October 22, 2019	October 22, 2019		Board Member Duties in Corporate Mergers and Acquisitions		

Note 1: Refers to compliance with respect to "Directions for the Implementation of Continuing Education for Directors and Supervisors of TWSE Listed and TPEX Listed Companies" in terms of hours, scope, system, arrangement, and disclosure.

Note 2: Chi-Mau Sheih, Chin-Tsai Pan, Lo-Yu Yen, JenRan Chen, Yu-Fen Lin, and Chung-Chin Lu were reappointed as directors in 2019, which were all in compliance with 6 hours of training.

## Appendix B

### Management Continuing Education Records for Fiscal Year 2019

Title	Name	Appointment Date	Training Period		Organizer	Course Name	Hours
			From	To			
President	Shui-Yi Kuo	May 8, 2019	May 8, 2019	May 8, 2019	Taiwan Corporate Governance Association	The Development and Interpretation of Electronic Payments	3
			July 19, 2019	July 19, 2019	Chunghwa Telecom	ICT Discussion Forum Lecture	3
			July 26, 2019	July 26, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			August 13, 2019	August 13, 2019	Taiwan Corporate Governance Association	Future Trends in AI and IoT	3
			September 24, 2019	September 24, 2019	Taiwan Corporate Governance Association	Legal Matters That the Company's Board of Directors Should Understand When Conducting Their Duties and Supervising the Company: Take Care Not to Cross the Red Line of "Concerted Action"	3
			September 27, 2019	September 27, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			October 22, 2019	October 22, 2019	Taiwan Corporate Governance Association	Board Member Duties in Corporate Mergers and Acquisitions	3
			November 29, 2019	November 29, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
Senior Executive Vice President	Hong-Chan Ma	August 10, 2018	February 23, 2019	February 23, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			July 19, 2019	July 19, 2019	Chunghwa Telecom	ICT Discussion Forum Lecture	3
			July 26, 2019	July 26, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			September 27, 2019	September 27, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			November 29, 2019	November 29, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			December 31, 2019	December 31, 2019	Taiwan Academy of Banking and Finance	2019 Investee Company Equity Representative/Business Representative Advanced Education and Training	3
Senior Executive Vice President	Kuo-Feng Lin	November 11, 2016	February 23, 2019	February 23, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			July 19, 2019	July 19, 2019	Chunghwa Telecom	ICT Discussion Forum Lecture	3
			September 27, 2019	September 27, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			November 29, 2019	November 29, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			December 31, 2019	December 31, 2019	Taiwan Academy of Banking and Finance	2019 Investee Company Equity Representative/Business Representative Advanced Education and Training	3

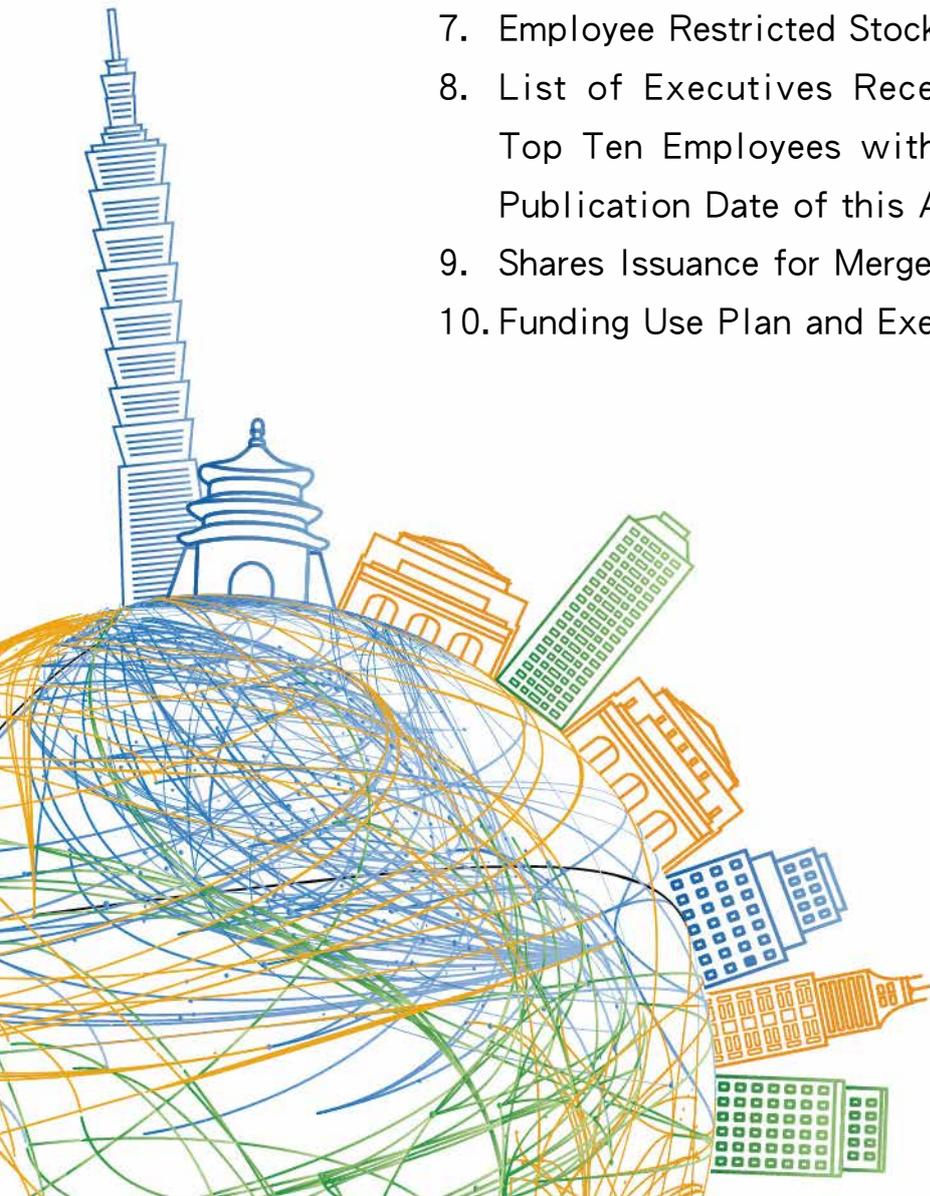
Title	Name	Appointment Date	Training Period		Organizer	Course Name	Hours
			From	To			
Senior Executive Vice President	Chau-Young Lin	August 22, 2019	February 23, 2019	February 23, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			May 3, 2019	May 4, 2019	Chunghwa Telecom	2019 Channel Services Incentives Offsite	5.2
			July 19, 2019	July 19, 2019	Chunghwa Telecom	ICT Discussion Forum Lecture	3
			July 26, 2019	July 26, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			September 27, 2019	September 27, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			November 29, 2019	November 29, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
President of Business Group	Yuan-Kuang Tu	November 9, 2017	January 11, 2019	January 12, 2019	Chunghwa Telecom	2018 Enterprise Services Consensus Offsite	11
			February 23, 2019	February 23, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			May 3, 2019	May 4, 2019	Chunghwa Telecom	2019 Channel Services Incentives Offsite	5.2
			July 19, 2019	July 19, 2019	Chunghwa Telecom	ICT Discussion Forum Lecture	3
			July 26, 2019	July 26, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			September 27, 2019	September 27, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			November 29, 2019	November 29, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			December 31, 2019	December 31, 2019	Taiwan Academy of Banking and Finance	2019 Investee Company Equity Representative/Business Representative Advanced Education and Training	3
President of Business Group	I-Feng Chang	August 22, 2019	January 11, 2019	January 12, 2019	Chunghwa Telecom	2018 Enterprise Services Consensus Offsite	11
			January 22, 2019	January 22, 2019	Telecommunication Training Institute, Chunghwa Telecom	Mobile Business Production and Marketing Discussion Forum	3
			May 3, 2019	May 4, 2019	Chunghwa Telecom	2019 Channel Services Incentives Offsite	5.2
			September 27, 2019	September 27, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			November 29, 2019	November 29, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3

Title	Name	Appointment Date	Training Period		Organizer	Course Name	Hours
			From	To			
President of Business Group	Ming-Shih Chen	November 9, 2017	February 23, 2019	February 23, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			May 3, 2019	May 4, 2019	Chunghwa Telecom	2019 Channel Services Incentives Offsite	5.2
			July 19, 2019	July 19, 2019	Chunghwa Telecom	ICT Discussion Forum Lecture	3
			November 29, 2019	November 29, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			December 31, 2019	December 31, 2019	Taiwan Academy of Banking and Finance	2019 Investee Company Equity Representative/Business Representative Advanced Education and Training	3
President of Business Group	Li-Show Wu	January 1, 2019	February 23, 2019	February 23, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			September 27, 2019	September 27, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			December 31, 2019	December 31, 2019	Taiwan Academy of Banking and Finance	2019 Investee Company Equity Representative/Business Representative Advanced Education and Training	3
President of Business Group	Hsueh-Lan Wu	November 15, 2018	December 31, 2019	December 31, 2019	Taiwan Academy of Banking and Finance	2019 Investee Company Equity Representative/Business Representative Advanced Education and Training	3
President of Business Group	Rong-Shy Lin	November 15, 2018	February 23, 2019	February 23, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			July 26, 2019	July 26, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			September 27, 2019	September 27, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			November 29, 2019	November 29, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			December 31, 2019	December 31, 2019	Taiwan Academy of Banking and Finance	2019 Investee Company Equity Representative/Business Representative Advanced Education and Training	3
President	Wei-Kuo Hong	November 15, 2018	February 23, 2019	February 23, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			July 26, 2019	July 26, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			September 27, 2019	September 27, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3
			November 29, 2019	November 29, 2019	Telecommunication Training Institute, Chunghwa Telecom	Manager Operations Discussion Forum	3

# 4 Capital Review

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# Capital Review

## 1. Capital and Shares

### 1.1 Source of Capital

As of February 29, 2020

Month/ Year	Par Value (NT\$)	Authorized Capital		Paid-in Capital		Remarks		
		Shares	Amount(NT\$)	Shares	Amount(NT\$)	Sources of Capital	Capital Paid-in by Assets Other than Cash	Other
Jul 1996	34	9,647,724,900	96,477,249,000	9,647,724,900	96,477,249,000	assumed capital from Ministry of Transportation, Directorate General of Telecommunications	-	-
May 2006	10	9,647,724,902	96,477,249,020	9,647,724,902	96,477,249,020	capital increase of 2 special shares purchased by MOTC	-	-
Aug 2006	10	9,647,724,902	96,477,249,020	9,455,724,902	94,557,249,020	treasury shares cancellation	-	-
Oct 2006	10	12,000,000,002	120,000,000,020	9,667,845,095	96,678,450,950	earnings to capital increase	-	FSC Document No. 0950126724 June 27, 2006
Aug 2007	10	12,000,000,002	120,000,000,020	10,634,629,604	106,346,296,040	capital surplus to capital increase	-	SEF Authorization No. 09601199260 August 22, 2007
Nov 2007	10	12,000,000,002	120,000,000,020	9,667,845,095	96,678,450,950	capital reduction by cash	-	SEF Authorization No. 09601280910 November 15, 2007
Mar 2008	10	12,000,000,002	120,000,000,020	9,557,776,914	95,577,769,140	treasury shares cancellation	-	SEF Authorization No. 09701049860 February 29, 2008
Nov 2008	10	12,000,000,002	120,000,000,020	11,608,363,565	116,083,635,650	earnings and capital surplus to capital increase	-	SEF Authorization No. 09701293050 November 19, 2008
Jan 2009	10	12,000,000,002	120,000,000,020	9,696,808,183	96,968,081,830	capital reduction by cash	-	SEF Authorization No. 09801006090 January 14, 2009
Apr 2009	10	12,000,000,002	120,000,000,020	9,696,808,181	96,968,081,810	special shares cancellation	-	SEF Authorization No. 09801077020 April 23, 2009
Sep 2009	10	12,000,000,000	120,000,000,000	10,666,488,999	106,664,889,990	capital surplus to capital increase	-	SEF Authorization No. 09801205990 September 7, 2009
Nov 2009	10	12,000,000,000	120,000,000,000	9,696,808,181	96,968,081,810	capital reduction by cash	-	SEF Authorization No. 09801261140 November 11, 2009
Nov 2010	10	12,000,000,000	120,000,000,000	7,757,446,545	77,574,465,450	capital reduction by cash	-	SEF Authorization No. 09901266330 November 29, 2010

Type	Share	Authorized Capital			Remarks
		Issued Shares	Un-issued Shares	Total Shares	
Common		7,757,446,545	4,242,553,455	12,000,000,000	Listed

## 1.2 Shareholder Structure

As of July 27, 2019 (Note)

Amount	Shareholder Structure	Government Agencies	Financial Institutions	Other Institutions	Individuals	Foreign Institutions & Individuals	Total
Number of Shareholders		9	53	967	270,765	1,169	272,963
Shareholding (shares)		3,120,146,965	1,317,883,477	615,806,532	1,384,854,806	1,318,754,765	7,757,446,545
Shareholding %		40.22%	16.99%	7.94%	17.85%	17.00%	100.00%

Note: Based on the most recent book closure date for shareholder to register

## 1.3 Shareholding Distribution

As of July 27, 2019 (Note)

Shareholding Range (Unit: Share)	Number of Shareholders	Shareholding (shares)	Shareholding (%)
1-999	67,365	22,642,523	0.29%
1,000-5,000	151,601	313,333,292	4.04%
5,001-10,000	23,689	182,492,966	2.35%
10,001-15,000	8,734	109,665,917	1.41%
15,001-20,000	5,512	98,980,336	1.28%
20,001-30,000	6,257	156,111,999	2.01%
30,001-40,000	3,408	118,765,185	1.53%
40,001-50,000	2,085	94,295,301	1.22%
50,001-100,000	2,756	186,799,037	2.41%
100,001-200,000	781	107,928,888	1.39%
200,001-400,000	281	78,188,358	1.01%
400,001-600,000	119	57,824,023	0.75%
600,001-800,000	60	42,419,858	0.55%
800,001-1,000,000	46	42,047,866	0.54%
1,000,001-999,999,999	268	3,408,232,020	43.93%
>1,000,000,000	1	2,737,718,976	35.29%
<b>Total</b>	<b>272,963</b>	<b>7,757,446,545</b>	<b>100.00%</b>

Note: based on the most recent book closure date for shareholder to register

## 1.4 Major Shareholders

As of July 27, 2019 (Note)

Major Shareholder	Shareholding	Shares	%
MOTC		2,737,718,976	35.29%
Shin Kong Life Insurance Co., Ltd.		579,803,184	7.47%
CTBC Bank Trust Account - CHT Employee Stock Ownership Trust Plan		320,789,789	4.14%
JP Morgan Chase Bank, N.A., acting as depository and representative of CHT ADRS		233,908,370	3.02%
Chunghwa Post Co., Ltd.		143,468,719	1.85%
Cathay Life Insurance Co., Ltd.		122,849,848	1.58%
Labor Insurance Fund, R.O.C.		121,702,644	1.57%
Labor Pension Fund of the New Pension System, R.O.C.		116,274,500	1.50%
Fubon Life Insurance Co., Ltd.		88,518,087	1.14%
Taiwan Life Insurance Co., Ltd.		82,612,000	1.06%

Note: Based on the most recent book closure date for shareholder to register.

## 1.5 Share Price, Net Value, Earnings, Dividends and Related Information in recent 2 years

Items		2018	2019	2020 (As of Feb. 29)	
Market Price per Share	Highest (Note 1)	115.00	114.00	110.50	
	Lowest (Note 1)	104.50	106.00	107.00	
	Average (Note 1)	108.96	110.35	108.94	
Net Worth per Share	Before Distribution	48.54	48.48	-	
	After Distribution	-	-	-	
Earnings per Share	Weighted Average Shares	7,757,446,545	7,757,446,545	7,757,446,545	
	Earnings Per Share	4.58	4.23	-	
Dividends per Share	Cash Dividends	4.479	4.226(note2)	-	
	Stock Dividends	From Retained Earnings	0	0(note2)	-
		From Additional Paid-in Capital	0	0(note2)	-
	Accumulated Undistributed Dividends	0	0	-	
Return on Investment (Note 3)	Price / Earnings Ratio	23.79	26.09(note2)	-	
	Price / Dividend Ratio	24.33	26.11(note2)	-	
	Cash Dividend Yield Rate%	4.11	3.83(note2)	-	

Notes:

1. Data sourced from Taiwan Stock Exchange, or TWSE.

2. 2019 dividends distribution to be approved by shareholders at Annual General Meeting, or AGM, in 2020.

3. Price / Earnings Ratio = Average Market Price / Earnings per Share

Price / Dividend Ratio = Average Market Price / Cash Dividends per Share

Cash Dividend Yield Rate = Cash Dividends per Share / Average Market Price (2018=NT\$108.96, 2019=NT\$110.35)

## 1.6 Dividend Policy and Discussion

### (1) Dividend Policy

In accordance with the Chunghwa's Articles of Incorporation, Chunghwa must pay all outstanding taxes, offset deficits in prior years and set aside a legal reserve equal to 10% of its net income before distributing a dividend or making any other distribution to stockholders, except when the accumulated amount of such legal reserve equals to Chunghwa's total issued capital, and depending on its business needs or requirements, may also set aside or reverse special reserves. No less than 50% of the remaining earnings comprising remaining balance of net income, if any, plus cumulative undistributed earnings shall be distributed as stockholders' dividends, of which cash dividends to be distributed shall not be less than 50% of the total amount of dividends to be distributed. If cash dividend to be distributed is less than \$0.10 per share, such cash dividend shall be distributed in the form of common stocks.

Dividend distribution is dependent on the actual profitability, capital expenditure plan, cash status and other conditions for the relevant year, as well as a resolution adopted at the shareholders' meeting.

The Company is not permitted to distribute dividends or make other distributions to stockholders in any year in which the Company does not have any net income or unappropriated earnings (excluding reserves).

If the Company does not incur a loss, the Company is permitted to make distributions on a pro rata basis to its stockholders of additional common shares or cash by the legal reserve, the premium derived from the issuance of new shares and the income from endowments received by the Company.

### (2) Dividend Distribution

Below is the dividend distribution from years 2017 to 2019; the appropriation amount for 2019 has yet to be approved at the 2020 AGM.

Unit: NT\$/share

Year	Cash Dividend		Stock Dividend
	From Retained Earnings	From Additional Paid-in Capital	
2017	4.796	0	0
2018	4.479	0	0
2019	4.226	0	0

### (3) Expected Material Changes in Dividend Policy

None.

## 1.7 Impact of Stock Dividend Distribution in 2020 Shareholders' Meetings on Business Performance and EPS

No stock dividend to be distributed in 2020 shareholders' meetings, so not applicable.

## 1.8 Compensation of Employees and Directors

### (1) Employees' and Directors' compensation according to the Articles of Incorporation

If the Company incurs positive earnings for the relevant year, then the employees are entitled to 1.7% to 4.3% of the distributable earnings as employee compensation; the directors are entitled to no more than 0.17% of the distributable earnings as director compensation. If the Company has cumulative deficits, then the Company must first retain the necessary earnings to offset the deficits. The aforementioned compensation may, subject to a resolution which is adopted by a majority vote at a meeting of the board of directors attended by two-third of total number of directors, be distributed to employees in way of cash or shares. In addition, a report of such distribution shall be submitted to the shareholders' meeting. The first two provisions apply retrospectively to fiscal year 2015 in computing compensations for employees and board of directors.

### (2) The Compensation Basis for Employees, Directors, and Supervisors; Accounting Treatment for the Differences between Estimated and Actual amount of Compensation

The Company accrues all Employees' and Directors' compensation in accordance to the Articles of Incorporation and "Employees' Compensation Distribution Guidelines of Chunghwa Telecom Co., Ltd.", as well as historical experience and future estimates.

After the year end, if there is a materially change in the proposed amounts before the annual financial statements are authorized for issue, the differences are recorded in current year. If there is a change in the proposed amounts after the annual financial statements are authorized for issue, the differences are recorded as a change in accounting estimate.

### (3) 2019 Compensation Approved in the Board of Directors Meeting

A. Employees and directors' compensation in the form of

cash or stock. The Board of Directors have approved employee cash compensation of NT\$ 1,126,194,190, and directors cash compensation of NT\$ 35,210,397

B. The amount of any employee compensation distributed in stocks; and the size of this amount as a percentage of the net income stated in the parent only financial

reports or individual financial reports for the current period; and the size of this amount as a percentage of the total employee compensation.

No employee compensation in the form of stock is distributed for the year of 2019.

#### (4) 2018 Actual Distribution of Employees' and Directors' Compensation (including number of shares, monetary amount, and stock price)

Items	Actual Distribution (NT\$)	2019 Approved Distribution by BoD (NT\$)	Differences (NT\$)
Employees' cash compensation	1,404,263,673	1,404,263,673	-
Employees' stock compensation	0	0	-
Directors' compensation	38,215,538	38,215,538	-

Notes:

- In accordance to 2018 directors and employees cash compensation, approved by Board of Directors in 2019.
- In 2018, the Company's Board of Directors consists of 5 independent directors, 9 directors (of whom, 1 directors succeeded in August 2018, 1 dismissed in August 2018).
- The independent directors are not entitled to any cash compensation; the compensation is calculated on pro-rata basis in terms of days of service for newly elected directors within the year; the annual cash compensation for each director is NT\$4,776,942.
- The 9 directors are representatives from MOTC, so their cash compensation are distributed to MOTC.
- The Company's director representatives from the government entities, chief executive officer and president are not entitled to Employees' compensation.

### 1.9 Share Repurchase by the Company

None.

## 2. Corporate Bonds

None.

## 3. Preferred Shares

None.

## 4. Overseas Depository Receipts

Item Issuing date	Issuance and Trade Market	Issuance Amount (US\$ billion)	Issuance Price per Unit (US\$)	Number of Issuance Units	DR-Represented Securities	Number of DR-Represented Securities (shares)
Initial Public Offering 07/17/2003	NYSE	1.58	14.24	110,975,000	common shares	1,109,750,000
Additional Issuance 08/09/2005	NYSE	2.56	18.98	135,068,200	common shares	1,350,682,000
Additional Issuance 09/28/2006	NYSE	0.96	16.99	56,434,790	common shares	564,347,900
Additional Issuance 10/31/2006	NYSE	-	-	4,920,862	common shares	49,208,623
Additional Issuance 09/07/2007	NYSE	-	-	30,409,227	common shares	304,092,271
Capital Reduction by Cash 01/09/2008	NYSE	-	-	-30,709,825	common shares	-307,098,254

Issuing date \ Item	Issuance and Trade Market	Issuance Amount (US\$ billion)	Issuance Price per Unit (US\$)	Number of Issuance Units	DR-Represented Securities	Number of DR-Represented Securities (shares)
Additional Issuance 12/03/2008	NYSE	-	-	33,131,017	common shares	331,310,172
Capital Reduction by Cash 03/20/2009	NYSE	-	-	-56,025,734	common shares	-560,257,344
Additional Issuance 09/18/2009	NYSE	-	-	11,258,465	common shares	112,584,650
Capital Reduction by Cash 02/08/2010	NYSE	-	-	-26,860,182	common shares	-268,601,820
Capital Reduction by Cash 01/25/2011	NYSE	-	-	-53,720,364	common shares	-537,203,639
Rights & Liabilities of DR Holders	Same with common shareholders					
Trustee	NA					
Depository	JPMorgan Chase Bank, N.A.					
Custodian	JPMorgan Chase Bank, N.A., Taipei Branch					
Outstanding Units	22,997,252 (As of 02/29/2020)					
Related Fee for Issuance and Maintenance	The MOTC paid for the issuance in July 2003, August 2005 and September 2006. The shareholders paid for the issuance by stock dividend in October 2006, September 2007, December 2008 and September 2009. The shareholders also paid for the capital reduction with cash in January 2008, March 2009, February 2010 and January 2011. The Company paid for registration and related maintenance fees.					
Key Terms of the Deposit Agreement and the Custodian Agreement	As Per the Deposit Agreement and the Custodian Agreement					
Market price	2019	Highest		US\$37.49		
		Lowest		US\$33.71		
		Average		US\$35.6721		
	01/01/2020 -02/29/2020	Highest		US\$36.84		
		Lowest		US\$35.16		
		Average		US\$36.1512		

Note: Data sourced from Bloomberg, based on closing market prices.

## 5. Employee Stock Options

None.

## 6. List of Executives Receiving Employee Stock Options and Top Ten Employees with Stock Options up to the Publication Date of this Annual Report

None.

## **7. Employee Restricted Stock Shares**

None.

## **8. List of Executives Receiving Restricted Shares and Top Ten Employees with Restricted Shares up to the Publication Date of this Annual Report**

None.

## **9. Shares Issuance for Mergers and Acquisitions**

None.

## **10. Funding Use Plan and Execution**

None, as the Company has not incurred any fund raising activity.

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## Operational Highlights

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1. Business Overview
2. Markets & Sales Overview
3. Human Resources
4. Environmental Protection Expenditure
5. Employee Relations
6. Major Contracts



# Operational Highlights

## 1. Business Overview

### 1.1 Business Scope

We are the largest telecommunications service provider in Taiwan, with leading offerings in domestic and international fixed communication, mobile communication and internet services.

#### (1) Revenue Breakdown

As of December 31, 2019, domestic fixed communications revenues accounted for 31.7% of total revenues, mobile communications revenues accounted for 46%, internet business revenues accounted for 14.5%, international fixed communications revenues accounted for 5.5%, and other revenues accounted for 2.3%.

Among these, even though domestic fixed communication revenue has continued to decline, and broadband internet has declined slightly due to the impacts of price reductions and competition, the enterprise ICT business grew due to smart building and smart energy services, and MOD revenue increased owing to an increase in subscribers, resulting in an increased contribution to revenues than in the prior year. The share of mobile communication revenue continued to be impacted by market competition and VoIP substitution, and was lower than in the previous year. The share of Internet revenue, due to growth in the value-added services and services provided to the government, increased compared to the same period of last year.

#### (2) Current Products/Services

##### A. Household Market

- Domestic Fixed Communications Services
  - Local Telephone: voice call, call waiting, call transfer, three-way calling, speed dial, wake-up call, do-not-interrupt, ringback tone, call screening, direct call, 1288 information inquiry, shorthand coding application, and other value-added services.
  - Domestic Long Distance Telephone: operator-assisted long distance call, subscriber toll dialing (STD).
  - Intelligent Network (IN): 0800 Advanced Free Phone (AFP), 0203 Mass Announcement (MA), 099 Personal Number, 0204 Premium Rate Service (PRS), etc.

- Domestic Leased Circuits
  - Asymmetric Digital Subscriber Line (ADSL): install additional equipment at user telephone terminal using ADSL technology in order to provide internet connection and MOD/OTT multimedia services.
  - FTTx Fiber Access: utilize various optical network equipment, with Ethernet or Very-high-bit-rate Digital Subscriber Line (VDSL) technology, to provide high speed internet access, MOD/OTT multimedia, and other data communication services.
- Internet and Other VAS Services
  - Internet Service Provider (ISP): HiNet is the Company's ISP brand, primarily offering broadband access (ADSL and FTTx), fixed line, and dial-up services.
  - VAS: Chunghwa Telecom Personal Health Record, ibobby, anti-hacking services, anti-porn services, online time management, mobile internet gatekeeping, game accelerator, etc.
- MOD/Internet Protocol Television (IPTV) Services
  - MOD is a multimedia on demand platform that provides the Company's customers and other telecommunication service providers with channel programs, on-demand programs, and other content from third-party operators, such as TV channels, Video on Demand (VOD), HD/4K super high definition content, and others.
  - Hami Video and IPTV are cross-network multi-screen products leveraging video services from fixed networks and data and mobile networks.
- International Fixed Communications Services
  - International voice call, including international direct call with 009 and super value-saving international call with 019.

##### B. Consumer Market

- Mobile Communications Services
  - 4G Mobile: 4G LTE is a mobile broadband communication technology, with higher upload and download speeds compared to 3G, so consumers can enjoy higher definition and faster multimedia services and internet access.
  - Mobile VAS: including integrated services of text/multimedia message, ringback tone, video streaming, video call, GPS, and digital content from 4G mobile internet, such as Hami Pass, Hami

- Video, KKBOX music, e-Book, mobile payment, etc.
- OTT Convergence: integrates data and mobile multi-screen video content, such as Hami Video, in order to fulfill diverse customer demand by providing live and on-demand content, including movies, dramas, animated shows, kids programs, etc.
- Wi-Fi: Wi-Fi internet access widely available by leveraging all publicly installed wireless Access Point (AP) software, hardware, and using HiNet, emome, and Chunghwa Telecom membership for account validation.
- International Fixed Communications Services: international voice call, including international direct call with 009, super value-saving international call with 019, international prepaid calling card, E-Call card, etc.

### C. Enterprise Market

The Company provides enterprise clients with ICT services in order to fulfill customer demand and to enable them to achieve their respective strategic and operational targets.

- Enterprise Integrated Services: enterprise voice and data integrated services, enterprise digitization, cloud SaaS services (CRM, ERP, POS, etc.)
- Enterprise Mobile Services: mobile virtual private network (MVPN), enterprise text message, mobile data virtual private network (MDVPN), mobile DM, disaster emergency response message, mobile instant message (Qmi), mobile device maintenance and management (MDMM), mobile video conference, IoT, sponsored data, esafe, etc.
- Enterprise Data Services: data circuits, domestic data exchange (data exchange and VAS), HiNet Enterprise internet access, messaging (text, email, fax), enterprise information security, enterprise VPN and VAS, IDC and cloud services (integrated data center, broadband services, hicloud CaaS, virtual private cloud, or VPC, CaaS-based VPC, CVPC, Boxe data file, S3 cloud storage, desk cloud, Microsoft cloud, etc.), digital content (domain name registration and FunPlay), platform leasing (data voice, enterprise learning, One-Time Password (OTP) dynamic passcode, enterprise audio/video platform, etc.), IoT (iEN, IVS, ITS, eHome, etc.), government services (e-Procurement, real estate property, road supervision, railway tickets booking, etc.), big data analysis, etc.
- International Enterprise Services: international voice services (international enterprise hotline 009, international voice resale, receiver paid

phone, international conference call, international interactive voice response, or IVR, international enterprise calling card, etc.), international data services (international private leased circuit, or IPLC, internet - protocol virtual private network, or IPVPN, TWGate, IDC, MPLS VPN, EZ VPN, SSL VPN, internet IP, etc.), international VAS (international remote backup system, international video conferencing, ICT construction and maintenance, EZ Conference HD, etc.), and international satellite services (satellite frequency converter leasing, satellite VAS, satellite mobile communication, enterprise ICT, etc.).

## (3) Planned New Products/Services

### A. Household Market

- Introduce higher-speed broadband access and VAS to meet customer demand generated by the continued IP network and digital convergence trends.
- Expand and integrate HiNet VAS (Chunghwa Telecom Personal Health Record, ibobby, video, HiCare services, anti-hacking services, game accelerator, etc.) in order to increase the competitiveness of the Company's product offering and to enhance user loyalty.
- Proactively introduce leading domestic and international video content, and develop 4K audio/video content, in order to improve content quality and volume and ensure differentiated competitive advantages compared to CATV.
- Building upon smart home centers, develop convergence services in order to promote MOD as a diversified smart home platform integrating IoT, in-home care, and audio/video entertainment, improving the flexibility of the Company's revenue model and marketing channels, and maintaining the Company's leadership in digital convergence.

### B. Consumer Market

- Enhance Hami Video service offering by increasing content attractiveness and user experience, further curating popular content, and improving customization and social network sharing in order to provide users with on-demand multi-screen OTT services under a unified pricing system.
- Promote Hami VAS, such as music, Hami Pass, Hami Books, Hami Video, mobile payment, etc., in order to expand user traffic with more mobile applications.
- Promote Near-Field Communication (NFC) applications by integrating ICT platforms and online-to-offline (O2O) services in order to improve merchant operational efficiency and consumer

mobile lifestyles.

- Develop mobile access and Wi-Fi dual network integration with Hami VAS in order to maintain the Company's leading position in internet services.

### C. Enterprise Market

- Develop esafe service in order to increase effective communication for better collaboration, enterprise operational efficiency, and internal management controls.
- Develop enterprise anti-hacking solutions for better cyber-security measures, integrate management and control, and reduce management cost.
- Continue integrating network and cloud in order to provide network security, system platform security and detection, terminal security, data protection, advanced persistent threat (APT) solutions, identity validation, access control and management, security operation center (SOC) outsourcing, security consulting, etc.
- Develop IDC integration by leveraging network resources and integrating transmission, submarine cable, internet, VPN, international broadband, and undersea cable, to establish high-standard regional infrastructure such as Banqiao IDC center, in order to provide enterprises with high-speed and high-quality networks, cloud, and VAS applications matching international standards.
- Develop enterprise private cloud solution with more flexibility and greater reliability by accelerating private cloud construction with application and operating environments, and by integrating SDN and Network Function Virtualization (NFV) technology, flexible management, and dynamic software configured network.
- Develop integrated surveillance solution by providing single access for overall surveillance of IDC, all software/hardware/virtual resource status, and all other necessary IT operating performance metrics.
- Expand IoT applications and IoT intelligent network platform for cross-functional collaboration and applications by providing clients with an accelerated and convenient development model in order to enable clients to realize diverse creative applications over the open IoT platform infrastructure, including smart agriculture, smart manufacturing, smart transportation, smart city, and other digital innovations.
- Integrate smart gas meter and communication device (CD) and transmit gas meter operating data to

gas intelligence using NB-IoT and IoT intelligent network platform in order to provide gas companies with remote access and smart gas meter operations, thus reducing labor cost and increasing safety.

- Enhance advanced AI research and development with in-depth local demand application services by providing smart security solutions such as vehicle recognition, facial recognition, and traffic prediction, as well as by developing AI semantic cloud and smart voice control services, with collaboration from domestic terminal and content providers.
- Expand big data and internet advertising solutions; continue to develop traffic flow, public sentiment, internet advertising, big data analysis, and cross-functional applications; develop Fintech related applications by collaborating with various financial services through the Financial Inclusion System.
- Launch healthcare services, provide a variety of physiological measurement equipment, and gradually provide the four major EHS risk solutions to assist SMEs with occupational safety compliance and enter the enterprise health management market.
- Provide audio/video service platform including channel, VOD, smart video dashboard, etc., in order to enable consumers to access live events and for enterprises to access internal training or establish audio/video brands.

## 1.2 Industry Overview

### (1) Industry Status and Development

The global penetration of mobile devices such as smartphones and tablets are becoming more popular and mature, and social networks are also becoming more prevalent. All of these trends, along with cloud computing, 4G, digital TV, e-Commerce, interactive sensors, wearables, etc., will be driving growth for the technology and telecommunications industries. Broadband network access, mobile communication, and IPTV are key performance indicators of the telecommunications industry:

A. For the broadband market, according to NCC statistics, as of December 31, 2019, the total number of households in Taiwan is approximately 8.83 million, while the total broadband subscribers in Taiwan is approximately 5.89 million, (including Public Wireless Local Area Network, or PWLAN). For household users, according to the Taiwan Network Information Center report "Taiwan Internet Report 2019," the total number of households with internet access in Taiwan represents a penetration rate of 89.3%.

- B. According to NCC statistics, as of December 31, 2019, the total number of mobile subscribers in Taiwan reached approximately 29.2million, representing a penetration rate of 123.7%.
- C. Gartner predicts that AI will be the key service offering in 2020. IDC also projects that global AI market value (including software, hardware, and related services) will reach approximately US\$46.0 billion in 2020, representing a compounded annual growth rate of 54%. According to McKinsey, in the next three years, AI will drive the three key industries of high-tech, telecommunications, and financial services.

## (2) Industry Value Chain

- A. Technology development has made the lines of many formerly specialized industries gradually blurred, and the telecommunications industry is becoming more integrated to develop more diversified applications. Under the trend of digital convergence, the value chain of the telecommunications industry has further expanded and industry players must provide innovative and diversified services to more closely meet user demand and enlarge market share. At the same time, content providers/integrators, application service providers, platform service providers, network equipment vendors, and terminal equipment vendors are important value partners for industry players in promoting digital convergence services.
- B. The Company is actively developing emerging businesses in 5G, web-only banking, IoT, big data, AI, and smart homes, offering digital convergence services to the three core markets of consumers, households, and enterprises. The Company continues to strengthen its core business and promote the ICT and overseas business to maximize enterprise value by expanding enterprise partnerships in related industries through alliances, cooperation, and investment. In the future, the Company will continue to invest in core and emerging business. By integrating its own R&D capabilities and working more closely with its customers and ecosystem partners, the Company will provide more quality, innovative, and superior user experiences.

## (3) Product Development Trends and Competitive Landscape

### A. Domestic Fixed Communications Services

- Local and Domestic Long Distance Telephone: as of December 31, 2019, Taiwan local telephone penetration has reached 124.4%. However, the number of local telephone subscribers has been

declining slightly due to traffic migration to mobile communication, free communication software, and VoIP, although the Company continues to maintain a leading subscriber market share at 92.5%. The average market share by minutes in the local and domestic long distance telephone market was approximately 83.5% and 82%, respectively. Local and long-distance revenue market share were 96.6% and 47%, respectively.

### ● Broadband Internet Access:

- The government has promoted the availability of universal telecommunication services in remote areas, including digital infrastructure and broadband access, to achieve greater than 90% nationwide coverage with Mega-level (Gbps) bandwidth access. As of December 31, 2019, the Company's nationwide fixed network broadband coverage has reached 97.25% for 35Mbps, 95.89% for 60Mbps, 92.91% for 100Mbps, and 66.4% for 1Gbps. The Company plans to continue to build out its optical network for accelerated transmission speeds in order to fulfill domestic user demand.

- As of December 31, 2019, the Company's broadband household subscribers have reached approximately 4.405 million, representing a market share of 68%. Of these subscribers, higher speed subscribers have increased significantly, with FTTx as the primary chosen product for approximately 3.619 million subscribers, of which 1.582 million subscribers use speeds of 100Mbps and above.

- Data Circuits Business: the Company's data circuits business has been impacted by broadband internet access and competition. As of December 31, 2019, the Company's data circuits market share was approximately 54%.

### ● MOD/IPTV Services

- As of December 31, 2019, Taiwan market has a total of 4.975 million household subscribers of cable television, of which 76.6% uses one of the five multiple-system operators (China Network Systems Co., Ltd., Kbro Co., Ltd., TWM Broadband, Taiwan Fixed Network Co., Ltd., and Taiwan Optical Platform Co., Ltd.), with digitalization rates of 100%. In addition, channel providers have been broadcasting HD audio/video content and interactive and customized television programs and applications, resulting in more intense competition for the Company's MOD services.

- MOD provides over 205 channels, including 194 high definition (HD) channels and over 25,000

hours of on-demand programs. In addition, the Company continues to optimize its user interface (UI), design quality content and package offerings that cater to customer needs, and leverage OTT technology to develop new services such as interactive gaming, advertising, and 4K viewing, in order to better fulfill market demand. As of December 31, 2019, the Company had approximately 2.082 million MOD subscribers.

#### B. Mobile Communications Services

- Although the overall mobile market continues to be very competitive, the domestic mobile operators' subscriber market shares are relatively stable, of which the Company is the largest provider in terms of both subscribers and revenue. As of December 31, 2019, the Company had total mobile subscribers of 10.649 million (including pre-paid subscribers), representing a market share of 36.5%. Mobile revenue market share was 37.9%
- Mobile communication broadband services are in greater demand, primarily due to the evolution of mobile technology and deeper penetration of tablets and smart phones such as iPhone / Android. Many service providers have launched mobile broadband services in order to fulfill customer demand for higher speed internet access.
- The Company plans to continue constructing its mobile broadband network, optimizing service coverage, and constructing more Wi-Fi hotspots in order to offer integrated wireless broadband internet access and more diversified services such as KKBOX, Hami Pass, Hami Video, Hami Books, etc., and consequently to increase customer revenues and revenue streams.
- International telecommunications service providers and some domestic radio and television content providers have been actively developing OTT convergence services, including Google, Apple, Amazon, etc., especially for services such as communication, music, games, video, and other

digital convergence services for domestic and international markets.

#### C. Internet and Other VAS Services

- Taiwan's broadband access penetration rate is relatively high with intense competition, primarily because both telecommunications service providers and cable broadband operators offer broadband access with high speeds and high quality services. As of December 31, 2019, the Company's HiNet subscribers totaled approximately 4 million, representing a market share of 64.4%. Internet revenue market share was 39.8%.
- As the value of the gaming market continues to increase, the Company has introduced gaming accelerators for professional players to gain key timing advantages in winning games.

#### D. International Fixed Communications Services

- The Company is the leading provider of international fixed communication services. As of December 31, 2019, the Company had a market share of 69.6% by minutes. International internet revenue market share was 63%.
- The Company's prepaid cards business targets the large foreign labor market, which accounts for the largest portion of revenues. To retain existing customers and to acquire new customers, the Company continues to introduce various long-and short-term 4G and voice combination discounts and collaborates with local public and private entities to hold various holiday promotions, strengthen customer service, and promote the Chunghwa prepaid card businesses.
- The Company has expanded its voice resale business to certain labor exporting countries in the Middle East and Asia Pacific. In addition, the Company has constructed an IPX network platform to enable 4G/LTE international data roaming, and collaborates with international service providers using Voice over IP networks in order to increase third-party transfers and overall traffic volumes.

## 1.3 Research and Development

### (1) Major R&D Expenditures for the Most Recent Year:

Unit: NT\$'000

Item/Fiscal Year	2018	2019	2020 (as of Feb. 29, 2020) (Note)
R&D expenses	3,725,249	3,941,446	624,337
Consolidated revenues	215,483,158	207,520,061	32,574,150
R&D expenses as a % of consolidated revenues	1.73%	1.90%	1.92%

Note: 2020 figures are unaudited.

## (2) Major R&D Achievements for the Most Recent Year and Up To the Publication Date of This Annual Report

In fiscal 2019, the Company's R&D focus included: core business, emerging businesses, cost optimization, and enhancement of fundamental capabilities. As of the date of the publication of this annual report, the Company's achievements in technology and products are listed below:

### A. Core Business

- Developed necessary functions for innovative services including HiLink+ Lite VPN and SD-WAN.
- Supported hcloud public cloud service to launch multiple services to improve the competitiveness of products. Named "Best Choice" by the Ministry of Economics for five straight years.
- Developed government cloud operational management system service, providing dedicated resources, including Open API, to fulfill government user needs.
- Developed interoperability standards and inspection technology for FTTH equipment to help improve the competitiveness of domestic FTTH equipment manufacturers and support the national policy goal of attaining a 90% coverage rate for 1Gbps services by 2020.
- Completed mobile edge computing (MEC) commercial solution v1.0, satisfying demand for high speed, low-latency, and flexible service deployment, and improved corporate data security/privacy.
- Completed new framework for in-car mobile Wi-Fi to improve Wi-Fi service quality in high-speed rail cars.
- Strengthened virtual and physical resource management, the scale of which is at approximately six million elements, by promoting the automated control of mobile and fixed networks, and virtual and physical resources.

### B. Emerging Business

- Developed Intelligence Video Surveillance (IVS), which, through innovative streaming integration technology combined with AI facial recognition, body recognition, and big data indexing technologies, provides a comprehensive solution including entrance security management, digital fencing, and big data analysis of people flow.
- Developed technologies and applications for law enforcement to improve traffic safety.
- Developed intelligent maritime port solutions to preserve and strengthen the efficiency and security of

Taiwan's harbors, provide comprehensive solutions including Auto-Gate.

- Developed big data traffic analysis technology leveraging CVP analytics to provide traffic information services, including travel time, which can be used to improve traffic congestion and is an application for smart city life.
- Integrated 4G car imaging and driver safety-assist to provide safety applications for enterprise car fleets.
- To prepare for automatic meter reading business opportunities in the electricity, water, and gas industries, developed a communication module for meter reading, advanced metering infrastructure (AMI) head-end system, and automatic meter reading (AMR) system.
- Developed healthcare cloud service to provide health data sharing and exchanging services, and developed an enterprise health management system to assist enterprises in caring and managing the health of employees.
- Developed a new generation of identification technologies, including multi-factor authentication, digital signatures, and SIM card security, to strengthen the identity verification business and for new business opportunities in the government, finance/insurance, telecommunications, medical, and e-commerce sectors.
- Developed core technologies and applications, including Blockchain as a Service (BaaS) and personal information authorization management, for emerging blockchain business opportunities in the logistics, healthcare, and insurance industries.
- Leveraging AI and big data technologies, established a cybersecurity threat intelligence analysis platform to enhance the competitiveness of cybersecurity products and services, creating new business opportunities in cybersecurity intelligence services.
- Developed on demand MOD and OTT film and television technology and applications, creating a free-to-choose channel package mechanism, Netflix integration service, and multiscreen video service.
- Developed augmented reality (AR) core technology and applications, incorporating 5G technology to support future immersive service demand.
- Developed mobile payment and tapping service (Hami Pay), providing functions for domestic mainstream credit cards, including payment, digital tickets and cloud receipts, and smart payments, and incorporating multiple front-end EDC payment devices, expanding offline channels for loyalty programs and fostering

loyalty program ecosystems.

- Leveraging language recognition, language comprehension, and semantic cloud platform technologies developed in-house, developed the ibobby smart speaker service to support business opportunities in the voice control market.
- Developed customer service chatbot, IVR call routing, and outbound call robot for business opportunities in providing enterprise customers with smart customer service solutions.

### C. Cost Optimization

- In response to the evolving trends in telecommunications and the Company's transformation strategy, integrated open source and software-defined technologies and furthered the use of SDDC for the enterprise private cloud and the telecommunications cloud.
- Piloted by the Fixed and Mobile Order/Billing Management System, completed large-scale downgrade to an open x86 processor platform, cloudification, and subdivision work, reducing procurement costs.
- In response to the Company's channel transformation plan, added and completed cash flow and logistics functions for the online store business.
- Introduced in-house AI technology to the Company's customer service functions, including smart call routing and caller authentication, customer service chatbot, and proactive outbound customer service robot.
- Introduced big data analysis technology into the applications such as customer segmentation analysis, smart recommendations, and potential customer prediction.

### D. Enhancement of Fundamental Capabilities

- Formulation and promotion of 5G connection standards: Formulated and completed EN-DC frequency standards related to 5G with 3GPP, helping the Company to apply existing LTE CA effectiveness to initial 5G commercialization and ensuring leading and superior transmission rates.
- Completed 5G-related issues testing, including (a) download transmission rate exceeding 2Gbps, (b) EN-DC technology coverage, and (c) second order harmonic distortion of mobile uploads, providing the Company with important references for 5G spectrum bidding, network planning, and 5G mobile phone procurement.

- Developed high-speed optical transmission system disaggregation technology to gradually disaggregate equipment, lead collaboration between domestic and large international manufacturers, and jointly enter the high-speed transmission equipment sector.
- Promoted international IPv6 Ready Logo Gold Badge inspection service, receiving global recognition, and selected for the IPv6 Forum's 2019 Hall of Fame, the only one to receive the honor in Taiwan.
- Developed collaborative operation management mechanism of telecom cloud's SDN and NFV to promote network software transformation.

## 1.4 Corporate Development Plan

### (1) Long-term Corporate Development Plan

- A. Focus on the core business; develop a new generation of networks; provide voice, data, and video communications services; fulfill the telecommunications needs of consumers, households and enterprises; and build the best customer experience.
- B. Actively develop emerging businesses; leverage Chunghwa Telecom Laboratories' research and development resources and the capabilities of strategic partners; build an industry ecosystem; promote smart services and solutions for enterprises and consumers; increase enterprise customer operating efficiency; enhance consumer customer lifestyles and well-being; expand domestic and international markets; become a pioneer of smart living and enabler of the digital economy.
- C. Through intelligent technology, digitalization, network virtualization, SDN, and related technologies, strengthen the Company's operating cost and procurement efficiency, increase its resource productivity ratio, and effectively optimize its Capex investments.

### (2) Short-term Corporate Development Plan

- A. Expand FTTx broadband business and encourage customers to increase access speed while maintaining high quality network services with integrated offerings.
- B. Continue to develop and expand integrated services of fixed communication, mobile, data, and value-added services.
- C. Advance the integrated network of fixed and mobile communication by optimizing network resources and enhancing network quality.
- D. Expand MOD and Hami Video services by introducing preferred content and channels for seamless audio/video experiences anytime, anywhere.

- E. Provide accelerated and convenient mobile data transmission services for enterprise clients, and collaborate with information content providers to develop mobile ICT VAS.
- F. Enhance precision marketing and effectively manage online social media by leveraging big data analysis and CRM platforms in order to improve brand image, strengthen customer relations, and deliver on product sales targets.
- G. Enhance marketing of integrated services and ICT services for enterprise clients.
- H. Develop IoT platform with diverse and innovative applications suitable for fulfilling various demands from multiple industries.
- I. Expand various cyber security solutions, targeting households, enterprises, and government entities.
- J. Actively compete for project bidding opportunities by designing advanced IDC/cloud hardware/software total solutions in accordance with client requirements.
- K. Develop internally, or cooperate with third-party partners, to develop total solutions for enterprise clients in the areas of AR/Virtual Reality (VR), AI, big data, Fintech, health care, gas intelligence, and other innovative applications.
- L. Expand overseas market in conjunction with the Company's affiliates and strategic partners.

access services. As of December 31, 2019, the total number of broadband subscribers are approximately 4.405 million. The Company plans to continue offering higher speed and better quality FTTB and FTTH optical network access in order to fulfill customers' increasing demand for bandwidth.

- Local and domestic long distance telephone revenue slightly decreased due to traffic migration to mobile telephone, free communication software, and VoIP, while broadband access slightly decreased due to pricing pressures and market competition. These were partially offset by growth in ICT revenues generated by enterprise customers, resulting in a decline of 3.1% year over year for domestic fixed communication revenue.
- Countermeasures:
  - Construct FTTx next generation network (NGN), gradually migrate to VoIP, and provide value-added and integrated services.
  - Enhance CRM, formulate precise customer segmentation with integrated marketing plan and improved customer value.
  - Develop and promote fixed communication VAS, such as 1288 information inquiry, ringback tone, incoming call filter, etc., in order to increase revenue generation.
  - Promote family-focused convergence services, such as broadband + MOD/OTT + smart home AI semantic cloud, and healthcare cloud, to meet demand for services including smart home, audio/visual entertainment, and security.
  - Launch higher speed FTTx services in order to fulfill customer demand and develop new applications for IoT.
  - Expand MOD services and integrated marketing for broadband internet access.

#### B. Internet and Other VAS Services

- Market share including enterprise market: as of December 31, 2019, market share by HiNet subscribers was 64.4%.
- Future market demand and supply, market growth trends, competitive advantages and disadvantages: The broadband access penetration rate is relatively high. Combined with the consolidation of telecommunications providers and cable operators, which will likely increase broadband market competition, the Company plans to develop multimedia and high definition audio/video content such as MOD, HD, and OTT, in order to increase

## 2. Markets & Sales Overview

### 2.1 Market Analysis

The Taiwan telecommunication market is relatively competitive, and customers have high expectations of telecommunications service quality and pricing. The Company follows closely market dynamics and consumption trends in order to develop more appealing and innovative products with appropriate pricing plans.

#### (1) Household Market

- A. Domestic Fixed Communications Services Key Offerings and Regions: local telephone, domestic long distance, broadband access; nationwide throughout Taiwan
  - Market share including enterprise market: as of December 31, 2019, market share by local telephone subscribers was 92.5%, market share by domestic long distance call minutes was 82%, and market share by broadband access subscribers 68%.
  - Future market demand and supply, market growth trends, competitive advantages and disadvantages:
    - The Company offers diverse broadband internet

revenue generation.

- Countermeasures:
  - Expand digital convergence and multi-screen integrated services, provide differentiated products, and increase customer value.
  - Expand MOD and HiNet VAS such as video, gaming, cyber security, etc., in order to increase revenue streams.
  - Expand higher speed internet access and various application VAS and increase broadband penetration rate with FTTx 100M and above as the key offering in order to facilitate broadband customer migration.
  - Analyze customer attributes and service demand using CRM platform, promote digital convergence and multi-screen integrated services (such as FTTx, mobile internet, MOD, etc.), and apply precision marketing to increase the number of customers and to enhance traffic and revenue streams.

### C. MOD/IPTV Services

Key offerings and regions: nationwide throughout Taiwan.

- Market share: as of December 31, 2019, total MOD subscribers are approximately 2.082 million, representing a penetration rate of 23.6% (MOD subscribers/Total households) and a market share of 29.5% (MOD subscribers / (MOD subscribers + CATV subscribers)).
- Future market demand and supply, market growth trends, competitive advantages and disadvantages:
  - Currently, MOD primarily offers television channel and on-demand video. In the future, as the Company continues to expand its customer base, the Company will provide more multi-screen content services.
  - MOD advantages: customized channel subscription package, 4K and HD quality, on-demand video, multi-screen availability; MOD app enables customers to download and view their preferred MOD programs anytime, anywhere.
  - Due to regulation restrictions, the Company currently cannot directly operate or act as an agent for television channels, which adversely impacts its business. In the long term, such restrictions may not be conducive for the overall development and competitiveness of the domestic film and television industry.
- Countermeasures:
  - Expand digital convergence and multi-screen integrated services. Provide differentiated products and increase customer value.

- Expand MOD/OTT and HiNet VAS such as video, gaming, cyber security, etc., in order to increase revenue streams.
- Expand MOD services and integrated marketing for broadband internet access.

D. International Fixed Communications Services Key Offerings and Regions: international long distance; nationwide throughout Taiwan and overseas to about 230 countries.

- Market share including enterprise market: as of December 31, 2019, market share by international long distance call minutes was 69.6%.
- Future market demand and supply, market growth trends, competitive advantages and disadvantages: international fixed communications revenue in 2019 declined 14.5% year over year primarily due to the decrease of international network revenue and the satellite services revenue, which were impacted by the availability of free communication software. This was partially offset by growth in international leased lines, international data exchanges, and international ICT services.
- Countermeasures:
  - Continue to improve services for existing customer base with increasing focus on wholesale in order to mitigate pricing declines.
  - Promote hotline service package and enhance Ideal Card bundled services.

## (2) Consumer Market

### A. Mobile Communications Services

Key offerings and regions: nationwide throughout Taiwan, international roaming outside of Taiwan.

- Market share including enterprise market: as of December 31, 2019, market share by mobile communication subscribers was 36.5%.
- Future market demand and supply, market growth trends, competitive advantages and disadvantages:
  - As of December 31, 2019, the mobile communication penetration rate in Taiwan had reached 123.7%.
  - In 2019, the Company focused on expanding mobile broadband services with cross-business integration and more competitive product design; as of December 31, 2019, mobile broadband customer base had reached approximately 10.649 million, representing an increase of 0.5% year over year.
  - The Company continues its infrastructure construction efforts based on user experience and

establishing differentiated quality. The Company's mobile network design and construction focus on the goal of "widest coverage," especially for high population density areas and most bustling commercial districts with high and low frequency integration in order to enable optimal coverage and enable seamless voice calls, mobile internet access, and other commercial uses. The Company has successfully participated in three mobile spectrum auctions in fiscal years 2013, 2015, and 2017, obtaining cumulatively the largest bandwidth coverage within the telecommunications industry. The Company currently has spectrum slots of 900MHz, 1800MHz, 2100MHz and 2600MHz, totaling 180 MHz bandwidth, and has what is considered the best frequency allocation for users' mobile experiences.

- Although mobile voice revenue has decreased slightly due to market competition and substitution from VoIP, the Company's continued mobile broadband expansion and data usage promotions, combined with flexible pricing plans and Hami VAS, have successfully attracted more customers, resulting in solid revenue generation.

- Countermeasures:

- Leverage the Company's bandwidth advantage, accelerate construction of infrastructure, improve customer experiences, expand the mobile customer base, and increase ARPU.
- Introduce high, mid and low pricing plans for different smartphone customer segments, continue VAS optimization and management, and innovate new offerings for incremental revenue streams in order to achieve overall revenue targets.
- Expand market share in the millennials segment by leveraging online stores in order to increase digital marketing efficiency and new customer acquisition.
- Provide customers better quality services with cross-network integration and channel partner alliances.

B. International Fixed Communications Services Key Offerings and Regions: international long distance telephone, international roaming outside of Taiwan.

- Future market demand and supply, market growth trends, competitive advantages and disadvantages: international fixed communications revenue has been adversely affected primarily due to customer migration to VoIP-based technology and the decline of unit prices, which have been partially offset

by the Company's overseas market expansion. The Company plans to retain existing customers and further develop new customers in order to solidify international fixed communications revenue.

- Countermeasures:

- Continue to improve services for existing customers in order to mitigate the decline of unit prices.
- Promote off-peak rate plan, enhance Ideal Card bundled services for the foreign laborer international calling card market.

### (3) Enterprise Market

A. Domestic and international fixed communications, mobile communications, internet, and other VAS services.

Key offerings and regions: nationwide Taiwan (international roaming available)

- Future market demand and supply, market growth trends, competitive advantages and disadvantages:

- Continue to provide higher speed, better quality enterprise broadband, IDC, etc., in order to fulfill enterprise demand for broadband internet access, cloud applications, etc.
- Domestic fixed communications and mobile communications revenue for 2019 decreased slightly compared to the previous year primarily due to customer migration to free communication software and VoIP-based services, as well as market competition.
- International leased line market share was 69.6%, with revenue increasing 14.7% year over year. The Company plans to continue to improve services for existing customers while developing new customers in the Southeast Asia market in order to facilitate data business revenue generation.

- Countermeasures:

- Provide customers with better quality services, and increase customer loyalty and value with cross-network integration and channel partner alliances.
- Continue to develop enterprise communication integration and VAS in order to increase VAS revenue generation.
- Expand international data and leased line businesses and expand domestic and international ICT and enterprise innovative applications in order to increase telecommunication service revenue.

B. Enterprise ICT services (IoT, IDC, cloud, enterprise information security, Network Managed Services, mobile ICT, etc.)

Key offerings and regions: nationwide throughout Taiwan; in mobile IoT services, the Company is the only telecommunication service provider in Taiwan capable of providing NB-IoT and LTE Cat-M1 services for both the domestic and overseas markets.

- Future market demand and supply, market growth trends, competitive advantages and disadvantages:
  - The Company has competitive advantages in technology, telecommunications, large-scale project execution and integration, a renowned brand, nationwide service channels, providing enterprises with advanced ICT services, and enabling enterprises to achieve their respective strategic and operational targets.
  - Applications such as IoT, enterprise information security, and mobile ICT are driving demand as both higher speed internet access and diverse mobile device penetration rates increase.
  - Competitors typically use lower pricing strategies when deploying enterprise ICT services and in seizing enterprise market opportunities.
- Countermeasures:
  - Expand fixed network broadband, mobile internet access, digital convergence, and other enterprise VAS in order to increase customer value and revenue generation.
  - Expand IoT, enterprise information security, IDC, cloud, mobile ICT, etc., in order to fulfill enterprise client demand for innovative applications and VAS.

- Provide mobile IoT communication services, enable enterprises to adopt various mobile solutions, and collaborate with global telecommunication service providers to offer terminals for international roaming, enterprise terminal management, IoT solutions, etc.
- Expand and discover qualified alliance partners to provide sector-specific ICT total solutions for enterprise clients; actively compete for project bidding opportunities from government entities.

## 2.2 Main Features and Production Process of Major Products

The Company's leading offerings are domestic and international fixed communications, mobile communications, and internet services for individual consumers, households, and enterprises. The Company's main product features and production processes are: service positioning and network planning, construction, and post-maintenance.

## 2.3 Supply of Raw Materials

Not applicable as the Company is not a manufacturer.

## 2.4 Major Suppliers/Customers Accounting for More Than 10% (inclusive) of Purchases/Sales in the Most Recent 2 Years

None.

## 2.5 Production Volume in the most recent 2 Years (Equipment)

Key Offerings		2018	2019
Domestic Fixed Communications	Domestic Network	16,936,487 subscribers	15,993,445 subscribers
	Long Distance Network	1,390,766 subscribers	1,400,516 subscribers
	Broadband Access Network (ADSL+FTTx)	10,720,890 ports	10,948,316 ports
	MOD (Set-Top box) (Note)	2,565,800 sets	2,691,313 sets
Mobile Communications	Mobile Network	18,820,000 subscribers	18,820,000 subscribers
Internet Network	HiNet BRAS	5,516,000 ports	5,489,000 ports
International Fixed Communications	International Network	191,436 subscribers	159,616 subscribers

Note: MOD equipment quantity description (online usage and inventory): cumulative purchase volume in 2018 was 2,565,800 sets, plus 500,000 sets purchased in 2019 (based on delivery made in 2019) and 374,487 sets replaced, totals 2,691,313 sets.

## 2.6 Sales Volume for the Most Recent 2 Years

Key Offerings		2018		2019	
		Subscribers/ Minutes in millions	Revenue (NT\$ billions)	Subscribers/ Minutes in millions	Revenue (NT\$ billions)
Domestic Fixed Communication	Domestic Network	10.421 Subs	27.57	10.163 Subs	25.73
	Long Distance Network	2,087.3 Mins	2.43	1,804.8Mins	2.20
	Broadband Access Network (ADSL+FTTx)	4.483 Subs	18.30	4.405 Subs	17.98
	MOD	2.01 Subs	3.26	2.082 Subs	3.60
Mobile Communications	Mobile Services	10.594 Subs	63.91	10.649 Subs	58.7
Internet Network	HiNet	3.684 Subs	29.81	3.624 Subs	30.09
International Fixed Communications	International Network	764.6 Mins (Note)	13.43	485Mins (Note)	11.49

Note: Only including outgoing minutes.

## 3. Human Resources

Year		2018	2019	2020 (as of Feb. 29, 2020)
Number of Employees (including domestic and international)		22,134 (Note)	21,716 (Note)	21,201 (Note)
Average Age		51.28	50.84	50.7
Average Years of Service		26.39	25.25	25.24
Breakdown of Education Level (%)	Ph.D.	1.16	1.2	1.23
	Masters	26.98	29.03	29.61
	Bachelors	50.95	50.58	50.26
	Senior High School	19.07	17.64	17.40
	Below (and include) Middle School	1.84	1.55	1.50

Note: Including 10 personnel who are not qualified as the Company employees in accordance to TWSE, but are board members of the Company.

## 4. Environmental Protection Expenditures

### 4.1 Losses or Penalties Due to Environmental Pollution for the Most Recent Year and Up To the Publication Date of this Annual Report

None.

### 4.2 Countermeasures and Potential Costs

#### (1) Environmental Protection and Pollution Prevention

A. Ensure that, during telecommunications engineering construction, environmental protection and related laws including those of air pollution, noise pollution, and waste disposal, are complied with and that

appropriate prevention measures are implemented.

At the same time, require each engineering unit to strengthen supervision of vendors to ensure full cooperation.

- B. When conducting telecommunication engineering work near roads, strive to avoid heavy traffic flow hours and use low-noise equipment to reduce the impact on the living environment for nearby residents.
- C. When lead acid batteries used in telecommunications need to be disposed of, relevant environment protection laws will be followed, and will be recycled by qualified vendors who are properly registered with the Environmental Protection Agency (EPA), with proper documentation provided in sextuplicate for audit tracking.

## (2) Enhance Environmental Protection Measures for Telecommunication Engineering Construction

- A. When designing telecommunication lines, incorporate environmental protection and pollution prevention into the list of considerations for construction site planning, and prepare the budget and construction plan report accordingly. After construction begins, strictly implement construction site pollution prevention measures.
- B. Strengthen on-site environmental protection; when conducting telecommunications pipeline excavation, avoid waste from touching the ground, and prevent any pollution to a city's appearance or environment during transit.
- C. Proactively control air and noise pollution in all facility offices; for new equipment purchases, in addition to strictly requiring manufacturers to provide products that comply with environmental regulations, also require contractors to comply with the laws during construction and to guarantee engineering quality.

## (3) Enhance Energy Saving Measures in Facility Office

- A. Utilize centralized monitoring system to control equipment room temperature and conduct peak demand controls to effectively control equipment room temperatures to between 27~30° C, and to prevent traffic overload during peak demand intervals.
- B. In accordance with the thermal load characteristics of the telecommunications facilities, adopt high sensible heat packaged air conditioning systems to improve air conditioning efficiency.
- C. Choosing high efficiency models for newly purchased equipment, installing some equipment with inverters, and accelerating the replacement of old and energy-consuming equipment to reduce equipment energy consumption.
- D. Air conditioning systems utilize high sensible heat energy-saving units, and energy-saving and temperature-controlling frequency conversion cooling water towers and motors, effectively reducing operating power.
- E. Avoid low loading usage of power supply equipment to optimize its operating efficiency.
- F. Use natural ventilation and air conditioning in suburban base stations.
- G. For remote areas or suburbs with lower temperatures and better air quality, modify air conditioning systems to prefer low temperature natural air, which can significantly reduce energy use in winter months.
- H. Implement energy-saving measures, such as replacing

old 3G base station equipment, to reduce station power consumption.

- I. Strengthen and improve the heat dissipation capability of telecommunications equipment, moderately increasing ambient temperature while effectively reducing the power consumption of air conditioning systems.
- J. When planning and designing new air conditioning systems, use various energy saving options, such as: separating cold and hot ducts, frequency conversion fans, induced ventilation systems, and variable air volume systems.
- K. In accordance with the amount of heat generated by communication equipment, flexibly change air conditioner system air volume or air duct placement.
- L. Optimize, consolidate, eliminate, and choose low energy-consuming products for switches, broadband, and transmission circuits.
- M. Cooperate to replace telecommunications equipment and centralize facility office electrical equipment in order to improve overall operating efficiency.

# 5. Employee Relations

## 5.1 Workplace Environment and Employee Safety

- (1) All of the Company's Level 1 and 2 branch offices have in place designated Occupational Safety and Health Departments in charge of all occupational safety and health management plans and procedures, in accordance to relevant regulations. The Occupational Safety and Health Department focuses on providing appropriate work environment, hazard recognition, all safety and health management evaluations and controls, automated checking, and operating environment surveillance equipment, in order to create a safe, healthy, comfortable, and friendly work environment.
- (2) The Company has established three corporate training centers, in Banqiao, Taichung, and Kaohsiung, for conducting regular safety and health training and drills for employees and contractors in order to improve occupational safety awareness, and safety and health skills and responsiveness, to ensure the overall safety of all employees and contractors.
- (3) The Company has engaged doctors and professional nursing staff to conduct on-site health related services in order to ensure employee well-being, including planning and implementing health

education, and providing health promotion and sanitary guidelines, work-related injury prevention education, health consultations, first aid, emergency response, and health examination analysis, evaluation, and management.

- (4) The Company pays for various health examination packages for employees depending on their respective age and health risk factors. In addition, the Company promotes healthy activities, establishes sports and leisure facilities, and develops employee assistance programs (EAP).
- (5) In order to continue promoting safety and health management effectiveness, and to match international occupational safety and health standards, the Company proactively conforms to the revised occupational health and safety standard (ISO 45001) international certification. In 2019, 15 Level 1 and 2 branch offices completed the revised certification, and another 11 Level 1 and 2 branches are expected to pass in 2020 for a total of 26 Level 1 and 2 branch offices completing certification and receiving annual re-certification. Through the Plan-Do-Check-Act systemized management cycle, continue to improve safety and health management results and create a high-quality safety and health culture.

## 5.2 Employee Behavior and Ethical Standards

- (1) The Company has established a "Code of Ethics", which includes standards on personal responsibility, community responsibility, and responsibility towards the Company, the public, and other stakeholders. Applicable to directors, managers, and employees, its purpose is to prevent unethical conduct and to promote behavior that conforms with requirements and standards, including general principles, general principles, conflicts of interest among employees, customer and supplier relationships and conflicts of interest, and related policies and standards that also include the Company's policies towards ethical business practices.
- (2) The "Code of Ethics" can be accessed under "Corporate Governance" within the corporate website and internal "Human Resources" website. The Company conducts annual "Code of Ethics" reviews and online testing in order to strengthen employee ethics and values.
- (3) The Company has established "Employee Appraisal Guidelines" and "Employee Reward/Disciplinary Standards" to conduct employee assessments and to arrange for rewards and penalties.
- (4) The Company has established "Employee Suggestions and Reward Operations Guidelines" in order to encourage all employees to actively make suggestions, participate in research and development, reduce costs and expenses, increase productivity, and contribute to a positive and innovative corporate culture.

## 5.3 Employee Welfare Policy

- (1) The Company has provided employee labor insurance in accordance to the regulations, and in case of any claims, the Company shall actively notify and assist all employees throughout the application process in order to ensure employee welfare rights.
- (2) Manage medical insurance for employees and dependents.
- (3) According to employees' physical capabilities, interests, feedback, and opinions, organize hikes, tours, excursions, sports competitions, and cultural and recreational activities, and provide participation rewards and competition awards to increase employee motivation for participation in such activities, to promote the development of employees' physical and mental health and increase opportunities for interaction.
- (4) The Company provides employee benefits in order to assist the Employee Welfare Committee to offer various employee subsidies (such as for marriage, birth, children's education, retirement, death of employee and related family dependents, etc.), perks for the three major holidays, employee recreational activities, birthday parties, group insurance, and others.
- (5) In accordance with the national birth policy, to retain younger talent, to enhance the corporate image, and to better care for the younger generation of employees, since 2018, the Company has implemented child care subsidies for which each employee is subsidized NT\$5,000 per year for each child aged 0 to 6 years. The child care subsidy system has been standardized within the Company, and the subsidy is automatically distributed as long as the employee qualifies with a child aged 0 to 6 years. In addition, any approved corporate child care subsidy from the local government shall also be provided to eligible employees by the Company.
- (6) The Company has established the Employee Share Trust in order to increase employee welfare benefits, enhance corporate unity, share the successes of business operations, and ensure better living after employee retirement or departure. The Trust consists

of pro-rata share-based bonuses based on employee monthly salaries.

- (7) The Company is required under the Employment Insurance Act to pay 6 months of allowances for employees who have taken parental leave. Employees are further entitled under company policies to receive additional monthly allowances totaling half the sum assured under the Labor Insurance law during child care leave.

## 5.4 Overseas Delegation and Workshop

The Company has arranged overseas delegations and research opportunities in accordance with its annual budget. For 2019, total number of employees going abroad was 378.

## 5.5 Employee Training and Education Program

### (1) Employee Training and Education Status

The Company strives to provide all employees with an open and diverse learning environment, primarily focusing on educational training and professional development. The employees can improve their knowledge with access to internal and external training programs, e-learning programs, a knowledge management system, and guidance from their supervisors and colleagues. In addition, employees can experience many types of training programs, such as new recruits orientation, management and supervisory training, professional knowledge and technology development, marketing and customer relations training, safety and health training, computer training, etc. In addition, employees can cultivate their development through job rotations, special project assignments, and overseas assignments, to further their personal and professional lives.

#### A. Employee Training: New Recruits and On-the-Job Training

- New Recruits Training: in order to ensure that all newly

hired employees can seamlessly join the Company with a basic understanding of the Company's operating guidelines, culture, organization, business, safety, employee rights and responsibilities, etc., the respective department of the Company arranges new recruit orientation programs and relevant digital e-learning programs.

- Employee On-the-Job Training
  - The Company's HR team is in charge of planning and executing employee on-the-job training with relevant assessments in order to enable all employees to achieve successful career development, enhance their professional knowledge, and improve their service attitudes and overall performance.
  - The employee training and education program is primarily divided into two categories, professional and managerial, both of which leverage e-learning programs, community learning, a knowledge management system, and relevant e-learning satisfaction surveys.
  - In 2019, expenses related to employee training and education amounted to NT\$522 million, including training academies, professional development, self-learning, external training, etc. Based on total employees of 21,800, this represents an average expense of NT\$23,945 per headcount for employee training and education.
  - The Company has Telecommunication Training Institutes in Banqiao, Taichung, and Kaohsiung, and has designed various training programs on an annual basis in accordance to the overall corporate plan. In 2019, the Telecommunication Training Institutes conducted 1,445 classes for 72,287 attendees, totaling training fees of NT\$522 million. For details, please see the table below:

Training Categories		# of Classes	# of Attendances	Total # of Man-Hour	Fees (NT\$' 000)
1	Management & Supervisory	244	15,223	74,249	82,268
2	Professional Knowledge & Technology	518	17,225	145,808	161,555
3	Marketing & Customer Services	163	8,099	46,549	51,577
4	Safety & Health	131	7,495	38,553	42,717
5	Computer	389	24,245	148,862	164,939
6	e-learning	-	-	486,772	18,944
	Total	1,445	72,287	940,793	522,000

## B. Employee Professional Development:

- The Company has established the "Studying at Universities and Colleges (Including Research Institutes) for the Staff of Chunghwa Telecom Co., Ltd." policy in order to encourage all eligible employees to further their professional development.

- The Company has established "Studying at Universities and Colleges (Including Research Institutes) for the Staff of Chunghwa Telecom Co., Ltd." policy in order to develop talented employees in the areas of telecommunications business, technology, and management. Details regarding program participants and fees for academic year 2018-2019 are listed below:

Categories Items	Specialty	Bachelor	Master	Ph.D.	Total
# of Applications	8	50	309	38	405
Fees (NT\$)	71,906	491,378	6,691,638	152,727	7,407,649

Note: The above table lists all subsidized applications for academic year 2018-2019 in the first semester (September 1, 2018, to January 31, 2019) and the second semester (February 1, 2019, to June 30, 2019).

## (2) Financial Reporting Related Employees with Mandatory Certifications:

### A. International internal auditor certification:

7 personnel in the audit department; 3 personnel in the accounting department

### B. Taiwan internal auditor certification:

5 personnel in the audit department; 5 personnel in the accounting department

### C. International internal control certification:

3 personnel in the audit department

### D. Taiwan certified public accountant:

Chief Financial Officer, 8 personnel in the accounting department and 1 personnel in the audit department, totaling 10.

## 5.6 Retirements

Retirement Policy and Implementation:

- (1) The Company has established the "Employees' Pension, Consolation Pay, and Severance Pay Guidelines of Chunghwa Telecom," which is in accordance to the relevant Labor Standards Act and Labor Pension Act. For those employees who have retired prior to the privatization of Chunghwa Telecom, their respective retirement benefits are issued by the central government.
- (2) The Labor Standard Act Article 56-1 stipulates monthly provisions to be provided as retirement pensions, while Article 56-2 stipulates that, commencing March 31, 2018, a one-time pension reserve can be allotted at the full balance, and must be managed appropriately by the Company's Employee Retirement Fund Supervisory

Committee, and deposited into Bank of Taiwan under the committee's name.

- (3) In accordance to the Labor Pension Act, the Company contributes a monthly pension rate of no less than 6% of employees' monthly salary. These contributions are deposited directly into employees' pension accounts held under the Bureau of Labor Insurance.
- (4) In 2019, the number of officially retired employees were 974, and voluntary retirement personnel were 168 for a total of 1,142 retired personnel, and all have completed the retirement procedures.

## 5.7 Employee Negotiation and Employee Benefits Protection

- (1) The Company values employees as one of its most important assets. Since its privatization, the Company has not only complied with labor union agreements, but has also implemented benefits including a 2-year maternity leave, birth allowances, employee children education funding, an employee stock trust, and employee bonuses. The Company strives to facilitate comprehensive and consistent communication with all employees in order to ensure satisfactory labor union relations.
- (2) The Company has established regular, trustworthy and effective communication channels in order to increase the frequency and depth of overall communication with labor unions.
  - A. The Company's branches hold at least one meeting every 3 months in accordance to the labor union agreement.
  - B. If any significant labor-related amendment changes

are requested, negotiation and discussion meetings are conducted as additional meetings.

- (3) The Company has signed a collective bargaining agreement in accordance with the "Collective Agreement Act." Currently, agreements have been signed with the Chunghua Telecom Workers' Union, Southern Taiwan Business Group Workers' Union, Data Communications Business Group Workers' Union, Kaohsiung Branch Workers' Union, Changhua Branch Workers' Union, Taichung Branch Workers' Union, Tainan Branch Workers' Union, and Pingtung Branch Workers' Union.

## 5.8 Losses Related to Labor Disputes in 2019 and Up To the Publication Date of this Annual Report

- (1) In 2019, the Company was fined NT\$1.36 million, which resulted from a "NT\$499 plan" related case in 2018, when the Company was penalized by the Labor Authority for violation of the Labor Standards. After the Company filed a "petition" and "administrative lawsuit" according to legal proceedings, the original penalty was revoked in accordance with the appeal decision by the Ministry of Labor and the administrative lawsuit decision by the local court. Below are the detailed results:

As of February 29, 2020

No.	County or City	Record Date	Record Number	Law Violated	Violation Details	Fine (NT\$'000)	Notes
1	Yilan County	February 22, 2019	Ministry of Labor Record No. 1080003426	Article 32 (2) of the Labor Standards Law	Extended working hours over legal limits	120	Case related to "NT\$499 Plan"; appeal decided on January 3, 2019; original penalty of NT\$1 million revoked; new penalty of NT\$120,000 imposed. The Ministry of Labor rejected the Company's appeal; the Company will not file an administrative lawsuit.
2	Taoyuan City	March 11, 2019	Ministry of Labor Record No. 1080055095	Article 32 (2) of the Labor Standards Law	Extended working hours over legal limits	1,000	Case related to "NT\$499 Plan"; appeal decided on December 13, 2018; original penalty of NT\$1 million revoked; new penalty of NT\$1 million imposed. The Company has filed an administrative lawsuit, which is being heard by the Taipei high administrative court.
3	Tainan City	October 3, 2019	Ministry of Labor Record No. 1081116189	Article 38 (4) of the Labor Standards Law	Did not provide employees with year-end leave in accordance with the law; did not provide wages in accordance with the law	20	Wages have been paid according to the law; the Company will not file an appeal.
4	Taipei City	October 5, 2019	Ministry of Labor Record No. 10860672721	Article 32 (2) of the Labor Standards Law	Extended working hours over legal limit	200	Cases related to "NT\$499 Plan"; appeal decided on August 16, 2019; original penalty of NT\$200,000 revoked; new penalty of NT\$200,000 imposed; the Company will not file an appeal.
5	Hsinchu County	November 1, 2019	Ministry of Labor Record No. 1083914506	Article 32 (2) of the Labor Standards Law	Extended working hours over legal limit	20	Case related to "NT\$499 Plan"; appeal decided on September 4, 2019; original penalty of NT\$200,000 revoked; new penalty of NT\$20,000 imposed; the Company will not file an appeal.
	Total					1,360	

- (2) In order to implement the Labor Standards, uphold the rights of employees and the Company, and in response to labor inspections, the Company has not only strengthened the management practices of relevant labor laws and regulations, but has also hired external lawyers to provide education related to labor inspections, self-inspections, principles, and precautions, with the goal of achieving zero violations of Labor Standards and reduce penalties.

## 6. Major Contracts

Contract Types	Contract Party	Contract Period	Key Content	Restrictions
Procurement	APPLE ASIA LLC	Dec.10.2019 ~ Current	Handsets	Confidentiality
Procurement	United Fiber Optic Co. Inc. \ Avisio Tech Inc. \ Evertop Wire Cable Corporation	Jul.16.2019 ~ Jul.16.2020	Wire, Cables, and Optical Cables	Confidentiality
Procurement	IBM Taiwan Corporation	Sep.26.2019 ~ Aug.31.2021	Information Systems	Confidentiality
Procurement	ELTA Technology Co., Ltd	Dec.12.2019 ~ Jun.30.2023	Sports Broadcasting Rights	Confidentiality
Procurement	Ericsson Taiwan Ltd \ Nokia Solutions and Networks Oy	Mar.13.2019 ~ Sep.10.2020	Mobile Telephone Equipment	Confidentiality
Procurement	Stark Inforcom Inc.	Sep.17.2019 ~ Oct.3.2020	Transmission Equipment	Confidentiality
Procurement	Hwacom Systems Inc.	May.21.2019 ~ May.21.2020	Multimedia Terminal Devices	Confidentiality
Related Entities				
Procurement	Honghwa International Corp.	Feb.26.2019 ~ Jun.23.2021	Labor	Confidentiality
Procurement	Light Era Development Co., Ltd	Nov.25.2019 ~ Dec.31.2021	Camping Project	Confidentiality
Procurement	Chunghwa System Integration Co., Ltd	Mar.28.2019 ~ Aug.13.2020	Multimedia Terminal Devices	Confidentiality
Procurement	Senao International Co.	May.21.2019 ~ Dec.31.2019	Handsets and Labor	Confidentiality
Procurement	Taiwan International Standard Electronic	Jun.27.2019 ~ Jun.27.2020	Transmission and Switch Equipment	Confidentiality



# 6 Review and Analysis of Financial Position, Financial Performance, and Risk Management

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1. Financial Position
2. Financial Performance
3. Cash Flow
4. Major Capital Expenditures and Impact for the Most Recent Year
5. Investment Policies and Key Reasons for Profit/Loss for the Most Recent Year; Improvement Plan and Future Investment Plan in the Coming Year
6. Analysis of Risk Management for the Most Recent Year and up to the Publication Date of This Annual Report
7. Others



# Review and Analysis of Financial Position, Financial Performance, and Risk Management

## 1. Financial Position

### Analysis of Consolidated Financial Position for the most recent 2 years

Unit: NT\$'000

Item	Year		Variance (+/-) Amount	Variance (+/-) %
	Dec 31, 2019	Dec 31, 2018		
Current Assets	94,072,062	91,688,336	2,383,726	3
Property, Plant and Equipment	283,694,215	288,914,228	(5,220,013)	(2)
Intangible Assets	47,046,525	50,943,682	(3,897,157)	(8)
Other Assets	52,645,436	35,722,458	16,922,978	47
<b>Total Assets</b>	<b>477,458,238</b>	<b>467,268,704</b>	<b>10,189,534</b>	<b>2</b>
Current Liabilities	64,351,545	61,387,021	2,964,524	5
Noncurrent Liabilities	26,712,928	19,309,363	7,403,565	38
<b>Total Liabilities</b>	<b>91,064,473</b>	<b>80,696,384</b>	<b>10,368,089</b>	<b>13</b>
Common Stocks	77,574,465	77,574,465	0	0
Additional Paid-in Capital	171,255,985	171,136,764	119,221	0
Retained Earnings	126,591,245	127,391,229	(799,984)	(1)
Other Adjustments	688,548	459,914	228,634	50
Noncontrolling Interests	10,283,522	10,009,948	273,574	3
<b>Total Equity</b>	<b>386,393,765</b>	<b>386,572,320</b>	<b>(178,555)</b>	<b>0</b>

Analysis for any variation plus and minus (+/-) 20%:

- Other assets increased by 47%; primarily due to the right-of-use assets arising from the application of IFRS 16.
- Noncurrent Liabilities increased by 38%; primarily due to the lease liabilities arising from the application of IFRS 16.
- Other adjustments increased by 50%; primarily due to the increase of unrealized gain on financial assets at fair value through other comprehensive income.

## Analysis of Parent-only Financial Position for the most recent 2 years

Unit: NT\$'000

Item	Year	Dec 31, 2019	Dec 31, 2018	Variance (+/-) Amount	Variance (+/-) %
Current Assets		69,965,003	67,338,984	2,626,019	4
Property, Plant and Equipment		274,744,872	281,056,057	(6,311,185)	(2)
Intangible Assets		46,519,457	50,404,295	(3,884,838)	(8)
Other Assets		66,085,949	50,017,325	16,068,624	32
<b>Total Assets</b>		<b>457,315,281</b>	<b>448,816,661</b>	<b>8,498,620</b>	<b>2</b>
Current Liabilities		59,382,190	57,334,954	2,047,236	4
Noncurrent Liabilities		21,822,848	14,919,335	6,903,513	46
<b>Total Liabilities</b>		<b>81,205,038</b>	<b>72,254,289</b>	<b>8,950,749</b>	<b>12</b>
Common Stocks		77,574,465	77,574,465	0	0
Additional Paid-in Capital		171,255,985	171,136,764	119,221	0
Retained Earnings		126,591,245	127,391,229	(799,984)	(1)
Other Adjustments		688,548	459,914	228,634	50
<b>Total Equity</b>		<b>376,110,243</b>	<b>376,562,372</b>	<b>(452,129)</b>	<b>0</b>

Analysis for any variation plus and minus (+/-) 20%:

- Other assets increased by 32%; primarily due to the right-of-use assets arising from the application of IFRS 16.
- Noncurrent Liabilities increased by 46%; primarily due to the lease liabilities arising from the application of IFRS 16.
- Other adjustments increased by 50%; primarily due to the increase of unrealized gain on financial assets at fair value through other comprehensive income.

## 2. Financial Performance

### Analysis of Consolidated Financial Performance for the most recent 2 years

Unit: NT\$'000

Item \ Year	2019	2018	Variance (+/-) Amount	Variance (+/-) %
Revenues	207,520,061	215,483,158	(7,963,097)	(4)
Gross Profit	71,567,521	75,937,701	(4,370,180)	(6)
Income from Operations	40,645,854	43,643,659	(2,997,805)	(7)
Non-Operating Income and Expenses	1,103,938	1,335,045	(231,107)	(17)
Income Before Income Tax	41,749,792	44,978,704	(3,228,912)	(7)
Net Income	33,763,943	36,456,171	(2,692,228)	(7)
Other Comprehensive Income (Loss), Net of Income Tax	1,442,506	(1,014,453)	2,456,959	242
Total Comprehensive Income	35,206,449	35,441,718	(235,269)	(1)
Net Income Attributable to:				
Stockholders of the Parent	32,788,546	35,501,622	(2,713,076)	(8)
Noncontrolling interests	975,397	954,549	20,848	2
Comprehensive Income Attributable to:				
Stockholders of the Parent	34,225,076	34,496,742	(271,666)	(1)
Noncontrolling interests	981,373	944,976	36,397	4

Analysis for any variation plus and minus (+/-) 20%:

- Other comprehensive income increase by 242%: primarily due to the increase of remeasurements of defined benefit pension plans.

### Analysis of Consolidated Financial Performance for the most recent 2 years

Unit: NT\$'000

Item \ Year	2019	2018	Variance (+/-) Amount	Variance (+/-) %
Revenues	179,321,838	185,331,699	(6,009,861)	(3)
Gross Profit	63,265,562	66,501,764	(3,236,202)	(5)
Income from Operations	38,345,865	40,365,914	(2,020,049)	(5)
Non-Operating Income and Expenses	1,916,727	3,151,064	(1,234,337)	(39)
Income Before Income Tax	40,262,592	43,516,978	(3,254,386)	(7)
Net Income	32,788,546	35,501,622	(2,713,076)	(8)
Other Comprehensive Income (Loss), Net of Income Tax	1,436,530	(1,004,880)	2,441,410	243
Total Comprehensive Income	34,225,076	34,496,742	(271,666)	(1)

Analysis for any variation plus and minus (+/-) 20%:

- Non-operating income and expenses decreased by 39%: primarily due to the decrease share of profits of subsidiaries and associates accounted for using equity method.
- Other comprehensive income increase by 243%: primarily due to the increase of remeasurements of defined benefit pension plans.

## 3. Cash Flow

### Analysis of Consolidated Cash Flows for the most recent 2 years

Unit: NT\$'000

Item \ Year	2019	2018	Variance (+/-) Amount	Variance (+/-) %
Cash & Cash Equivalents, Beginning of the Year	27,644,780	28,824,935	(1,180,155)	(4)
Net Cash Provided by Operating Activities	72,426,685	66,366,350	6,060,335	9
Net Cash Used in Investing Activities	(27,126,294)	(32,613,754)	5,487,460	(17)
Net Cash Used in Financing Activities	(38,934,216)	(35,035,350)	(3,898,866)	11
Effect of Exchange Rate on Cash and Cash Equivalents	38,688	102,599	(63,911)	(62)
Cash & Cash Equivalents, End of the Year	34,049,643	27,644,780	6,404,863	23

Analysis for any variation plus and minus (+/-) 20%: None.

### Analysis of Parent-only Cash Flows for the most recent 2 years

Unit: NT\$'000

Item \ Year	2019	2018	Variance (+/-) Amount	Variance (+/-) %
Cash & Cash Equivalents, Beginning of the Year	16,922,851	19,744,416	(2,821,565)	(14)
Net Cash Provided by Operating Activities	70,144,449	63,569,967	6,574,482	10
Net Cash Used in Investing Activities	(24,173,031)	(29,423,044)	5,250,013	(18)
Net Cash Used in Financing Activities	(37,812,557)	(36,968,488)	(844,069)	2
Cash & Cash Equivalents, End of the Year	25,081,712	16,922,851	8,158,861	48

Analysis for any variation plus and minus (+/-) 20%: None.

### Projected Consolidated Cash Flow for 2020

Unit: NT\$'000

Cash & Cash Equivalents, Beginning of the Year	Projected Net Cash Flow from Operating Activities (Note)	Projected Total Cash Outflow (Note)	Projected Cash & Cash Equivalents, End of the Year	Expected Remedy Plans for Negative Balance of Cash and Cash Equivalents	
				Investment Plans	Financing Plans
34,049,643	64,551,809	80,650,374	17,951,078	-	-

1. Operating activities: Cash flows from operating activities expected to remain stable in 2020.
2. Investing activities: Cash outflows from investing activities in 2020 are mainly on 5G concession and network infrastructure.
3. Financing activities: Cash flows from financing activities in 2020 are mainly for cash dividend distribution and proceeds from borrowings.

Note: The above table is on consolidated basis.

## 4. Major Capital Expenditures and Impact for the most recent year

### 4.1 Major Capital Expenditures and Source of Funding

Unit: NT\$ billion

Actual or Planned Source of Capital	Actual or Planned Source of Capital	Actual or Planned Date of Completion	Actual or Expected Capital Expenditure	
			2019 (Actual)	2020 (Expected)
Domestic Fixed Communications (2019)	Internal Funded	December 2019	12.07	-
Mobile Communications (2019)	Internal Funded	December 2019	7.77	-
Internet (2019)	Internal Funded	December 2019	1.43	-
International Fixed Communications (2019)	Internal Funded	December 2019	1.12	-
Others (2019)	Internal Funded	December 2019	1.78	-
Domestic Fixed Communications (2020)	Internal Funded	December 2020	-	14.58
Mobile Communications (2020)	Internal Funded	December 2020	-	9.77
Internet (2020)	Internal Funded	December 2020	-	2.94
International Fixed Communications (2020)	Internal Funded	December 2020	-	1.46
Others (2020)	Internal Funded	December 2020	-	1.91

Note: The above table is based on consolidated financials.

### 4.2 Expected Benefits

- (1) Further business development, focusing on enriching mobile broadband (including 5G) and fixed network broadband.
- (2) Improve service quality, focusing on strengthening network service quality and customer service quality.
- (3) Strengthen and expand the business's logistics support capabilities, focusing on research and development of technology applications and strengthening business expansion capabilities.
- (4) Improve operational efficiency, focusing on strengthening network maintenance and operations, account management, enterprise digitization, asset activation, etc.

## 5. Investment Policies and Key Reasons for Profit / Loss for the most recent year; Improvement Plan and Future Investment Plan in the coming year

The Company's investment policies are consistent to its operational policies and development strategies, as well as complementary to its overall business and strategic goals, in order to enhance its core competencies, to accelerate new business initiatives and new market opportunities leveraging core strengths, thus achieving the Company's long term vision.

In 2019, a total of 25 strategic investee companies achieved stable business operations and profitability, 12 investee companies incurred losses. Of the investee companies that incurred losses, 5 were new ventures or in an early stage of investment with relatively unstable operations; 2 had losses

that were considered short-term losses; and 5 incurred losses because they have not yet achieved scale and the benefits of efficiencies of scale are not yet apparent; 4 were recognized as full impairment losses or were in the process of dissolution and liquidation.

Generally speaking, the Company's investments will be integrated with its business development activities in order to achieve original investment objectives and synergies, while Investments are regularly evaluated for strategic and financial performance and investee companies that incurred losses will adopt improvement measures, and when necessary, a dissolution is implemented.

For more details, please also see page 73, Chapter III, Section 9, "Comprehensive Shareholding Information Relating to Company, Directors, Management, and Companies Affiliated through Direct and Indirect Investment" and page 127, Chapter VII, Section 1.1, "Consolidated Operation Report of the Company and Affiliates".

## 6. Analysis of Risk Management for the Most Recent Year and up to the Publication Date of This Annual Report

### 6.1 Risk management structure and operation

The "Chunghwa Telecom Risk Management Act" is designed in accordance with the COSO ERM structure including its eight elements and its four major objectives, namely, strategic objectives, operations objectives, financial reporting and legal compliances. The Act was passed by the board of directors in 2006. In order to increase the risk awareness and to enhance risk management, the Company has established the risk management committee in 2016, consisting of senior managers, which is responsible for supervising risk management and reporting as needed to the Board and the Audit Committee of the Board.

The Company's risk management operations are tracked and managed in accordance with the procedures of consciousness establishment, objective setting, event identification, risk analysis, risk assessment, risk response, control activities, information and communication, risk monitoring, which are

executed by the management teams. The risk assessment and response is also incorporated into the implementation and measures of the Company's various business execution and management.

The policy, scope and the organization chart with its responsibilities of our risk management are listed below:

#### (1) Policy

To enhance the corporate governance, to formulate the strategies of risk management, to establish the integrity of risk management operations, to identify and manage risk events and to ensure the operating goals of the Company achieved.

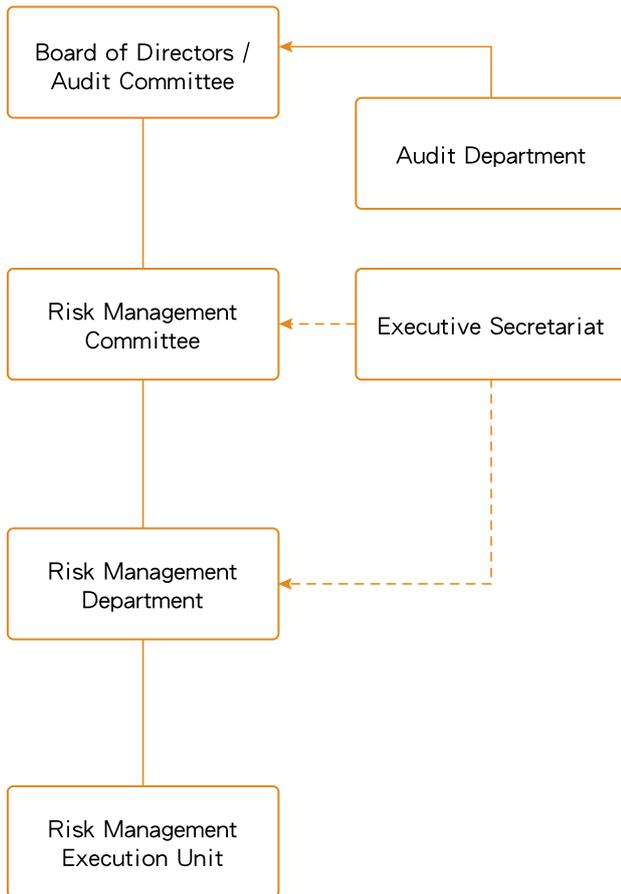
#### (2) Scope

In order to meet control goals in the areas of strategy, operations, finances, and regulatory compliance, the Company analyzes sources of risk from variables in the internal and external environment. A risk matrix is used to identify and analyze the opportunities and risks of the operating environment. Management teams use the results to establish strategies and objectives to conduct risk controls.

Recent risk issues include: 5G operating risk, COVID-19 epidemic risk, cybersecurity and personal data protection risk, and climate change risks. Critical risks are closely tracked and managed by the committee to reduce risks to stakeholders.

#### (3) Organization chart with its responsibilities

The organization chart of our risk management is listed below:



- **Committee of Risk Management: President as the convener**
  - Comprised of Senior Executive Vice President and All Department Heads
  - Supervise the improvements of risk management
  - Approve the risks Identified along with their priorities
- **Audit Unit: Audit Department**
  - Audit the risk management independently
  - Report regularly to the Audit Committee of the Board
- **Management Unit: Departments within Headquarter**
  - Identify and evaluate possible risks
  - Review plans of risk management from all branch offices
  - Track and manage the effectiveness of the risk management from all branch offices
- **Execution unit: Eight Business Groups (including affiliated units)**
  - Propose and execute risk management plan
  - Report the execution results to Management Unit
- **Executive Secretariat: Corporate Planning Department within Headquarter**
  - Promote improvements in risk management mechanism and practices
  - Organize meetings of risk management committee
  - Analyze and report the execution results in risk management

## 6.2 Cybersecurity Risk Management Framework and Analysis

### (1) Cybersecurity and Privacy Protection Risk Management Mechanisms

In order to continue the enhancement and maintenance of the confidentiality, integrity and availability, as well as to ensure the security for Critical Information System and Infrastructure, the Company references the Cybersecurity Framework, or CSF, of the National Institute of Standards and Technology (NIST) in the U.S., as well as domestic and international standards and regulations, including the Cyber Security Management Act, the Personal Information Protection Act, the General Data Protection Regulation, or GDPR, BS10012, ISO27001, and ISO27011, to establish our "Cybersecurity and Privacy Protection Risk Management Framework," as detailed below:

The Company's Senior Executive Vice President of Business serves as the Chief Information Security Officer, or CISO, and Data Protection Officer, or DPO, and formed an unit with Cyber Security Department, to (i) align regulations with technology advancement for new business development,



- (ii) coordinate the overall cybersecurity policy, (iii) enact and amend required security specifications, (iv) utilize equipment for centralized security monitor (v) defense and mitigate enterprise security risks, (vi) accelerate new business development, and (vii) provide customers with secure and reliable digital ecosystem.

The Company is guided by principles of risk management when evaluating the maturity of its cybersecurity controls, and formulates its annual key cybersecurity policies and specifications based on external trends and internal risk evaluation results, in order to continue to improve its cybersecurity and privacy protection activities. The Company also conducts training for all employees, incorporates cybersecurity into employees' performance assessments,

and regularly conducts internal and external audits. The Company has passed the government's administrative security and privacy protection checks and obtained third party certifications (including ISO 27001, ISO 27011, BS10012, and CSA STAR Certification) in order to provide consumers with comprehensive security and privacy protection.

## (2) Cybersecurity Risk Assessment

Possible operational cybersecurity and privacy risks for 2019, and their countermeasures, are as follows.

Possible Risk & Impact	Countermeasures
The "Cyber Security Management Act" was approved by the Legislative Yuan in 2018, and came into force since January 1, 2019.	In accordance with the "Cyber Security Management Act" and its sub-laws, the Company complies with domestic and international regulations. The Company has amended its cybersecurity policy and specifications, is dedicated to improving cybersecurity and privacy protection, conducts training for all employees, and incorporates cybersecurity into employees' performance assessments, in order to continue to improve its overall information protection capabilities.
The boundary of cybersecurity protection has been more blurred, and open architecture design also enlarges the risk exposure, because of the rise of emerging technologies/business and constant updating of hacker attack techniques. Any cybersecurity incident or privacy leakage will damage customer rights and cause the Company with penalties and financial losses.	Following the application of emerging technologies including the Internet of Things, cloud computing, and big data, the Company provides protection at the network, system, application, and data layers based on the principle of least privilege and through strategy, management, and technology. By deploying multi-layer, in-depth protection and detection mechanisms, the Company continuously improves its overall cybersecurity protection capabilities.

The Company's risk management committee tracks and manages risk control issues of cybersecurity and privacy protection on a monthly basis. When a risk is greater than our risk appetite, or where there is a major crisis, the convener of risk management committee will report to our audit committee, and if necessary, report to our board of directors accordingly. In 2019, there were no incidents of material risks arising from cybersecurity or personal information protection.

## 6.3 Impact of Interest Rates, Foreign Exchange Rates, Inflation, and Mitigating Measures

### (1) Impact on Company Profit and Loss

Items	2019 (NT\$'000, %)
Interest Income, Net	146,645
Foreign Exchange Gains/(Loss)	15,823
Revenues	207,520,061
Income Before Income Tax	41,749,792
Interest Income, Net as % of Revenues	0.07%
Interest Income, Net as % of Income Before Tax	0.35%
Foreign Exchange Gains/(Loss) as % of Revenues	0.01%
Foreign Exchange Gains/(Loss) as % of Income Before Tax	0.04%

Note: The above table is based on consolidated financials.

(2) As of December 31, 2019, the parent company has not issued or borrowed any debt, but the subsidiaries have

borrowed a total bank debt of NT\$1.69 billion, therefore, interest rate fluctuations have minimal impact on the Company.

- (3) In 2019, the Company primarily leveraged forward exchange contracts to reduce its exposure to foreign currency risk.
- (4) The Company continues to closely monitor inflation rates and estimates that in the near term, there is not likely be a major impact to profits or losses from the inflation rate.

## 6.4 Investment Policy for High-risk/High-leverage Financial Instruments, Loans, Debt Guarantees and Derivatives; Key Reasons for Related Gains / Losses, and Mitigating Measures

In 2019, the Company did not provide any loans to others. For details of the Company and subsidiary endorsements or guarantees to others, please refer to page 149 of this annual report (Chapter VIII, "8.0 Consolidated Financial Statements and Independent Auditors' Report: Endorsements / Guarantees

Provided," Overview Table). The Company is conservative and disciplined towards all derivative financial instruments, and avoids instruments with unlimited risk. The Company has established financial policies, hedging policies, financial

instrument trading authorizations, key operating terms, and standard operating procedures, to serve as bases for future financial instrument transactions.

## 6.5 Future Research & Development Plan and Projected Budget

The future research and development (R&D) plan is comprised of 10 items, as shown in the following table. In 2020, research and development expenses are estimated to be NT\$3.171 billion.

R&D project	Plan description
1. Wireless communications technology	<ul style="list-style-type: none"> <li>(1) 5G access network and Wi-Fi technology R&amp;D</li> <li>(2) Mobile core network and edge computing technology R&amp;D</li> <li>(3) 5G network management, maintenance, and operations technology R&amp;D</li> <li>(4) 5G mobile network technology R&amp;D</li> <li>(5) National time-frequency standard technology R&amp;D</li> </ul>
2. Broadband network technology	<ul style="list-style-type: none"> <li>(1) IMS virtualization, and communications network application and control technology R&amp;D</li> <li>(2) Fiber transmission and access network technology R&amp;D</li> <li>(3) SDN/NFV technology and broadband service network technology R&amp;D</li> <li>(4) Access network construction and testing technology R&amp;D</li> </ul>
3. Cloud computing technology	<ul style="list-style-type: none"> <li>(1) Software Defined Data Center (SDDC) technology R&amp;D</li> <li>(2) Cloud DevOps and microservice application platform technology R&amp;D</li> <li>(3) Public cloud service management technology R&amp;D</li> </ul>
4. Network management technology	<ul style="list-style-type: none"> <li>(1) Fixed-mobile convergence service provision and diagnosis system R&amp;D</li> <li>(2) Emerging virtual network integration monitoring and intelligent service quality assurance system R&amp;D</li> <li>(3) Enterprise cloud quality assurance system R&amp;D</li> </ul>
5. Information and communication security technology	<ul style="list-style-type: none"> <li>(1) Digital identity technology</li> <li>(2) Blockchain technology</li> <li>(3) 5G/cloud integration security technology</li> <li>(4) Information security threat detection technology</li> </ul>
6. Perception, cognition and smart analysis technology	<ul style="list-style-type: none"> <li>(1) Data analytics and platform technology R&amp;D</li> <li>(2) Smart voice control platform technology R&amp;D</li> <li>(3) AI perception and cognition technology R&amp;D</li> </ul>
7. Smart business technology	<ul style="list-style-type: none"> <li>(1) Omni-channel and online-to-offline service integration technology R&amp;D</li> <li>(2) Product promotion management techniques R&amp;D</li> <li>(3) Order and billing processing technology R&amp;D</li> <li>(4) BSS testing and verification technology R&amp;D</li> <li>(5) Enterprise customer relationship management technology R&amp;D</li> <li>(6) Customer Interaction and relationship management technology R&amp;D</li> </ul>
8. Convergence services technology	<ul style="list-style-type: none"> <li>(1) Communications convergence technologies and applications</li> <li>(2) Messaging and content convergence technologies and applications</li> <li>(3) Mixed reality convergence and video services technologies and applications</li> <li>(4) Video convergence technologies and applications</li> <li>(5) Payment platforms</li> <li>(6) Multiple payment app applied technology</li> <li>(7) Mobile payment financial integration platform</li> </ul>
9. IoT technology	<ul style="list-style-type: none"> <li>(1) Intelligent energy conservation</li> <li>(2) Intelligent railways</li> <li>(3) Smart living</li> <li>(4) Smart healthcare services and applications</li> <li>(5) AIoT platform</li> <li>(6) On-device AI and other technology R&amp;D</li> </ul>
10. Transportation and security technology	<ul style="list-style-type: none"> <li>(1) Connected vehicle services technology R&amp;D</li> <li>(2) Advanced traffic management technology R&amp;D</li> <li>(3) Intelligent security solutions</li> <li>(4) Intelligent image identification and analysis technology</li> <li>(5) Intelligent maritime and harbor solutions technology R&amp;D</li> </ul>

## 6.6 Impact from Domestic and International Material Regulatory Changes and Development, Mitigating Measures

### (1) Communications Convergence Legislative Activity

The Transportation Committee of the Legislative Yuan completed the review of the draft of the "Digital Communications Act" and the "Telecommunications Management Act" on May 24, 2018, and March 14, 2019, respectively. Because a resolution had not been reached by the end of the term of the 9th legislators, the "Digital Communications Act" draft will not be reviewed in the term of the 10th legislators. The "Telecommunications Management Act" passed the Three Reading procedures of the Legislative Yuan on May 31, 2019, and was promulgated by the President on June 26, 2019, with the implementation date to be set by the Executive Yuan. Currently, the NCC is drafting and amending the relevant sub-laws to complete the regulatory framework. The key points of the "Telecommunications Management Act" include: changing the telecommunications industry's licensing/approval system to a registration system in order to reduce barriers to entry in the telecommunications market; general operators shall undertake the minimum necessary obligations, but that operators with dominant market positions, as announced by the competent authority, will be subject to asymmetric control measures; open up domestic roaming and frequency transfer, renting, lending, and sharing mechanisms; and scale down the current Telecommunications Act's support of telecommunications construction. The key point of the "Digital Communications Act" draft: introduce internet governance principles so that self-discipline and public-private partnerships are the primary governance mechanisms for the internet.

Impact on the Company: The "Telecommunications Management Act" reduces the barriers to entry in the telecommunications market. At the same time, it opens up domestic roaming as well as the flexible usage of bandwidth frequencies, enabling operators to share resources. It is expected that the telecommunications market will experience intensified competition. In addition, compared to other industry participants who may experience a substantial easing of current restrictions and duties, the Company may be regarded by the authority as possessing a dominant market position in certain telecommunications service markets, and may be required to undertake the exceptional obligation of a higher level of control. Furthermore, the scaling down of the current Telecommunication Act's assistance for telecommunications construction may increase the difficulty of developing telecommunications network construction.

The Company's countermeasures: The Company is accelerating its strategic transformation, diversifying its business for the long-term, and will leverage differentiated and new services to strengthen its competitive advantages in the market.

### (2) 5G Spectrum Release for the Mobile Broadband Business

On August 28, 2019, the NCC announced the first wave of 5G spectrum license releases, releasing 1800MHz, 2800MHz, and 3500MHz frequency bands for a total 2790MHz in spectrum supply for 5G mobile business use. The bid auctions started on December 10, 2019 and finished on February 21, 2020. For the 3500MHz frequency bands, Chunghwa Telecom Co., Ltd., Far EastOne Telecommunications Co., Ltd., Taiwan Mobile Co., Ltd., and Taiwan Star Telecom Co., Ltd. win the bids. The Company acquires 3420MHz-3510MHz segments. For the 2800MHz frequency bands, Chunghwa Telecom Co., Ltd., Far EastOne Telecommunications Co., Ltd., Taiwan Mobile Co., Ltd., and Asia Pacific Telecom Co., Ltd. win the bids. The Company acquires 2790MHz-28500MHz segments. For the 1800MHz frequency bands, no operators win the bids.

Impact on the Company: 5G spectrum auction competition is intense and will increase operators' operating costs.

The Company's countermeasures: The Company obtains the largest spectrum bandwidth and the best spectrum location, it will actively conduct mobile broadband network construction and continue to strengthen network quality to provide customers a better mobile broadband experience, and dedicate itself to developing various 5G applications and services.

### (3) NCC Announcement of Change to Telecommunications Tariff X Value

On March 8, 2017, NCC announced a new round of telecommunications tariffs (X value) targeted towards xDSL fixed line monthly rental fees provided by local network and long distance network dominant market providers (excluding FTTH, FTTB, ADSL, and services with upload and download speeds over 100 Mbps), setting the X value to 3.19%; set digital line monthly rentals, IP peering, and other wholesale services to an X value of 5.1749%, the third consecutive annual decrease; and established dominant market providers' other major service charges at an X value of the annual growth rate of the consumer price index ( $\Delta$ CPI) in Taiwan, to restrict price increases. On February 26, 2020, the NCC approved the next round of X values, which are scheduled to be announced in March and effective from April 1, 2020, to March 31, 2024, targeted towards xDSL and FTTx fixed line monthly rental fees provided by local network and long distance

network dominant market providers (excluding ADSL, services with download speeds of 12 Mbps and below, and services with download speeds of 300 Mbps and over), setting the X value to 2.15%; set digital line monthly rentals, IP peering, and other wholesale services to an X value of 7.48%, and established dominant market providers' other major service charges at an X value of  $\Delta$ CPI, to restrict price increases.

#### (4) NCC Announcement on Mobile Interconnection Fee

On November 1, 2017, the NCC announced amendments to Articles 14 and 17 of the "Regulations Governing Network Interconnection among Telecommunications Enterprises," and on November 8, 2017, announced the "Upper Limit on Access Charge for the Third Generation Mobile Telecommunications Operators and Mobile Broadband Operators" which stated that, commencing November 1, 2017, excluding telecommunication fees for international incoming calls connecting to mobile networks (including connection fees), and other than maintaining what has already been negotiated between industry participants, all other mobile connection fees, shall be gradually reduced from NT\$1.15 per minute to NT\$0.571 per minute by 2020, effective starting January 1, 2017, until the next announcement from the NCC.

Impact to the Company: The reduction of the mobile connection fee from 2017 to 2020 will simultaneously reduce the Company's mobile connection revenue and expenses, and may intensify pricing competition within the mobile market.

The Company's countermeasures: The Company operates in compliance with the law.

#### (5) NCC Audit and Approval of the Company's Fixed Network Interconnection Fee

On September 26, 2018, the NCC audited and approved the Company's fixed network connection fees, which stated that local telephone and long-distance connection fees are to be maintained, that interconnection fees from mobile to local telephones should be reduced, from NT\$0.4851 per minute to NT\$0.4383 per minute during peak hours and from NT\$0.2531 per minute to NT\$0.2148 per minute during off-peak hours, effective January 1, 2019, to December 31, 2022.

Impact to the Company: The Company has a leading local telephone market share, and any fixed network connection fee reduction will reduce the Company's fixed network connection revenues.

The Company's countermeasures: The Company operates in compliance with the law.

## 6.7 Impacts from the Evolution of Technology and Industry Development, and Mitigating Measures

The development of new technology and new applications is a challenge and opportunity for the industry. The Company will continue to invest in R&D in order to have complete understanding of new technology trends, to develop new services and source of revenues, and to maximize shareholder value.

#### (1) Fiber Access and Transmission Network Technology

Due to market demand for video and smart home services, cable operator competition for 500M-1Gbps broadband, and to comply with the government's DIGI+ initiative objective of ultra-high-speed broadband reaching "90% 1Gbps coverage by 2020 and 90% 2Gbps coverage by 2025," the Company in 2019 continued to expand its business by increasing broadband speeds, raise equipment usage rates, actively construct fiber in areas without coverage, and expanded coverage. The Company also conducted research to introduce new technology such as XGS-PON and NG-PON2 in order to provide residential customers with up to 1Gbps and enterprise customers with at least 1Gbps ultra-high-speed broadband internet access services, solidifying its broadband competitive advantage, furthering its market lead on cable operators, and creating high-speed broadband service revenue and profit. At the same time, to fulfill the increasing traffic demand from broadband users and enterprise customers, the Optical Transport Network (OTN) has been increased from 100Gbps per wavelength to 200Gbps per wavelength, with future upgrades planned for more than 400Gbps per wavelength. In addition, the Company is actively launching HiNet for residential Wi-Fi, integrated with value-added broadband service and product bundles including multi-screen, cloud, and digital convergence services (MOD, Hami+, hichannel, etc), KKBOX, and e-Home, in order to increase HiNet product differentiation and attractiveness and to create broadband value-added service revenue and profit.

To fulfill 4G LTE base station expansion demand in 2019, attain market opportunities in the enterprise market for 4G LTE backhaul circuit and ultra-high-speed data services, and relieve metro area IDC bottle necks, the Company established Packet Transport Network (PTN) system upgrade to 100Gbps in order to solidify its competitive advantage for ultra-high-speed data services. In addition, in order to enhance the Company's international communications business growth and competitiveness, it continues to expand international undersea cable bandwidth in corridors including greater Taiwan, Asia Pacific, Taiwan-USA, and Taiwan-Europe, invest in constructing the New Cross-Pacific Cable (NCP) and Southeast

Japan Cable 2 (SJC2) to strengthen the Company's presence in undersea cable networks, obtain international emerging market opportunities through higher network service quality, improve overall operational advantages, and add revenue commencing in 2019.

## (2) SDN/NFV Network Technology

Network technology is developing towards open architecture, programmability, and virtualization, of which Software-Defined Networking (SDN) and Network Function Virtualization (NFV) technology have become the focus for development for telecommunication service providers around the world.

The Company has successfully completed the research and development of ICT Infra services and established comprehensive SDN management and control, Software Defined Data Center (SDDC), MANagement and Organization (MANO), Orchestrator, and other cloud network compatible technology. The ICT Infra service can be applied to enterprise networks, and was first implemented throughout the Company's headquarters campus in August 2018, becoming the first domestic telecommunications operator with a successful implementation of a large-scale SDN network and SDDC. Over 90% of the SDN equipment were supplied by domestic network manufacturers, indicating that domestic SDN equipment technology is advanced and mature. In the future, 5G mobile networks, fixed communication networks, and data networks will all incorporate SDN and cloud-network compatible architecture. In addition, the Company will work with domestic operators to jointly provide advanced and intelligent services, opening enterprise networks, campus networks, IoT, and other important areas of business opportunities.

In May 2019, the Company cooperated with VMware to deploy SD-WAN global multinational hybrid network convergence services, leveraging smart services to upgrade the enterprise network service architecture to a telecommunications-grade network integration management model, meeting the requirements of high quality international network services for multinational enterprises.

## (3) Next Generation Wireless Technology

With the rapid advancement of wireless technology, the Company has made long-term commitments for R&D of advanced technology, including participation in domestic and international 4G/5G organizations for standards formulation and R&D, including 3GPP and NGMN, in order to understand the development of the next generation mobile communications technology. At the same time, continued to lead in launching 4G LTE technology and advancement, including the first globally launched LTE-WLAN Aggregation

(LWA) 4G+Wi-Fi surfing service, Voice over LTE (VoLTE) high-definition voice service, exclusive 5 Carrier Aggregation (5CA) technology, and self-developed IoT platform for promoting NB-IoT and CatM1 IoT services.

In June 2019, the international standard organization 3GPP completed the first phase of 5G standards and is expected to complete the full standards by the end of 2020. The Company actively made progress in 5G, and in January 2018 established the "Taiwan 5G Industry Development Alliance - Chunghwa Telecom Pilot Team," uniting close to 70 domestic and international industry, government, academic, and research organizations and industry alliances, building an end-to-end 5G industrial chain for testing new applications, and in order to realize the goal of 5G commercialization in Taiwan in 2020, accelerated the launch of domestic 5G services and industrial development, maintaining its leadership in pushing forward domestic telecommunications services.

On February 21, 2020, the NCC completed the first wave of 5G auctions, releasing 3.5GHz, 270MHz, and 28GHz frequencies for a bandwidth of 1,600MHz. The Company acquired the largest bandwidth in the 3.5GHz and 28GHz frequencies, actively launched 5G network construction, and plans to launch 5G services in the third quarter of 2020 in order to consolidate its market position, enhance the user experience, innovate applications and services, and link industry verticals, establishing long-term advantages in mobile broadband service and development.

## (4) IPTV Technology

Due to the rise of OTT and connected TV, both open and closed new IPTV platform technology have converged in its development, and the MOD platform is transforming from closed architecture to semi-open architecture, strengthening multi-screen and cloud service capabilities, promoting partnerships between branded equipment providers and TV manufacturers, providing consumers with more user-friendly UX/UI and new functionality, using big data analysis to accurately recommend films for users, and integrating multi-screen devices to realize ideal smart home video and audio applications, provide ubiquitous viewing experiences, and creating comprehensive convergence services. At the same time, in order to develop the value of higher bandwidths, the MOD/OTT service platform will provide high-quality digital content and provide ultra-high-definition (4K) on-demand video, live video, and interactive video services. By partnering with domestic film and software providers, conduct R&D to realize innovative new services and develop new business opportunities.

MOD application services is trending toward TV app expansion and will integrate advantages of internet technologies, such as on demand OTT network video and audio, live concerts, social network sharing, cloud gaming, augmented reality applications, video recommendations, advertising, multi-screen interactions, and other value-added services, and will head towards open architecture and standardized platforms. At the same time, working with branded providers, the Company will integrate multi-screen equipment (such as tablet computers, smart phones, OTT box, smart glasses, etc.) to create multi-screen mobile application users with new experiences. In 2019, the Company continued to promote health management and care, smart voice control, house automation, security and security, and other services to fulfill future smart home living and entertainment demand. In addition, promote faster broadband to solidify its fixed broadband last-mile competitive advantage and increase revenue generation.

#### (5) Cloud Computing Technology

The cloud business, which is used by over 3,000 enterprises clients of every form and consumer users, continued to promote hcloud services in 2019. In addition, it promoted services such as multi-cloud services, GPU computing, mixed cloud, and SDDC, and received partnership designations for AWS, Azure, and VMware Cloud Provider Plan, to develop emerging business opportunities. In 2019, to develop the enterprise and government market, the Company helped government organizations and schools, information and communications industry participants, and small and medium enterprises move rapidly to the cloud through hcloud and strategic international public cloud provider partners AWS/Azure/Google Cloud Platform (GCP). In 2020, the Company will focus on AI, big data, containerized services, and multi-cloud platform integration in order to actively assist clients who are unable to move their data to the cloud by leveraging SDDC-enabled private cloud, fulfilling demand for data access.

Chunghwa Telecom participated in the Ministry of Commerce Industry Commission's 2019 preferred supplier of cloud services survey, and ranked at the top of the "Cloud Virtual Resource" category for the fifth consecutive year, becoming the primary preferred partner to the government. In addition, in 2019, the Company obtained 4 international security certifications, ISO 27001, ISO 27011, ISO 27017, and ISO 27018, and completed the legal review for the introduction of GDPR data protection standards, which will effectively reduce information security risk.

#### (6) Internet of Things, IoT Technology

The Company has focused on IoT development for over 10 years. In addition to combining cloud, information security, big data, AI, AR, and other key technologies, and developing its own AIoT platform, it has entered into cross-sector industry-academic partnerships and applications in order to more actively develop smart homes/architecture, smart energy, smart transportation, smart city, smart healthcare, and other industry applications for the ecosystem, launching a new digital era.

Currently, the Company is ready for providing comprehensive IoT services that can fulfill customer demand, provide NB-IoT, Cat-M1, and fixed-network broadband transmission services in order to fulfill various industry demands. In addition, its annual AIoT Hackathons and innovation application competitions promote the CHT AIoT platform, which is used by more than 6,000 customers and incorporates 0.6 million systems, including smart traffic, smart tourism, smart agriculture, smart security, smart environment, smart buildings, and smart homes.

#### (7) Artificial Intelligence, AI Technology

AI allows services and products to be smarter and more humane. In response to this technology and industry change, the Company actively invests in AI, focusing on developing applications in smart customer service, smart maintenance, smart security, semantic AI cloud, and other application areas from the inside out. In March 2019, the Company launched a customer service chatbot and semantic AI cloud service, which combined telecommunications mobile signals, big data image cloud, and IoT technology, to provide travel time estimation, traffic flow analysis, smart city, and other innovative applications and services to generate emerging business revenues.

### 6.8 Impact of Corporate Image Changes on Crisis Management, Mitigating Measures

- (1) The Company's well-respected corporate image has not changed in the most recent year.
- (2) The Company maintains its dedication to providing foundational infrastructure and industry services, complying with government regulations, strengthening corporate governance, and has established in stakeholder minds a reputation of high quality, reliability, and trust, and in 2019 received multiple domestic and international awards and recognition in areas including trust, service, innovation, and CSR.

<https://www.cht.com.tw/zh-tw/home/cht/about-cht/award-and-recognition/award>

## 6.9 Expected Benefits and Risks from Mergers, Mitigating Measures

### (1) Expected Benefits

The Company plans to focus on strategic investments that are complementary to its business and strategic goals, in order to expand its business scope, increase sustainable growth and profitability.

### (2) Potential Risks

The Company may not realize the benefits from its investments, due to lack of information or inaccurate information, thus adversely affect its business and financial performance.

### (3) Mitigating Measures

#### A. Prevent lack of information or inaccurate information for investment evaluation

- Establish detailed evaluation SOP, with necessary reviews and revisions depending on the actual outcome.
- For investment due diligence and valuation, the Company may engage professional legal counsel, certified public accountant, and investment bankers in order to enhance the overall evaluation process.

#### B. Minimize investment related material under-performance

- Assist investment subsidiaries in establishing risk management system, conduct periodic analysis of the subsidiaries' operational performance and risk factors, in order to better manage the subsidiaries' achievements.
- Conduct periodic review of the investment subsidiaries' actual performances against the original projection in order to better supervise and formulate possible contingency plans.
- Establish acceptable business coordination practices between the Company and its affiliates, in order to maximize group synergies and improve the performances of investment subsidiaries.

## 6.10 Expected Benefits and Risks from Plant Facility Expansion, Mitigating Measures

Not applicable as the Company is not a manufacturer.

## 6.11 Concentration Risks from Supplying and Sourcing, Mitigating Measures

For consumers who purchase terminal devices such as mobile handsets, tablets, etc., and if the pricing or other factors of these devices do not fulfill consumer expectations, then the Company may incur inventory risks. The mitigating measures are as follows:

- (1) The Company procures terminal devices according to the contracts and actual orders that are placed in batches depending on pricing, sales status, and inventory level.

Any unpaid balance is considered a cancellation with automatic contract termination, thus effectively controlling mobile handset inventory.

- (2) Inventory management: consistently track product sales and inventory turnover, with periodic reporting of sourcing/sales/inventory status.
- (3) Pricing adjustment: effective pricing controls are established based on sales management policy, current market demand, supply status, as well as competitive situation.
- (4) Form business alliances to increase effective sales channels and promotions: collaborate with vendors in other industries in order to increase revenue streams.

## 6.12 Impacts and Risks from Significant Changes in Shareholdings of Directors and Major Shareholders Holding More Than 10% of Shares Outstanding, and Mitigating Measures

None.

## 6.13 Impacts and Risks from Changes in Management Control, Mitigating Measures

None.

## 6.14 Significant Lawsuits and Material Non-Litigious Matters

None.

## 6.15 Other Major Risks and Mitigating Measures

In 2019, Taiwan experienced the April 18 Hualien Earthquake, Typhoon Danas, Typhoon Lekima, Tropical Storm Bailu, and Typhoon Mitag. During these disasters, the Company formed emergency response teams to direct manpower and resources towards proactively enacting disaster emergency repair and support, and to ensure the speedy recovery of normal telecommunications services for customers.

The impacts of natural disasters such as earthquakes, typhoons, and tropical storms on network operations, and its countermeasures, include:

### (1) Potential Risks

- A. Taiwan is located in a region that is susceptible to natural disasters, and various telecommunications infrastructure could easily suffer damage. Once a disaster area's communications suffers large scale damage, then customers could be disconnected from communications and disaster alerts, and even become isolated from communications,

severely impacting disaster relief, lives, property, security, and the Company's operations.

B. According to World Economic Forum's Global Risks Report 2020, cyber-attacks on infrastructure was the fifth most-expected short-term risk. The Company is a Critical infrastructure provider in Taiwan, and should it suffer a large-scale cyber-attack, domestic communication services would be impacted. This, in turn, would impact national security, public interest, citizens' livelihoods, and economic activity.

## (2) Mitigating Measures

### A. "Disaster Emergency Response and Management Plan"

The Company has completed a "Natural Disaster Emergency Response and Repair Plan" in order to enable measures such as a disaster prevention organization, disaster relief resource preparation and dispatching, and emergency management and repair processes, with roles and responsibilities established accordingly, to serve as the basis of emergency management and repair activity for all units within the Company and to quickly restore basic communications services in disaster areas, provide connections to emergency support, and minimize communications services disruption time.

### B. Fixed Communication

In order to prevent disaster losses from spreading, the Company has enacted measures such as strengthening multi-routing repeater transmission for remote regions, wireless routing backups, increasing power backup capacity, and international submarine cable system backups, in order to promote the level of overall disaster prevention and defense capabilities. In addition, annual drills are conducted on network and equipment dispatch and repairs in order to increase familiarity with disaster preparedness and relief, and lower losses caused by disasters.

### C. Mobile Communication

If a natural disaster causes mobile communication disruptions, the Company has prepared microwave and satellite systems (that can be carried by individuals or transported by helicopters) to provide transmissions or be used with heavy-duty off-road vehicles as base stations, and are able to, depending on the severity of the disasters, serve as mobile base stations to establish communications with the outside world within a short period of time. In addition, there are targeted measures for important one-way traffic arteries, such as the Suhua, Nanhui, and Alishan highways, such as strengthening base station construction

in those areas, duplicate radio wave coverage, and periodic disaster prevention drills, in order to ensure mobile communication network operation and increase natural disaster defense resilience.

The Company's "Emergency Response SMS System" service can distribute emergency alerts to designated areas, proactively informing residents to avoid or to prepare to evacuate out of disaster areas to promote safety of people and property. The system has received high ratings from the public and has been adopted by the Directorate General of Highways (MOTC) for the Suhua Highway. Furthermore, it has been used by various government entities (such as city governments, the Water Department, Taiwan Power, and the Fire Department) for disaster relief drills, demonstrating its high quality, and received recognition from the government and the public.

### D. Wireless Communication (Microwave System)

Currently, between Taiwan and Jinmen County, and Taiwan and Matsu Island, there are three optical cable circuits to provide high quality communications, backed up by microwave and satellite systems.

The Taiwan-Jinmen microwave system contains a 9-channel DS3 microwave backup system, primarily serving as transmission backup, which can be automatically activated if the undersea cables malfunction in order to increase mobile communication reliability. In addition, satellite stations in Jinmen can be activated if both the undersea cables and microwave systems malfunction, providing 2T1 audio backup routers.

Between Taiwan and Matsu Island, there is a 5-channel STM-1 digital microwave system, primarily serving as transmission backup, of which one STM-1 router is already employed for daily transmission use and under surveillance, in order to ensure system reliability. In addition, satellite stations on Matsu Island can be activated if both the undersea cables and microwave systems malfunction, providing 4T1 audio backup routers.

Considerations towards maintaining unimpeded communications with other islands has high importance, with the stability of routers even more critical. In addition to Jinmen and Matsu Island, the Company continuously strengthens Taiwan's routers with other neighboring islands, including microwave channels and backup systems, such as the installation of outbound bandwidths to the Little Liuqiu, Lanyu, and Green islands of 5,900,

1,395, 1,395Mbps, respectively, in order to fulfill telecommunication demand between neighboring islands.

#### E. Data Communication

The Company's HiNet network employs multiple routers and highly reliable backup networks, with real-time surveillance to manage router traffic flow. In international routing, multiple distributed submarine routers are employed in order to avoid obstructions and bottle necks arising from single-point failures. At the same time, the Company collaborates closely with international providers in order to improve direct international connection bandwidth and increase international internet communications quality.

## 7. Others

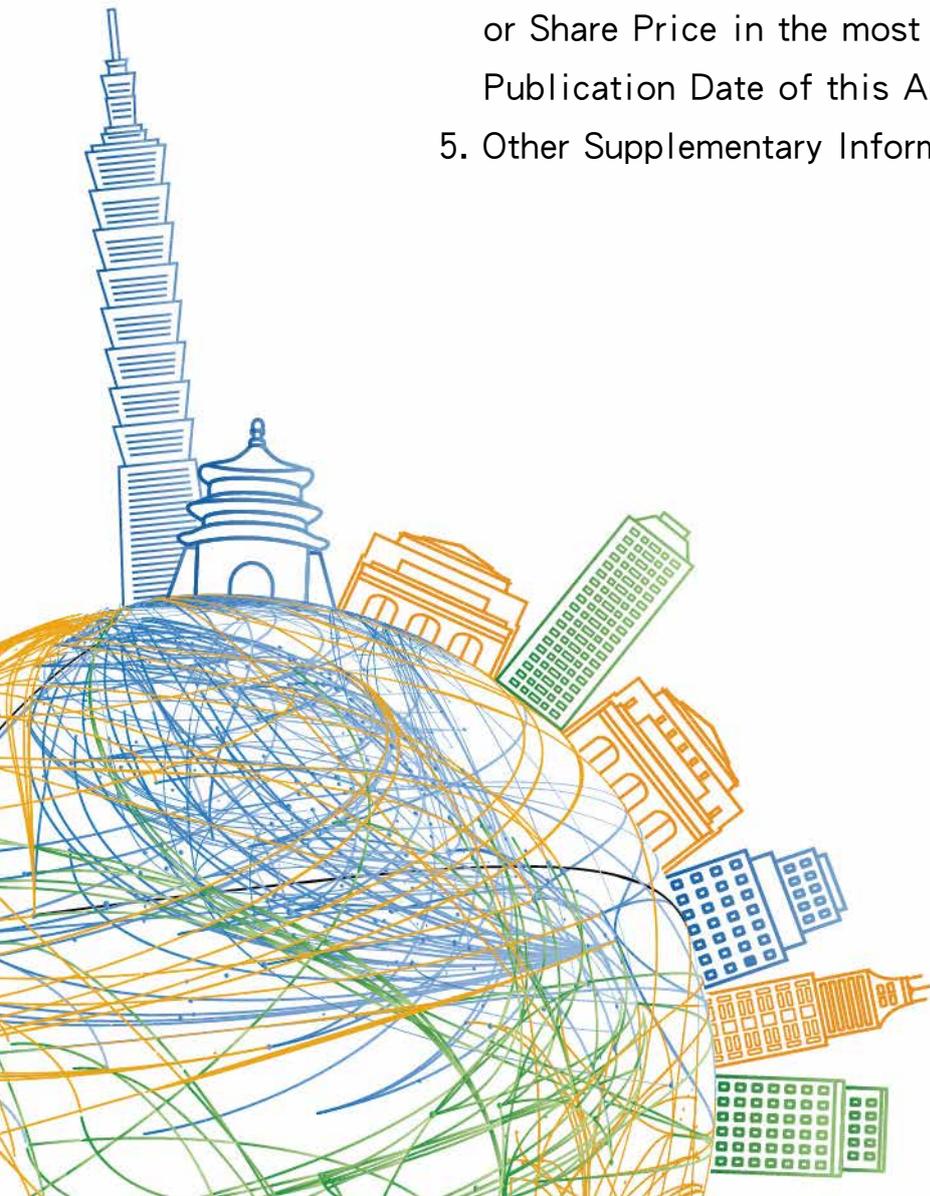
None.



# 7 Special Disclosures

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1. Affiliated Companies in 2019
2. Private Placement Securities in the most recent year and up to the Publication Date of this Annual Report
3. The Company's Shares Held or Disposed by Subsidiaries in the most recent year and up to the Publication Date of this Annual Report
4. Material Impact, pursuant to Article 36-3-2 of the Securities and Exchange Act, on Shareholders' Equity or Share Price in the most recent year and up to the Publication Date of this Annual Report
5. Other Supplementary Information

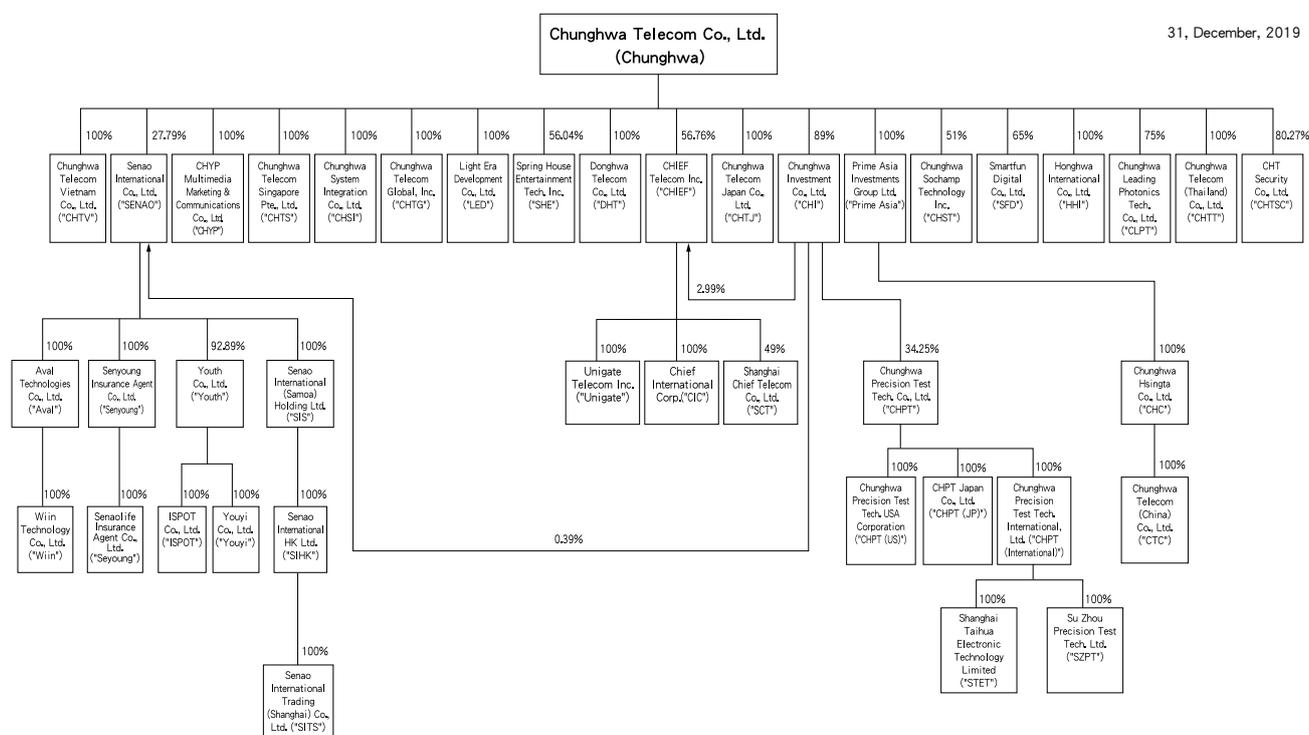


# Special Disclosures

## 1. Affiliated Companies in 2019

### 1.1 Consolidated Operation Report of the Company and Affiliates

#### (1) Organization Structure



#### (2) Affiliates Profiles

As of December 31, 2019

Affiliate Name	Date of Incorporation	Address	Paid-in Capital	Primary Business Operation
Prime Asia Investments Group Ltd. (B.V.I.) ("Prime Asia")	01/13/2006	Tortola, British Virgin Islands	USD12,996,000	Investment
Chunghwa Hsingta Co., Ltd. ("CHC")	12/08/2010	Room 2702-03, CC WuBuilding, 302-8 Hennessy Road, Wanchai, Hong Kong	USD12,663,000	Investment
Chunghwa Telecom (China) Co., Ltd. ("CTC")	03/28/2011	Room 2301, 23F, Yinglong Mansion, No. 1118, Yan'an West Road, Changning, Shanghai, China	RMB39,376,000	Integrated information and communication solution services for enterprise clients, and intelligent energy network service
CHYP Multimedia Marketing & Communications Co., Ltd. ("CHYP")	01/18/2007	9F., No. 89-1, Sec. 4, Xinyi Rd., Da'an Dist., Taipei 106, Taiwan (R.O.C.)	NT\$150,000,000	Digital information supply services and advertisement services
Dongghwa Telecom Co., Ltd. ("DHT")	08/18/2004	Unit A, 7/F., Tower A, Billion Centre, No. 1 Wang Kwong Road, Kowloon Bay, Kowloon, Hong Kong	HKD402,590,000	International private leased circuit, IP VPN service, and IP transit services
Chunghwa Telecom Global, Inc. ("CHTG")	03/14/2002	2107 N. 1st St. Ste. 580, San Jose, CA 95131, USA	USD6,000,000	International private leased circuit, internet services, and transit services

Affiliate Name	Date of Incorporation	Address	Paid-in Capital	Primary Business Operation
Chunghwa System Integration Co., Ltd. ("CHSI")	05/15/2002	No. 2-1, Aly. 8, Ln. 85, Sec.3, Muzha Rd., Wenshan Dist., Taipei City 116, Taiwan (R.O.C.)	NT\$600,000,000	Providing system integration services and telecommunications equipment
Light Era Development Co., Ltd. ("LED")	02/12/2008	1F., No. 89-1, Sec. 4, Xinyi Rd., Da'an Dist., Taipei City 106, Taiwan (R.O.C.)	NT\$3,000,000,000	Planning and development of real estate and intelligent buildings, and property management
Chunghwa Telecom Singapore Pte., Ltd. ("CHTS")	07/09/2008	331 North Bridge Road, #03-05, Odeon Towers Singapore 188720	SGD26,382,000	International private leased circuit, IP VPN service, and IP transit services
Chunghwa Telecom Japan Co., Ltd. ("CHTJ")	09/22/2008	Level 5, Asagawa Building 2-1-17 Shiba Daimon, Minato-Ku, Tokyo 105-0012 Japan	JPY50,000,000	International private leased circuit, IP VPN service, and IP transit services
Chunghwa Telecom Vietnam Co., Ltd. ("CHTV")	05/31/2011	Room 703, 7th Floor, 3D VN, Duy Tan St., Dich Vong Hau Ward, Cau Giay Dist., Hanoi City, Vietnam	VND 104,137,000,000	Intelligent energy network saving solutions, international circuit, and ICT services
Honghwa International Co., Ltd. ("HHI")	01/28/2013	8F., No.88, Sec. 4, Xinyi Rd., Da'an Dist., Taipei City 106, Taiwan (R.O.C.)	NT\$180,000,000	Telecommunications engineering, sales agent of mobile phone plan, application and other business services
Chunghwa Telecom (Thailand) Co., Ltd. ("CHTT")	03/03/2017	65/131 16th Floor Chamnan Phenjati Business Centre, Rama 9 Rd., Huay Kwang Dist., Bangkok 10320 Thailand	THB 130,000,000	International private leased circuit, IP VPN service, ICT and cloud VAS services
Chunghwa Investment Co., Ltd. ("CHI")	05/03/2002	6F., No. 88, Sec. 4, Xinyi Rd., Da'an Dist., Taipei City 106, Taiwan (R.O.C.)	NT\$765,000,000	Investment
Chunghwa Precision Test Tech. Co., Ltd. ("CHPT")	08/26/2005	No. 15, Gongye 3rd Rd., Pingzhen Dist., Taoyuan City 324, Taiwan (R.O.C.)	NT\$327,890,000	Production and sale of semiconductor testing components and printed circuit board
Chunghwa Precision Test Tech. USA Corporation ("CHPT US")	07/27/2010	3120 De La Cruz Blvd., Suite 110, Santa Clara, CA, 95054, U.S.A	USD4,000	Design and after-sale services of semiconductor testing components and printed circuit board
CHPT Japan Co., Ltd. ("CHPT JP")	01/15/2013	Asakawa Building 5th Floor, 2-1-17 Shiba Daimon, Minato-Ku, Tokyo, Japan	JPY6,000,000	Related services of electronic parts, machinery processed products and printed circuit board
Chunghwa Precision Test Tech. International, Ltd. ("CHPT International")	07/31/2013	NovaSage Chambers, P.O. Box 3018, Level 2, CCCS Building, Beach Road, Apia SAMOA	USD3,700,000	Wholesale and retail of electronic materials, and investment
Shanghai Taihua Electronic Technology Ltd. ("CHPT SH")	11/25/2013	16th Building 8F Unit 802B No. 1000, JinHai Road., Pudong New District, Shanghai China 201206	USD1,600,000	Design of printed circuit board and related consultation service
Su Zhou Precision Test Tech. Ltd. ("CHPT SZ")	07/03/2019	Room 101, Building 12, No. 200, Xingpu Road, Shengpu Town, Yuanqu, Wuzhong District, Suzhou City, Jiangsu Province, Zip code: 215126	USD2,000,000	Assembly, process and sale circuit board, design of printed circuit board and related consultation service
CHT Security Co., Ltd. ("CHTSC")	12/14/2017	8F., No. 88, Sec. 4, Xinyi Rd., Da'an Dist., Taipei 106, Taiwan (R.O.C.)	NT\$299,000,000	Computing equipment installation, wholesale of computing and business machinery equipment and software, management consulting services, data processing services, digital information supply services and internet identify services
Chunghwa Leading Photonics Tech. Co., Ltd. ("CLPT")	07/28/2016	No. 6, Ziqiang 7th Rd., Zhongli Dist., Taoyuan City 320, Taiwan (R.O.C.)	NT\$94,000,000	Production and sale of electronic components and finished products
CHIEF Telecom Inc. ("CHIEF")	01/19/1991	No. 250, Yangguang St., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)	NT\$694,621,310	IDC, Data, Voice and Cloud
Chief International Corp. ("CIC")	05/27/2008	Offshore Chambers, P.O. Box 217, Apia, Samoa	USD200,000	Telecommunications and Internet service

Affiliate Name	Date of Incorporation	Address	Paid-in Capital	Primary Business Operation
Unigate Telecom Inc. ("Unigate")	07/03/1999	No. 250, Yangguang St., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)	NT\$2,000,000	Telecommunications and Internet service
Shanghai Chief Telecom Co., Ltd. ("SCT")	08/14/2015	Room 1159, 11F., No. 55, Jilong Road, Free Trade Pilot Area, Shanghai, China	RMB2,000,000	Telecommunications and Internet service
Smartfun Digital Co., Ltd. ("SFD")	08/31/2011	8F., No. 88, Sec. 4, Xinyi Rd., Da'an Dist., Taipei City 106, Taiwan (R.O.C.)	NT\$100,000,000	Providing diversified family education digital services
Spring House Entertainment Tech. Inc. ("SHE")	02/02/2000	10F., No. 106, Zhouzi St., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)	NT\$147,236,210	Software design services, internet contents production and play, and motion picture production and distribution
Chunghwa Sochamp Technology Inc. ("CHST")	07/01/2011	Room 3B-38, 3F., No. 5, Sec.5, Xinyi Rd., Xinyi Dist., Taipei City 110, Taiwan (R.O.C.)	NT\$40,000,000	Design, development and production of Automatic License Plate Recognition software and hardware
Senao International Co., Ltd. ("SENAO")	05/18/1979	2F., No. 531, Zhongzheng Rd., Xindian Dist., New Taipei City 231, Taiwan (R.O.C.)	NT\$2,582,527,000	Handset and peripherals retailer; sales of CHT mobile phone plans as an agent
Senao International (Samoa) Holding Ltd. ("SIS")	12/15/2009	P.O. Box 217, Apia, Samoa	USD78,475,000	International investment
Senao International HK Ltd. ("SIHK")	12/28/2009	Units 3306-12 33/F, Shuion Centre 6-8 Harbour Road Wanchai HK	USD78,340,000	International investment
Senao International Trading (Shanghai) Co., Ltd. ("SITS")	01/12/2011	Room 401, Building 14, No. 470, Guiping Road, Xuhui Dist., Shanghai City, China	USD32,000,000	Sale of information and communication technologies products
Youth Co., Ltd. ("Youth")	10/04/1996	No.13, Sec. 1, Bade Rd., Zhongzheng Dist., Taipei City 100, Taiwan (R.O.C.)	NT\$91,100,000	Sale of information and communication technologies products
ISPO Co., Ltd. ("ISPO")	09/05/2012	No. 13, Sec. 1, Bade Rd., Zhongzheng Dist., Taipei City 100, Taiwan (R.O.C.)	NT\$10,727,000	Sale of information and communication technologies products
Youyi Co., Ltd. ("Youyi")	06/12/2012	2F., No. 13, Sec. 1, Bade Rd., Zhongzheng Dist., Taipei City 100, Taiwan (R.O.C.)	NT\$21,354,000	Maintenance of information and communication technologies products
Aval Technologies Co., Ltd. ("Aval")	10/05/2015	6F., No. 533, Zhongzheng Rd., Xindian Dist., New Taipei City 231, Taiwan (R.O.C.)	NT\$98,425,800	Sale of information and communication technologies products
Wiin Technologies Co., Ltd. ("Wiin")	09/12/2019	6F., No. 533, Zhongzheng Rd., Xindian Dist., New Taipei City 231, Taiwan (R.O.C.)	NT\$29,550,000	Sale of information and communication technologies products
Senyoung Insurance Agent Co., Ltd. ("Senyoung")	11/22/2017	2F., No. 531, Zhongzheng Rd., Xindian Dist., New Taipei City 231, Taiwan (R.O.C.)	NT\$59,000,000	Property and liability insurance agency
Seyoung Insurance Agent Co., Ltd. ("Seyoung")	11/29/2019	2F., No. 531, Zhongzheng Rd., Xindian Dist., New Taipei City 231, Taiwan (R.O.C.)	NT\$29,500,000	Life insurance agency

### (3) Companies presumed to have a Relationship of Control and Subordination with Chunghwa Telecom

None.

### (4) Industries covered by Affiliates' Business Operation

Industries covered by the Company's affiliates are primarily telecommunication related services, including advanced technology, production, marketing and enhanced services, in order to enable Chunghwa Telecom to continue creating synergies, to innovate and to provide the best offerings for its clients and consumers, as well as to ensure its leading market position.

(5)Affiliates' Directors, Supervisors and Executives Names and Shareholdings

As of December 31, 2019

Affiliate Name	Title	Name or Representative	Shareholding #	Shareholding%
Prime Asia Investments Group Ltd. (B.V.I.) ("Prime Asia")	Director	Representative of Chunghwa Telecom Co., Ltd.: Yuan- Kai Chen	1,301	100%
Chunghwa Hsingta Co., Ltd. ("CHC")	Director	Representative of Prime Asia Investments Group Ltd.: Yuan- Kai Chen	1,266	100%
Chunghwa Telecom (China) Co., Ltd. ("CTC")	Chairman	Representative of Chunghwa Hsingta Co., Ltd.: Chuang-Liang Chiu	-	100%
	Director	Representative of Chunghwa Hsingta Co., Ltd.: Chih-Cheng Chien	-	100%
	Director	Representative of Chunghwa Hsingta Co., Ltd.: Kuan-Chun Hsieh	-	100%
	Director	Representative of Chunghwa Hsingta Co., Ltd.: Ting-Ming Lin	-	100%
	Director / General Manager	Representative of Chunghwa Hsingta Co., Ltd.: Jian Teng	-	100%
	Supervisor	Representative of Chunghwa Hsingta Co., Ltd.: Wei-Ting Chen	-	100%
CHYP Multimedia Marketing & Communications Co., Ltd. ("CHYP")	Chairman	Representative of Chunghwa Telecom Co., Ltd.: Shih-Chung Chang	15,000,000	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Quen-Zong Wu	15,000,000	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Yih-Chyau Kuo	15,000,000	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Chien-Chih Chen	15,000,000	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Yen-Hsiang Hun	15,000,000	100%
	Supervisor	Representative of Chunghwa Telecom Co., Ltd.: Yuan-Kai Chen	15,000,000	100%
	General Manager	Cheng-Hsien Han	-	-
Donghwa Telecom Co., Ltd. ("DHT")	Chairman	Representative of Chunghwa Telecom Co., Ltd.: Ming-Shih Chen	402,590,005	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Ying-Ming Wu	402,590,005	100%
	Director / General Manager	Representative of Chunghwa Telecom Co., Ltd.: Morris Su	402,590,005	100%
Chunghwa Telecom Global, Inc. ("CHTG")	Chairman	Representative of Chunghwa Telecom Co., Ltd.: Hsueh-Lan Wu	6,000,000	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Jung-Kuei Chen	6,000,000	100%
	Director / General Manager	Representative of Chunghwa Telecom Co., Ltd.: Phoebe Wang	6,000,000	100%
Chunghwa System Integration Co., Ltd. ("CHSI")	Chairman	Representative of Chunghwa Telecom Co., Ltd.: Hsu-Hui Ho	60,000,000	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Jeu-Yih Jeng	60,000,000	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Chih-Cheng Lo	60,000,000	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Yuan-Kai Chen	60,000,000	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Chi-Hsien Huang	60,000,000	100%
	Supervisor	Representative of Chunghwa Telecom Co., Ltd.: Mei-Ling Yeh	60,000,000	100%
	General Manager	Chung-Lin Yu	-	-

Affiliate Name	Title	Name or Representative	Shareholding #	Shareholding%
Light Era Development Co., Ltd. ("LED")	Chairman	Representative of Chunghwa Telecom Co., Ltd.: Adam Chen	300,000,000	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Kuo-Feng Lin	300,000,000	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Jiunn-Der Lee	300,000,000	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Edward Chou	300,000,000	100%
	Director / General Manager	Representative of Chunghwa Telecom Co., Ltd.: Chin-Hsun Su	300,000,000	100%
	Supervisor	Representative of Chunghwa Telecom Co., Ltd.: Kuo-Chiang Chung	300,000,000	100%
Chunghwa Telecom Singapore Pte., Ltd. ("CHTS")	Chairman	Representative of Chunghwa Telecom Co., Ltd.: Chih-Cheng Chien	26,382,976	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Chung-Tair Chow	26,382,976	100%
	Director / General Manager	Representative of Chunghwa Telecom Co., Ltd.: Cheng Chiao	26,382,976	100%
Chunghwa Telecom Japan Co., Ltd. ("CHTJ")	Chairman	Representative of Chunghwa Telecom Co., Ltd.: Yuan-Kuang Tu	1,000	100%
	Director / General Manager	Representative of Chunghwa Telecom Co., Ltd.: Escudo Pai	1,000	100%
Chunghwa Telecom Vietnam Co., Ltd. ("CHTV")	Chairman	Representative of Chunghwa Telecom Co., Ltd.: Hsueh-Lan Wu	-	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Kuan-Hsiung Liang	-	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Hsuan-Lung Liu	-	100%
	Director / General Manager	Representative of Chunghwa Telecom Co., Ltd.: Wen-Jang Yang	-	100%
	Supervisor	Representative of Chunghwa Telecom Co., Ltd.: Kuo-Chiang Chung	-	100%
Honghwa International Co., Ltd. ("HHI")	Chairman	Representative of Chunghwa Telecom Co., Ltd.: Tian-Tsair Su	18,000,000	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Yao-Kun Chou	18,000,000	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Yi-Fong Chang	18,000,000	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Jung-Yi Chen	18,000,000	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Tai-Tsan Yeh	18,000,000	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Yuan-Kuang Tu	18,000,000	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Ruey-Shu Chiu	18,000,000	100%
	Supervisor	Representative of Chunghwa Telecom Co., Ltd.: Chi-Hsien Huang	18,000,000	100%
	General Manager	Tai-Tsan Yeh	-	-

Affiliate Name	Title	Name or Representative	Shareholding #	Shareholding%
Chunghwa Telecom (Thailand) Co., Ltd. ("CHTT")	Chairman	Representative of Chunghwa Telecom Co., Ltd.: Hsueh-Lan Wu Ying-Ming Wu	1,300,000	100%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Ying-Ming Wu	1,300,000	100%
	Director / General Manager	Representative of Chunghwa Telecom Co., Ltd.: Wen-Jang Yang	1,300,000	100%
Chunghwa Investment Co., Ltd. ("CHI")	Chairman	Representative of Chunghwa Telecom Co., Ltd.: Ruey-Tsang Lee	68,085,000	89%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Kuo-Feng Lin	68,085,000	89%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Rong-Shy Lin	68,085,000	89%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Yuan-Kai Chen	68,085,000	89%
	Director / General Manager	Representative of Chunghwa Telecom Co., Ltd.: Yen-Chih Ting	68,085,000	89%
	Supervisor	Li-Chia Kuo	-	-
Chunghwa Precision Test Tech. Co., Ltd. ("CHPT")	Chairman	Representative of Chunghwa Investment Co., Ltd.: Hsiu-Ku Huang	11,229,884	34%
	Director	Representative of Chunghwa Investment Co., Ltd.: Kuo-Feng Lin	11,229,884	34%
	Director	Representative of MediaTek Capital Corp.: David Ku	430,000	1%
	Director / General Manager	Scott Huang	861,594	3%
	Independent Director	Chung-Fern Wu	-	-
	Independent Director	Wen-Nan Tsan	-	-
	Independent Director	Kenneth H. C. Chiu	-	-
Chunghwa Precision Test Tech. USA Corporation ("CHPT US")	Chairman	Representative of Chunghwa Precision Test Tech. Co., Ltd.: Eric Chien	400,000	100%
	Director	Representative of Chunghwa Precision Test Tech. Co., Ltd.: Daphne Hsu	400,000	100%
	Director	Representative of Chunghwa Precision Test Tech. Co., Ltd.: Scott Huang	400,000	100%
	General Manager	Brian Chang	-	-
CHPT Japan Co., Ltd. ("CHPT JP")	Director	Representative of Chunghwa Precision Test Tech. Co., Ltd.: Haku Cheng	600	100%
	Director	Representative of Chunghwa Precision Test Tech. Co., Ltd.: Scott Huang	600	100%
Chunghwa Precision Test Tech. International, Ltd. ("CHPT International")	Chairman	Representative of Chunghwa Precision Test Tech. Co., Ltd.: Scott Huang	3,700,000	100%

Affiliate Name	Title	Name or Representative	Shareholding #	Shareholding%
Shanghai Taihua Electronic Technology Ltd. ("CHPT SH")	Executive Director	Representative of Chunghwa Precision Test Tech. International, Ltd.: Scott Huang	-	100%
	Supervisor	Representative of Chunghwa Precision Test Tech. International, Ltd.: Daphne Hsu	-	100%
Su Zhou Precision Test Tech. Ltd. ("CHPT SZ")	Chairman / General Manager	Representative of Chunghwa Precision Test Tech. International, Ltd.: Scott Huang	-	100%
	Director	Representative of Chunghwa Precision Test Tech. International, Ltd.: Eric Chien	-	100%
	Director	Representative of Chunghwa Precision Test Tech. International, Ltd.: Strong Hsueh	-	100%
	Supervisor	Representative of Chunghwa Precision Test Tech. International, Ltd.: Daphne Hsu	-	100%
CHT Security Co., Ltd. ("CHTSC")	Chairman	Representative of Chunghwa Telecom Co., Ltd.: Jen-Nan Chen	24,000,000	80%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Hong-Chan Ma	24,000,000	80%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Rong-Shy Lin	24,000,000	80%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Li-Show Wu	24,000,000	80%
	Director / General Manager	Representative of Chunghwa Telecom Co., Ltd.: Chin-Fu Hung	24,000,000	80%
	Supervisor	Shu-Ling Chen	-	-
Chunghwa Leading Photonics Tech. Co., Ltd. ("CLPT")	Chairman	Representative of Chunghwa Telecom Co., Ltd.: Yuan-Kuang Tu	7,050,000	75%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Jung-Kuei Chen	7,050,000	75%
	Director / General Manager	Chia-Chien Lin	870,000	9%
	Supervisor	Wei-Ting Chen	-	-
CHIEF Telecom Inc. ("CHIEF")	Chairman	Representative of Chunghwa Telecom Co., Ltd.: Yen-Hung Wu	39,425,803	57%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Shih-Chang Wu	39,425,803	57%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Hong-Chan Ma	39,425,803	57%
	Director	Representative of InveStar Co., Ltd.: Chung-Hou Tai	109,000	0%
	Independent Director	Han-Shing Liu	-	-
	Independent Director	Ling-Tai Chou	-	-
	Independent Director	Chih-Feng Lai	-	-
	General Manager	Yao-Yuan Liu	224,000	0%
Chief International Corp. ("CIC")	Chairman	Representative of CHIEF Telecom Inc.: Yao-Yuan Liu	200,000	100%
	Director	Representative of CHIEF Telecom Inc.: Chien-Chi Liao	200,000	100%

Affiliate Name	Title	Name or Representative	Shareholding #	Shareholding%
Unigate Telecom Inc. ("Unigate")	Chairman	Representative of CHIEF Telecom Inc.: Yen-Hung Wu	200,000	100%
	Director	Representative of CHIEF Telecom Inc.: Yao-Yuan Liu	200,000	100%
	Director	Representative of CHIEF Telecom Inc.: Chien-Chi Liao	200,000	100%
	Supervisor	Representative of CHIEF Telecom Inc.: Lin-Tung Chang	200,000	100%
Shanghai Chief Telecom Co., Ltd. ("SCT")	Chairman	Representative of CHIEF Telecom Inc.: Wen-Han Chiang	-	49%
	Director	Representative of CHIEF Telecom Inc.: Yao-Yuan Liu	-	49%
	Director / General Manager	Representative of Shenzhen Century Communication Co., Ltd.: Yuan-Wen Han	-	51%
	Supervisor	Representative of CHIEF Telecom Inc.: Chien-Chi Liao	-	49%
Smartfun Digital Co., Ltd. ("SFD")	Chairman	Representative of Chunghwa Telecom Co., Ltd.: Ming-Shih Chen	6,500,000	65%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Ying-Hsueh Wang	6,500,000	65%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Yen-Hsiang Hung	6,500,000	65%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Quen-Zong Wu	6,500,000	65%
	Director	Representative of United Daily News: Ming-Jey Ho	2,500,000	25%
	Supervisor	Miaw-Ling Chen	-	-
	Supervisor	Representative of UDN Digital Co., Ltd.: Yu-Chih Lin	1,000,000	10%
	General Manager	Shu-Chuan Shan	-	-
Spring House Entertainment Tech. Inc. ("SHE")	Chairman	Representative of Chunghwa Telecom Co., Ltd.: Chih-Jen Hsu	8,250,731	56%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Wen-Chiyh Lin	8,250,731	56%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Ruey-Shu Chiu	8,250,731	56%
	Director / General Manager	Representative of Chunghwa Telecom Co., Ltd.: Hsueh-Hai Hu	8,250,731	56%
	Director	Representative of Ku Shen Investment Inc.: Yao-Tung Kao	1,526,086	10%
	Director	Representative of Ku Shen Investment Inc.: Meng-Wei Ku	1,526,086	10%
	Director	Jung-Kuei Chang	513,252	3%
	Supervisor	Wen-Chuan Chang	473,357	3%
	Supervisor	Wei-Ting Chen	-	-

Affiliate Name	Title	Name or Representative	Shareholding #	Shareholding%
Chunghwa Sochamp Technology Inc. ("CHST")	Chairman	Representative of Chunghwa Telecom Co., Ltd.: Hong-Chan Ma	2,040,000	51%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Ming-Shih Chen	2,040,000	51%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Rong-Shy Lin	2,040,000	51%
	Director	Representative of Socamp Technology Inc.: Shan-I Chen	1,960,000	49%
	Director / General Manager	Representative of Socamp Technology Inc.: Shang-Chih Chen	1,960,000	49%
	Supervisor	Wen-Chi Tseng	-	-
	Supervisor	Ta-Chieh Lin	-	-
Senao International Co., Ltd. ("SENAO")	Chairman	Representative of Chunghwa Telecom Co., Ltd.: Jin-Lin Lai	71,773,155	28%
	Vice chairman and General Manager	Representative of Cheng Kang Investment Co., Ltd.: Pao-Yung Lin	14,820,975	6%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Ming-Shih Chen	71,773,155	28%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Yuan-Kuang Tu	71,773,155	28%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Li-Show Wu	71,773,155	28%
	Director	Representative of Chunghwa Telecom Co., Ltd.: Chien-Chieh Chen	71,773,155	28%
	Director	Representative of Cheng Kang Investment Co., Ltd.: Cheng-Kang, Lin	14,820,975	6%
	Director	Representative of Cheng Kang Investment Co., Ltd.: Cheng-Feng Lin	14,820,975	6%
	Independent Director	Kung-Liang Yeh	-	-
	Independent Director	Yunag-Lin Su	12,209	0%-
Independent Director	Wen-Tsan Wu	-	-	
Senao International (Samoa) Holding Ltd. ("SIS")	Director	Representative of Senao International Co., Ltd.: Pao-Yung Lin	-	100%
Senao International HK Ltd. ("SIHK")	Director	Representative of Senao International (Samoa) Holding Ltd.: Pao-Yung Lin	-	100%
Senao International Trading (Shanghai) Co., Ltd. ("SITS")	Chairman	Representative of Senao International HK Ltd.: Pao-Yung Lin	-	100%
	Director	Representative of Senao International HK Ltd.: Yu-Chiang Wu	-	100%
	Director	Representative of Senao International HK Ltd.: Chih-Chung Chiu	-	100%
	Director / General Manager	Representative of Senao International HK Ltd.: Wu-Hsiung Huang	-	100%
	Supervisor	Representative of Senao International HK Ltd.: Kuan-Heng Lai	-	100%

Affiliate Name	Title	Name or Representative	Shareholding #	Shareholding%
Youth Co., Ltd. ("Youth")	Chairman / General Manager	Representative of Senao International Co., Ltd.: Yu-Chiang Wu	8,462,000	93%
	Director	Representative of Senao International Co., Ltd.: Chi-Hung Liao	8,462,000	93%
	Director	Representative of Senao International Co., Ltd.: Kuan-Heng Lai	8,462,000	93%
	Supervisor	Tsai-Hung Yu	-	-
ISpot Co., Ltd. ("ISpot")	Director	Representative of Youth Co., Ltd.: Yu-Chiang Wu	-	100%
Youyi Co., Ltd. ("Youyi")	Director	Representative of Youth Co., Ltd.: Yu-Chiang Wu	-	100%
Aval Technologies Co., Ltd. ("Aval")	Chairman	Representative of Senao International Co., Ltd.: Wen-He Tsai	9,842,580	100%
	General Manager	Representative of Senao International Co., Ltd.: Yu-Chiang Wu	-	-
Wiin Technologies Co., Ltd. ("Wiin")	Chairman / General Manager	Representative of Aval Technologies Co., Ltd.: Wen-He Tsai	2,955,000	100%
Senyoung Insurance Agent Co., Ltd. ("Senyoung")	Chairman/ General Manager	Representative of Senao International Co., Ltd.: Yan-Yan Jheng	5,900,000	100%
	Director	Representative of Senao International Co., Ltd.: Cing-Sheng Liou	5,900,000	100%
	Director	Representative of Senao International Co., Ltd.: Chi-Hung Liao	5,900,000	100%
	Supervisor	Representative of Senao International Co., Ltd.: Kuan-Heng Lai	5,900,000	100%
Senyoung Insurance Agent Co., Ltd. ("Senyoung")	Chairman / General Manager	Representative of Senyoung Insurance Agent Co., Ltd.: Ho-I Wang	2,950,000	100%
	Director	Representative of Senyoung Insurance Agent Co., Ltd.: Yan-Yan Jheng	2,950,000	100%
	Director	Representative of Senyoung Insurance Agent Co., Ltd.: Kuan-Heng Lai	2,950,000	100%

## (6) Affiliates' Operating Highlights

Unit: NT\$'000

Affiliate Names	Paid-in Capital	Total Asset	Total Liability	Total Equity	Total Revenues	Operating Income	Net Income	Earnings per Share, NT\$
Prime Asia Investments Group Ltd. (B.V.I.) ("Prime Asia")	385,274	182,989	-	182,989	-	-	(2,462)	-
Chunghwa Hsingta Co., Ltd. ("CHC")	375,274	182,988	-	182,988	-	-	(2,460)	-
Chunghwa Telecom (China) Co., Ltd. ("CTC")	177,176	60,299	15,824	44,475	93,657	(6,267)	(6,069)	-
CHYP Multimedia Marketing & Communications Co., Ltd. ("CHYP")	150,000	467,971	277,610	190,361	390,012	19,646	15,375	1
Donghua Telecom Co., Ltd. ("DHT")	1,567,453	3,945,907	2,318,416	1,627,491	1,323,919	12,542	39,268	-

Affiliate Names	Paid-in Capital	Total Asset	Total Liability	Total Equity	Total Revenues	Operating Income	Net Income	Earnings per Share, NT\$
Chunghwa Telecom Global, Inc. ("CHTG")	194,994	691,589	347,515	344,074	614,852	90,987	66,530	11
Chunghwa System Integration Co., Ltd. ("CHSI")	600,000	1,550,435	899,829	650,606	1,901,230	(1,988)	13,135	-
Light Era Development Co., Ltd. ("LED")	3,000,000	5,487,947	1,629,149	3,858,798	113,097	24,920	7,260	-
Chunghwa Telecom Singapore Pte., Ltd. ("CHTS")	574,112	2,162,969	1,227,751	935,218	1,138,402	32,237	143,145	5
Chunghwa Telecom Japan Co., Ltd. ("CHTJ")	17,291	126,921	50,354	76,567	178,536	24,478	15,073	15,073
Chunghwa Telecom Vietnam Co., Ltd. ("CHTV")	148,275	282,585	184,364	98,221	34,806	(6,006)	(5,365)	-
Honghwa International Co., Ltd. ("HHI")	180,000	2,002,415	1,563,716	438,699	5,565,516	220,219	171,509	10
Chunghwa Telecom (Thailand) Co., Ltd. ("CHTT")	119,624	114,964	733	114,231	68,765	(89)	(3,595)	(3)
Chunghwa Investment Co., Ltd. ("CHI")	765,000	3,614,803	12,288	3,602,515	242,174	212,597	207,988	3
Chunghwa Precision Test Tech. Co., Ltd. ("CHPT")	327,890	7,720,175	1,276,264	6,443,911	3,386,154	884,943	625,164	19
Chunghwa Precision Test Tech. USA Corporation ("CHPT US")	126	35,828	11,491	24,337	41,652	1,267	544	1
CHPT Japan Co., Ltd. ("CHPT JP")	2,008	3,505	1,125	2,380	3,740	189	82	137
Chunghwa Precision Test Tech. International, Ltd. ("CHPT International")	116,790	88,252	-	88,252	-	(111)	(13,893)	(4)
Shanghai Taihua Electronic Technology Ltd. ("CHPT SH")	51,233	37,981	12,038	25,943	33,642	(12,111)	(12,279)	-
Su Zhou Precision Test Tech. Ltd. ("CHPT SZ")	62,340	88,558	29,642	58,916	-	(1,130)	(1,955)	-
CHT Security Co., Ltd. ("CHTSC")	299,000	604,966	207,179	397,787	690,810	121,382	98,124	3
Chunghwa Leading Photonics Tech. Co., Ltd. ("CLPT")	94,000	217,809	59,213	158,596	91,057	13,821	10,464	1
CHIEF Telecom Inc. ("CHIEF")	694,621	4,646,505	1,790,967	2,855,538	2,317,201	659,810	542,508	8
Chief International Corp. ("CIC")	6,068	79,029	5,659	73,370	23,543	10,108	10,894	54
Unigate Telecom Inc. ("Unigate")	2,000	1,801	915	886	133	30	(1)	-
Shanghai Chief Telecom Co., Ltd. ("SCT")	10,150	23,246	1,099	22,147	59,258	7,372	6,822	-

Affiliate Names	Paid-in Capital	Total Asset	Total Liability	Total Equity	Total Revenues	Operating Income	Net Income	Earnings per Share, NT\$
Smartfun Digital Co., Ltd. ("SFD")	100,000	132,353	18,705	113,648	76,328	11,799	10,260	1
Spring House Entertainment Tech. Inc. ("SHE")	147,236	221,889	53,041	168,848	197,967	25,358	21,322	1
Chunghwa Sochamp Technology Inc. ("CHST")	40,000	110,885	99,014	11,871	53,794	(998)	(2,232)	(1)
Senao International Co., Ltd. ("SENAO")	2,582,527	9,799,017	3,950,839	5,848,178	27,493,868	274,451	411,231	2
Senao International (Samoa) Holding Ltd. ("SIS")	2,333,620	352,365	111	352,254	64	(166)	(50,646)	-
Senao International HK Ltd. ("SIHK")	2,328,754	332,176	45	332,131	-	(725)	(50,952)	-
Senao International Trading (Shanghai) Co., Ltd. ("SITS")	955,838	80,440	29,943	50,497	56,219	(27,856)	(27,215)	-
Youth Co., Ltd. ("Youth")	91,100	129,935	50,152	79,783	233,809	(5,375)	(3,130)	-
ISPOT Co., Ltd. ("ISPOT")	10,727	29,058	23,404	5,654	17,739	(165)	(94)	-
Youyi Co., Ltd. ("Youyi")	21,354	15,664	9,529	6,135	22,490	413	315	-
Aval Technologies Co., Ltd. ("Aval")	98,426	240,691	138,847	101,844	1,814,032	2,811	2,363	-
Wiin Technologies Co., Ltd. ("Wiin")	29,550	63,807	34,026	29,781	27,519	285	231	-
Senyoung Insurance Agent Co., Ltd. ("Senyoung")	59,000	171,965	96,268	75,697	254,067	29,661	25,036	4
Seyoung Insurance Agent Co., Ltd. ("Seyoung")	29,500	29,494	274	29,220	-	(351)	(280)	-

Note: Exchange rates for the Consolidated Balance Sheet are as follows:

RMB1 = NT\$4.305, HKD1 = NT\$3.849, USD1 = NT\$29.98, JPY1 = NT\$0.276, VND1 = NT\$0.00117, SGD1 = NT\$22.28, THB1 = NT\$1.0098

Exchange rates for the Consolidated Income Statement are as follows:

RMB1 = NT\$4.472, HKD1 = NT\$3.945, USD1 = NT\$30.912, JPY1 = NT\$0.2837, VND1 = NT\$0.00121, SGD1 = NT\$22.66, THB1 = NT\$1.0008

## 1.2 Consolidated Financial Report of the Company and Affiliates

For more details, please refer to page 149, Chapter VIII, Section 8, "Consolidated Financial Statements and Independent Auditors' Report".

## 2. Private Placement Securities in the most recent year and up to the Publication Date of this Annual Report

None.

### **3. The Company's Shares Held or Disposed by Subsidiaries in the most recent year and up to the Publication Date of this Annual Report**

None.

### **4. Material Impact, pursuant to Article 36-3-2 of the Securities and Exchange Act, on Shareholders' Equity or Share Price in the most recent year and up to the Publication Date of this Annual Report**

(1) On April 22, 2019, the Company's Board of Directors appointed Mr. Chi-Mau Sheih as the new Chairman and CEO, succeeding Mr. Yu Cheng. At the same time, Mr. Sheih retained his position as President.

(2) On May 8, 2019, the Company's Board of Directors appointed Mr. Shui-Yi Kuo as the new President, succeeding Mr. Chi-Mau Sheih, and as interim Chief Financial Officer.

### **5. Other Supplementary Information**

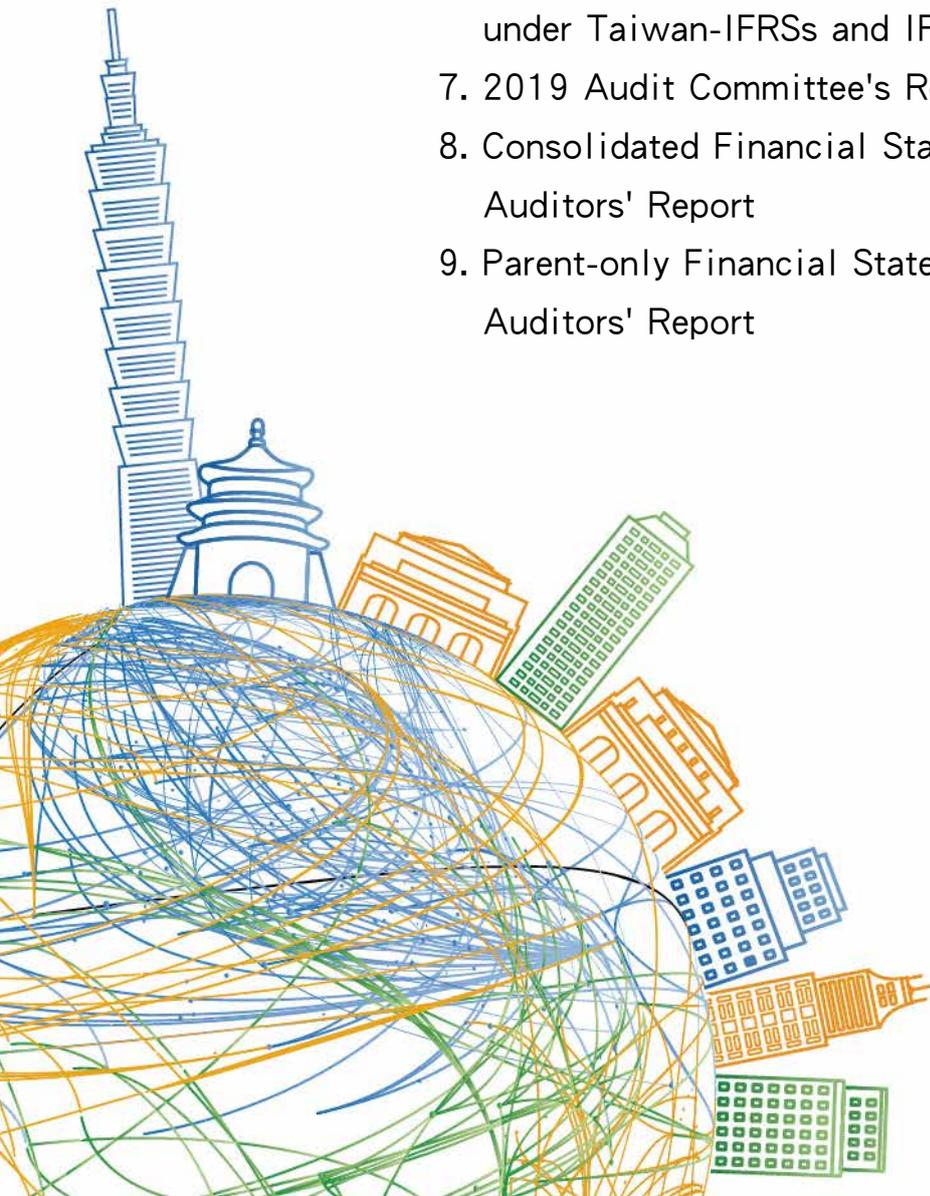
None.

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## Financial Information

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1. Five-Year Financial Summary
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3. Asset Impairment
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# Financial Information

## 1. Five-Year Financial Summary

### 1.1 Condensed Balance Sheet and Statement of Comprehensive Income

#### (1) Condensed Balance Sheet

##### A. Consolidated Condensed Balance Sheet

Unit: NT\$'000

Item	Year	Financial Summary for Most Recent 5 Years				
		2019	2018	2017	2016	2015
Current Assets		94,072,062	91,688,336	79,334,002	81,620,175	76,206,844
Property, Plant and Equipment		283,694,215	288,914,228	288,707,910	291,169,760	296,399,146
Intangible Assets		47,046,525	50,943,682	54,883,268	47,353,424	50,446,778
Other Assets		52,645,436	35,722,458	28,197,942	26,989,146	29,968,324
<b>Total Assets</b>		<b>477,458,238</b>	<b>467,268,704</b>	<b>451,123,122</b>	<b>447,132,505</b>	<b>453,021,092</b>
Current Liabilities	Before Distribution	64,351,545	61,387,021	59,990,359	60,105,595	58,526,087
	After Distribution	-	96,132,624	97,195,073	98,442,120	101,077,233
Noncurrent Liabilities		26,712,928	19,309,363	17,553,183	15,827,240	20,486,002
Total Liabilities	Before Distribution	<b>91,064,473</b>	<b>80,696,384</b>	<b>77,543,542</b>	<b>75,932,835</b>	<b>79,012,089</b>
	After Distribution	-	<b>115,441,987</b>	<b>114,748,256</b>	<b>114,269,360</b>	<b>121,563,235</b>
Equity Attributable to Stockholders of the Parent		376,110,243	376,562,372	364,881,985	364,703,748	368,739,928
Common Stocks		77,574,465	77,574,465	77,574,465	77,574,465	77,574,465
Additional Paid-in Capital		171,255,985	171,136,764	169,466,883	168,542,486	168,095,615
Retained Earnings	Before Distribution	126,591,245	127,391,229	117,457,971	118,592,201	122,801,129
	After Distribution	-	92,645,626	80,253,257	80,255,676	80,249,983
Other Adjustments		688,548	459,914	382,666	(5,404)	268,719
Noncontrolling Interests		10,283,522	10,009,948	8,697,595	6,495,922	5,269,075
Total Equity	Before Distribution	<b>386,393,765</b>	<b>386,572,320</b>	<b>373,579,580</b>	<b>371,199,670</b>	<b>374,009,003</b>
	After Distribution	-	<b>351,826,717</b>	<b>336,374,866</b>	<b>332,863,145</b>	<b>331,457,857</b>

## B. Parent-only Condensed Balance Sheet

Unit: NT\$'000

Item	Year	Financial Summary for Most Recent 5 Years				
		2019	2018	2017	2016	2015
Current Assets		69,965,003	67,338,984	60,762,443	65,773,396	61,837,140
Property, Plant and Equipment		274,744,872	281,056,057	281,413,852	283,912,327	290,072,562
Intangible Assets		46,519,457	50,404,295	54,283,253	46,726,067	49,798,429
Other Assets		66,085,949	50,017,325	37,470,635	35,533,390	37,480,368
<b>Total Assets</b>		<b>457,315,281</b>	<b>448,816,661</b>	<b>433,930,183</b>	<b>431,945,180</b>	<b>439,188,499</b>
Current Liabilities	Before Distribution	59,382,190	57,334,954	55,929,805	55,347,993	53,993,104
	After Distribution	-	92,080,557	93,134,519	93,684,518	96,544,250
Noncurrent Liabilities		21,822,848	14,919,335	13,118,393	11,893,439	16,455,467
Total Liabilities	Before Distribution	<b>81,205,038</b>	<b>72,254,289</b>	<b>69,048,198</b>	<b>67,241,432</b>	<b>70,448,571</b>
	After Distribution	-	<b>106,999,892</b>	<b>106,252,912</b>	<b>105,577,957</b>	<b>112,999,717</b>
Common Stocks		77,574,465	77,574,465	77,574,465	77,574,465	77,574,465
Additional Paid-in Capital		171,255,985	171,136,764	169,466,883	168,542,486	168,095,615
Retained Earnings	Before Distribution	126,591,245	127,391,229	117,457,971	118,592,201	122,801,129
	After Distribution	-	92,645,626	80,253,257	80,255,676	80,249,983
Other Adjustments		688,548	459,914	382,666	(5,404)	268,719
Total Equity	Before Distribution	<b>376,110,243</b>	<b>376,562,372</b>	<b>364,881,985</b>	<b>364,703,748</b>	<b>368,739,928</b>
	After Distribution	-	<b>341,816,769</b>	<b>327,677,271</b>	<b>326,367,223</b>	<b>326,188,782</b>

## (2) Condensed Statement of Comprehensive Income

### A. Consolidated Condensed Statement of Comprehensive Income

Unit: NT\$'000

Item	Year	Financial Summary for Most Recent 5 Years				
		2019	2018	2017	2016	2015
Revenues		207,520,061	215,483,158	227,514,183	229,991,428	231,795,104
Gross Profit		71,567,521	75,937,701	80,676,700	82,439,634	83,668,891
Income from Operations		40,645,854	43,643,659	46,702,977	48,105,278	50,361,338
Non-operating Income and Expenses		1,103,938	1,335,045	1,294,085	1,277,269	1,606,875
Income Before Income Tax		41,749,792	44,978,704	47,997,062	49,382,547	51,968,213
Net Income (Loss)		33,763,943	36,456,171	40,042,601	41,229,985	43,664,345
Other Comprehensive Income (Loss), Net of Income Tax		1,442,506	(1,014,453)	(1,305,526)	(2,056,206)	(833,770)

Item \ Year	Financial Summary for Most Recent 5 Years				
	2019	2018	2017	2016	2015
Total Comprehensive Income	35,206,449	35,441,718	38,737,075	39,173,779	42,830,575
Net Income Attributable to Stockholders of the Parent	32,788,546	35,501,622	38,873,905	40,067,010	42,805,728
Net Income Attributable to Noncontrolling Interests	975,397	954,549	1,168,696	1,162,975	858,617
Comprehensive Income Attributable to Stockholders of the Parent	34,225,076	34,496,742	37,590,365	38,068,095	41,973,659
Comprehensive Income Attributable to Noncontrolling Interests	981,373	944,976	1,146,710	1,105,684	856,916
Earnings per Share	4.23	4.58	5.01	5.16	5.52

## B. Parent-only Condensed Statement of Comprehensive Income

Unit: NT\$'000

Item \ Year	Financial Summary for Most Recent 5 Years				
	2019	2018	2017	2016	2015
Revenues	179,321,838	185,331,699	196,985,774	201,636,805	201,993,986
Gross Profit	63,265,562	66,501,764	75,473,632	77,661,707	78,865,616
Income from Operations	38,345,865	40,365,914	44,145,737	45,782,546	48,743,625
Non-operating Income and Expenses	1,916,727	3,151,064	2,158,739	1,987,813	2,050,808
Income before Income Tax	40,262,592	43,516,978	46,304,476	47,770,359	50,794,433
Net Income (Loss)	32,788,546	35,501,622	38,873,905	40,067,010	42,805,728
Other Comprehensive Income (Loss), Net of Income Tax	1,436,530	(1,004,880)	(1,283,540)	(1,998,915)	(832,069)
Total Comprehensive Income	34,225,076	34,496,742	37,590,365	38,068,095	41,973,659
Earnings per Share	4.23	4.58	5.01	5.16	5.52

## 1.2 Independent Auditor's Names and Opinions for Recent Five Years

Year	Name of CPA	Audit Opinion
2015	Deloitte & Touche En-Ming Wu and Chao-Mei Chen	Unmodified Opinion
2016	Deloitte & Touche Ching-Pin Shih and Hung-Peng Lin	Unmodified Opinion
2017	Deloitte & Touche Ching-Pin Shih and Hung-Peng Lin	Unmodified Opinion
2018	Deloitte & Touche Ching-Pin Shih and Hung-Peng Lin	Unmodified Opinion
2019	Deloitte & Touche Dien-Sheng Chang and Ching-Pin Shih	Unmodified Opinion

## 1.3 Five Years Financial Analysis & Discussion

### (1) Consolidated Financial Analysis for Recent 5 Years

Item		Year	Financial Summary for Most Recent 5 Years				
		2019	2018	2017	2016	2015	
Financial	Debt to Asset Ratio (%)	19.07	17.27	17.19	16.98	17.44	
Structure	Ratio of Long-term Capital to Property, Plants and Equipment (%)	145.62	140.49	135.48	132.92	133.10	
Liquidity Analysis	Current Ratio (%)	146.18	149.36	132.24	135.79	130.21	
	Quick Ratio (%)	116.31	121.68	113.86	118.49	110.65	
	Interest Earned Ratio	401.89	2,557.19	2,191.35	2,494.06	1,568.95	
Operating Performance	Accounts Receivable Turnover (Times)	6.75	6.45	6.80	7.53	8.33	
	Average Collection Days	54.07	56.58	53.67	48.47	43.81	
	Inventory Turnover (Times)	3.03	4.06	6.93	6.69	6.63	
	Accounts Payable Turnover (Times)	N/A	N/A	N/A	N/A	N/A	
	Average Days in Sales	120.46	89.90	52.66	54.55	55.05	
	Property, Plants and Equipment Turnover (Times)	0.72	0.75	0.78	0.78	0.77	
	Total Assets Turnover (Times)	0.44	0.47	0.51	0.51	0.52	
Profitability	Return on Assets (%)	7.17	7.94	8.92	9.17	9.71	
	Return on Equity (%)	8.74	9.59	10.75	11.07	11.74	
	Pre-tax Income to Paid-in Capital (%)	53.82	57.98	61.87	63.66	66.99	
	Net Income Ratio (%)	16.27	16.92	17.60	17.93	18.84	
	Earnings per Share (NT\$)	4.23	4.58	5.01	5.16	5.52	
Cash Flow	Cash Flow Ratio (%)	112.55	108.11	118.24	108.06	130.41	
	Cash Flow Adequacy Ratio (%)	105.88	109.03	111.59	106.17	107.90	
	Cash Reinvestment Ratio (%)	3.52	2.71	3.28	2.28	3.97	
Leverage	Operating Leverage	2.99	2.82	2.65	2.72	2.64	
	Financial Leverage	1.00	1.00	1.00	1.00	1.00	

Notes:

1. The formulas for the above table:

1). Financial Structure

Debts to Assets Ratio = Total Liabilities / Total Assets

Ratio of Long-term Capital to Property, Plants and Equipment = (Total Equity + Noncurrent Liabilities) / Net of Properties, Plants and Equipment

2). Liquidity Analysis

Current Ratio = Current Assets / Current Liabilities

Quick Ratio = (Current Assets - Inventory - Prepaid Expense) / Current Liabilities

Interest Earned Ratio = (Net Income before Income Tax and Interest Expenses) / Interest Expense

3). Operating Performance

Account Receivable Turnover = Net Sales / Average Accounts Receivable (including Accounts Receivable and Notes Receivable originated from operation)

Average Collection Days = 365 / Accounts Receivable Turnover

Inventory Turnover = Costs of Good Sold / Average Inventory

Accounts Payable Turnover = Costs of Good Sold / Average Accounts Payable (including Accounts Payable and Notes Payable originated from operation)

Average Days in Sales = 365 / Inventory Turnover

Property, Plants and Equipment Turnover = Net Sales / Average of Net Properties, Plants and Equipment

Total Assets Turnover = Net Sales / Average of Total Assets

4). Profitability

Return on Assets = (Net Income + Interest Expense x (1-Tax Rate)) / Average Total Assets

Return on Equity = Net Income / Average Equity

Net Income Ratio = Net Income / Net Sales

Earnings per Share = (Net Income Attributable to Stockholders of the Parent - Preferred Stock Dividend) / Weighted Average Number of Outstanding Shares

5). Cash Flow

Cash Flow Ratio = Cash Flows from Operating Activities / Current Liabilities

Cash Flow Adequacy Ratio = Net Cash Flow from Operating Activities for the most recent 5 years / (Capital Expenditure + Increase in Inventory + Cash Dividends) for the most recent 5 years

Cash Reinvestment Ratio = (Net Cash Flow from Operating Activities - Cash Dividends) / (Gross Properties, Plants and Equipment + Long-term Investment + Other Noncurrent Assets + Working Capital)

6). Leverage

Operating Leverage = (Net Sales - Variable Operating Costs and Expenses) / Operating Income  
Financial Leverage = Operating Income / (Operating Income - Interest Expenses)

2. Analysis and discussion for any financial ratio variation plus and minus (+/-) 20% in recent 2 years:

- 1). Interest earned ratio decreased by 84.28%, primarily due to the increase of interest expense in application of IFRS 16.
- 2). Inventory turnover decreased by 25.37% and average days in sales increased by 33.99%, primarily due to increase of inventory at the end of 2019.
- 3). Cash reinvestment ratio increased by 30.11%, primarily due to increase of net cash flow from operating activities in 2019.

## (2) Parent-only Financial Analysis for Recent 5 Years

Item		Year	Financial Summary for Most Recent 5 Years				
		2019	2018	2017	2016	2015	
Financial Structure	Debt to Asset Ratio (%)	17.76	16.10	15.91	15.57	16.04	
	Ratio of Long-term Capital to Property, Plants and Equipment (%)	144.84	139.29	134.32	132.65	132.79	
Liquidity Analysis	Current Ratio (%)	117.82	117.45	108.64	118.84	114.53	
	Quick Ratio (%)	94.37	96.67	98.62	111.12	104.30	
	Interest Earned Ratio	651.73	162,985.94	9,260,896.20	(Note 1)	(Note 1)	
Operating Performance	Accounts Receivable Turnover (Times)	6.21	5.80	6.14	6.91	7.62	
	Average Collection Days	58.77	62.93	59.44	52.83	47.92	
	Inventory Turnover (Times)	2.22	3.11	8.26	8.05	8.47	
	Accounts Payable Turnover (Times)	N/A	N/A	N/A	N/A	N/A	
	Average Days in Sales	164.41	117.36	44.21	45.32	43.07	
	Property, Plant and Equipment Turnover (Times)	0.65	0.66	0.70	0.70	0.69	
	Total Assets Turnover (Times)	0.40	0.42	0.45	0.46	0.46	
Profitability	Return on Assets (%)	7.25	8.04	8.98	9.20	9.80	
	Return on Equity (%)	8.71	9.58	10.66	10.93	11.68	
	Pre-tax Income to Paid-in Capital (%)	51.90	56.10	59.69	61.58	65.48	
	Net Income Ratio (%)	18.28	19.16	19.73	19.87	21.19	
	Earnings per Share (NT\$)	4.23	4.58	5.01	5.16	5.52	
Cash Flow	Cash Flow Ratio (%)	118.12	110.87	121.10	112.72	134.51	
	Cash Flow Adequacy Ratio (%)	102.93	105.93	109.49	105.03	106.57	
	Cash Reinvestment Ratio (%)	3.37	2.49	3.01	2.04	3.64	
Leverage	Operating Leverage	2.98	2.92	2.54	2.62	2.54	
	Financial Leverage	1.00	1.00	1.00	1.00	1.00	

Notes:

1. Interest earned ratio is not calculated because there were no interest expenses in 2016 and 2015.
2. Analysis and discussion for any financial ratio variation plus and minus (+/-) 20% in recent 2 years:
  - (1) Interest earned ratio decreased by 99.60%, primarily due to the increase of interest expense in application of IFRS 16.
  - (2) Inventory turnover decreased by 28.62% and average days in sales increased by 40.09%, primarily due to increase of inventory at the end of 2019.
  - (3) Cash reinvestment ratio increased by 35.38%, primarily due to increase of net cash flow from operating activities in 2019.

## 2. Occurrence of Financial Distress on the Company and Affiliates for the most recent year and up to the Publication Date of this Annual Report

None.

## 3. Asset Impairment

The Company recognizes asset impairment in accordance to the relevant IFRSs, for details, please refer to page 149, Section 8, "Consolidated Financial Statements and Independent Auditors' Report".

## 4. Financial Asset & Liabilities Assessment and Provision

	Item	Assessment Basis	Assessment Notes
1	Loss Allowance	Impairment Assessment on Balance Sheet date	The Company recognizes lifetime Expected Credit Loss (ECL) for accounts receivable and contract assets. For all other financial instruments, the Company recognizes lifetime ECL when there has been a significant increase in credit risk since initial recognition. If, on the other hand, the credit risk on the financial instrument has not increased significantly since initial recognition, the Company measures the loss allowance for that financial instrument at an amount equal to 12-month ECL. Expected credit losses reflect the weighted average of credit losses with the respective risks of a default occurring as the weights. Lifetime ECL represents the expected credit losses that will result from all possible default events over the expected life of a financial instrument. In contrast, 12-month ECL represents the portion of ECL that is expected to result from default events on a financial instrument that are possible within 12 months after the reporting date. The Company recognizes an impairment loss for all financial instruments with a corresponding adjustment to their carrying amount through a loss allowance account.
2	Provision for Inventory and Obsolescence	Inventories are Stated at the Lower of Cost or Net Realizable Value	Inventories are stated at the lower of cost or net realizable value item by item, except for those that may be appropriate to group items of similar or related inventories. Net realizable value is the estimated selling price of inventories less all estimated costs of completion and costs necessary to make the sale. The calculation of the cost of inventory is derived using the weighted-average method.

## 5. Financial Instruments Assessment

The Company measures all financial instruments in accordance to IFRS 9 "Financial Instrument", see below financial categories:

### (1) Financial assets at fair value through profit or loss (FVTPL)

Financial asset is classified as at FVTPL when the financial asset is mandatorily classified as at FVTPL. Financial assets mandatorily classified as at FVTPL include investments in equity instruments which are not designated as at fair value through other comprehensive income (FVOCI).

Financial assets at FVTPL are stated at fair value, with any gains or losses arising on remeasurement recognized in profit or loss. The net gain or loss recognized in profit or loss does not incorporate any dividend earned on the financial asset.

### (2) Financial assets at amortized cost

Financial assets that meet the following conditions are subsequently measured at amortized cost:

- i. The financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows; and
- ii. The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Subsequent to initial recognition, financial assets at amortized

cost are measured at amortized cost, which equals to gross carrying amount determined by the effective interest method less any impairment loss, except for short-term receivables as the effect of discounting is immaterial. Exchange differences are recognized in profit or loss. Interest income is calculated by applying the effective interest rate to the gross carrying amount of such financial assets.

### (3) Investments in equity instruments at FVOCI

On initial recognition, the Company may make an irrevocable election to designate investments in equity instruments as at FVOCI. Designation at FVOCI is not permitted if the equity investment is held for trading or if it is contingent consideration recognized by an acquirer in a business combination.

Investments in equity instruments at FVOCI are subsequently measured at fair value with gains and losses arising from changes in fair value recognized in other comprehensive income and accumulated in other equity. The cumulative gain or loss will not be reclassified to profit or loss on disposal of the equity investments. Instead, it will be transferred to retained earnings.

Dividends on these investments in equity instruments are recognized in profit or loss when the Company's right to receive the dividends is established, unless the dividends clearly represent a recovery of part of the cost of the investment.

## 6. The Differences between 2019 Financial Statements under Taiwan-IFRSs and IFRSs

The Company has adopted Taiwan IFRSs endorsed and issued into effect by FSC for ROC reporting purposes. The differences between Taiwan IFRSs and IFRSs issued by International Accounting Standards Board, or IASB, are set forth below:

(1) Under Taiwan IFRSs endorsed and issued into effect by FSC (or "T-IFRSs"), the Company reported consolidated net income of NT\$33,763,943 thousand, consolidated net income attributable to stockholders of the parent of NT\$32,788,546 thousand, and basic earnings per share of NT\$4.23 for the year ended December 31, 2019, respectively. The Company also reported total assets of NT\$477,458,238 thousand, total liabilities of NT\$91,064,473 thousand, and total equity of

NT\$386,393,765 thousand as of December 31, 2019.

(2) Under IFRSs issued by IASB (or "IFRSs"), the Company reported consolidated net income of NT\$33,921 million, consolidated net income attributable to stockholders of the parent of NT\$32,947 million, and basic earnings per share of NT\$4.25 for the year ended December 31, 2019, respectively. The Company also reported total assets of NT\$477,128 million, total liabilities of NT\$92,856 million, and total equity of NT\$384,272 million as of December 31, 2019.

(3) The differences between consolidated net income under Taiwan-IFRSs and that under IFRSs followed by the Company mainly come from the timing of the recognition of income tax on unappropriated earnings. In addition, prior to incorporation, the Company was subject to the laws and regulations applicable to state-owned enterprises in Taiwan which differed from the generally accepted accounting principles as applicable to commercial companies. As such, revenue from providing fixed line connection service and selling prepaid phone cards was recognized at the time the service was performed or the card was sold by the Company. Upon incorporation, net assets greater than the capital stock was credited as additional paid-in-capital and part of the additional paid-in-capital was from the unearned revenues generated from connection fees and prepaid cards as of the date of incorporation. Under IFRSs, revenue from connection fees and prepaid phone cards was deferred at the time of the service performed or sale and recognized as revenue over time as the service is continuously performed or as consumed. This reclassification from additional paid-in capital to retained earnings did not affect total equity.

## 7. 2019 Audit Committee's Review Report

### **Audit Committee's Review Report**

The Board of Directors has prepared the Company's 2019 business report, financial statements, and earnings distribution proposal. The CPA firm of Deloitte & Touche was retained to audit the Company's financial statements and has issued an audit report relating to the financial statements. The business report, financial statements, and earnings distribution proposal have been reviewed and determined to be accurate by the Audit Committee members of the Company. According to Article 14-4 of the Securities and Exchange Act and Article 219 of the Company Law, we hereby submit this report.

Chunghwa Telecom Co., Ltd.

Chairman of the Audit Committee

A handwritten signature in blue ink, appearing to read "Charles Jen".

February 26, 2020

## 8. Consolidated Financial Statements and Independent Auditors' Report

**Chunghwa Telecom Co., Ltd. and  
Subsidiaries**

**Consolidated Financial Statements for the  
Years Ended December 31, 2019 and 2018 and  
Independent Auditors' Report**

**REPRESENTATION LETTER**

The entities that are required to be included in the consolidated financial statements of affiliates in accordance with the "Criteria Governing Preparation of Affiliation Reports, Consolidated Business Reports and Consolidated Financial Statements of Affiliated Enterprises" for the year ended December 31, 2019 are all the same as those included in the consolidated financial statements of Chunghwa Telecom Co., Ltd. and its subsidiaries prepared in conformity with the International Financial Reporting Standard 10 "Consolidated Financial Statements". Relevant information that should be disclosed in the consolidated financial statements of affiliates is included in the consolidated financial statements of Chunghwa Telecom Co., Ltd. and its subsidiaries. Hence, we do not prepare a separate set of consolidated financial statements of affiliates.

Very truly yours,

CHUNGHWA TELECOM CO., LTD.

By

\_\_\_\_\_  
Chi-Mau Sheih  
Chairman

February 26, 2020

## INDEPENDENT AUDITORS' REPORT

The Board of Directors and Stockholders  
Chunghwa Telecom Co., Ltd.

### Opinion

We have audited the accompanying consolidated financial statements of Chunghwa Telecom Co., Ltd. and its subsidiaries (the Company), which comprise the consolidated balance sheets as of December 31, 2019 and 2018, and the consolidated statements of comprehensive income, changes in equity and cash flows for the years then ended, and the related notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2019 and 2018, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and International Financial Reporting Standards (IFRS), International Accounting Standards (IAS), IFRIC Interpretations (IFRIC), and SIC Interpretations (SIC) endorsed and issued into effect by the Financial Supervisory Commission of the Republic of China.

### Basis for Opinion

We conducted our audits in accordance with the Regulations Governing Auditing and Attestation of Financial Statements by Certified Public Accountants and auditing standards generally accepted in the Republic of China. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Company in accordance with The Norm of Professional Ethics for Certified Public Accountant of the Republic of China, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the year ended December 31, 2019. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

The descriptions of the key audit matters of the consolidated financial statements for the year ended December 31, 2019 are as follows:

#### Revenue Recognition on Mobile Service

Key audit matter:

Refer to Notes 3 and 28 to the consolidated financial statements.

The Company's mobile service revenue consists of subscriber-based charges made up of a significant volume of low-dollar transactions. Because of the complexity and a variety of subscriber-based charges as well as a large number of transactions, the Company uses highly automated systems to process and record its revenue transactions.

Given the Company's systems to process and record revenue are highly automated, auditing revenue was complex and challenging due to the extent of audit effort required and involvement of professionals with expertise in information technology (IT) necessary for us to identify, test, and evaluate the Company's IT systems.

Corresponding audit procedures:

Our audit procedures related to the Company's systems to process revenue transactions included the following, among others:

- With the assistance of our IT specialists, we:
  - Identified the significant systems used to process revenue transactions and tested the general IT controls over each of these systems, including testing of user access controls and change management controls.
  - Performed testing of system interface controls and automated controls within the relevant revenue streams, as well as the controls designed to ensure the accuracy and completeness of revenue.
- We tested internal controls within the relevant revenue business processes, including those in place to reconcile the various systems to the Company's accounting system.
- We selected samples from mobile service revenue and agreed to customer contracts and records of cash receipts.

#### Revenue Recognition on Project Business

Key audit matter:

Refer to Notes 3 and 4 to the consolidated financial statements.

The Company's project business is highly customized and mainly provides customers with combinations of various equipment and/or services. Project business contracts may likely outsource partial or substantial part of the obligations or services to third parties. The accounting for these contracts requires judgement, particularly as it relates to the determination of the Company acting as a principal or an agent.

Given the judgments on whether the Company is acting as a principal or an agent is required in order to determine if revenue should be recognized gross as principal versus net as agent, auditing such revenue required extensive audit effort due to the volume of contracts and involved a high degree of judgment when performing audit procedures and evaluating the result of these procedures.

#### Corresponding audit procedures:

Our audit procedures related to management's revenue recognition on project business included the following, among others:

- We tested the effectiveness of controls over project business revenue, including those over principal-versus-agent considerations and revenue recognition.
- We performed the following audit procedures on a sample basis:
  - Obtained project business contracts and the evaluation documentation prepared by management and determined the reasonableness of management's judgement on whether the Company is acting as a principal or an agent after considering whether the Company is the primary obligation provider, its exposures to inventory risks and the discretion in establishing the prices by reviewing the contractual terms, comparing to the business substance and evaluating if it is consistent with relevant accounting standards.
  - Performed detail transaction testing by agreeing the amounts recognized to source documents and testing the mathematical accuracy of the recorded revenue.
  - Confirmed project business contract terms with customers.

#### Emphasis of Matter

As disclosed in Note 5 to the consolidated financial statements, the Company initially applied IFRS 16 "Leases" in 2019. Our audit opinion is not modified in respect of this matter.

#### Other Matter

We have also audited the parent company only financial statements of Chungghwa Telecom Co., Ltd. as of and for the years ended December 31, 2019 and 2018 on which we have issued an unmodified opinion with emphasis of matter.

#### Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and IFRS, IAS, IFRIC, and SIC endorsed and issued into effect by the Financial Supervisory Commission of the Republic of China, and for such internal control as management determines is necessary to enable the preparation of the consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance, including the audit committee, are responsible for overseeing the Company's financial reporting process.

#### Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the auditing standards generally accepted in the Republic of China will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with the auditing standards generally accepted in the Republic of China, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

1. Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
2. Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
3. Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
4. Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Company to cease to continue as a going concern.
5. Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
6. Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Company to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision, and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS  
DECEMBER 31, 2019 AND 2018  
(In Thousands of New Taiwan Dollars)

ASSETS	2019		2018	
	Amount	%	Amount	%
CURRENT ASSETS				
Cash and equivalents (Notes 3 and 6)	\$ 34,049,643	7	\$ 27,644,780	6
Financial assets at fair value through profit or loss (Notes 3, 4 and 7)	316	-	-	-
Hedging financial assets (Notes 3 and 20)	327	-	1,069	-
Contract assets (Notes 3 and 28)	4,441,196	1	4,868,728	1
Trade notes and accounts receivable, net (Notes 3, 4, 9 and 28)	26,407,783	6	30,075,503	7
Receivables from related parties (Note 36)	1,683,4	-	24,270	-
Inventories (Notes 3, 4, 10 and 37)	17,344,276	4	15,120,715	3
Prepayments (Notes 5, 11 and 36)	1,883,259	-	1,872,984	-
Other current monetary assets (Notes 12 and 26)	7,498,364	2	9,504,203	2
Other current assets (Notes 19, 30 and 37)	2,429,664	-	2,576,084	-
Total current assets	94,072,062	20	91,688,336	20
NONCURRENT ASSETS				
Financial assets at fair value through profit or loss (Notes 3, 4 and 7)	778,105	-	517,362	-
Financial assets at fair value through other comprehensive income (Notes 3, 4 and 8)	7,268,917	2	6,932,503	2
Investments accounted for using equity method (Notes 3 and 14)	7,354,226	2	2,944,890	1
Contract assets (Notes 3 and 28)	2,600,913	-	2,343,958	-
Property, plant and equipment (Notes 3, 4, 5, 15, 36 and 37)	283,694,215	59	288,914,228	61
Right-of-use assets (Notes 3, 4, 5 and 16)	11,364,249	2	8,287,212	2
Investment properties (Notes 3, 4, 5 and 17)	8,109,393	2	5,046,622	1
Intangible assets (Notes 3, 4 and 30)	4,062,672	10	3,583,852	11
Goodwill (Notes 3, 5 and 30)	3,248,407	1	1,535,030	-
Derivatives of financial instruments (Notes 3 and 30)	942,652	-	1,164,088	-
Net defined benefit assets (Notes 3, 4 and 26)	2,127,335	-	1,644,088	-
Prepayments (Notes 5, 11 and 36)	2,679,335	1	3,463,337	1
Other noncurrent assets (Notes 19 and 37)	6,101,704	1	5,180,222	1
Total noncurrent assets	383,386,176	80	375,880,368	80
TOTAL	\$ 477,458,238	100	\$ 467,268,704	100

LIABILITIES AND EQUITY

CURRENT LIABILITIES				
Short-term loans (Note 21)	\$ 90,000	-	\$ 100,000	-
Financial liabilities at fair value through profit or loss (Notes 3, 4 and 7)	-	-	1,114	-
Contract liabilities (Notes 3, 5 and 28)	16,839,830	4	10,687,772	2
Trade notes and accounts payable (Note 23)	15,312,274	3	20,464,792	5
Payables to related parties (Note 36)	653,983	-	917,951	-
Current tax liabilities (Notes 3 and 30)	4,020,670	1	4,390,203	1
Lease liabilities (Notes 3, 4, 5, 16, 33 and 36)	3,252,070	1	3,252,070	1
Contract liabilities (Notes 3 and 24)	22,522,388	5	23,315,382	5
Provisions (Notes 3 and 25)	2,066,942	-	1,288,200	-
Other current liabilities (Note 5)	983,289	-	1,381,606	-
Total current liabilities	64,351,545	14	61,387,021	13
NONCURRENT LIABILITIES				
Contract liabilities (Notes 3, 5 and 28)	6,841,485	2	2,595,149	1
Long-term loans (Notes 22 and 37)	1,600,000	-	1,600,000	-
Deferred income tax liabilities (Notes 3, 5 and 30)	1,912,405	-	1,991,843	-
Provisions (Notes 3 and 25)	97,382	-	78,627	-
Lease liabilities (Notes 3, 4, 5, 16, 33 and 36)	6,467,382	1	6,467,382	1
Contract liabilities (Note 36)	4,747,644	1	4,716,571	1
Net defined benefit liabilities (Notes 3, 4 and 26)	3,504,617	1	3,533,916	1
Other noncurrent liabilities (Note 5)	1,542,687	-	4,793,237	-
Total noncurrent liabilities	26,712,928	5	19,309,363	4
Total liabilities	91,064,473	19	80,696,384	17
EQUITY ATTRIBUTABLE TO STOCKHOLDERS OF THE PARENT (Notes 5, 13 and 27)				
Common stocks	77,574,465	16	77,574,465	17
Additional paid-in capital	171,255,893	36	171,136,704	36
Retained earnings	-	-	-	-
Legal reserve	77,574,465	16	77,574,465	17
Special reserve	2,675,419	1	2,675,419	1
Unappropriated earnings	46,341,361	10	47,141,345	10
Total retained earnings	126,591,285	27	127,391,229	28
Other adjustments	688,548	-	459,914	-
Total equity attributable to stockholders of the parent	376,110,243	79	376,562,372	81
NONCONTROLLING INTERESTS (Notes 5, 13 and 27)	10,283,222	2	10,009,248	2
Total equity	386,393,465	81	386,572,320	83
TOTAL	\$ 477,458,238	100	\$ 467,268,704	100

The accompanying notes are an integral part of the consolidated financial statements.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements for the year ended December 31, 2019 and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partners on the audit resulting in this independent auditors' report are Mr. Dien Sheng Chang and Mr. Ching Pin Shih.

Dien-sheng Chang

Ching-Pin Shih

Deloitte & Touche  
Taipei, Taiwan  
Republic of China

February 26, 2020

Notice to Readers

The accompanying consolidated financial statements are intended only to present the consolidated financial position, financial performance and cash flows in accordance with accounting principles and practices generally accepted in the Republic of China and not those of any other jurisdictions. The standards, procedures and practices to audit such consolidated financial statements are those generally applied in the Republic of China.

For the convenience of readers, the independent auditors' report and the accompanying consolidated financial statements have been translated into English from the original Chinese version prepared and used in the Republic of China. If there is any conflict between the English version and the original Chinese version or any difference in the interpretation of the two versions, the Chinese-language independent auditors' report and consolidated financial statements shall prevail.

**CHUNGWA TELECOM CO., LTD. AND SUBSIDIARIES**
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME  
YEARS ENDED DECEMBER 31, 2019 AND 2018  
(In Thousands of New Taiwan Dollars, Except Earnings Per Share)**

	2019		2018	
	Amount	%	Amount	%
REVENUES (Notes 3, 28, 36 and 41)	\$ 207,520,061	100	\$ 215,483,158	100
OPERATING COSTS (Notes 3, 10, 26, 28, 29, 36 and 41)	135,952,540	65	139,545,457	65
GROSS PROFIT	71,567,521	35	75,937,701	35
OPERATING EXPENSES (Notes 3, 9, 26, 29, 36 and 41)				
Marketing	22,219,688	11	23,170,024	11
General and administrative	4,758,340	2	4,589,488	2
Research and development	3,941,446	2	3,725,249	2
Expected credit loss (reversal of credit loss)	(125,111)	-	919,732	-
Total operating expenses	30,794,363	15	32,404,493	15
OTHER INCOME AND EXPENSES (Notes 15, 17, 18, 29 and 41)	(127,304)	-	110,451	-
INCOME FROM OPERATIONS	40,645,854	20	43,643,659	20
NON-OPERATING INCOME AND EXPENSES				
Interest income (Note 41)	250,787	-	196,889	-
Other income (Notes 8, 29 and 36)	531,624	-	699,823	-
Other gains and losses (Notes 14, 29, 35 and 36)	(36,471)	-	(45,671)	-
Interest expenses (Notes 16, 29, 36 and 41)	(104,142)	-	(17,596)	-
Share of profits of associates accounted for using equity method (Notes 14 and 41)	462,140	-	501,600	-
Total non-operating income and expenses	1,103,938	-	1,335,045	-
INCOME BEFORE INCOME TAX	41,749,792	20	44,978,704	20
INCOME TAX EXPENSE (Notes 3 and 30)	7,985,849	4	8,522,533	4
NET INCOME	33,763,943	16	36,456,171	16
TOTAL OTHER COMPREHENSIVE INCOME (LOSS)				
Items that will not be reclassified to profit or loss: Remeasurements of defined benefit pension plans (Note 26)	1,526,353	1	(1,214,552)	-

(Continued)

**CHUNGWA TELECOM CO., LTD. AND SUBSIDIARIES**
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME  
YEARS ENDED DECEMBER 31, 2019 AND 2018  
(In Thousands of New Taiwan Dollars, Except Earnings Per Share)**

	2019		2018	
	Amount	%	Amount	%
Unrealized gain or loss on investments in equity instruments at fair value through other comprehensive income (Notes 3 and 35)	\$ 286,408	-	\$ (346,330)	-
Gain or loss on hedging instruments subject to basis adjustment (Notes 3 and 20)	(742)	-	1,919	-
Share of remeasurements of defined benefit pension plans of associates (Note 14)	(2,335)	-	1,707	-
Income tax relating to items that will not be reclassified to profit or loss (Note 30)	(305,271)	-	450,166	-
	1,504,413	1	(1,107,090)	-
Items that may be reclassified subsequently to profit or loss: Exchange differences arising from the translation of the foreign operations	(61,207)	-	89,319	-
Share of exchange differences arising from the translation of the foreign operations of associates (Note 14)	(700)	-	3,318	-
	(61,907)	-	92,637	-
Total other comprehensive income (loss), net of income tax	1,442,506	1	(1,014,453)	-
TOTAL COMPREHENSIVE INCOME	\$ 35,206,449	17	\$ 35,441,718	16
NET INCOME ATTRIBUTABLE TO Stockholders of the parent	\$ 32,788,546	16	\$ 35,501,622	16
Noncontrolling interests	975,397	-	954,549	-
	\$ 33,763,943	16	\$ 36,456,171	16
COMPREHENSIVE INCOME ATTRIBUTABLE TO Stockholders of the parent	\$ 34,225,076	17	\$ 34,496,742	16
Noncontrolling interests	981,373	-	944,976	-
	\$ 35,206,449	17	\$ 35,441,718	16
EARNINGS PER SHARE (Note 31)				
Basic	\$ 4.23		\$ 4.58	
Diluted	\$ 4.22		\$ 4.57	

The accompanying notes are an integral part of the consolidated financial statements.

(Concluded)

**CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES**

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY  
YEARS ENDED DECEMBER 31, 2019 AND 2018  
(In Thousands of New Taiwan Dollars)

	Equity Attributable to Stockholders of the Parent (Notes 13, 20 and 27)					Other Adjustments			Total	Noncontrolling Interests (Notes 13 and 27)	Total Equity
	Common Stocks	Additional Paid-in Capital	Retained Earnings		Legal Reserve	Exchange Differences Arising From the Translation of the Foreign Operations	Unrealized Gain or Loss on Financial Assets Through Other Comprehensive Income	Gain or Loss on Hedging Instruments			
			Special Reserve	Unappropriated Earnings							
BALANCE, JANUARY 1, 2018	\$ 77,574,465	\$ 169,466,883	\$ 2,680,823	\$ 49,595,850	\$ (174,593)	\$ 883,420	\$ (850)	\$ 3,777,600,463	\$ 8,693,650	\$ 386,294,113	
Appropriation of 2017 earnings	-	-	(5,404)	5,404	-	-	-	-	-	-	
Reversal of special reserve	-	-	-	(37,204,714)	-	-	-	(37,204,714)	-	(37,204,714)	
Cash dividends distributed by Chungghwa	-	-	-	-	-	-	-	-	-	-	
Cash dividends distributed by subsidiaries	-	-	-	-	-	-	-	-	(958,446)	(958,446)	
Unclaimed dividend	-	2,455	-	-	-	-	-	2,455	-	2,455	
Change in additional paid-in capital from investments in associates accounted for using equity method	-	(1,044)	-	-	-	-	-	(1,044)	191	(853)	
Partial disposal of interests in subsidiaries	-	826,047	-	-	-	-	-	826,047	348,353	1,174,400	
Change in additional paid-in capital for not participating proportionately in the capital increase of subsidiaries	-	776,713	-	-	-	-	-	776,713	699,967	1,476,680	
Net income for the year ended December 31, 2018	-	-	-	35,501,622	-	-	-	35,501,622	954,549	36,456,171	
Other comprehensive income (loss) for the year ended December 31, 2018	-	-	-	(756,817)	95,166	(345,148)	1,919	(1,004,880)	(9,572)	(1,014,452)	
Total comprehensive income (loss) for the year ended December 31, 2018	-	-	-	34,744,805	95,166	(345,148)	1,919	34,496,742	944,976	35,441,718	
Share-based payment transactions of subsidiaries	-	10,776	-	-	-	-	-	10,776	41,863	52,639	
Net increase in noncontrolling interests	-	54,934	-	-	-	-	-	54,934	239,394	294,328	
BALANCE, DECEMBER 31, 2018	77,574,465	171,136,764	2,675,419	47,141,345	(79,427)	538,272	1,069	376,562,372	10,009,948	386,572,320	
Effect of retrospective application (Note 5)	-	-	-	(50,823)	-	-	-	(50,823)	(19,603)	(70,426)	
BALANCE, JANUARY 1, 2019 AS ADJUSTED	77,574,465	171,136,764	2,675,419	47,090,522	(79,427)	538,272	1,069	376,511,549	9,990,345	386,501,894	
Appropriation of 2018 earnings	-	-	-	(34,745,603)	-	-	-	(34,745,603)	-	(34,745,603)	
Cash dividends distributed by Chungghwa	-	-	-	-	-	-	-	-	(709,817)	(709,817)	
Cash dividends distributed by subsidiaries	-	-	-	-	-	-	-	-	-	-	
Unclaimed dividend	-	1,266	-	-	-	-	-	1,266	-	1,266	
Change in additional paid-in capital from investments in associates accounted for using equity method	-	118,853	-	-	-	-	-	118,853	1,064	119,917	
Net income for the year ended December 31, 2019	-	-	-	32,788,546	-	-	-	32,788,546	975,397	33,763,943	
Other comprehensive income (loss) for the year ended December 31, 2019	-	-	-	(1,207,896)	(68,950)	298,326	(742)	(1,436,530)	5,976	(1,442,506)	
Total comprehensive income (loss) for the year ended December 31, 2019	-	-	-	33,996,442	(68,950)	298,326	(742)	34,225,076	981,373	35,206,449	
Share-based payment transactions of subsidiaries	-	(898)	-	-	-	-	-	(898)	21,320	20,422	
Net decrease in noncontrolling interests	-	-	-	-	-	-	-	-	(763)	(763)	
BALANCE, DECEMBER 31, 2019	\$ 77,574,465	\$ 171,255,985	\$ 2,675,419	\$ 46,341,361	\$ (148,377)	\$ 836,598	\$ 327	\$ 3,761,110,243	\$ 10,283,522	\$ 386,393,765	

The accompanying notes are an integral part of the consolidated financial statements.

## CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

### CONSOLIDATED STATEMENTS OF CASH FLOWS YEARS ENDED DECEMBER 31, 2019 AND 2018 (In Thousands of New Taiwan Dollars)

	2019	2018
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Income before income tax	\$ 41,749,792	\$ 44,978,704
Adjustments to reconcile income before income tax to net cash provided by operating activities:		
Depreciation	30,922,991	27,481,956
Amortization	4,252,602	4,386,798
Amortization of incremental costs of obtaining contracts	1,173,492	1,941,124
Expected credit loss (reversal of credit loss)	(125,111)	919,732
Interest expenses	104,142	17,596
Interest income	(250,787)	(196,889)
Dividend income	(296,360)	(395,593)
Compensation cost of share-based payment transactions	1,597	17,302
Share of profits of associates accounted for using equity method	(462,140)	(501,600)
Loss (gain) on disposal of property, plant and equipment	37,785	(142,068)
Loss on disposal of intangible assets	146	-
Gain on disposal of financial instruments	(3,944)	(5,763)
Loss (gain) on disposal of investments accounted for using equity method	(30,152)	125
Provision for inventory and obsolescence	474,709	365,123
Impairment loss on property, plant and equipment	93,073	-
Reversal of impairment loss on investment properties	(56,617)	(19,133)
Impairment loss on intangible assets	8,946	50,750
Impairment loss on other assets	43,971	-
Valuation loss on financial assets and liabilities at fair value through profit or loss, net	38,314	20,763
Others	(26,524)	(17,223)
Changes in operating assets and liabilities:		
Decrease (increase) in:		
Financial assets mandatorily measured at fair value through profit or loss	-	63,117
Contract assets	172,489	2,750,594
Trade notes and accounts receivable	4,038,731	1,353,807
Receivables from related parties	7,436	25,097
Inventories	(2,698,270)	(6,778,309)
Prepayments	114,991	417,569
Other current monetary assets	(154,780)	(172,597)
Other current assets	146,420	(261,240)
Incremental cost of obtaining contracts	(781,114)	(802,011)
Increase (decrease) in:		
Contract liabilities	6,701,313	2,652,747
Trade notes and accounts payable	(5,151,740)	1,065,054
Payables to related parties	(263,968)	233,766
Other payables	697,351	(1,088,406)
		(Continued)

## CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

### CONSOLIDATED STATEMENTS OF CASH FLOWS YEARS ENDED DECEMBER 31, 2019 AND 2018 (In Thousands of New Taiwan Dollars)

	2019	2018
Provisions	\$ 97,497	\$ 27,142
Other operating liabilities	(159,881)	422,413
Net defined benefit plans	533,787	(1,535,294)
Cash generated from operations	80,950,187	77,275,153
Interest paid	(104,142)	(17,524)
Income tax paid	(8,419,360)	(10,891,279)
Net cash provided by operating activities	72,426,685	66,366,350
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Acquisition of financial assets at fair value through other comprehensive income	(60,000)	(289,580)
Proceeds from return of financial assets at fair value through other comprehensive income	9,167	6,690
Purchase of financial assets at fair value through profit or loss	(443,064)	-
Proceeds from disposal of financial assets at fair value through profit or loss	146,560	-
Acquisition of time deposits and negotiable certificates of deposit with maturities of more than three months	(14,381,653)	(9,719,951)
Acquisition of repurchase agreements collateralized by bonds with maturities of more than three months	(14,990)	-
Proceeds from disposal of time deposits and negotiable certificates of deposit with maturities of more than three months	16,519,781	5,654,941
Acquisition of investments accounted for using equity method	(4,190,000)	(204,900)
Proceeds from disposal of investments accounted for using equity method	32,470	3,379
Proceeds from capital reduction of investments accounted for using equity method	-	19,184
Acquisition of property, plant and equipment	(24,165,857)	(28,549,929)
Proceeds from disposal of property, plant and equipment	48,157	264,446
Acquisition of intangible assets	(362,718)	(498,005)
Acquisition of investment properties	(523)	(5,627)
Increase in other noncurrent assets	(1,122,142)	(80,640)
Interest received	256,432	186,617
Cash dividends received	602,086	599,621
Net cash used in investing activities	(27,126,294)	(32,613,754)
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>		
Proceeds from short-term loans	575,000	360,000
Repayment of short-term loans	(585,000)	(330,000)
Increase in customers' deposits	7,311	30,997
Payment for the principal of lease liabilities	(3,727,792)	-
Increase in other noncurrent liabilities	232,357	83,613
	(Continued)	

## CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

### CONSOLIDATED STATEMENTS OF CASH FLOWS YEARS ENDED DECEMBER 31, 2019 AND 2018

(In Thousands of New Taiwan Dollars)

	2019	2018
Cash dividends	\$ (34,745,603)	\$ (37,204,714)
Partial disposal of interests in subsidiaries without losing control	-	1,174,400
Cash dividends distributed to noncontrolling interests	(709,817)	(958,446)
Change in other noncontrolling interests	18,062	1,806,345
Unclaimed dividend	1,266	2,455
Net cash used in financing activities	<u>(38,934,216)</u>	<u>(35,035,350)</u>
EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	38,688	102,599
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	6,404,863	(1,180,155)
CASH AND CASH EQUIVALENTS, BEGINNING OF THE YEAR	27,644,780	28,824,935
CASH AND CASH EQUIVALENTS, END OF THE YEAR	<u>\$ 34,049,643</u>	<u>\$ 27,644,780</u>

The accompanying notes are an integral part of the consolidated financial statements. (Concluded)

## CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS YEARS ENDED DECEMBER 31, 2019 AND 2018

(In Thousands of New Taiwan Dollars, Unless Stated Otherwise)

#### 1. GENERAL

Chungghwa Telecom Co., Ltd. ("Chungghwa") was incorporated on July 1, 1996 in the Republic of China ("ROC") pursuant to the Article 30 of the Telecommunications Act. Chungghwa is a company limited by shares and, prior to August 2000, was wholly owned by the Ministry of Transportation and Communications ("MOTC"). Prior to July 1, 1996, the current operations of Chungghwa were carried out under the Directorate General of Telecommunications ("DGT"). The DGT was established by the MOTC in June 1943 to take primary responsibility in the development of telecommunications infrastructure and to formulate policies related to telecommunications. On July 1, 1996, the telecom operations of the DGT were spun-off as Chungghwa which continues to carry out the business and the DGT continues to be the industry regulator.

Effective August 12, 2005, the MOTC completed the process of privatizing Chungghwa by reducing the government ownership to below 50% in various stages. In July 2000, Chungghwa received approval from the Securities and Futures Commission (the "SFC") for a domestic initial public offering and its common stocks were listed and traded on the Taiwan Stock Exchange (the "TWSE") on October 27, 2000. Certain of Chungghwa's common stocks were sold, in connection with the foregoing privatization plan, in domestic public offerings at various dates from August 2000 to July 2003. Certain of Chungghwa's common stocks were also sold in an international offering of securities in the form of American Depository Shares ("ADS") on July 17, 2003 and were listed and traded on the New York Stock Exchange (the "NYSE"). The MOTC sold common stocks of Chungghwa by auction in the ROC on August 9, 2005 and completed the second international offering on August 10, 2005. Upon completion of the share transfers associated with these offerings on August 12, 2005, the MOTC owned less than 50% of the outstanding shares of Chungghwa and completed the privatization plan.

Chungghwa together with its subsidiaries are hereinafter referred to collectively as the "Company".

The consolidated financial statements are presented in Chungghwa's functional currency, New Taiwan dollars.

#### 2. APPROVAL OF FINANCIAL STATEMENTS

The consolidated financial statements were approved by the Board of Directors on February 26, 2020.

#### 3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The Company initially applied IFRS 16 "Leases" on January 1, 2019 and elected not to reflect the figures on a retrospective basis in comparative periods. Different accounting policies for each accounting period as a result of the application of new accounting standards are listed by year separately.

#### Statement of Compliance

The accompanying consolidated financial statements have been prepared in conformity with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the International Financial Reporting Standards (IFRS), International Accounting Standards (IAS), International Financial Reporting Interpretations Committee (IFRIC) and SIC Interpretations (SIC) endorsed and issued into effect by the Financial Supervisory Commission (FSC) (the "Taiwan-IFRS").

### Basis of Preparation

The consolidated financial statements have been prepared on the historical cost basis except for certain financial instruments that are measured at fair values and net defined benefit liabilities (assets) which are measured at the present value of the defined benefit obligation less the fair value of plan assets.

### Current and Noncurrent Assets and Liabilities

Current assets include:

- Assets held primarily for the purpose of trading;
- Assets expected to be realized within twelve months after the reporting period; and
- Cash and cash equivalents unless the asset is restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period.

Current liabilities include:

- Liabilities held primarily for the purpose of trading;
- Liabilities due to be settled within twelve months after the reporting period; and
- Liabilities for which the Company does not have an unconditional right to defer settlement for at least twelve months after the reporting period.

Assets and liabilities that are not classified as current are classified as noncurrent.

Light Era Development Co., Ltd. (LED) engages mainly in development of property for rent and sale. The assets and liabilities of LED related to property development within its operating cycle, which is over one year, are classified as current items.

### Basis of Consolidation

- Principles for preparing consolidated financial statements

The consolidated financial statements incorporate the financial statements of Chungghwa and entities controlled by Chungghwa (its subsidiaries).

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies in line with those used by the Company.

All inter-company transactions, balances, income and expenses are eliminated in full upon consolidation.

#### Attribution of total comprehensive income to noncontrolling interests

Total comprehensive income of subsidiaries is attributed to the stockholders of the parent and to the noncontrolling interests even if it results in the noncontrolling interests having a deficit balance.

#### Changes in the Company's ownership interests in subsidiaries

Changes in the Company's ownership interests in subsidiaries that do not result in the Company losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Company's interests and the noncontrolling interests are adjusted to reflect the changes in their relative interests in the subsidiaries. Any difference between the amount by which the noncontrolling

interests are adjusted and the fair value of the consideration paid or received is recognized directly in equity and attributed to stockholders of the parent.

- The subsidiaries in the consolidated financial statements

The detail in formation of the subsidiaries at the end of reporting period was as follows:

Name of Investor	Name of Investee	Main Businesses and Products	Percentage of Ownership		Note
			2019	2018	
Chungghwa Telecom Co., Ltd.	Senao International Co., Ltd. ("SENAO")	Handset and peripherals retailer, sales of CHT mobile phone plans as an agent	28	28	a)
	Light Era Development Co., Ltd. ("LED")	Planning and development of real estate and intelligent buildings, and property management	100	100	
	Dongghwa Telecom Co., Ltd. ("DHT")	International private leased circuit, IP VPN service, and IP transit services	100	100	
	Chungghwa Telecom Singapore Pte. Ltd. ("CHTS")	International private leased circuit, IP VPN service, and IP transit services	100	100	
	Chungghwa System Integration Co., Ltd. ("CHSI")	Providing system integration services and telecommunications equipment	100	100	
	Chungghwa Investment Co., Ltd. ("CHIT")	Investment	89	89	b)
	CHIEF Telecom Inc. ("CHIEP")	Network integration, internet data center ("IDC"), communications integration and cloud application services	57	57	
	CHYP Multimedia Marketing & Communications Co., Ltd. ("CHYP")	Digital information supply services and advertisement services	100	100	
	Prime Asia Investments Group Ltd. (B.V.) ("Prime Asia")	Investment	100	100	
	Spring House Entertainment Tech. Inc. ("SHE")	Software design services, internet contents production and play, and motion picture production and distribution	56	56	c)
	Chungghwa Telecom Global, Inc. ("CHTG")	International private leased circuit, internet services, and transit services	100	100	
	Chungghwa Telecom Vietnam Co., Ltd. ("CHTV")	Intelligent energy saving solutions, international circuit, and information and communication technology ("ICT") services	100	100	
	Smartfun Digital Co., Ltd. ("SFD")	Providing diversified family education digital services	65	65	
	Chungghwa Telecom Japan Co., Ltd. ("CHTJ")	International private leased circuit, IP VPN service, and IP transit services	100	100	
	Chungghwa Soehamp Technology Inc. ("CHST")	Design, development and production of Automatic License Plate Recognition software and hardware	51	51	
	Hongghwa International Co., Ltd. ("HHI")	Telecommunications engineering, sales agent of mobile phone plan application and other business services, etc.	100	100	
	Chungghwa Leading Photonics Tech Co., Ltd. ("CLPT")	Production and sale of electronic components and finished products	75	75	
	Chungghwa Telecom (Thailand) Co., Ltd. ("CHTT")	International private leased circuit, IP VPN service, ICT and cloud VAS services	100	100	d)
	CHT Security Co., Ltd. ("CHTSC")	Computing equipment installation, wholesale of computing and business machinery equipment and software; management consulting services, data processing services, digital information supply services and internet identity services	80	80	

(Continued)

Name of Investor	Name of Investee	Main Businesses and Products	Percentage of Ownership		Note
			2019	2018	
Senao International Co., Ltd.	Senao International (Samoa) Holding Ltd. ("SIS") Youth Co., Ltd. ("Youth")	International investment	100	100	
	Aval Technologies Co., Ltd. ("Aval")	Sale of information and communication technologies products	93	93	e)
	Senyoung Insurance Agent Co., Ltd. ("SENYOUNG")	Property and liability insurance agency	100	100	
Youth Co., Ltd.	ISPOF Co., Ltd. ("ISPOF")	Sale of information and communication technologies products	100	100	
	Yoyoi Co., Ltd. ("Yoyoi")	Maintenance of information and communication technologies products	100	100	
Aval Technologies Co., Ltd.	Win Technology Co., Ltd. ("Win")	Sale of information and communication technologies products	100	-	f)
Senyoung Insurance Agent Co., Ltd.	Senyoung Insurance Agent Co., Ltd. ("Seyoung")	Life insurance services	100	-	g)
Light Era Development Co., Ltd.	Taoyuan Asia Silicon Valley Innovation Co., Ltd. ("TASVI")	Development of real estate	-	60	h)
CHIEF Telecom Inc.	Unigate Telecom Inc. ("Unigate")	Telecommunications and internet service	100	100	
	Chief International Corp. ("CIC")	Telecommunications and internet service	100	100	
	Shanghai Chief Telecom Co., Ltd. ("SCT")	Telecommunications and internet service	49	49	
Chungghwa System Integration Co., Ltd.	Concord Technology Co., Ltd. ("Concord")	Investment	-	-	i)
Chungghwa Investment Co., Ltd.	Chungghwa Precision Test Tech. Co., Ltd. ("CHPT")	Production and sale of semiconductor testing components and printed circuit board	34	34	j)
Chungghwa Precision Test Tech. Co., Ltd.	Chungghwa Precision Test Tech. USA Corporation ("CHPT (US)")	Design and after-sale services of semiconductor testing components and printed circuit board	100	100	
	CHPT Japan Co., Ltd. ("CHPT (JP)")	Related services of electronic parts, machinery processed products and printed circuit board	100	100	
	Chungghwa Precision Test Tech. International, Ltd. ("CHPT (International)")	Wholesale and retail of electronic materials, and investment	100	100	
Senao International (Samoa) Holding Ltd.	Senao International HK Limited ("SIHK")	International investment	100	100	
Senao International HK Limited	Senao Trading (Fujian) Co., Ltd. ("STF")	Sale of information and communication technologies products	-	100	k)
	Senao International Trading (Shanghai) Co., Ltd. ("SITS")	Sale of information and communication technologies products	100	100	
	Senao International Trading (Shanghai) Co., Ltd. ("SEITS")	Maintenance of information and communication technologies products	-	-	l)
	Senao International Trading (Jiangsu) Co., Ltd. ("SIT")	Sale of information and communication technologies products	-	100	m)
Prime Asia Investments Group Ltd. (B.V.I.)	Chungghwa Hsingta Co., Ltd. ("CHC")	Investment	100	100	

(Continued)

Name of Investor	Name of Investee	Main Businesses and Products	Percentage of Ownership		Note
			2019	2018	
Chungghwa Hsingta Co., Ltd. ("CHC")	Chungghwa Telecom Co., Ltd. ("CTC")	Integrated information and communication solution services for enterprise clients, and intelligent energy network service	100	100	
	Jiangsu Zhenhua Information Technology Company, LLC. ("ZIT")	Providing intelligent energy saving solution and intelligent buildings services	-	-	n)
Chungghwa Precision Test Tech. International, Ltd.	Shanghai Taihua Electronic Technology Limited ("STET")	Design of printed circuit board and related consultation service	100	100	
	Suzhou Precision Test Tech. Ltd. ("SZPT")	Assembly processed of circuit board, design of printed circuit board and related consultation service	100	-	o)

a) SENAO transferred its treasury stock to employees in June 2018 and the Company's ownership interest in SENAO decreased to 28.18% as of December 31, 2018 and 2019. As Chungghwa continues to control over half of the seats of the Board of Directors of SENAO (six out of eleven seats as of December 31, 2019) through the support of large beneficial stockholders, the accounts of SENAO are included in the consolidated financial statements.

b) CHIEF issued new shares in March and November 2019, March and November 2018 as its employees exercised their options. In addition, Chungghwa and CHI disposed some shares of CHIEF in May 2018 before CHIEF traded its shares on the General Stock Market of the Taipei Exchange according to the local requirements. Furthermore, Chungghwa and CHI did not participate in the capital increase of CHIEF in June 2018. Therefore, the Company's ownership interest in CHIEF decreased to 60.23% and 59.75% as of December 31, 2018 and 2019, respectively.

c) SHE reduced 19.72% of its capital to offset accumulated deficits in December 2019 and the Company's ownership interest in SHE remained the same.

d) The Company increased its investment in CHTT proportionally in October 2019 and the Company's ownership interest in CHTT remained the same.

e) SENAO subscribed for all the shares in the capital increase of Youth in December 2018. Therefore, the Company's ownership interest in Youth increased from 89% to 93%.

f) Aval invested 100% equity shares of Win Technology Co., Ltd. ("Win") in September 2019.

g) SENYOUNG invested 100% equity shares of Senyoung Insurance Agent Co., Ltd. ("Seyoung") in November 2019.

h) LED invested 60% equity shares of Taoyuan Asia Silicon Valley Innovation Co., Ltd. ("TASVI") in March 2018. TASVI completed its liquidation in September 2019.

i) Concord completed its liquidation in January 2018.

j) CHI disposed some shares of CHPT from April to August 2018. Therefore, its ownership interest in CHPT decreased to 34.25% as of December 31, 2018 and 2019. However, considering the absolute and relative size of ownership interest, and the dispersion of shares owned by the other stockholders, the management concluded that the Company has a sufficiently dominant voting interest to direct the relevant activities; hence, CHPT is deemed as a subsidiary of the Company.

k) STF completed its liquidation in May 2019.



Any excess of the cost of acquisition over the Company's share of the fair value of the identifiable net assets and liabilities of an associate at the date of acquisition is recognized as goodwill, which is included within the carrying amount of the investment and shall not be amortized. Any excess of the Company's share of the net fair value of the identifiable assets and liabilities over the cost of acquisition is recognized immediately in profit or loss.

When necessary, the entire carrying amount of the investment (including goodwill) is tested for impairment as a single asset by comparing its recoverable amount with its carrying amount. Any impairment loss recognized is not allocated to any asset, including goodwill, that forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognized to the extent that the recoverable amount of the investment subsequently increases.

When the Company transacts with its associate, profits and losses resulting from the transactions with the associate are recognized in the Company's consolidated financial statements only to the extent of interests in the associate that are not related to the Company.

#### **Property, Plant and Equipment**

Property, plant and equipment are initially measured at cost and subsequently measured at cost less accumulated depreciation and accumulated impairment loss.

Property, plant and equipment in the course of construction are depreciated and classified to the appropriate categories of property, plant and equipment when completed and ready for their intended use.

Depreciation on property, plant and equipment is recognized using the straight-line method. Each significant part is depreciated separately. Freehold land is not depreciated. The estimated useful lives, residual values and depreciation method are reviewed at the end of each year, with the effect of any changes in estimate accounted for on a prospective basis.

On derecognition of an item of property, plant and equipment, the difference between the net disposal proceeds and the carrying amount of the asset is recognized in profit or loss in the period in which the property is derecognized.

#### **Investment Properties**

Investment properties are properties held to earn rentals and/or for capital appreciation. Investment properties also include land held for a currently undetermined future use.

Investment properties are measured initially at cost, including transaction costs. Subsequent to initial recognition, investment properties are measured at cost less accumulated depreciation and accumulated impairment loss. Depreciation is recognized using the straight-line method.

For a transfer from the investment properties to property, plant and equipment, the deemed cost of the property, plant and equipment for subsequent accounting is its carrying amount at the commencement of owner-occupation.

For a transfer from the property, plant and equipment to investment properties, the deemed cost of the investment properties for subsequent accounting is its carrying amount at the end of owner-occupation.

On derecognition of the investment properties, the difference between the net disposal proceeds and the carrying amount of the asset is recognized in profit or loss in the period in which the property is derecognized.

#### **Goodwill**

Goodwill arising from the acquisition of a business is carried at cost as established at the date of acquisition of the business less accumulated impairment loss.

For the purpose of impairment testing, goodwill is allocated to each of the Company's cash-generating units or groups of cash-generating units (referred to as "cash-generating unit") that are expected to benefit from the synergies of the business combination.

A cash-generating unit to which goodwill has been allocated is tested for impairment annually, or more frequently when there is an indication that the unit may be impaired, by comparing its carrying amount, including the attributable goodwill, with its recoverable amount. However, if the goodwill allocated to a cash-generating unit was acquired in a business combination during the current annual period, that unit shall be tested for impairment before the end of the current annual period. If the recoverable amount of the cash-generating unit is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro rata based on the carrying amount of each asset in the unit. Any impairment loss is recognized directly in profit or loss. An impairment loss recognized for goodwill is not reversed in subsequent periods.

#### **Intangible Assets Other Than Goodwill**

Intangible assets with finite useful lives that are acquired separately are initially measured at cost and subsequently measured at cost less accumulated amortization and accumulated impairment loss. Amortization is recognized on a straight-line basis. The estimated useful life, residual value, and amortization method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis. The residual value of an intangible asset with a finite useful life shall be assumed to be zero unless the Company expects to dispose of the intangible asset before the end of its economic life.

Intangible assets acquired in a business combination and recognized separately from goodwill are initially recognized at their fair value at the acquisition date (which is regarded as their cost). Subsequent to initial recognition, they are measured on the same basis as intangible assets that are acquired separately.

Gains or losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset, are recognized in profit or loss in the period in which the asset is derecognized.

#### **Impairment of Tangible Assets, Intangible Assets Other Than Goodwill and Incremental Costs of Obtaining Contracts**

At the end of each reporting period, the Company reviews the carrying amounts of its tangible and intangible assets, excluding goodwill, to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss. When it is not possible to estimate the recoverable amount of an individual asset, the Company estimates the recoverable amount of the cash-generating unit to which the asset belongs.

Intangible assets not yet available for use are tested for impairment at least annually, and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value less costs to sell and value in use. If the recoverable amount of an asset or cash-generating unit is estimated to be less than its carrying amount, the carrying amount of the asset or cash-generating unit is reduced to its recoverable amount, with the resulting impairment loss recognized in profit or loss.

Impairment loss from the assets related to incremental cost of obtaining contracts is recognized to the extent that the carrying amount of the assets exceeds the remaining amount of consideration that the Company expects to receive in exchange for related goods or services less the costs which relate directly to providing those goods or services.

When an impairment loss is subsequently reversed, the carrying amount of the asset or cash-generating unit is increased to the revised estimate of its recoverable amount, but only to the extent of the carrying amount that would have been determined had no impairment loss been recognized for the asset or cash-generating unit in prior years. A reversal of an impairment loss is recognized in profit or loss.

#### **Financial Instruments**

Financial assets and financial liabilities are recognized when the Company becomes a party to the contractual provisions of the instruments.

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss) are added to the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through profit or loss are recognized immediately in profit or loss.

#### **a. Financial assets**

All regular way purchases or sales of financial assets are recognized and derecognized on a trade date basis.

#### **1) Measurement category**

##### **a) Financial assets at fair value through profit or loss (FVTPL)**

Financial asset is classified as at FVTPL when the financial asset is mandatorily classified as at FVTPL. Financial assets mandatorily classified as at FVTPL include investments in equity instruments which are not designated as at fair value through other comprehensive income (FVOCI).

Financial assets at FVTPL are stated at fair value, with any gains or losses arising on remeasurement recognized in profit or loss. The net gain or loss recognized in profit or loss does not incorporate any dividend earned on the financial asset. Fair value is determined in the manner described in Note 35.

##### **b) Financial assets at amortized cost**

Financial assets that meet the following conditions are subsequently measured at amortized cost:

- i. The financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows; and
- ii. The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Subsequent to initial recognition, financial assets at amortized cost are measured at amortized cost, which equals to gross carrying amount determined by the effective interest method less any impairment loss, except for short-term receivables as the effect of discounting is immaterial. Exchange differences are recognized in profit or loss.

Interest income is calculated by applying the effective interest rate to the gross carrying amount of such financial assets.

#### **c) Investments in equity instruments at FVOCI**

On initial recognition, the Company may make an irrevocable election to designate investments in equity instruments as at FVOCI. Designation at FVOCI is not permitted if the equity investment is held for trading or if it is contingent consideration recognized by an acquirer in a business combination.

Investments in equity instruments at FVOCI are subsequently measured at fair value with gains and losses arising from changes in fair value recognized in other comprehensive income and accumulated in other equity. The cumulative gain or loss will not be reclassified to profit or loss on disposal of the equity investments. Instead, it will be transferred to retained earnings.

Dividends on these investments in equity instruments are recognized in profit or loss when the Company's right to receive the dividends is established, unless the dividends clearly represent a recovery of part of the cost of the investment.

#### **2) Impairment of financial assets and contract assets**

The Company recognizes a loss allowance for expected credit losses on financial assets at amortized cost (including accounts receivable) and contract assets.

The Company recognizes Lifetime Expected Credit Loss (ECL) for accounts receivable and contract assets. For all other financial instruments, the Company recognizes lifetime ECL, when there has been a significant increase in credit risk since initial recognition. If, on the other hand, the credit risk on the financial instrument has not increased significantly since initial recognition, the Company measures the loss allowance for that financial instrument at an amount equal to 12-month ECL.

Expected credit losses reflect the weighted average of credit losses with the respective risks of a default occurring as the weights. Lifetime ECL represents the expected credit losses that will result from all possible default events over the expected life of a financial instrument. In contrast, 12-month ECL represents the portion of ECL that is expected to result from default events on a financial instrument that are possible within 12 months after the reporting date.

The Company recognizes an impairment loss for all financial instruments with a corresponding adjustment to their carrying amount through a loss allowance account.

#### **3) Derecognition of financial assets**

The Company derecognizes a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity.

On derecognition of a financial asset measured at amortized cost in its entirety, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognized in profit or loss.

On derecognition of investments in equity instruments at FVOCI in its entirety, the cumulative gain or loss is directly transferred to retained earnings, and it is not reclassified to profit or loss.

b. Financial liabilities

1) Subsequent measurement

Except for financial liabilities at FVTPL, all the financial liabilities are subsequently measured at amortized cost using the effective interest method.

2) Derecognition of financial liabilities

The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable, including any non-cash assets transferred or liabilities assumed, is recognized in profit or loss.

c. Derivative financial instruments

The Company enters into derivative financial instruments to manage its exposure to foreign exchange rate risks, including forward exchange contracts.

Derivatives are initially measured at fair value at the date the derivative contracts are entered into and are subsequently remeasured to their fair value at the end of each reporting period. The resulting gain or loss is recognized in profit or loss immediately unless the derivative is designated and effective as a hedging instrument, in which event the timing of the recognition in profit or loss depends on the nature of the hedge relationship. When the fair value of derivative financial instruments is positive, the derivative is recognized as a financial asset; when the fair value of derivative financial instruments is negative, the derivative is recognized as a financial liability.

### Hedge Accounting

The Company designates some derivatives instruments as cash flow hedges. Hedges of foreign exchange risk on firm commitments are accounted for as cash flow hedges.

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognized in other comprehensive income. The gain or loss relating to the ineffective portion is recognized immediately in profit or loss.

The associated gains or losses that were recognized in other comprehensive income are reclassified from equity to profit or loss as a reclassification adjustment in the line item relating to the hedged item in the same period when the hedged item affects profit or loss. If a hedge of a forecast transaction subsequently results in the recognition of a non-financial asset or a non-financial liability, the associated gains and losses that were recognized in other comprehensive income are removed from equity and are included in the initial cost of the non-financial asset or non-financial liability.

The Company discontinues hedge accounting only when the hedging relationship ceases to meet the qualifying criteria; for instance, when the hedging instrument expires or is sold, terminated or exercised. The cumulative gain or loss on the hedging instrument that has been previously recognized in other comprehensive income from the period when the hedge was effective remains separately in equity until the forecast transaction occurs. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in equity is recognized immediately in profit or loss.

### Provisions

Provisions are measured at the best estimate of the expenditure required to settle the Company's obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. The provisions for warranties claims are made by management according to the sales agreements which represent the management's best estimate of the future outflow of economic benefits. The provisions of warranties claims are recognized as operating cost in the period in which the goods are

sold. The provision for onerous contracts represents the present obligation resulting from the measurement for the unavoidable costs of meeting the Company's contractual obligations exceed the economic benefits expected to be received from the contracts.

### Revenue Recognition

The Company identifies the performance obligations in the contract with the customers, allocates transaction price to each performance obligation and recognizes revenue when performance obligations are satisfied.

Sales of products are recognized as revenue when the Company delivers products and the customer accepts and controls the product. Except for the consumer electronic products such as mobile devices sold in channel stores which are usually in cash sale, the Company recognizes revenues for sale of other electronic devices and corresponding trade notes and accounts receivable.

Usage revenues from fixed-line services (including local, domestic long distance and international long distance telephone services), mobile services, internet and data services, and interconnection and call transfer fees from other telecommunications companies and carriers are billed in arrears and are recognized based upon seconds or minutes of traffic processed when the services are provided in accordance with contract terms. The usage revenues and corresponding trade notes and accounts receivable are recognized monthly.

Other revenues are recognized as follows: (a) one-time subscriber connection fees (on fixed-line services) are first recognized as contract liabilities and revenues are recognized subsequently over the average expected customer service periods, (b) monthly fees (on fixed-line services, mobile, internet and data services) and related receivables are accrued monthly, and (c) prepaid services (fixed-line, mobile, internet and data services) are recognized as contract liabilities upon collection considerations from customers and are recognized as revenues subsequently based upon actual usage by customers.

Where the Company enters into transactions which involve both the provision of telecommunications service bundled with products such as handsets, total consideration received from products and telecommunications service in these arrangements are allocated based on their relative stand-alone selling price. The amount of sales revenue recognized for products is not limited to the amount paid by the customer for the products. When the amount of sales revenue recognized for products exceeded the amount paid by the customer for the products, the difference is recognized as contract assets. Contract assets are reclassified to accounts receivable when the amounts become collectible from customers subsequently. When the amount of sales revenue recognized for products was less than the amount paid by the customer for the products, the difference is recognized as contract liabilities and revenues are recognized subsequently when the telecommunications service are provided.

For project business contracts, if a substantial part of the Company's promise to customers is to manage and coordinate the various tasks and assume the risks of those tasks to ensure the individual goods or services are incorporated into the combined output, they are treated as a single performance obligation since the Company provides a significant integration service. The Company recognizes revenues and corresponding accounts receivable when the project business contract is completed and accepted by customers.

For service contracts such as maintenance and warranties, customers simultaneously receive and consume the benefits provided by the Company; thus revenues and corresponding accounts receivable of service contracts are recognized over the related service period.

When another party is involved in providing goods or services to a customer, the Company is acting as a principal if it controls the specified good or service before that good or service is transferred to a customer; otherwise, the Company is acting as an agent. When the Company is acting as a principal, gross inflow of economic benefits arising from transactions is recognized as revenue. When the Company is acting as an agent, revenue is recognized as its share of transaction.

### Incremental Costs of Obtaining Contracts

Commissions and equipment subsidy related to telecommunications service as a result of obtaining contracts are recognized as an asset under the incremental costs of obtaining contracts to the extent the costs are expected to be recovered, and are amortized over the contract period. However, the Company elects not to capitalize the incremental costs of obtaining contracts if the amortization period of the assets that the Company otherwise would have recognized is expected to be one year or less.

### Leasing

#### 2019

At inception of a contract, the Company assesses whether the contract is, or contains, a lease.

- a. The Company as lessor  
Rental income from operating leases is recognized on a straight-line basis over the term of the relevant lease.
- b. The Company as lessee

The Company recognizes right-of-use assets and lease liabilities for all leases at the commencement date of a lease, except for lease payments for low-value assets are recognized as expenses on a straight-line basis over the lease terms accounted for applying recognition exemption.

Right-of-use assets are initially measured at cost, which comprises the initial measurement of lease liabilities and for lease payments made at or before the commencement date. Right-of-use assets are subsequently measured at cost less accumulated depreciation and accumulated impairment losses and adjusted for any remeasurement of the lease liabilities. Right-of-use assets are presented separately on the consolidated balance sheets.

Right-of-use assets are depreciated using the straight-line basis from the commencement dates to the earlier of the end of the useful lives of the right-of-use assets or the end of the lease terms.

Lease liabilities were initially measured at the present value of the lease payments, which comprise fixed payments, in-substance fixed payments, variable lease payments which depend on an index or a rate. The lease payments are discounted using the interest rate implicit in a lease, if that rate can be readily determined. If such rate cannot be readily determined, the lessee's incremental borrowing rate is used.

Lease liabilities are subsequently measured at amortized cost using the effective interest method, with interest expense recognized over the lease terms. When there is a change in a lease term or a change in future lease payments resulting from a change in an index or a rate used to determine those payments, the Company remeasures the lease liabilities with a corresponding adjustment to the right-of-use-assets. However, if the carrying amount of the right-of-use assets is reduced to zero, any remaining amount of the remeasurement is recognized in profit or loss. Lease liabilities are presented separately on the consolidated balance sheets.

Variable lease payments not depending on an index or a rate are recognized as expenses in the periods in which they are incurred.

#### 2018

- a. The Company as lessor

Rental income from operating leases is recognized on a straight-line basis over the term of the relevant lease.

- b. The Company as lessee

Operating lease payments are recognized as an expense on a straight-line basis over the lease term.

### Borrowing Costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

Other than stated above, all other borrowing costs are recognized in profit or loss in the period in which they are incurred.

### Government Grants

Government grants are not recognized until there is reasonable assurance that the Company will comply with the conditions attached to government grants and that the grants will be received.

Government grants are recognized in profit or loss on a systematic basis over the periods in which the Company recognizes expenses of the related costs for which the grants are intended to compensate. Specifically, government grants whose primary condition is that the Company should construct noncurrent assets are recognized as deferred revenue and transferred to profit or loss on a systematic and rational basis over the useful lives of the related assets.

### Employee Benefits

- a. Short-term employee benefits

Liabilities recognized in respect of short-term employee benefits are measured at the undiscounted amount of the benefits expected to be paid in exchange for the related service.

- b. Retirement benefits

Payments to defined contribution retirement benefit plans are recognized as an expense when employees have rendered service entitling them to the contributions.

Defined benefit costs (including service cost, net interest and remeasurement) under the defined benefit retirement benefit plans are determined using the projected unit credit method. Service cost (including current service cost and gains or losses on settlements) and net interest on the net defined benefit liability (asset) are recognized as employee benefits expense in the period they occur. Remeasurement, comprising (a) actuarial gains and losses; and (b) the return on plan assets, excluding amounts included in net interest on the net defined benefit liability (asset), is recognized in other comprehensive income in the period in which they occur. Remeasurement recognized in other comprehensive income is reflected immediately in retained earnings and will not be reclassified to profit or loss.

Net defined benefit liability (asset) represents the actual deficit (surplus) in the Company's defined benefit plan. Any surplus resulting from this calculation is limited to the present value of any refunds from the plans or reductions in future contributions to the plans.

c. Other long-term employee benefits

Other long-term employee benefits are accounted for in the same way as the accounting required for defined benefit plan except that remeasurement is recognized in profit or loss.

**Share-based Payment Arrangements - Employee Stock Options**

The fair value determined at the grant date of the employee share options is expensed on a straight-line basis over the vesting period, based on the Company's estimate of employee stock options that are expected to ultimately vest, with a corresponding increase in additional paid-in capital - employee stock options. If the equity instruments granted vest immediately at the grant date, expenses are recognized in full in profit or loss.

At the end of each reporting period, the Company revises its estimate of the number of employee share options expected to vest. The impact of the revision of the original estimates, if any, is recognized in profit or loss such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to additional paid-in capital - employee stock options.

**Income Tax**

Income tax expense represents the sum of the tax currently payable and deferred tax.

a. Current tax

According to the Income Tax Act in the ROC, an additional tax of unappropriated earnings is provided for in the year the stockholders approve to retain the earnings.

Adjustments of prior years' tax liabilities are added to or deducted from the current year's tax provision.

b. Deferred tax

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and the corresponding tax bases used in the computation of taxable profit. If the temporary difference arises from the initial recognition (other than in a business combination) of assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit, the resulting deferred tax asset or liability is not recognized. In addition, a deferred tax liability is not recognized on taxable temporary difference arising from initial recognition of goodwill.

Deferred tax liabilities are generally recognized for all taxable temporary differences. Deferred tax assets are generally recognized for all deductible temporary differences, unused loss carry forward and unused tax credits from purchases of machinery, equipment and technology and research and development expenditures to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilized.

Deferred tax liabilities are recognized for taxable temporary differences associated with investments in subsidiaries and associates, except where the Company is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognized to the extent that it is probable that there will be sufficient taxable profits against which to utilize the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered. A previously unrecognized deferred tax asset is also reviewed at the end of each reporting period and recognized to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset realized, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred tax assets and liabilities reflects the tax consequences that would follow from the manner in which the Company expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

c. Current and deferred tax

Current and deferred tax are recognized in profit or loss, except when they relate to items that are recognized in other comprehensive income, in which case, the current and deferred tax are also recognized in other comprehensive income.

Where current tax or deferred tax arises from the initial accounting for a business combination, the tax effect is included in the accounting for the business combination.

**4. CRITICAL ACCOUNTING JUDGMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY AND ASSUMPTION**

In the application of the Company's accounting policies, the management is required to make judgments, estimates and assumptions which are based on historical experience and other factors that are not readily apparent from other sources. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed by the management on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods.

a. Critical accounting judgments

1) Revenue recognition

The Company's project agreements are mainly to provide one or more customized equipment or services to customers. In order to fulfill the agreements, another party may be involved in some agreements. The Company considers the following factors to determine whether the Company is a principal of the transaction: whether the Company is the primary obligation provider of the agreements, its exposures to inventory risks and the discretion in establishing prices, etc. The determination of whether the Company is a principal or an agent will affect the amount of revenue recognized by the Company. Only when the Company is acting as a principal, gross inflows of economic benefits arising from transactions is recognized as revenue.

2) Control over subsidiaries

As discussed in Note 3, some entities are subsidiaries of the Company although the Company only owns less than 50% ownership interests in these entities. After considering the Company's absolute size of holding in the entity and the relative size of and the dispersion of shares owned by the other stockholders, and the contractual arrangements between the Company and other investors, potential voting interests and the written agreement between stockholders, the management

concluded that the Company has a sufficiently dominant voting interest to direct the relevant activities of the entity and therefore the Company has control over these entities.

b. Key sources of estimation uncertainty and assumption

The following are the key assumptions concerning the future, and other key sources of estimation uncertainty at the end of the reporting period. Actual results may differ from these estimates.

1) Impairment of trade notes and accounts receivable

The provision for impairment of trade notes and accounts receivable is based on assumptions about risk of default and expected loss rates. The Company uses judgment in making these assumptions and in selecting the inputs to the impairment calculation, based on the Company's past experience, current market conditions as well as forward looking information at the end of each reporting period. For details of the key assumptions and inputs used, see Note 9. Where the actual future cash flows are less than expected, a material impairment loss may arise.

2) Fair value measurements and valuation processes

For the assets and liabilities measured at fair value without quoted prices in active markets, the Company's management determines the appropriate valuation techniques for the fair value measurements and whether to engage third party qualified appraisers based on the related regulations and professional judgments.

Information about the valuation techniques and inputs used in determining the fair value of various assets and liabilities was disclosed in Note 35. If the actual changes of inputs in the future differ from expectation, the fair value may vary accordingly. The Company updates inputs periodically to monitor the appropriateness of the fair value measurement.

3) Provision for inventory valuation and obsolescence

Inventories are stated at the lower of cost or net realizable value. Net realizable value is calculated as the estimated selling price less the estimated selling costs. Comparison of net realizable value and cost is determined on an item by item basis, except for those similar items which could be categorized into the same groups. The Company uses the inventory holding period and turnover as the evaluation basis for inventory obsolescence losses.

4) Impairment of tangible and intangible assets

When an indication of impairment is assessed with objective evidence, the Company considers whether the recoverable amount of an asset is less than its carrying amount and recognizes the impairment loss based on difference between the recoverable amount and its carrying amount. The estimate of recoverable amount would impact on the timing and the amount of impairment loss recognition.

5) Useful lives of property, plant and equipment

As discussed in Note 3, "Summary of Significant Accounting Policies - Property, Plant and Equipment", the Company reviews estimated useful lives of property, plant and equipment at the end of each year.

6) Recognition and measurement of defined benefit plans

Net defined benefit liabilities and the resulting pension expense under defined benefit pension plans are calculated using the Projected Unit Credit Method. Actuarial assumptions comprise the discount rate, employee turnover rate, average future salary increase and etc. Changes in economic circumstances and market conditions will affect these assumptions and may have a material impact on the amount of the expense and the liability.

7) Lessees' incremental borrowing rates

2019

In determining a lessee's incremental borrowing rate used in discounting lease payments, a risk-free rate for relevant duration and the same currency is selected as a reference rate. The lessee's credit spread adjustments and lease specific adjustments are also taken into account.

## 5. APPLICATION OF NEW AND REVISED STANDARDS AND INTERPRETATIONS

a. Initial application of the amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the IFRS, IAS, IFRIC and SIC endorsed and issued into effect by the FSC.

Except for the following, whenever applied, the initial application of the amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the IFRS, IAS, IFRIC and SIC issued by the International Accounting Standards Board and endorsed and issued into effect by the FSC does not have material impacts on the Company's consolidated financial statements.

### IFRS 16 "Leases"

IFRS 16 sets out the accounting standards for identifying leases and accounting treatments for lessors and lessees. It supersedes IAS 17, IFRIC 4 - Determining Whether an Arrangement Contains a Lease and a number of related interpretations. Refer to Note 3 for information relating to the relevant accounting policies.

The Company reassessed whether a contract is, or contains, a lease in accordance with the definition of a lease under IFRS 16. Some contracts previously identified as containing a lease under IAS 17 and IFRIC 4 do not meet the definition of a lease under IFRS 16 and are accounted for in accordance with other accounting standards because the Company does not have the right to direct the use of the identified assets. Contracts that are reassessed as leases or containing a lease are accounted for in accordance with the transitional provisions under IFRS 16.

If the Company is a lessee, it shall recognize right-of-use assets and lease liabilities for all leases on the consolidated balance sheets except for those whose payments for low-value assets are recognized as expenses on a straight-line basis. On the consolidated statements of comprehensive income, the Company presents the depreciation expense charged on the right-of-use asset separately from the interest expense accrued on lease liability using the effective interest method. On the consolidated statements of cash flows, cash payments for the principal portion of lease liability are classified within financing activities; cash payments for interest portion are classified within operating activities. Before the application of IFRS 16, payments under operating lease contracts were recognized as expenses on a straight-line basis. Prepaid lease payments for use rights of leased assets were recognized as prepaid rents. Cash flows for operating leases were classified within operating activities on the statements of cash flows.

The Company did not make any adjustments for leases in which the Company is a lessor and accounted for those leases with the application of IFRS 16 starting from January 1, 2019.

The Company applied IFRS 16 retrospectively with the cumulative effect of the initial application of IFRS 16 recognized in retained earnings on January 1, 2019. Comparative financial information is not restated.

Lease liabilities are recognized on January 1, 2019 for leases previously classified as operating leases under IAS 17 and measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate on January 1, 2019. Right-of-use assets are measured at the present value discounted using the aforementioned incremental borrowing rate as if IFRS 16 had been applied since the commencement date of leases. The Company applies IAS 36 for assessing impairment of right-of-use assets.

The Company's weighted average incremental borrowing rate applied to lease liabilities recognized on January 1, 2019 was 0.85%. The difference between the (1) lease liabilities recognized on January 1, 2019 and (2) future aggregate minimum lease payments of non-cancellable operating lease under IAS 17 on December 31, 2018 is explained as follows:

The future aggregate minimum lease payments of non-cancellable operating lease on December 31, 2018	\$ 10,557,854
Less: Recognition exemption for leases of low-value assets	<u>(3,263)</u>
Undiscounted amount on January 1, 2019	<u>\$ 10,554,591</u>
Discounted lease liabilities using the incremental borrowing rate on January 1, 2019	\$ 10,339,868
Add: Adjustments as a result of a different treatment of extension options	<u>189</u>
Lease liabilities recognized on January 1, 2019	<u>\$ 10,340,057</u>

The impact on assets, liabilities and equity as of January 1, 2019 from the initial application of IFRS 16 is set out as follows:

	Carrying Amount as of January 1, 2019	Adjustments Arising from Initial Application of IFRS 16	Adjusted Carrying Amount as of January 1, 2019
Prepayments - current	\$ 1,872,984	\$ (245,215)	\$ 1,627,769
Property, plant and equipment	\$ 288,914,228	(1,308,990)	\$ 287,605,238
Right-of-use assets	<u>-</u>	12,163,063	<u>\$ 12,163,063</u>
Deferred income tax assets	\$ 3,553,856	25,588	<u>\$ 3,579,444</u>
Prepayments - noncurrent	<u>\$ 3,463,337</u>	<u>(413,521)</u>	<u>\$ 3,049,816</u>
Total effect on assets		<u>\$ 10,220,925</u>	
Contract liabilities - current	\$ 10,687,772	\$ 214,174	\$ 10,901,946
Lease liabilities - current	<u>-</u>	3,394,119	<u>\$ 3,394,119</u>
Other payables	<u>\$ 23,315,383</u>	(48,712)	<u>\$ 23,266,671</u>
Other current liabilities	\$ 1,381,606	(214,174)	<u>\$ 1,167,432</u>
Contract liabilities - noncurrent	<u>\$ 2,595,149</u>	3,482,907	<u>\$ 6,078,056</u>

(Continued)

	Carrying Amount as of January 1, 2019	Adjustments Arising from Initial Application of IFRS 16	Adjusted Carrying Amount as of January 1, 2019
Deferred income tax liabilities	\$ 1,991,843	\$ 6	\$ 1,991,849
Lease liabilities - noncurrent	<u>-</u>	6,945,938	<u>\$ 6,945,938</u>
Other noncurrent liabilities	<u>\$ 4,793,237</u>	<u>(3,482,907)</u>	<u>\$ 1,310,330</u>
Total effect on liabilities		<u>\$ 10,291,351</u>	
Unappropriated earnings	\$ 47,141,345	\$ (50,823)	\$ 47,090,522
Noncontrolling interests	<u>\$ 10,009,948</u>	<u>(19,603)</u>	<u>\$ 9,990,345</u>
Total effect on equity (unappropriated earnings)		<u>\$ (70,426)</u>	

(Concluded)

b. Amendments to IFRSs endorsed by the FSC for application starting from January 1, 2020

	New, Revised or Amended Standards and Interpretations	Effective Date Issued by IASB
Amendments to IFRS 3	Definition of a Business	January 1, 2020 (Note 1)
Amendments to IFRS 9, IAS 39 and IFRS 7	Interest Rate Benchmark Reform	January 1, 2020 (Note 2)
Amendments to IAS 1 and IAS 8	Definition of Materiality	January 1, 2020 (Note 3)

Note 1: The Company shall apply these amendments to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after January 1, 2020 and to asset acquisitions that occur on or after the beginning of that period.

Note 2: The Company shall apply these amendments retrospectively in annual periods beginning on or after January 1, 2020.

Note 3: The Company shall apply these amendments prospectively in annual periods beginning on or after January 1, 2020.

The application of the above new, revised or amended standards and interpretations will not have material impact on the Company's consolidated financial statements.

c. IFRSs issued by the IASB but not yet endorsed and issued into effect by the FSC

	New, Revised or Amended Standards and Interpretations	Effective Date Announced by IASB (Note)
Amendments to IFRS 10 and IAS 28	Sale or Contribution of Assets between An Investor and Its Associate or Joint Venture	To be determined by IASB
Amendments to IAS 1	Classification of liabilities as current or noncurrent	January 1, 2022

Note: Unless stated otherwise, the above New IFRSs are effective for annual periods beginning on or after their respective effective dates.

As of the date the consolidated financial statements were authorized for issue, the Company is continuously assessing the possible impact that the application of above standards and interpretations will have on the Company's financial position and operating result and will disclose the relevant impact when the assessment is completed.

## 6. CASH AND CASH EQUIVALENTS

	December 31	2018
	2019	
Cash		
Cash on hand	\$ 353,499	\$ 462,719
Bank deposits	<u>9,432,814</u>	<u>10,574,697</u>
	9,786,313	11,037,416
Cash equivalents (investments with maturities of less than three months)		
Commercial paper	20,109,823	6,143,672
Negotiable certificates of deposit	1,700,000	7,600,000
Time deposits	2,450,509	2,863,692
Repurchase agreements collateralized by bonds	<u>2,998</u>	<u>-</u>
	24,263,330	16,607,364
	<u>\$ 34,049,643</u>	<u>\$ 27,644,780</u>

The annual yield rates of bank deposits, commercial paper, negotiable certificates of deposit, time deposits and repurchase agreements collateralized by bonds as of balance sheet dates were as follows:

	December 31	2018
	2019	
Bank deposits	0.00% <sup>a</sup> -0.74%	0.00% <sup>a</sup> -0.50%
Commercial paper	0.47% <sup>a</sup> -0.54%	0.47% <sup>a</sup> -0.57%
Negotiable certificates of deposit	0.58% <sup>a</sup> -0.60%	0.55% <sup>a</sup> -0.60%
Time deposits	0.09% <sup>a</sup> -4.40%	0.09% <sup>a</sup> -4.40%
Repurchase agreements collateralized by bonds	1.90%	-

## 7. FINANCIAL INSTRUMENTS AT FAIR VALUE THROUGH PROFIT OR LOSS

### Financial assets-current

	December 31	2018
	2019	
Mandatorily measured at FVTPL		
Derivatives (not designated for hedge)	\$ 53	\$ -
Forward exchange contract	<u>463</u>	<u>-</u>
Non-derivatives		
Listed stocks - domestic	<u>\$ 516</u>	<u>\$ -</u>
		(Continued)

## December 31

### Financial assets-noncurrent

	2019	2018
Mandatorily measured at FVTPL		
Non-derivatives	\$ 510,801	\$ 292,910
Non-listed stocks - domestic	<u>267,304</u>	<u>224,452</u>
Non-listed stocks - foreign	<u>\$ 778,105</u>	<u>\$ 517,362</u>

### Financial liabilities-current

	2019	2018
Held for trading		
Derivatives (not designated for hedge)	\$ 239	\$ 1,114
Forward exchange contracts	<u>-</u>	<u>-</u>
	<u>\$ 239</u>	<u>\$ 1,114</u>
		(Concluded)

The Company increased its investment in Taiwan Capital Buffalo Fund Co., Ltd. proportionally for 300,000 thousand in October 2019 and the Company's ownership interest in Taiwan Capital Buffalo Fund Co., Ltd. remained at 12.9%.

Outstanding forward exchange contracts not designated for hedge as of balance sheet dates were as follows:

	December 31, 2019	Contract Amount (In Thousands)
Forward exchange contracts - buy	EUR/NT\$	EUR1,500/NT\$50,910
Forward exchange contracts - buy	US\$/NT\$	US\$850/NT\$25,524
	2020.03	
	2020.01	
	<u>December 31, 2018</u>	
Forward exchange contracts - buy	EUR/NT\$	EUR5,452/NT\$192,734
Forward exchange contracts - buy	US\$/NT\$	US\$2,020/NT\$62,252
	2019.03-06	
	2019.01	

The Company entered into the above forward exchange contracts to manage its exposure to foreign currency risk due to fluctuations in exchange rates. However, the aforementioned derivatives did not meet the criteria for hedge accounting.

## 8. FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME - NONCURRENT

	December 31	2018
	2019	
Domestic investments	\$ 2,453,616	\$ 2,899,843
Listed stocks	<u>4,680,931</u>	<u>3,901,053</u>
Non-listed stocks	<u>-</u>	<u>-</u>
	<u>\$ 2,453,616</u>	<u>\$ 2,899,843</u>
		(Continued)

	<u>December 31</u>	
	<u>2019</u>	<u>2018</u>
Foreign investments	\$ 134,370	\$ 131,607
Non-listed stocks	\$ 7,268,917	\$ 6,932,503
		(Concluded)

The Company holds the above foreign and domestic stocks for medium to long-term strategic purposes and expects to profit from long-term investment. Accordingly, the management elected to designate these investments in equity instruments at FVOCI as they believe that recognizing short-term fair value fluctuations of these investments in profit or loss is not consistent with the Company's strategy of holding these investments for long-term purposes.

The Company recognized dividend income of \$296,360 thousand and \$395,593 thousand for the years ended December 31, 2019 and 2018, respectively, from those investments still held on balance sheet dates.

### 9. TRADE NOTES AND ACCOUNTS RECEIVABLE, NET

	<u>December 31</u>	
	<u>2019</u>	<u>2018</u>
Trade notes and accounts receivable	\$ 28,767,539	\$ 32,677,558
Less: Loss allowance	(2,359,756)	(2,602,055)
	<u>\$ 26,407,783</u>	<u>\$ 30,075,503</u>

The main credit terms range from 30 to 90 days.

The Company serves a large consumer base for telecommunications business; therefore, the concentration of credit risk is limited. When having transactions with customers, the Company considers the record of arrears in the past. In addition, the Company may also collect some telecommunication charges in advance to reduce the payment arrears in subsequent periods.

The Company adopted a policy of dealing with counterparties with certain credit ratings for project business and to obtain collateral where necessary to mitigate the risk of loss arising from default. Credit rating information is provided by independent rating agencies where available and, if such credit rating information is not available, the Company uses other publicly available financial information and its own historical transaction experience to rate its major customers. The Company continues to monitor the credit exposure and credit ratings of its counterparties and spread the credit risk amongst qualified counterparties.

In order to mitigate credit risk, the management of the Company has delegated a team responsible for determining credit limits, credit approvals and other monitoring procedures to ensure the recoverability of receivables. In addition, the Company reviews the recoverable amount of receivables at balance sheet dates to ensure that adequate allowance is provided for possible irrecoverable amounts. In this regard, the management believes the Company's credit risk could be reasonably reduced.

The Company applies the simplified approach to providing for expected credit losses prescribed by IFRS 9, which permits the use of lifetime expected loss provision for receivables. The expected credit losses on receivables are estimated using a provision matrix by reference to past default experience of the customers and an analysis of the customers' current financial positions, as well as the forward-looking indicators such as macroeconomic business indicator.

When there are evidences indicating that the counterparty is in evasion, bankruptcy, deregistration of its company or the accounts receivable are over two years past due and the recoverable amount cannot be reasonably estimated, the Company writes off the trade notes and accounts receivable. For accounts receivable that have been written off, the Company continues to engage in enforcement activity to attempt to recover the receivables due. Where recoveries are made, these are recognized in profit or loss.

Except for receivables arising from telecommunications business and project business, the Company's remaining accounts receivable are limited. Therefore, only Chunghwa's provision matrix arising from telecommunications business and project business is disclosed below:

#### December 31, 2019

Telecommunications business	Not Past Due	Past Due Less than 30 Days	Past Due 31 to 60 Days	Past Due 61 to 90 Days	Past Due 91 to 120 Days	Past Due 121 to 180 Days	Past Due over 180 Days	Total
Expected credit loss rate (Note a)	0%-2%	0%-25%	0%-68%	0%-83%	11%-90%	17%-96%	100%	
Gross carrying amount	\$ 19,020,326	\$ 267,902	\$ 74,775	\$ 46,782	\$ 40,771	\$ 28,021	\$ 600,985	\$ 20,079,562
Loss allowance (lifetime ECL)	(55,903)	(25,517)	(27,630)	(34,024)	(26,281)	(27,366)	(600,985)	(798,306)
Amortized cost	\$ 18,964,423	\$ 242,385	\$ 47,145	\$ 12,758	\$ 14,490	\$ 655	\$ —	\$ 19,281,756
Project business								
Expected credit loss rate (Note b)	0%-5%	5%	10%	30%	50%	80%	100%	
Gross carrying amount	\$ 4,053,681	\$ 78,147	\$ 52,227	\$ 12,688	\$ 1,040	\$ 1,040	\$ 1,471,840	\$ 5,699,150
Loss allowance (lifetime ECL)	(2,637)	(4,892)	(5,223)	(10,527)	(6,344)	(832)	(1,471,840)	(1,502,345)
Amortized cost	\$ 4,051,044	\$ 73,255	\$ 47,004	\$ 18,950	\$ 6,344	\$ 208	\$ —	\$ 4,196,805

#### December 31, 2018

Telecommunications business	Not Past Due	Past Due Less than 30 Days	Past Due 31 to 60 Days	Past Due 61 to 90 Days	Past Due 91 to 120 Days	Past Due 121 to 180 Days	Past Due over 180 Days	Total
Expected credit loss rate (Note a)	0%-3%	3%-30%	7%-69%	19%-82%	32%-90%	61%-95%	100%	
Gross carrying amount	\$ 23,307,276	\$ 454,468	\$ 94,715	\$ 48,924	\$ 37,640	\$ 36,090	\$ 418,101	\$ 24,397,211
Loss allowance (lifetime ECL)	(79,852)	(26,872)	(24,023)	(28,432)	(28,196)	(25,618)	(418,101)	(651,092)
Amortized cost	\$ 23,227,424	\$ 427,596	\$ 70,692	\$ 20,492	\$ 9,444	\$ 10,472	\$ —	\$ 23,766,112
Project business								
Expected credit loss rate (Note b)	0%-5%	5%	10%	30%	50%	80%	100%	
Gross carrying amount	\$ 4,062,271	\$ 88,384	\$ 92,343	\$ 8,248	\$ 12,132	\$ 6,809	\$ 1,725,168	\$ 5,998,355
Loss allowance (lifetime ECL)	(153,622)	(8,608)	(10,122)	(2,910)	(8,492)	(5,643)	(1,725,168)	(1,913,588)
Amortized cost	\$ 3,913,647	\$ 79,776	\$ 82,201	\$ 5,338	\$ 3,640	\$ 1,166	\$ —	\$ 4,085,767

Note a: Please refer to Notes 28 and 41 for the information of disaggregation of telecommunications service revenue. The expected credit loss rate applicable to different business revenue varies so as to reflect the risk level indicating by factors like historical experience.

Note b: The project business has different loss types according to the customer types. The expected credit loss rate listed above is for general customers. When customer is the government or its affiliates, it is expected that no credit loss will occur. For those who had bounced or exchanged checks as well as those accounts receivable were overdue more than six months that are classified as high risk customers, the expected credit loss of high risk customers is at least 50%, and the rate is increased when the overdue days increases.

Movements of loss allowance for trade notes and accounts receivable were as follows:

	Year Ended December 31	2018
	2019	2018
Beginning balance	\$ 2,602,055	\$ 2,117,349
Add: Provision for (reversal of) credit loss	(53,952)	804,727
Less: Amounts written off	(188,347)	(320,021)
Ending balance	<u>\$ 2,359,756</u>	<u>\$ 2,602,055</u>

## 10. INVENTORIES

	December 31	2018
	2019	2018
Merchandise	\$ 3,858,034	\$ 6,067,750
Project in process	11,113,286	6,756,486
Work in process	141,417	109,191
Raw materials	155,495	111,566
Land held under development	15,268,232	13,044,993
Construction in progress	1,998,733	1,998,733
	77,311	76,989
	<u>\$ 17,344,276</u>	<u>\$ 15,120,715</u>

The operating costs related to inventories were \$49,258,066 thousand (including the valuation loss on inventories of \$474,709 thousand) and \$48,648,763 thousand (including the valuation loss on inventories of \$365,123 thousand) for the years ended December 31, 2019 and 2018, respectively.

As of December 31, 2019 and 2018, inventories of \$2,076,044 thousand and \$2,075,722 thousand, respectively, were expected to be recovered for a time period longer than twelve months. The aforementioned amount of inventories is related to property development owned by LED.

Land held under development and construction in progress was developed by LED for Qingshan Sec., Dayuan Dist., Taoyuan City project.

## 11. PREPAYMENTS

	December 31	2018
	2019	2018
Prepaid rents	\$ 3,382,560	\$ 2,415,083
Others	1,180,034	2,921,238
	<u>\$ 4,562,594</u>	<u>\$ 5,336,321</u>
Current		
Prepaid rents	\$ 704,607	\$ 599,817
Others	1,178,652	1,273,167
	<u>\$ 1,883,259</u>	<u>\$ 1,872,984</u>

(Continued)

## December 31

	2019	2018
Noncurrent		
Prepaid rents	\$ 2,677,953	\$ 1,815,266
Others	1,382	1,648,071
	<u>\$ 2,679,335</u>	<u>\$ 3,463,337</u>

(Concluded)

Prepaid rents in 2019 comprises the prepayments from the lease agreements applying the recognition exemption and the prepayments for leases that do not meet the definition of leases under IFRS 16.

## 12. OTHER CURRENT MONETARY ASSETS

	December 31	2018
	2019	2018
Time deposits and negotiable certificates of deposit with maturities of more than three months	\$ 5,959,074	\$ 8,156,647
Repurchase agreements collateralized by bonds with maturities of more than three months	14,990	-
Others	<u>1,524,500</u>	<u>1,347,556</u>
	<u>\$ 7,498,564</u>	<u>\$ 9,504,203</u>

The annual yield rates of time deposits, negotiable certificates of deposit and repurchase agreements collateralized by bonds with maturities of more than three months at the balance sheet dates were as follows:

	December 31	2018
	2019	2018
Time deposits and negotiable certificates of deposit with maturities of more than three months	0.03%-2.73%	0.03%-3.05%
Repurchase agreements collateralized by bonds with maturities of more than three months	2.50%	-

## 13. SUBSIDIARIES

a. Information on significant noncontrolling interest subsidiary

	December 31	2018
	2019	2018
Subsidiaries		
Principal Place of Business		
SENAO	72%	72%
CHPT	66%	66%
Proportion of Ownership Interests and Voting Rights Held by Noncontrolling Interests		
December 31		
2019	72%	72%
2018	66%	66%

	Year Ended December 31	
	2019	2018
Total comprehensive income attributable to the parent	\$ 107,925	\$ 112,887
Total comprehensive income attributable to noncontrolling interests	<u>315,134</u>	<u>270,715</u>
	\$ <u>423,059</u>	\$ <u>383,602</u>
Net cash flow from operating activities	\$ 537,965	\$ 696,142
Net cash flow from investing activities	235,169	(12,596)
Net cash flow from financing activities	(717,602)	(490,757)
Effect of exchange rate changes on cash and cash equivalents	(193)	516
Net cash inflow	\$ <u>55,339</u>	\$ <u>193,305</u>
Dividends paid to noncontrolling interests	\$ <u>268,944</u>	\$ <u>587,264</u>

Summarized financial information in respect of CHPT and its subsidiaries that has material noncontrolling interests is set out below. The summarized financial information below represents amounts before intercompany eliminations.

	December 31	
	2019	2018
Current assets	\$ 3,709,630	\$ 4,416,910
Noncurrent assets	4,043,881	2,779,020
Current liabilities	(1,287,597)	(1,044,054)
Noncurrent liabilities	(22,003)	(816)
Equity	\$ <u>6,443,911</u>	\$ <u>6,151,060</u>
Equity attributable to CHI	\$ 2,207,039	\$ 2,106,738
Equity attributable to noncontrolling interests	<u>4,236,872</u>	<u>4,044,322</u>

	Year Ended December 31	
	2019	2018
Revenues and income	\$ 3,404,570	\$ 3,299,226
Costs and expenses	<u>2,779,406</u>	<u>2,583,202</u>
Profit for the year	\$ <u>625,164</u>	\$ <u>716,024</u>
Profit attributable to CHI	\$ 214,115	\$ 259,425
Profit attributable to noncontrolling interests	<u>411,049</u>	<u>456,599</u>
Profit for the year	\$ <u>625,164</u>	\$ <u>716,024</u>

(Continued)

	Profit Allocated to Noncontrolling Interests		Accumulated Noncontrolling Interests	
	Year Ended December 31 2019	2018	December 31 2019	2018
SENAO	\$ 292,776	\$ 281,238	\$ 4,267,547	\$ 4,228,240
CHPT	\$ 411,049	\$ 456,599	4,236,872	4,044,322
Individually immaterial subsidiaries with noncontrolling interests			<u>1,779,103</u>	<u>1,737,386</u>
			\$ <u>10,283,522</u>	\$ <u>10,009,948</u>

Summarized financial information in respect of SENAO and its subsidiaries that has material noncontrolling interests is set out below. The summarized financial information below represents amounts before intercompany eliminations.

	December 31	
	2019	2018
Current assets	\$ 6,751,385	\$ 7,041,416
Noncurrent assets	3,321,252	2,675,748
Current liabilities	(3,617,165)	(3,740,162)
Noncurrent liabilities	(589,882)	(164,056)
Equity	\$ <u>5,865,590</u>	\$ <u>5,812,946</u>
Equity attributable to the parent	\$ 1,598,043	\$ 1,584,706
Equity attributable to noncontrolling interests	<u>4,267,547</u>	<u>4,228,240</u>
	\$ <u>5,865,590</u>	\$ <u>5,812,946</u>

	Year Ended December 31	
	2019	2018
Revenues and income	\$ 29,130,695	\$ 31,533,371
Costs and expenses	<u>28,722,830</u>	<u>31,137,428</u>
Profit for the year	\$ <u>407,865</u>	\$ <u>395,943</u>
Profit attributable to the parent	\$ 115,089	\$ 114,705
Profit attributable to noncontrolling interests	<u>292,776</u>	<u>281,238</u>
Profit for the year	\$ <u>407,865</u>	\$ <u>395,943</u>
Other comprehensive loss attributable to the parent	\$ (7,164)	\$ (1,818)
Other comprehensive income (loss) attributable to noncontrolling interests	<u>22,358</u>	<u>(10,523)</u>
	\$ <u>15,194</u>	\$ <u>(12,341)</u>

(Continued)

	<u>Year Ended December 31</u>
	<u>2019</u>
	<u>2018</u>
Other comprehensive income (loss) attributable to CHI	\$ (1,106) \$ 218
Other comprehensive income (loss) attributable to noncontrolling interests	<u>(2,124)</u> <u>45</u>
	<u>\$ (3,230)</u> <u>\$ 263</u>
Total comprehensive income attributable to CHI	\$ 213,009 \$ 259,643
Total comprehensive income attributable to noncontrolling interests	<u>408,925</u> <u>456,644</u>
	<u>\$ 621,934</u> <u>\$ 716,287</u>
Net cash flow from operating activities	\$ 507,144 \$ 861,558
Net cash flow from investing activities	<u>(1,425,660)</u> <u>(733,108)</u>
Net cash flow from financing activities	<u>(349,452)</u> <u>(327,890)</u>
Effect of exchange rate changes on cash and cash equivalents	<u>(4,815)</u> <u>1,337</u>
Net cash outflow	<u>\$ (1,272,783)</u> <u>\$ (198,102)</u>
Dividends paid to noncontrolling interests	<u>\$ 215,591</u> <u>\$ 209,711</u>
	<u>(Concluded)</u>

b. Equity transactions with noncontrolling interests

CHIEF issued new shares in March and November 2019, March and November 2018 as its employees exercised their options. In addition, Chungghwa and CHI disposed some shares of CHIEF in May 2018 before CHIEF traded its shares on the General Stock Market of the Taipei Exchange according to the local requirements. Furthermore, Chungghwa and CHI did not participate in the capital increase of CHIEF in June 2018; therefore, the Company's ownership interest in CHIEF decreased. See Note 32(c)(d) for details.

SENAO subscribed for all the shares in the capital increase of Youth in December 2018; therefore, the Company's ownership interest in Youth increased.

SENAO transferred its treasury stock to employees in June 2018; therefore, the Company's ownership interest in SENAO decreased. See Note 32(b) for details.

CHI disposed some shares of CHPT from April to August 2018; therefore, the Company's ownership interest in CHPT decreased.

The above transactions were accounted for as equity transactions since the Company did not cease to have control over these subsidiaries.

Information of the Company's equity transactions with noncontrolling interests for the years ended December 31, 2019 and 2018 was as follows:

	<u>Year Ended December 31, 2019</u>	<u>Year Ended December 31, 2018</u>
Cash consideration received from noncontrolling interests	\$ 18,825	\$ 18,825
The proportionate share of the carrying amount of the net assets of the subsidiary transferred to noncontrolling interests	<u>(19,723)</u>	<u>(19,723)</u>
Differences arising from equity transactions	<u>\$ (898)</u>	<u>\$ (898)</u>
<u>Line items for equity transaction adjustments</u>		
Additional paid-in capital - arising from changes in equities of subsidiaries	<u>\$ (898)</u>	<u>\$ (898)</u>

	<u>Year Ended December 31, 2018</u>				
	<u>SENAO Not Proportionately Participating in the Capital Increase of Youth</u>	<u>SENAO Transferred its Treasury Stock</u>	<u>CHI Disposed Some Shares of CHPT</u>	<u>Chungghwa and CHI Did Not Participate in the Capital Increase of CHIEF</u>	<u>Chungghwa and CHI Disposed Some Shares of CHIEF</u>
Cash consideration received from noncontrolling interests	\$ -	\$ 327,122	\$ 1,041,689	\$ 1,476,680	\$ 132,711
The proportionate share of the carrying amount of the net assets of the subsidiary transferred to noncontrolling interests	<u>(68)</u>	<u>(272,188)</u>	<u>(330,100)</u>	<u>(699,899)</u>	<u>(18,253)</u>
Differences arising from equity transactions	<u>\$ (68)</u>	<u>\$ 54,934</u>	<u>\$ 711,589</u>	<u>\$ 776,781</u>	<u>\$ 114,458</u>
<u>Line items for equity transaction adjustments</u>					
Additional paid-in capital - difference between consideration received or paid and the carrying amount of the subsidiaries' net assets upon actual disposal or acquisition	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 711,589</u>	<u>\$ -</u>	<u>\$ 114,458</u>
Additional paid-in capital - arising from changes in equities of subsidiaries	<u>\$ (68)</u>	<u>\$ 54,934</u>	<u>\$ -</u>	<u>\$ 776,781</u>	<u>\$ -</u>
					<u>\$ 10,776</u>

#### 14. INVESTMENTS ACCOUNTED FOR USING EQUITY METHOD

Investments in associates were as follows:

	Carrying Amount	
	December 31, 2019	December 31, 2018
<u>Material associate</u>		
Next Commercial Bank Co., Ltd. (preparatory office) ("NCB")	\$ 4,074,168	\$ -
<u>Associates that are not individually material</u>		
<u>Listed</u>		
Senao Networks, Inc. ("SNIF")	953,685	919,841
KingwayTek Technology Co., Ltd. ("KWT")	253,021	-
<u>Non-listed</u>		
ST-2 Satellite Ventures Pte., Ltd. ("STS")	500,930	496,033
International Integrated System, Inc. ("IISI")	340,240	310,842
Viettel-CHT Co., Ltd. ("Viettel-CHT")	316,535	286,510
Taiwan International Standard Electronics Co., Ltd. ("TISE")	272,166	216,439
Chungghwa PCHome Fund I Co., Ltd. ("CPFI")	194,081	198,974
So-net Entertainment Taiwan Limited ("So-net")	189,396	119,956
KKBOX Taiwan Co., Ltd. ("KKBOXTW", previously known as Skysoft Co., Ltd.)	150,789	147,360
Taiwan International Ports Logistics Corporation ("TIPL")	50,979	49,650
Click Force Co., Ltd. ("CF")	37,120	37,876
UUPON Inc. ("UUPON", previously known as Dian Zuan Integrating Marketing Co., Ltd.)	10,529	16,647
Cornerstone Ventures Co., Ltd. ("CVC")	5,507	4,757
Alliance Digital Tech Co., Ltd. ("ADT")	5,080	5,080
KingwayTek Technology Co., Ltd. ("KWT")	-	134,925
MeWorks Limited (HK) ("MeWorks")	-	-
	<u>3,280,058</u>	<u>2,944,890</u>
	<u>\$ 7,354,226</u>	<u>\$ 2,944,890</u>

The percentages of ownership and voting rights in associates held by the Company as of balance sheet dates were as follows:

	% of Ownership and Voting Rights	
	December 31, 2019	December 31, 2018
<u>Material associate</u>		
Next Commercial Bank Co., Ltd. (preparatory office) ("NCB")	42	-

(Continued)

#### % of Ownership and Voting Rights

	December 31, 2019	December 31, 2018
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Associates that are not individually material

Senao Networks, Inc. ("SNIF")	34	34
KingwayTek Technology Co., Ltd. ("KWT")	23	26
ST-2 Satellite Ventures Pte., Ltd. ("STS")	38	38
International Integrated System, Inc. ("IISI")	31	32
Viettel-CHT Co., Ltd. ("Viettel-CHT")	30	30
Taiwan International Standard Electronics Co., Ltd. ("TISE")	40	40
Chungghwa PCHome Fund I Co., Ltd. ("CPFI")	50	50
So-net Entertainment Taiwan Limited ("So-net")	30	30
KKBOX Taiwan Co., Ltd. ("KKBOXTW")	30	30
Taiwan International Ports Logistics Corporation ("TIPL")	27	27
Click Force Co., Ltd. ("CF")	49	49
UUPON Inc. ("UUPON")	22	22
Cornerstone Ventures Co., Ltd. ("CVC")	49	49
Alliance Digital Tech Co., Ltd. ("ADT")	14	14
MeWorks Limited (HK) ("MeWorks")	20	20

(Concluded)

Summarized financial information of NCB (preparatory office) is set out below:

	December 31, 2019
Current assets	\$ 10,000,028
Noncurrent assets	451,897
Current liabilities	(291,399)
Noncurrent liabilities	(436,975)
Equity	<u>\$ 9,723,551</u>
The percentage of ownership held by the company	41.9%
Equity attributable to the Company and carrying amount of investment	<u>\$ 4,074,168</u>

**Period from the Beginning of Preparation to December 31, 2019**

Revenues	\$ -
Net loss for the period	\$ (276,449)
Other comprehensive income	-
Total comprehensive loss for the year	<u>\$ (276,449)</u>

Except for NCB (preparatory office), no associate is considered individually material to the Company. Summarized financial information of associates that are not individually material to the Company was as follows:

	<u>Year Ended December 31</u>	
	<u>2019</u>	<u>2018</u>
The Company's share of profits	\$ 577,972	\$ 501,600
The Company's share of other comprehensive income (loss)	<u>(3,035)</u>	<u>5,025</u>
The Company's share of total comprehensive income	<u>\$ 574,937</u>	<u>\$ 506,625</u>

The Level 1 fair values based on the closing market prices of SNI and KWT as of the balance sheet dates were as follows:

	<u>December 31</u>	<u>2018</u>
	<u>2019</u>	
SNI	<u>\$ 2,014,353</u>	<u>\$ 1,447,350</u>
KWT	<u>\$ 872,729</u>	<u>\$ -</u>

The participation of establishing NCB was approved by Chungghwa's Board of Directors in January 2019. The establishment of NCB was approved by the FSC in July 2019 and the incorporation of NCB was approved by the Ministry of Economic Affairs Department of Commerce in January 2020. Chungghwa prepaid investment funds to NCB in February and November 2019 amounted to \$4,190,000 thousand, for ownership interest of 41.99%. Chungghwa obtained 6 out of 15 seats of the Board of Directors of NCB; therefore, Chungghwa does not have control over NCB and merely has significant influence over NCB and treats it as an associate. NCB mainly engages in online banking business, which located in Taiwan.

IIISI issued new shares in March and September 2019 as its employees exercised their options; therefore, the Company's ownership interest in IIISI decreased to 31% as of December 31, 2019. The investment of 20.58% of ownership interest in IIISI was approved by Chungghwa's Board of Directors in January 2020. Upon the completion of the transaction, the Company's ownership interest in IIISI is expected to increase from 31% to 52%. Therefore, Chungghwa will gain control over IIISI and treat it as a subsidiary.

The Company disposed some shares of KWT in April 2019 before KWT traded its shares on the General Stock Market of the Taipei Exchange according to the local requirements and recognized disposal gain of \$30,152 thousand. In addition, the Company did not participate in the capital increase of KWT in May 2019 and KWT repurchased its stock in December 2019. Therefore, the Company's ownership interest in KWT decreased to 23% as of December 31, 2019.

The Company invested 50% equity shares of CPFI in October 2018. The Company has only two out of five seats of the Board of Directors of CPFI, and has no control but significant influence over CPFI. Therefore, the Company recognized CPFI as investment in associate. CPFI engages mainly in investment business.

The Company invested 49% equity shares of CVC in October 2018. The Company has only two out of five seats of the Board of Directors of CVC, and has no control but significant influence over CVC. Therefore, the Company recognized CVC as investment in associate. CVC engages mainly in investment business.

HopeTech returned the proceeds of \$19,184 thousand as a result of capital reduction in January 2018. The Company received \$3,379 thousand by disposing all shares of HopeTech in June 2018 and recognized disposal loss of \$125 thousand. HopeTech engages mainly in sale of information and communication technologies products.

The Company owns 14% equity shares of ADT. As the Company remains the seat in the Board of Directors of ADT and considers the relative size of ownership interest and the dispersion of shares owned by the other stockholders, the Company remains significant influence over ADT. In June 2018, the stockholders of ADT approved to dissolve. The liquidation of ADT is still in process.

The Company's share of profits and other comprehensive income (loss) of associates was recognized based on the audited financial statements.

**15. PROPERTY, PLANT AND EQUIPMENT**

	<u>December 31,</u>	<u>2019</u>
Assets used by the Company	\$ 276,370,003	
Assets subject to operating leases	<u>7,324,212</u>	
	<u>\$ 283,694,215</u>	

**a. Assets used by the Company - 2019**

	Land	Land Improvements	Buildings	Computer Equipment	Telecommunications Equipment	Transportation Equipment	Miscellaneous Equipment	Construction in Progress and Equipment to be Accepted	Total
Cost									
Balance on January 1, 2019	\$ 10,972,682	\$ 1,600,323	\$ 72,911,010	\$ 14,258,485	\$ 715,748,118	\$ 3,882,534	\$ 9,873,889	\$ 18,644,766	\$ 940,890,877
Effect of retrospective adjustment of depreciation of 16 months	(5,517,027)	(688)	(3,559,271)	-	(3,882,421)	-	-	-	(11,851,211)
Balance on January 1, 2019 as adjusted	5,455,655	1,599,635	69,351,739	14,258,485	711,865,697	3,882,534	9,873,889	18,644,766	929,039,666
Disposal	(17,951)	(6,630)	(3,101)	(1,919,939)	(38,472,855)	(9,0553)	(404,834)	2,161,786	(32,878,965)
Effect of foreign exchange differences	(2,14,223)	25,427	454,937	(74)	(3,272)	(10)	(127)	(6,165)	(43,907)
Other	-	-	-	665,658	24,502,724	79,313	472,738	(26,498,539)	(1,570,887)
Balance on December 31, 2019	\$ 30,102,251	\$ 1,618,431	\$ 71,253,333	\$ 13,338,551	\$ 706,092,444	\$ 3,912,294	\$ 10,090,120	\$ 11,576,127	\$ 914,533,455
Accumulated depreciation and impairment									
Balance on January 1, 2019	-	-	\$ (28,126,983)	\$ (12,143,397)	\$ 999,425,774	\$ (3,651,139)	\$ (7,291,747)	-	\$ 861,979,649
Effect of retrospective adjustment of depreciation of 16 months	-	-	-	-	-	-	-	-	-
Balance on January 1, 2019 as adjusted	-	-	-	-	-	-	-	-	-
Disposal	-	-	(28,301,783)	(1,143,130)	(58,585,643)	(9,013,939)	(7,291,747)	-	(145,336,245)
Effect of foreign exchange differences	-	-	(1,301,065)	(420,245)	(23,909,624)	(9,013,939)	(684,274)	-	(38,858,145)
Other	-	-	6,630	1,908,324	30,386,684	50,627	401,655	-	32,751,021
Impairment losses	-	-	-	-	-	-	-	-	-
Effect of foreign exchange differences	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Balance on December 31, 2019	-	-	-	-	-	-	-	-	-
Balance on January 1, 2019, net of accumulated depreciation	\$ 10,972,682	\$ 1,600,323	\$ 44,784,027	\$ 2,114,128	\$ 116,322,344	\$ 231,395	\$ 2,581,842	\$ 18,644,766	\$ 238,044,228
Balance on January 1, 2019, net of accumulated depreciation and impairment	\$ 10,354,463	\$ 262,444	\$ 42,266,002	\$ 2,114,128	\$ 115,013,154	\$ 231,395	\$ 2,581,842	\$ 18,644,766	\$ 231,670,016
Balance on December 31, 2019, net of accumulated depreciation and impairment	\$ 30,102,251	\$ 243,829	\$ 41,004,061	\$ 1,066,582	\$ 614,694,552	\$ 212,923	\$ 2,422,821	\$ 11,576,127	\$ 726,370,003

CHPT evaluated that certain miscellaneous equipment, construction in progress and equipment to be accepted used for manufacturing specific PCB will not be used in the future and there was no active market for sale; therefore, CHPT determined that the recoverable amount of such assets was nil and recognized impairment losses of \$89,207 thousand for the year ended December 31, 2019. CHSI evaluated that certain miscellaneous equipment will not be used in the future and there was no active market for sale; therefore, CHSI determined that the recoverable amount of such assets was nil and recognized impairment losses of \$3,866 thousand for the year ended December 31, 2019. The aforementioned impairment losses were included in other income and expenses of statement of comprehensive income.

Depreciation expense for assets used by the Company is computed using the straight-line method over the following estimated service lives:

Land improvements	10-30 years
Buildings	
Main buildings	20-60 years
Other building facilities	3-15 years
Computer equipment	2-8 years
Telecommunications equipment	2-30 years
Telecommunication circuits	2-30 years
Telecommunication machinery and antennas equipment	3-10 years
Miscellaneous equipment	1-9 years
Leasehold improvements	3-16 years
Mechanical and air conditioner equipment	1-15 years
Others	

b. Assets subject to operating leases - 2019

	Land	Land Improvements	Buildings	Total
Balance on January 1, 2019	\$ -	\$ -	\$ -	\$ -
Effect of retrospective application of IFRS 16	3,617,627	689	3,582,774	7,201,090
Balance on January 1, 2019 as adjusted	3,617,627	689	3,582,774	7,201,090
Additions	-	-	4,478	4,478
Transferred from (to) assets used by the Company	1,362,023	(689)	254,308	1,615,642
Balance on December 31, 2019	\$ 4,979,650	\$ -	\$ 3,841,560	\$ 8,821,210
<u>Accumulated depreciation and impairment</u>				
Balance on January 1, 2019	\$ -	\$ -	\$ -	\$ -
Effect of retrospective application of IFRS 16	-	(512)	(1,265,356)	(1,265,868)
Balance on January 1, 2019 as adjusted	-	(512)	(1,265,356)	(1,265,868)
Depreciation expenses	-	(47)	(73,996)	(74,043)
Transferred to (from) assets used by the company	-	559	(157,646)	(157,087)
Balance on December 31, 2019	\$ -	\$ -	\$ (1,496,998)	\$ (1,496,998)
Balance on January 1, 2019 as adjusted, net	\$ 3,617,627	\$ 177	\$ 2,317,418	\$ 5,935,222
Balance on December 31, 2019, net	\$ 4,979,650	\$ -	\$ 2,344,562	\$ 7,324,212

The Company leases out land and buildings with lease terms between 1 to 20 years. The lessees do not have bargain purchase options to acquire the assets at the expiry of the lease periods.

The future aggregate lease collection under operating lease for the freehold plant, property and equipment is as follows:

	<b>December 31, 2019</b>
Year 1	\$ 301,674
Year 2	272,899
Year 3	233,434
Year 4	191,128
Year 5	130,066
Onwards	<u>1,224,416</u>
	<u>\$ 2,353,617</u>

The above items of property, plant and equipment subject to operating leases are depreciated on a straight-line basis over their estimated useful lives as follows:

Land improvements	10 years
Buildings	
Main buildings	35-60 years
Other building facilities	3-15 years

c. Property, plant and equipment - 2018

Cost	Land	Land Improvements	Buildings	Computer Equipment	Telecommunication Equipment	Transportation Equipment	Miscellaneous Equipment	Construction in Progress to be Accepted	Total
Balance on January 1, 2018	\$ 104,079,190	\$ 1,594,899	\$ 72,048,048	\$ 14,141,297	\$ 722,065,035	\$ 3,334,372	\$ 9,149,873	\$ 14,526,014	\$ 846,466,152
Additions	(7,133)	(337)	20,223	52,200	158,938	23	338,441	27,428,381	29,979,446
Disposal				(643,192)	(31,983,801)	(28,259)	(62,940)		(33,308,776)
Effect of foreign exchange differences	(35,005)	576	196,260	(119)	60,483				191,128
Others				(87,738)	25,458,071	77,073	667,551	(27,294,920)	60,207
Balance on December 31, 2018	\$ 103,972,042	\$ 1,600,323	\$ 72,931,010	\$ 14,258,483	\$ 715,368,118	\$ 3,885,531	\$ 9,877,589	\$ 16,644,766	\$ 940,808,827
<u>Accumulated depreciation and impairment</u>									
Balance on January 1, 2018	\$ -	\$ (1,292,577)	\$ (26,798,694)	\$ (11,297,847)	\$ (607,154,914)	\$ (3,511,529)	\$ (7,260,011)	\$ -	\$ (657,753,522)
Depreciation expenses	-	(48,731)	(1,336,763)	(982,728)	(24,235,603)	(16,660)	(678,692)		(27,461,179)
Disposal		337	23	632,457	31,951,706	29,186	614,789		33,228,498
Effect of foreign exchange differences					(20,354)	(40)	191		(20,146)
Others				(5,205)	33,391		(2,019)		28,702
Balance on December 31, 2018	\$ -	\$ (1,337,209)	\$ (28,126,883)	\$ (12,443,307)	\$ (596,62,728)	\$ (3,651,138)	\$ (7,291,742)	\$ -	\$ (653,976,682)
Balance on January 1, 2018 net	\$ 104,079,190	\$ 302,322	\$ 45,249,354	\$ 2,843,450	\$ 114,910,121	\$ 3,308,843	\$ 2,309,862	\$ 14,526,014	\$ 288,302,210
Balance on December 31, 2018, net	\$ 103,972,042	\$ 262,619	\$ 44,784,027	\$ 21,115,178	\$ 116,322,348	\$ 231,395	\$ 2,581,847	\$ 16,644,766	\$ 388,914,228

There was no indication that property, plant and equipment was impaired so the Company did not recognize any impairment loss for the year ended December 31, 2018.

Depreciation expense is computed using the straight-line method over the following estimated service lives:

Land improvements	8-30 years
Buildings	
Main buildings	35-60 years
Other building facilities	3-20 years
Computer equipment	2-8 years

Telecommunications equipment  
 Telecommunication circuits  
 Telecommunication machinery and antennas equipment  
 Transportation equipment  
 Miscellaneous equipment  
 Leasehold improvements  
 Mechanical and air conditioner equipment  
 Others

2-30 years  
 2-30 years  
 3-10 years  
 1-6 years  
 3-16 years  
 1-10 years  
 (Concluded)

**16. LEASE ARRANGEMENTS**

a. Right-of-use Assets - 2019

Land and buildings  
 Handsets base stations  
 Others  
 Equipment

**December 31,  
 2019**

\$ 6,844,687  
 1,916,835  
2,602,727

\$ 11,364,249

**Year Ended  
 December 31,  
 2019**

\$ 3,803,042

Depreciation charge for right-of-use assets

Land and buildings  
 Handsets base stations  
 Others  
 Equipment

\$ 2,727,871  
 821,272  
 418,503

\$ 3,967,646

b. Lease liabilities - 2019

Lease liabilities  
 Current  
 Non-current

\$ 3,291,330  
6,466,808

\$ 9,758,138

Range of discount rate for lease liabilities is as follows:

**December 31,  
 2019**

Land and buildings  
 Handsets base stations  
 Others  
 Equipment

0.58%-1.18%  
 0.58%-9.00%  
 0.58%-4.50%

c. Important lease-in activities and terms - 2019

The Company mainly enters into lease-in agreements of land and buildings for handsets base stations located all over Taiwan with lease terms from 1 to 20 years. There's no clause for bargain purchase options to acquire the assets at the expiry of the lease periods in the agreement. In most lease-in agreements of handsets base station agreements, the Company is able to terminate the agreement prior to the maturity date provided that the premise the Company fails to meet the purpose to build telecommunication equipment due to legal restriction, controversial events, or other events.

The Company also leases land and buildings for the use of offices, server rooms, and stores with lease terms from 1 to 30 years. Most of the lease agreements for national land adjust the lease payment according to the changes of present values of land announced by the authority. At the expiry of the lease term, the Company does not have bargain purchase options to acquire the assets.

The lease agreements for equipment include a contract between Chunghwa and ST-2 Satellite Ventures Pte., Ltd. to lease capacity on the ST-2 satellite. The information of lease agreements with related parties, please refer to Note 36 to the consolidated financial statements for details.

d. Other lease information

2019

**Year Ended  
 December 31,  
 2019**

\$ 6,664  
 \$ 6,603  
\$ 3,825,977

Expenses relating to low-value asset leases  
 Expenses relating to variable lease payments not included in the measurement of lease liabilities  
 Total cash outflow for leases

The Company leases certain equipment which qualify as low-value asset leases. The Company has elected to apply the recognition exemption and, thus, not to recognize right-of-use assets and lease liabilities for these leases.

Lease-out arrangements under operating leases for freehold property, plant, and equipment and investment properties are set out in Notes 15 and 17 to the consolidated financial statements.

2018

The future aggregate minimum lease payments under non-cancellable operating leases are as follows:

	<b>December 31, 2018</b>
Within one year	\$ 3,439,259
Longer than one year but within five years	6,375,101
Longer than five years	<u>743,494</u>
	<u>\$ 10,557,854</u>

## 17. INVESTMENT PROPERTIES

<u>Cost</u>	
Balance on January 1, 2018	
Additions	5,627
Reclassification	<u>252,008</u>
Balance on December 31, 2018	<u>\$ 9,392,452</u>

<u>Accumulated depreciation and impairment</u>	
Balance on January 1, 2018	(1,087,024)
Depreciation expense	(20,777)
Reclassification	(16,572)
Reversal of impairment loss	<u>19,133</u>
Balance on December 31, 2018	<u>\$ (1,105,240)</u>

<u>Cost</u>	
Balance on January 1, 2019	
Additions	523
Disposal	(5,831)
Reclassification	<u>(173,165)</u>
Balance on December 31, 2019	<u>\$ 9,213,979</u>

<u>Accumulated depreciation and impairment</u>	
Balance on January 1, 2019	(1,105,240)
Depreciation expense	(25,157)
Disposal	5,831
Reclassification	23,363
Reversal of impairment loss	<u>56,617</u>
Balance on December 31, 2019	<u>\$ (1,044,586)</u>

Balance on January 1, 2019, net  
Balance on December 31, 2019, net

\$ 8,287,212  
\$ 8,169,393  
(Concluded)

After the evaluation of land and buildings, the Company concluded the recoverable amount which represented the fair value less costs to sell of some land and buildings was higher than the carrying amount. Therefore, the Company recognized reversal of impairment losses of \$56,617 thousand and \$19,133 thousand for the years ended December 31, 2019 and 2018, respectively, and the amounts were recognized only to the extent of impairment losses that had been recognized in prior years. The reversal of impairment loss was included in other income and expenses in the statements of comprehensive income.

Depreciation expense is computed using the straight-line method over the following estimated service lives:

Land improvements	10-30 years
Buildings	
Main buildings	35-60 years
Other building facilities	4-10 years

The fair values of the Company's investment properties as of December 31, 2019 and 2018 were determined by Level 3 fair value measurements inputs based on the appraisal reports conducted by independent appraisers. Those appraisal reports are based on the comparison approach, income approach or cost approach. Key assumptions and the fair values were as follows:

	<b>2019</b>	<b>2018</b>
Fair value	<u>\$ 18,701,398</u>	<u>\$ 18,514,801</u>
Overall capital interest rate	1.03%-4.04%	1.02%-4.04%
Profit margin ratio	12%-20%	12%-20%
Discount rate	-	-
Capitalization rate	0.79%-1.74%	0.79%-1.75%

All of the Company's investment properties are held under freehold interest.

2019

The future aggregate lease collection under operating lease for investment properties is as follows:

	<b>December 31, 2019</b>
Year 1	\$ 112,626
Year 2	90,701
Year 3	70,795
Year 4	61,115
Year 5	39,386
Onwards	<u>96,010</u>
	<u>\$ 470,633</u>

2018

The future aggregate minimum lease collection under non-cancellable operating leases is as follows:

	December 31, 2018
Within one year	\$ 343,981
Longer than one year but within five years	580,451
Longer than five years	<u>205,747</u>
	<u>\$ 1,130,179</u>

## 18. INTANGIBLE ASSETS

Cost	3G and 4G Concession	Computer Software	Goodwill	Others	Total
Balance on January 1, 2018	\$ 70,144,000	3,311,610	236,200	418,150	\$ 74,109,960
Additions-acquired separately	-	484,864	-	13,141	498,005
Disposal	-	(370,657)	-	(58,008)	(428,665)
Effect of foreign exchange difference	-	152	-	(80)	72
Balance on December 31, 2018	<u>\$ 70,144,000</u>	<u>3,425,969</u>	<u>236,200</u>	<u>373,203</u>	<u>\$ 74,179,372</u>
Accumulated amortization and impairment					
Balance on January 1, 2018					
Amortization expenses	\$(16,674,565)	(2,431,797)	(26,677)	(93,653)	\$(19,226,692)
Disposal	(3,957,909)	(405,898)	-	(22,991)	(4,386,798)
Impairment losses	-	370,657	-	58,008	428,665
Effect of foreign exchange difference	-	-	-	(50,750)	(50,750)
Balance on December 31, 2018	<u>\$(20,632,474)</u>	<u>(2,467,170)</u>	<u>(26,677)</u>	<u>(109,369)</u>	<u>\$(23,235,690)</u>
Balance on January 1, 2018, net	<u>\$ 53,469,435</u>	<u>879,813</u>	<u>209,523</u>	<u>324,497</u>	<u>\$ 54,883,268</u>
Balance on December 31, 2018, net	<u>\$ 49,511,526</u>	<u>958,799</u>	<u>209,523</u>	<u>263,834</u>	<u>\$ 50,943,682</u>

Cost	3G and 4G Concession	Computer Software	Goodwill	Others	Total
Balance on January 1, 2019	\$ 70,144,000	3,425,969	236,200	373,203	\$ 74,179,372
Additions-acquired separately	-	357,605	-	5,113	362,718
Disposal	(10,179,000)	(356,750)	-	(157)	(10,535,907)
Effect of foreign exchange difference	-	(117)	-	(96)	(213)
Others	-	1,902	-	-	1,902
Balance on December 31, 2019	<u>\$ 59,965,000</u>	<u>3,428,609</u>	<u>236,200</u>	<u>378,063</u>	<u>\$ 64,007,872</u>
Accumulated amortization and impairment					
Balance on January 1, 2019					
Amortization expenses	\$(20,632,474)	(2,467,170)	(26,677)	(109,369)	\$(23,235,690)
Disposal	(3,839,572)	(388,501)	-	(24,529)	(4,252,602)
Balance on December 31, 2019, net	<u>10,179,000</u>	<u>356,750</u>	<u>-</u>	<u>11</u>	<u>10,535,761</u>

(Continued)

	3G and 4G Concession	Computer Software	Goodwill	Others	Total
Impairment losses	\$ -	\$ -	\$ (8,946)	\$ -	\$ (8,946)
Effect of foreign exchange difference	-	96	-	34	130
Balance on December 31, 2019	<u>\$(14,293,046)</u>	<u>\$(2,498,825)</u>	<u>\$(35,623)</u>	<u>\$(133,853)</u>	<u>\$(16,961,347)</u>
Balance on January 1, 2019, net	<u>\$ 49,511,526</u>	<u>958,799</u>	<u>209,523</u>	<u>263,834</u>	<u>\$ 50,943,682</u>
Balance on December 31, 2019, net	<u>\$ 45,671,954</u>	<u>929,784</u>	<u>200,577</u>	<u>244,210</u>	<u>\$ 47,046,525</u>

(Concluded)

The concessions are granted and issued by the NCC. The concession fees are amortized using the straight-line method from the date operations commence through the date the license expires. The carrying amount of 3G concession fee was fully amortized in December 2018, and 4G concession fees will be fully amortized by December 2030 and December 2033.

The computer software is amortized using the straight-line method over the estimated useful lives of 1 to 10 years. Other intangible assets are amortized using the straight-line method over the estimated useful lives of 1 to 20 years. Goodwill is not amortized.

SENAO evaluated and determined that the recoverable amount of certain licensed contract was nil and recognized the impairment loss of \$50,750 thousand for the year ended December 31, 2018. The recoverable amount was based on the value in use.

SENAO evaluated the goodwill that arose in the acquisition of Youth and its subsidiaries at the end of each year. SENAO determined the smallest identifiable group of assets that generates cash inflows as single cash generating units by business type, and evaluated the recoverable amount of those cash generating units by their value in use. The management of SENAO estimated the cash flow projections based on the financial budgets for the following five years. Discount rates were 12.3% and 13.7% as of December 31, 2018 and 2019, respectively and were used to calculate the recoverable amount of related cash generating units by discounting aforementioned cash flows.

SENAO concluded the recoverable amount of the goodwill was lower than the carrying value and recognized impairment loss of \$8,946 thousand for the year ended December 31, 2019. There was no impairment loss recognized for the year ended December 31, 2018.

The aforementioned impairment losses were included in other income and expenses of statement of comprehensive income.

## 19. OTHER ASSETS

	2019	2018
Spare parts	\$ 2,336,082	\$ 2,422,060
Refundable deposits	1,879,109	1,992,206
Other financial assets	1,000,000	1,000,000
Deposit for mobile broadband license bidding	1,000,000	-
Others	<u>2,316,177</u>	<u>2,342,040</u>
	<u>\$ 8,531,368</u>	<u>\$ 7,756,306</u>

(Continued)

	<u>December 31</u>
	<u>2019</u>
Current	
Spare parts	\$ 2,336,082
Others	<u>93,582</u>
	\$ 2,429,664
Noncurrent	
Refundable deposits	\$ 1,879,109
Other financial assets	1,000,000
Deposit for mobile broadband license bidding	-
Others	<u>2,188,016</u>
	\$ 6,101,704
	<u>\$ 5,180,222</u>
	(Concluded)

For long-term business development, Chungghwa participated in the first phase of 5G mobile broadband license bidding hosted by NCC and paid the deposit for 5G spectrum bidding amounting to \$1,000,000 thousand in October 2019. Chungghwa obtained 90MHz in the 3.5GHz spectrum and 600MHz in the 28GHz spectrum for bid amounting to \$46,293,000 thousand in January 2020. In addition, Chungghwa participated in the second phase of the aforementioned license bidding for location in February 2020 for the bid of \$2,080,000 thousand. Therefore, the total bid amounted to \$48,373,000 thousand.

Other financial assets - noncurrent was Piping Fund. As part of the government's effort to upgrade the existing telecommunications infrastructure, Chungghwa and other public utility companies were required by the ROC government to contribute to a Piping Fund administered by the Taipei City Government. This fund was used to finance various telecommunications infrastructure projects. Net assets of this fund will be returned proportionately after the project is completed.

Chungghwa evaluated that certain other assets will not be used in the future and there was no active market for sale; therefore, the Company determined that the recoverable amount of such assets was nil and recognized impairment losses of \$43,971 thousand for the year ended December 31, 2019. The aforementioned impairment loss was included in other income and expenses in the statements of comprehensive income.

## 20. HEDGING FINANCIAL INSTRUMENTS

Chungghwa's hedge strategy is to enter forward exchange contracts - buy to avoid its foreign currency exposure to certain foreign currency denominated equipment payments in the following six months. In addition, Chungghwa's management considers the market condition to determine the hedge ratio and enters into forward exchange contracts with the banks to avoid the foreign currency risk.

Chungghwa signed equipment purchase contracts with suppliers and entered into forward exchange contracts to avoid foreign currency risk exposure to Euro-denominated purchase commitments. Those forward exchange contracts were designated as cash flow hedges. When forecast purchases actually take place, basis adjustments are made to the initial carrying amounts of hedged items.

For the hedges of highly probable forecast sales and purchases, as the critical terms (i.e. the notional amount, life and underlying) of the forward foreign exchange contracts and their corresponding hedged items are the same, the Company performs a qualitative assessment of effectiveness and it is expected that the value of the forward contracts and the value of the corresponding hedged items will systematically change in opposite direction in response to movements in the underlying exchange rates.

The main source of hedge ineffectiveness in these hedging relationships is the effect of credit risks of the Company and the counterparty on the fair value of the forward exchange contracts. Such credit risks do not impact the fair value of the hedged item attributable to changes in foreign exchange rates. No other sources of ineffectiveness emerged from these hedging relationships.

The following tables summarized the information relating to the hedges for foreign currency risk.

### December 31, 2019

Hedging Instruments	Currency	Notional Amount (In Thousands)	Forward Rate	Line Item in Balance Sheet	Carrying Amount Asset	Carrying Amount Liability	Change in Fair Values of Hedging Instruments Used for Calculating Hedge Ineffectiveness
Cash flow hedge							
Forecast purchases - forward exchange contracts	EUR/NTS	EUR 2,498 / NTS 84,066	\$ 33.66	Hedging financial assets (liabilities)	\$ 327	\$ -	\$ (742)

Change in Value of Hedged Item Used for Calculating Hedge Ineffectiveness	Accumulated Gain or Loss on Hedging Instruments in Other Equity	Continuing Hedges	Accounting No Longer Applied
Cash flow hedge			
Forecast purchases	\$ 742	\$ 327	\$ -

### Hedged Items

Cash flow hedge  
Forecast equipment purchases

### December 31, 2018

Hedging Instruments	Currency	Notional Amount (In Thousands)	Forward Rate	Line Item in Balance Sheet	Carrying Amount Asset	Carrying Amount Liability	Change in Fair Values of Hedging Instruments Used for Calculating Hedge Ineffectiveness
Cash flow hedge							
Forecast purchases - forward exchange contracts	EUR/NTS	EUR 4,911 / NTS 171,797	\$ 34.98	Hedging financial assets (liabilities)	\$ 1,069	\$ -	\$ 1,919

Change in Value of Hedged Item Used for Calculating Hedge Ineffectiveness	Accumulated Gain or Loss on Hedging Instruments in Other Equity	Continuing Hedges	Accounting No Longer Applied
Cash flow hedge			
Forecast purchases	\$ (1,919)	\$ 1,069	\$ -

### Hedged Items

Cash flow hedge  
Forecast equipment purchases

2019

Comprehensive Income				Reclassification from Equity to Profit or Loss and the Adjusted Line Item	
Hedge Transaction	Hedging Gain or Loss Recognized in OCI	Amount of Hedge Ineffectiveness Recognized in Profit or Loss	Line Item in Which Hedge Ineffectiveness is Included	Amount Reclassified to P/L and the Adjusted Line Item	Due to Hedged Future Cash Flows No Longer Expected to Occur
Cash flow hedge Forecast equipment purchases	\$ (742)	\$ -	-	\$ (2,026) Construction in progress and equipment to be accepted	\$ - Other gains and losses

2018

Comprehensive Income				Reclassification from Equity to Profit or Loss and the Adjusted Line Item	
Hedge Transaction	Hedging Gain or Loss Recognized in OCI	Amount of Hedge Ineffectiveness Recognized in Profit or Loss	Line Item in Which Hedge Ineffectiveness is Included	Amount Reclassified to P/L and the Adjusted Line Item	Due to Hedged Future Cash Flows No Longer Expected to Occur
Cash flow hedge Forecast equipment purchases	\$ 1,919	\$ -	-	\$ (4,030) Construction in progress and equipment to be accepted	\$ (297) Other gains and losses

21. SHORT-TERM LOANS

Unsecured loans

The annual interest rates of loans were as follows:

Unsecured loans

1.20%-2.50%      1.35%-2.35%

	2019	2018
	\$ 90,000	\$ 100,000

22. LONG-TERM LOANS (INCLUDING LONG-TERM LOANS - CURRENT PORTION)

	2019	2018
Secured loans (Note 37)	\$ 1,600,000	\$ 1,600,000

The annual interest rates of loans were as follows:

Secured loans      0.92%      0.92%

LED obtained a secured loan from Chang Hwa Bank in September 2010. Interest is paid monthly. \$300,000 thousand and \$1,350,000 thousand were originally due in December 2014 and September 2015, respectively. In October 2014, the bank borrowing mentioned above was extended to September 2018 for one time repayment. LED made an early repayment of \$50,000 thousand in April 2015. LED entered into a contract with Chang Hwa Bank to renew the contract upon the maturity of the aforementioned contract in December 2017 and the due date of the renew contract is September 2021.

23. TRADE NOTES AND ACCOUNTS PAYABLE

	2019	2018
Trade notes and accounts payable	\$ 15,312,274	\$ 20,464,792

Trade notes and accounts payable were attributable to operating activities and the trading conditions were agreed separately.

24. OTHER PAYABLES

	2019	2018
Accrued salary and compensation	\$ 9,482,606	\$ 9,040,692
Payables to contractors	1,892,188	1,709,778
Accrued compensation to employees and remuneration to directors and supervisors	1,440,573	1,738,716
Amounts collected for others	1,278,796	1,226,031
Accrued franchise fees	1,091,148	1,151,084
Accrued maintenance costs	954,761	1,049,849
Payables to equipment suppliers	295,816	1,459,246
Others	6,516,600	5,939,987
	\$ 22,952,488	\$ 23,315,383

25. PROVISIONS

	December 31		
	2019	2018	
Warranties	\$ 173,275	\$ 131,664	
Onerous contracts	66,907	19,323	
Employee benefits	59,745	51,393	
Others	<u>4,397</u>	<u>4,447</u>	
	<u>\$ 304,324</u>	<u>\$ 206,827</u>	
Current	\$ 206,942	\$ 128,200	
Noncurrent	<u>97,382</u>	<u>78,627</u>	
	<u>\$ 304,324</u>	<u>\$ 206,827</u>	
			<b>Total</b>
Balance on January 1, 2018	\$ 131,789	\$ -	\$ 179,685
Additional provisions recognized	163,901	19,323	9,180
Used / forfeited during the year	<u>(164,026)</u>	<u>-</u>	<u>(100)</u>
	<u>\$ 131,664</u>	<u>\$ 19,323</u>	<u>\$ 51,393</u>
Balance on December 31, 2018	<u>\$ 131,664</u>	<u>\$ 19,323</u>	<u>\$ 4,467</u>
	\$ 131,664	\$ 19,323	\$ 80
Additional provisions recognized	127,517	47,584	-
Used / forfeited during the year	<u>(85,906)</u>	<u>-</u>	<u>(842)</u>
	<u>\$ 173,275</u>	<u>\$ 66,907</u>	<u>\$ 59,745</u>
Balance on December 31, 2019	<u>\$ 173,275</u>	<u>\$ 66,907</u>	<u>\$ 4,397</u>

- The provision for warranties claims represents the present value of the management's best estimate of the future outflow of economic benefits that will be required under the Company's obligation for warranties in sales agreements. The estimate has been made based on the historical warranty experience.
- The provision for employee benefits represents vested long-term service compensation accrued.
- The provision for onerous contracts represents the present obligation resulting from the measurement for the unavoidable costs of meeting the Company's contractual obligations exceed the economic benefits expected to be received from the contracts.

26. RETIREMENT BENEFIT PLANS

- Defined contribution plans

The pension plan under the Labor Pension Act of ROC (the "LPA") is considered as a defined contribution plan. Based on the LPA, Chungghwa and its domestic subsidiaries make monthly contributions to employees' individual pension accounts at 6% of monthly salaries and wages. Its foreign subsidiaries would make monthly contributions based on the local pension requirements.

- Defined benefit plans

Chungghwa completed its privatization plans on August 12, 2005. Chungghwa is required to pay all accrued pension obligations including service clearance payment, lump sum payment under civil service plan, additional separation payments, etc. upon the completion of the privatization in accordance with the Statute Governing Privatization of State-owned Enterprises. After paying all pension obligations for privatization, the plan assets of Chungghwa should be transferred to the Fund for Privatization of Government-owned Enterprises (the "Privatization Fund") under the Executive Yuan. On August 7, 2006, Chungghwa transferred the remaining balance of fund to the Privatization Fund. However, according to the instructions of MOTC, Chungghwa was requested to administer the distributions to employees for pension obligations including service clearance payment, lump sum payment under civil service plan, additional separation payments, etc. upon the completion of the privatization and recognized in other current monetary assets.

Chungghwa and its subsidiaries SENAO, CHIEF, CHSI, and SHE with the pension mechanism under the Labor Standards Law are considered as defined benefit plans. These pension plans provide benefits based on an employee's length of service and average six-month salary prior to retirement. Chungghwa and its subsidiaries contribute an amount no more than 15% of salaries paid each month to their respective pension funds (the Funds), which are administered by the Labor Pension Fund Supervisory Committee (the Committee) and deposited in the names of the Committees in the Bank of Taiwan. The plan assets are held in a commingled fund which is operated and managed by the government's designated authorities; as such, the Company does not have any right to intervene in the investments of the funds. According to the Article 56 of the Labor Standards Law in the ROC, entities are required to contribute the difference in one appropriation to the Funds before the end of next March when the balance of the Funds is insufficient to pay employees who will meet the retirement eligibility criteria within next year.

The amounts included in the consolidated balance sheets arising from the Company's obligation in respect of its defined benefit plans were as follows:

	December 31	
	2019	2018
Present value of funded defined benefit obligation	\$ 41,197,226	\$ 41,396,992
Fair value of plan assets	<u>(39,819,944)</u>	<u>(39,027,144)</u>
Funded status - deficit	<u>\$ 1,377,282</u>	<u>\$ 2,369,848</u>
Net defined benefit liabilities	\$ 3,504,617	\$ 3,533,936
Net defined benefit assets	<u>(2,127,335)</u>	<u>(1,164,088)</u>
	<u>\$ 1,377,282</u>	<u>\$ 2,369,848</u>

Movements in the defined benefit obligation and the fair value of plan assets were as follows:

	Present Value of Funded Defined Benefit Obligation	Fair Value of Plan Assets	Net Defined Benefit Liabilities (Assets)
Balance on January 1, 2018	\$ 37,662,966	\$ 34,972,376	\$ 2,690,590
Current service cost	3,024,370	-	3,024,370
Interest expense / interest income	549,662	544,077	5,585
Amounts recognized in profit or loss	<u>3,574,032</u>	<u>544,077</u>	<u>3,029,955</u>

(Continued)

The Company is exposed to following risks for the defined benefits plans under the Labor Standards Law:

a. Investment risk

Under the Labor Standards Law, the rate of return on assets shall not be lower than the average interest rate on a two-year time deposit published by the local banks and the government is responsible for any shortfall in the event that the rate of return is less than the required rate of return. The plan assets are held in a commingled fund mainly invested in foreign and domestic equity and debt securities and bank deposits which is operated and managed by the government's designated authorities; as such, the Company does not have any right to intervene in the investments of the funds.

b. Interest rate risk

The decline in government bond interest rate will increase the present value of the obligation on the defined benefit plan, while the return on plan assets will increase. The net effect on the present value of the obligation on defined benefit plan is partially offset by the return on plan assets.

c. Salary risk

The calculation of the present value of defined benefit obligation is referred to the plan participants' future salary. Hence, the increase in plan participants' salary will increase the present value of the defined benefit obligation.

The most recent actuarial valuation of plan assets and the present value of the defined benefit obligation were carried out by the independent actuary.

The principal assumptions used for the purpose of the actuarial valuations were as follows:

	Measurement Date	
	2019	2018
Discount rates	0.75%	1.00%
Expected rates of salary increase	1.20%-2.00%	1.20%-2.00%

If reasonably possible changes of the respective significant actuarial assumptions occur at the end of reporting periods, while holding all other assumptions constant, the present value of the defined benefit obligation would increase (decrease) as follows:

	December 31	
	2019	2018
Discount rates		
0.5% increase	\$ (1,275,319)	\$ (1,258,429)
0.5% decrease	\$ 1,356,153	\$ 1,338,402
Expected rates of salary increase		
0.5% increase	\$ 1,448,264	\$ 1,429,623
0.5% decrease	\$ (1,374,156)	\$ (1,355,931)

	Present Value of Funded Defined Benefit Obligation	Fair Value of Plan Assets	Net Defined Benefit Liabilities (Assets)
Remeasurement on the net defined benefit liability	\$ -	\$ 875,203	\$ (875,203)
Return on plan assets (excluding amounts included in net interest)	3,446	-	3,446
Actuarial losses recognized from changes in demographic assumptions	1,273,122	-	1,273,122
Actuarial losses recognized from changes in financial assumptions	813,187	-	813,187
Actuarial losses recognized from experience adjustments	2,089,755	875,203	1,214,552
Amounts recognized in other comprehensive income	(1,738,200)	4,373,688	(4,373,688)
Contributions from employer	(191,561)	(1,738,200)	-
Benefits paid	41,396,992	39,027,144	(191,561)
Balance on December 31, 2018	2,927,021	-	2,369,848
Current service cost	400,314	390,272	2,927,021
Interest expense / interest income	3,327,335	390,272	10,042
Amounts recognized in profit or loss			2,937,063
Remeasurement on the net defined benefit liability			
Return on plan assets (excluding amounts included in net interest)	-	1,337,771	(1,337,771)
Actuarial losses recognized from changes in demographic assumptions	5,746	-	5,746
Actuarial losses recognized from changes in financial assumptions	647,236	-	647,236
Actuarial gains recognized from experience adjustments	(841,564)	-	(841,564)
Amounts recognized in other comprehensive income	(188,582)	1,337,771	(1,526,353)
Contributions from employer	(3,034,155)	2,098,912	(2,098,912)
Benefits paid	(304,364)	(3,034,155)	-
Benefits paid directly by the Company			(304,364)
Balance on December 31, 2019	\$ 41,197,226	\$ 39,819,944	\$ 1,377,282
			(Concluded)

Relevant pension costs recognized in profit and loss for defined benefit plans were as follows:

	Year Ended December 31	
	2019	2018
Operating costs	\$ 1,725,644	\$ 1,795,526
Marketing expenses	866,412	885,684
General and administrative expenses	164,255	164,252
Research and development expenses	103,156	107,494
	\$ 2,859,467	\$ 2,952,956

The sensitivity analysis presented above may not be representative of the actual change in the present value of the defined benefit obligation as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated. There is no change in the methods and assumptions used in preparing the sensitivity analysis from the previous period.

	December 31	2018
The expected contributions to the plan for the next year	\$ 2,076,027	\$ 2,236,871
The average duration of the defined benefit obligation	6.5-14 years	6.5-12.1 years

As of December 31, 2019, the Company's maturity analysis of the undiscounted benefit payments was as follows:

Year	Amount
2020	\$ 2,956,110
2021	7,260,662
2022	11,006,630
2023	12,755,858
2024 and thereafter	42,686,574
	<u>\$ 76,665,834</u>

## 27. EQUITY

### a. Share capital

#### 1) Common stocks

	2019	2018
Number of authorized shares (thousand)	<u>12,000,000</u>	<u>12,000,000</u>
Authorized shares	<u>\$ 120,000,000</u>	<u>\$ 120,000,000</u>
Number of issued and paid shares (thousand)	<u>7,757,447</u>	<u>7,757,447</u>
Issued shares	<u>\$ 77,574,465</u>	<u>\$ 77,574,465</u>

The issued common stocks of a par value at \$10 per share entitled the right to vote and receive dividends.

#### 2) Global depositary receipts

The MOTC and some stockholders sold some common stocks of Chungghwa in an international offering of securities in the form of American Depositary Shares ("ADS") (one ADS represents 10 common stocks) in July 2003, August 2005, and September 2006. The ADSs were traded on the New York Stock Exchange since July 17, 2003. As of December 31, 2019, the outstanding ADSs were 229,597 thousand common stocks, which equaled 22,960 thousand units and represented 2.96% of Chungghwa's total outstanding common stocks.

The ADS holders generally have the same rights and obligations as other common stockholders, subject to the provision of relevant laws. The exercise of such rights and obligations shall comply with the related regulations and deposit agreement, which stipulate, among other things, that ADS holders are entitled to, through deposit agents:

- Exercise their voting rights,
- Sell their ADSs, and
- Receive dividends declared and subscribe to the issuance of new shares.

#### b. Additional paid-in capital

The adjustments of additional paid-in capital for the years ended December 31, 2019 and 2018 were as follows:

	Share Premium	Movements of Additional Paid-in Capital for Associates Accounted for Equity Method	Movements of Additional Paid-in Capital Arising from Exchange of Substitutes	Difference of Consideration Received and Carrying Amount of the Substitutes, Net of Disposal	Donated Capital	Stockholders' Contributions to Privatization	Total
Balance on January 1, 2018	\$ 147,329,386	\$ 90,937	\$ 1,220,725	\$ 161,564	\$ 16,193	\$ 20,648,078	\$ 169,466,883
Unclaimed dividend	-	-	-	-	2,455	-	2,455
Change in additional paid-in capital from investments in associates accounted for using equity method	-	(1,044)	-	-	-	-	(1,044)
Partial deposit of interests in associates	-	-	-	826,047	-	-	826,047
Change in additional paid-in capital for not proportionately participating in the capital increase of subsidiaries	-	-	776,713	-	-	-	776,713
Share premium	-	-	10,776	-	-	-	10,776
Treasury stock transfer of subsidiaries	-	-	54,924	-	-	-	54,924
Balance on December 31, 2018	147,329,386	89,893	2,065,148	987,611	18,648	20,648,078	171,130,764
Change in additional paid-in capital from investments in associates accounted for using equity method	-	118,853	-	-	-	-	118,853
Share premium	-	-	(6,883)	-	-	-	(6,883)
Balance on December 31, 2019	<u>\$ 147,329,386</u>	<u>\$ 208,546</u>	<u>\$ 2,062,298</u>	<u>\$ 987,611</u>	<u>\$ 19,914</u>	<u>\$ 20,648,078</u>	<u>\$ 171,255,985</u>

Additional paid-in capital from share premium, donated capital and the difference between consideration received and the carrying amount of the subsidiaries' net assets upon disposal may be utilized to offset deficits. Furthermore, when Chungghwa has no deficit, it may be distributed in cash or capitalized, which however is limited to a certain percentage of Chungghwa's paid-in capital except the additional paid-in capital arising from unclaimed dividend can only be utilized to offset deficits.

The additional paid-in capital from movements of paid-in capital arising from changes in equities of subsidiaries may only be utilized to offset deficits.

Among additional paid-in capital from movements of investments in associates accounted for using equity method, the portion arising from the difference between consideration received and the carrying amount of the subsidiaries' net assets upon disposal may be utilized to offset deficits; furthermore, when the Company has no deficit, it may be distributed in cash or capitalized. However, other additional paid-in capital recognized in proportion of share ownership may only be utilized to offset deficits.

c. Retained earnings and dividends policy

In accordance with the Chungghwa's Articles of Incorporation, Chungghwa must pay all outstanding taxes, offset deficits in prior years and set aside a legal reserve equal to 10% of its net income before distributing a dividend or making any other distribution to stockholders, except when the accumulated amount of such legal reserve equals to Chungghwa's total issued capital, and depending on its business needs or requirements, may also set aside or reverse special reserves. No less than 50% of the remaining earnings comprising remaining balance of net income, if any, plus cumulative undistributed earnings shall be distributed as stockholders' dividends, of which cash dividends to be distributed shall not be less than 50% of the total amount of dividends to be distributed. If cash dividend to be distributed is less than \$0.10 per share, such cash dividend shall be distributed in the form of common stocks.

Chungghwa should appropriate or reverse a special reserve in accordance with Rule No. 1010012865 and Rule No. 1010047490 issued by the FSC and the directive entitled "Questions and Answers on Special Reserves Appropriated Following the Adoption of Taiwan-IFRSs". Distributions can be made out of any subsequent reversal of the debit to other equity items.

The appropriation for legal reserve shall be made until the accumulated reserve equals the aggregate par value of the outstanding capital stock of Chungghwa. This reserve can only be used to offset a deficit, or when the legal reserve has exceeded 25% of Chungghwa's paid-in capital, the excess may be transferred to capital or distributed in cash.

The appropriations of the 2018 and 2017 earnings of Chungghwa approved by the stockholders in their meetings on June 21, 2019 and June 15, 2018 were as follows:

	Appropriation of Earnings		Dividends Per Share	
	For Fiscal Year 2018	For Fiscal Year 2017	For Fiscal Year 2018	For Fiscal Year 2017
Reversal of special reserve	\$ -	\$ 5,404		
Cash dividends	34,745,603	37,204,714	\$ 4,479	\$ 4,796

The appropriations of earnings for 2019 had been proposed by Chungghwa's Board of Directors on February 26, 2020. The appropriations and dividends per share were as follows:

	Appropriation of Earnings	Dividends Per Share (NT\$)
Cash dividends	\$ 32,782,969	\$ 4,226

The appropriations of earnings for 2019 are subject to the resolution of the stockholders' meeting planned to be held on May 29, 2020. Information of the appropriation of the Chungghwa's earnings proposed by the Board of Directors and approved by the stockholders is available on the Market Observation Post System website.

d. Other adjustments

- 1) Exchange differences arising from the translation of the foreign operations

The exchange differences arising from the translation of the foreign operations from their functional currency to New Taiwan dollars were recognized as exchange differences arising from the translation of the foreign operations in other comprehensive income.

2) Unrealized gain or loss on financial assets at FVOCI

	Year Ended December 31 2019	2018
Beginning balance	\$ 538,272	\$ 883,420
Unrealized gain (loss) for the year		
Equity instruments	298,326	(345,148)
Ending balance	\$ 836,598	\$ 538,272

e. Noncontrolling interests

	Year Ended December 31 2019	2018
Beginning balance	\$ 10,009,948	\$ 8,693,650
Effect of retrospective application	(19,603)	-
Beginning balance as adjusted	9,990,345	8,693,650
Shares attributed to noncontrolling interests		
Net income for the year	975,397	954,549
Exchange differences arising from the translation of the net investment in foreign operations	7,753	(3,177)
Unrealized gain or loss on financial assets at FVOCI	(11,918)	(1,182)
Remeasurements of defined benefit pension plans	14,340	(9,306)
Income tax relating to remeasurements of defined benefit pension plans	(2,874)	3,396
Share of other comprehensive income (loss) of associates accounted for using equity method	(1,325)	696
Cash dividends distributed by subsidiaries	(709,817)	(958,446)
Changes in additional paid-in capital from investments in associates accounted for using equity method	1,064	191
Partial disposal of interests in subsidiaries	-	348,353
Share-based payment transactions of subsidiaries	21,320	41,863
Change in additional paid-in capital for not proportionately participating in the capital increase of subsidiaries	-	699,967
Net increase (decrease) in noncontrolling interests	(763)	239,394
Ending balance	\$ 10,283,522	\$ 10,009,948

28. REVENUES

	Year Ended December 31 2019	2018
Revenue from contracts with customers	\$ 206,359,673	\$ 214,460,894
Other revenues		
Rental income	817,553	640,312
Other	342,835	381,952
	1,160,388	1,022,264
	\$ 207,520,061	\$ 215,483,158

The information of performance obligations in customer contracts, please refer to Note 3 Summary of Significant Accounting Policies for details.

a. Disaggregation of revenue

2019

	Domestic Fixed Communications Business	Mobile Communications Business	Internet Business	International Fixed Communications Business	Others	Total
<b>Main Products and Service Revenues</b>						
Mobile services revenue	\$ -	\$ 58,703,003	\$ -	\$ -	\$ -	\$ 58,703,003
Sales of products	1,957,460	35,545,256	40,873	264,949	3,784,586	41,593,124
Local telephone and domestic long distance telephone services revenue	27,929,263	-	-	-	-	27,929,263
Broadband access and domestic leased line services revenue	22,115,908	-	-	-	-	22,115,908
Data Communications internet services revenue	-	-	21,002,699	-	-	21,002,699
International network and leased telephone services revenue	-	-	8,789,724	7,066,361	-	15,856,085
Others	13,065,460	1,141,584	-	4,143,885	810,583	19,161,512
	<u>\$ 55,966,100</u>	<u>\$ 95,389,843</u>	<u>\$ 29,833,366</u>	<u>\$ 11,475,195</u>	<u>\$ 4,595,169</u>	<u>\$ 206,319,673</u>

2018

	Domestic Fixed Communications Business	Mobile Communications Business	Internet Business	International Fixed Communications Business	Others	Total
<b>Main Products and Service Revenues</b>						
Mobile services revenue	\$ -	\$ 63,905,960	\$ -	\$ 251,437	\$ -	\$ 63,905,960
Sales of products	1,731,152	35,701,599	3,993	-	3,600,582	41,286,763
Local telephone and domestic long distance telephone services revenue	29,995,695	-	-	-	-	29,995,695
Broadband access and domestic leased line services revenue	22,453,133	-	-	-	-	22,453,133
Data Communications internet services revenue	-	-	21,137,189	-	-	21,137,189
International network and leased telephone services revenue	-	-	8,509,272	8,724,302	-	17,233,574
Others	11,922,601	1,269,587	-	4,448,211	806,181	17,446,569
	<u>\$ 66,022,581</u>	<u>\$ 100,877,146</u>	<u>\$ 29,650,454</u>	<u>\$ 13,423,950</u>	<u>\$ 4,406,763</u>	<u>\$ 214,460,894</u>

b. Contract balances

	2019	December 31 2018
<b>Trade notes and accounts receivable (Note 9)</b>		
Contract assets	\$ 26,407,783	\$ 30,075,503
Products and service bundling	\$ 6,942,974	\$ 7,122,875
Other	115,993	108,581
Less: Loss allowance	(16,858)	(18,770)
	<u>\$ 7,042,109</u>	<u>\$ 7,212,686</u>
Current	\$ 4,441,196	\$ 4,868,728
Noncurrent	2,600,913	2,343,958
	<u>\$ 7,042,109</u>	<u>\$ 7,212,686</u>

(Continued)

December 31 2018

	2019	December 31 2018
<b>Contract liabilities</b>		
Telecommunications business	\$ 12,771,621	\$ 8,193,215
Project business	10,360,428	4,508,200
Products and service bundling	38,570	105,559
Others	510,696	475,947
	<u>\$ 23,681,315</u>	<u>\$ 13,282,921</u>
Current	\$ 16,839,830	\$ 10,687,772
Noncurrent	6,841,485	2,595,149
	<u>\$ 23,681,315</u>	<u>\$ 13,282,921</u>

The changes in the contract asset and the contract liability balances primarily result from the timing difference between the satisfaction of performance obligations and the payments collected from customers. Significant changes of contract assets and liabilities recognized resulting from product and service bundling were as follows:

	Year Ended December 31 2019	2018
<b>Contract assets</b>		
Net increase of customer contracts	\$ 6,066,406	\$ 4,125,505
Reclassified to trade receivables	(6,405,198)	(7,551,886)
	<u>\$ (338,792)</u>	<u>\$ (3,406,381)</u>
<b>Contract liabilities</b>		
Net increase of customer contracts	\$ 21,844	\$ 16,243
Recognized as revenues	(88,832)	(194,384)
	<u>\$ (66,989)</u>	<u>\$ (178,141)</u>

The Company applies the simplified approach to providing for expected credit losses prescribed by IFRS 9, which permits the use of lifetime expected loss provision for receivables. Contract assets will be reclassified to trade receivables when the corresponding invoice is billed to the client. Contract assets have substantially the same risk characteristics as the trade receivables of the same types of contracts. Therefore, the Company concluded that the expected loss rates for trade receivables can be applied to the contract assets.

Revenue recognized for the period that was included in the contract liability at the beginning of the period was as follows:

	Year Ended December 31 2019	2018
Telecommunications business	\$ 6,185,997	\$ 7,156,712
Project business	3,973,559	626,860
Others	403,921	324,892
	<u>\$ 10,563,477</u>	<u>\$ 8,108,464</u>

	<u>December 31</u>	
	<u>2019</u>	<u>2018</u>
b. Other income		
Dividend income	\$ 296,360	\$ 395,593
Rental income	84,870	70,142
Others	<u>150,394</u>	<u>234,088</u>
	<u>\$ 531,624</u>	<u>\$ 699,823</u>
c. Other gains and losses		
Foreign currency exchange gain, net	\$ 15,823	\$ 37,348
Gain (loss) on disposal of investments accounted for using equity method	30,152	(125)
Gain on disposal of financial instruments	3,944	5,763
Valuation loss on financial assets and liabilities at fair value through profit or loss, net	(38,314)	(20,763)
Others	<u>(48,076)</u>	<u>(67,894)</u>
	<u>\$ (36,471)</u>	<u>\$ (45,671)</u>
d. Interest expenses		
Interest on lease liabilities	\$ 84,918	\$ -
Other interest expenses	<u>19,224</u>	<u>17,596</u>
	<u>\$ 104,142</u>	<u>\$ 17,596</u>
e. Impairment loss (reversal of impairment loss)		
Contract assets	\$ (1,912)	\$ 18,770
Trade notes and accounts receivable	<u>(53,952)</u>	<u>804,727</u>
Other receivables	<u>(69,247)</u>	<u>96,235</u>
Inventories	<u>474,709</u>	<u>365,123</u>
Property, plant and equipment	<u>93,073</u>	<u>-</u>
Investment properties	<u>(56,617)</u>	<u>(19,133)</u>
Intangible assets	<u>8,946</u>	<u>50,750</u>
Other assets	<u>43,971</u>	<u>-</u>

	<u>December 31</u>	
	<u>2019</u>	<u>2018</u>
c. Incremental costs of obtaining contracts		
Noncurrent		
Incremental costs of obtaining contracts	\$ 942,652	\$ 1,335,030

The Company considered the past experience and the default clauses in the telecommunications service contract and believes the commissions and equipment subsidy paid for obtaining contracts are expected to be recoverable; therefore, incremental costs of obtaining contracts are recognized as an asset. Amortization expense of incremental costs of obtaining contracts for the years ended December 31, 2019 and 2018 were \$1,173,492 thousand and \$1,941,124 thousand, respectively.

	<u>December 31</u>	
	<u>2019</u>	<u>2018</u>
d. Remaining Performance Obligations		
As of December 31, 2019, the aggregate amount of transaction price allocated to performance obligations for non-cancellable telecommunications service contracts that are unsatisfied is \$35,633,568 thousand. The Company recognizes revenue when service is provided over contract terms. The Company expects to recognize such revenue of \$20,336,233 thousand, \$11,970,383 thousand and \$3,326,952 thousand in 2020, 2021 and 2022, respectively. The variable consideration collected from customers on nonrecurring basis resulting from exceeded usage from monthly fee and revenue recognized for contracts that the Company has a right to consideration from customers in the amount corresponding directly with the value to the customers of the Company's performance completed to date have been excluded from the disclosure of remaining performance obligations.		

As of December 31, 2019, the aggregate amount of transaction price allocated to performance obligations for non-cancellable project business contracts that are unsatisfied is \$23,158,615 thousand. The Company recognizes revenues when the project business contract is completed and accepted by customers. The Company expects to recognize such revenue of \$14,182,796 thousand, \$5,372,471 thousand and \$3,603,348 thousand in 2020, 2021 and 2022, respectively. Project business contracts whose expected duration are less than a year have been excluded from the aforementioned disclosure.

## 29. NET INCOME

	<u>December 31</u>	
	<u>2019</u>	<u>2018</u>
a. Other income and expenses		
Gain (loss) on disposal of property, plant and equipment	\$ (37,785)	\$ 142,068
Impairment loss on property, plant and equipment	(93,073)	-
Reversal of impairment loss on investment properties	56,617	19,133
Loss on disposal of intangible assets	(146)	-
Impairment loss on intangible assets	(8,946)	(50,750)
Impairment loss on other assets	<u>(43,971)</u>	<u>-</u>
	<u>\$ (127,304)</u>	<u>\$ 110,451</u>

f. Depreciation and amortization expenses

	Year Ended December 31 2019	2018
Property, plant and equipment	\$ 26,930,188	\$ 27,461,179
Right-of-use assets	3,967,646	-
Investment properties	25,157	20,777
Intangible assets	4,252,602	4,386,798
Incremental costs of obtaining contracts	1,173,492	1,941,124
<b>Total depreciation and amortization expenses</b>	<b>\$ 36,349,085</b>	<b>\$ 33,809,878</b>
Depreciation expenses summarized by functions		
Operating costs	\$ 28,956,751	\$ 25,996,087
Operating expenses	1,966,240	1,485,869
	<u>\$ 30,922,991</u>	<u>\$ 27,481,956</u>
Amortization expenses summarized by functions		
Operating costs	\$ 5,196,298	\$ 6,085,039
Marketing expenses	96,477	113,253
General and administrative expenses	94,487	93,239
Research and development expenses	38,832	36,391
	<u>\$ 5,426,094</u>	<u>\$ 6,327,922</u>

g. Employee benefit expenses

	Year Ended December 31 2019	2018
Post-employment benefit		
Defined contribution plans	\$ 654,449	\$ 639,670
Defined benefit plans	2,859,467	2,952,956
	<u>3,513,916</u>	<u>3,592,626</u>
Share-based payment	1,597	17,302
Equity-settled share-based payment		
Other employee benefit		
Salaries	25,463,967	26,203,747
Insurance	2,746,088	2,739,782
Others	14,429,853	14,470,194
	<u>42,639,908</u>	<u>43,413,723</u>
<b>Total employee benefit expenses</b>	<b>\$ 46,155,421</b>	<b>\$ 47,023,651</b>
Summary by functions		
Operating costs	\$ 23,586,735	\$ 24,366,935
Operating expenses	22,568,686	22,656,716
	<u>\$ 46,155,421</u>	<u>\$ 47,023,651</u>

Chunghwa distributes employees' compensation at the rates from 1.7% to 4.3% and remuneration to directors not higher than 0.17%, respectively, of pre-tax income. As of December 31, 2019, the payables of the employees' compensation and the remuneration to directors were \$1,126,194 thousand and \$3,210 thousand, respectively. Such amounts have been approved by the Chunghwa's Board of Directors on February 26, 2020 and will be reported to the stockholders in their meeting planned to be held on May 29, 2020.

If there is a change in the proposed amounts after the annual financial statements are authorized for issue, the differences are recorded as a change in accounting estimate.

The compensation to the employees and remuneration to the directors of 2018 and 2017 approved by the Board of Directors on March 19, 2019 and March 13, 2018, respectively, were as follows:

	2018	2017
	Cash	Cash
Compensation distributed to the employees	\$ 1,404,264	\$ 1,596,012
Remuneration paid to the directors	38,216	40,750

There was no difference between the initial accrual amounts and the amounts proposed in the Board of Directors in 2019 and 2018 of the aforementioned compensation to employees and the remuneration to directors.

Information of the appropriation of Chunghwa's employees compensation and remuneration to directors and those approved by the Board of Directors is available on the Market Observation Post System website.

30. INCOME TAX

a. Income tax recognized in profit or loss

The major components of income tax expense were as follows:

	Year Ended December 31 2019	2018
Current tax		
Current tax expenses recognized for the year	\$ 8,109,261	\$ 8,271,026
Income tax on unappropriated earnings	19,523	47,528
Income tax adjustments on prior years	(90,531)	6,782
Others	11,574	7,368
	<u>8,049,827</u>	<u>8,332,704</u>
Deferred tax		
Deferred tax expenses recognized for the year	(63,119)	208,252
Income tax adjustments on prior years	(859)	19,229
Change in tax rate	-	(37,652)
	<u>(63,978)</u>	<u>189,829</u>
<b>Income tax expense recognized in profit or loss</b>	<b>\$ 7,985,849</b>	<b>\$ 8,522,533</b>

Reconciliation of accounting profit and income tax expense was as follows:

	Year Ended December 31 2019	December 31 2018
Income before income tax	\$ 41,749,792	\$ 44,978,704
Income tax expense calculated at the statutory rate	\$ 8,349,958	\$ 8,995,741
Nondeductible income and expenses in determining taxable income	17,616	226,727
Unrecognized deductible temporary differences	3,243	755
Unrecognized loss carryforwards	7,221	21,240
Tax-exempt income	(125,004)	(578,412)
Additional income tax under Alternative Minimum Tax Act	-	45,827
Income tax on unappropriated earnings	19,523	47,528
Investment credits	(202,921)	(204,223)
Change in tax rate	-	(37,652)
Effect of different tax rates of group entities operating in other jurisdictions	(8,981)	(14,967)
Income tax adjustments on prior years	(91,390)	26,011
Others	16,584	(6,042)
Income tax expense recognized in profit or loss	\$ 7,985,849	\$ 8,522,533

Income Tax Act in the ROC was amended in February 2018 and the corporate income tax rate is adjusted from 17% to 20%. Such amendment is effective from 2018. In addition, the rate of the corporate surtax applicable to 2018 unappropriated earnings is reduced from 10% to 5%. The applicable tax rate used by subsidiaries in China is 25%, and tax rates used by other entities in the Company operating in other jurisdictions are based on the tax laws in those jurisdictions.

In July 2019, the President of the ROC announced the amendments to Article 23-3 of the Statute of Industrial Innovation, which stipulate that the unappropriated earnings in 2018 and thereafter that are reinvested in certain assets or technologies are allowed as deduction when computing the income tax on unappropriated earnings. Chungghwa has deducted the reinvested capital expenditure from the 2018 unappropriated earnings while calculating income tax on unappropriated earnings in 2019.

b. Income tax recognized in other comprehensive income

	Year Ended December 31 2019	December 31 2018
Deferred tax	\$ 305,271	\$ (242,911)
Remeasurement on defined benefit plan	-	(207,255)
Change in tax rate	-	-
Total income tax expense (benefit) recognized in other comprehensive income	\$ 305,271	\$ (450,166)

c. Current tax assets and liabilities

	2019	December 31 2018
Current tax assets	\$ 897	\$ 466
Tax refund receivable (included in other current assets - other)	-	-
Current tax liabilities	-	-
Income tax payable	\$ 4,020,670	\$ 4,390,202

d. Deferred income tax assets and liabilities

The movements of deferred income tax assets and liabilities were as follows:

	January 1, 2019	Adjustments Arising from Application of IFRS 16	Recognized in Profit or Loss	Recognized in Other Comprehensive Income	December 31, 2019
<u>For the year ended December 31, 2019</u>					
<u>Deferred income tax assets</u>					
Temporary differences	\$ 2,307,057	-	\$ 32,475	\$ (305,175)	\$ 2,034,357
Defined benefit obligation	435,445	-	(31,733)	-	403,712
Allowance for doubtful receivables over quota	389,379	-	12,680	-	402,059
Share of profit or loss of associates accounted for using equity method	87,474	-	53,364	-	140,838
Valuation loss on inventory	110,929	-	(13,472)	-	97,457
Deferred revenue	25,989	-	8,472	-	34,461
Estimated warranty liabilities	93,456	-	(75,577)	-	17,879
Impairment loss on property, plant and equipment	13,912	-	3,406	-	17,318
Accrued award credits liabilities	430	-	2,593	-	3,023
Unrealized foreign exchange loss, net	1,998	-	(45)	-	1,953
Property, plant and equipment	10,335	-	(9,693)	-	642
Trade-in right	36,510	-	14,438	-	76,536
Others	3,512,914	25,588	(3,092)	-	3,230,235
Loss carryforwards	40,942	-	(12,570)	-	28,372
	\$ 3,553,856	\$ 25,588	\$ (15,662)	\$ (305,175)	\$ 3,258,607

Deferred income tax liabilities

Temporary differences	\$ 1,832,669	-	\$ (74,654)	\$ 96	\$ 1,758,131
Defined benefit obligation	94,986	-	-	-	94,986
Land value incremental tax	32,028	-	(2,515)	-	29,513
Intangible assets	30,690	-	(2,147)	-	28,543
Deferred revenue for award credits	599	-	480	-	1,079
Unrealized foreign exchange gain, net	53	-	(1)	-	52
Valuation gain or loss on financial instruments, net	818	6	(823)	-	1
Others	\$ 1,991,843	\$ 6	\$ (79,640)	\$ 96	\$ 1,912,305

e. Deductible temporary differences and unused loss carryforwards for which no deferred tax assets have been recognized in the consolidated balance sheets

	2019	December 31 2018
Loss carryforwards		
Expire in 2020	\$ 22,515	\$ 41,390
Expire in 2021	12,406	11,836
Expire in 2022	10,264	10,264
Expire in 2023	8,251	8,459
Expire in 2024	8,189	1,631
Expire in 2025	15,438	15,438
Expire in 2026	8,423	8,423
Expire in 2027	2,585	2,585
Expire in 2028	930	614
Expire in 2029	293	-
	<u>\$ 89,294</u>	<u>\$ 100,640</u>
Deductible temporary differences	<u>\$ 813</u>	<u>\$ 1,369</u>

f. Information about unused loss carryforwards

As of December 31, 2019, information about loss carryforwards was as follows:

Remaining Creditable Amount	Expiry Year
\$ 22,515	2020
19,468	2021
11,391	2022
8,923	2023
8,372	2024
25,668	2025
11,636	2026
3,503	2027
4,556	2028
<u>1,634</u>	2029
	<u>\$ 117,666</u>

g. Income tax examinations

Income tax returns of Chungghwa, CHSI, CHST, SENAO, CHIEF, CHI, CHPT, LED, Unigate, CLPT, SFD, SHE, ISPOT, Youth, Youyi, SENYOUNG, Aval and HHI have been examined by the tax authorities through 2017. Income tax returns of CHYP and CHTSC have been examined by the tax authorities through 2018.

For the year ended December 31, 2018

	January 1, 2018	Recognized in Profit or Loss	Recognized in Other Comprehensive Income	December 31, 2018
<u>Deferred income tax assets</u>				
Temporary differences				
Defined benefit obligation	\$ 1,723,130	\$ 133,748	\$ 450,179	\$ 2,307,057
Allowance for doubtful receivables over quota	289,043	146,402	-	435,445
Share of profit or loss of associates accounted for using equity method	330,705	58,674	-	389,379
Valuation loss on inventory	22,905	64,569	-	87,474
Deferred revenue	105,742	5,187	-	110,929
Estimated warranty liabilities	22,389	3,600	-	25,989
Impairment loss on property, plant and equipment	112,323	(18,867)	-	93,456
Accrued award credits	15,387	(1,475)	-	13,912
Unrealized foreign exchange loss, net	16,663	(16,233)	-	430
Property, plant and equipment	1,762	236	-	1,998
Trade-in right	14,887	(4,552)	-	10,335
Others	29,547	6,963	-	36,510
	<u>2,684,483</u>	<u>378,252</u>	<u>450,179</u>	<u>3,512,914</u>
Loss carryforwards	<u>45,610</u>	<u>(4,668)</u>	<u>-</u>	<u>40,942</u>
	<u>\$ 2,730,093</u>	<u>\$ 373,584</u>	<u>\$ 450,179</u>	<u>\$ 3,553,856</u>
<u>Deferred income tax liabilities</u>				
Temporary differences				
Defined benefit obligation	\$ 1,265,380	\$ 567,276	\$ 13	\$ 1,832,669
Land value incremental tax	94,986	-	-	94,986
Intangible assets	38,111	(6,083)	-	32,028
Deferred revenue for award credits	28,810	1,880	-	30,690
Unrealized foreign exchange gain, net	134	465	-	599
Valuation gain or loss on financial instruments, net	-	53	-	53
Others	996	(178)	-	818
	<u>\$ 1,428,417</u>	<u>\$ 563,413</u>	<u>\$ 13</u>	<u>\$ 1,991,843</u>

### 31. EARNINGS PER SHARE ("EPS")

Net income and weighted average number of common stocks used in the calculation of earnings per share were as follows:

	<u>Year Ended December 31</u>	<u>2018</u>
<b>Net Income</b>		
Net income used to compute the basic earnings per share	\$ 32,788,546	\$ 35,501,622
Net income attributable to the parent	<u>(3,617)</u>	<u>(6,332)</u>
Assumed conversion of all dilutive potential common stocks	\$ 32,784,929	\$ 35,495,289
Employee stock options and employee compensation of subsidiaries		
Net income used to compute the diluted earnings per share		
<b>Weighted Average Number of Common Stocks</b>		
	<u>(Thousand Shares)</u>	
	<u>Year Ended December 31</u>	<u>2018</u>
Weighted average number of common stocks used to compute the basic earnings per share	7,757,447	7,757,447
Assumed conversion of all dilutive potential common stocks	<u>7,862</u>	<u>9,062</u>
Employee compensation		
Weighted average number of common stocks used to compute the diluted earnings per share	<u>7,765,309</u>	<u>7,766,509</u>

Because Chunghwa may settle the employee compensation in shares or cash, Chunghwa shall presume that it will be settled in shares and takes those shares into consideration when calculating the weighted average number of outstanding shares used in the calculation of diluted EPS if the shares have a dilutive effect. The dilutive effect of the shares needs to be considered until the approval of the number of shares to be distributed to employees as compensation in the following year.

### 32. SHARE-BASED PAYMENT ARRANGEMENT

a. SENAO share-based compensation plan ("SENAO Plan") described as follows:

<b>Effective Date for Plan Registration</b>	<b>Resolution Date by SENAO's Board of Directors</b>	<b>Stock Options Units (Thousand)</b>	<b>Exercise Price (NT\$)</b>
2012.05.28	2013.04.29	10,000	\$66.20 (Original price \$93.00)

Each option is eligible to subscribe for one common share when exercisable. Under the terms of the SENAO Plan, the options are granted at an exercise price equal to the closing price of the SENAO's common stocks listed on the TSE on the higher of closing price or par value. The SENAO Plan have exercise price adjustment formula upon the changes in common stocks equity (including cash capital increase, new share issue through capitalization of earnings and additional paid-in capital, merger,

spin off and new share issue for Global Depository Shares, and so on) or distribution of cash dividends. The options of SENAO Plan are valid for six years and the graded vesting schedule for which 50% of option granted will vest two years after the grant date and another two tranches of 25%, each will vest three and four years after the grant date respectively.

No compensation cost of stock options granted on May 7, 2013 was recognized for the years ended December 31, 2018 and 2019.

SENAO modified the plan terms of the outstanding stock options in July 2018 and the exercise price changed from \$70.70 to \$66.20 per share. The modification did not cause any incremental fair value granted.

Information about SENAO's outstanding stock options for the years ended December 31, 2019 and 2018 was as follows:

	<u>Year Ended December 31</u>	
	<u>2019</u>	<u>2018</u>
	<u>Granted on May 7, 2013</u>	<u>Granted on May 7, 2013</u>
	<u>Number of Options (Thousand)</u>	<u>Weighted Average Exercise Price (NT\$)</u>
<u>Employee stock options</u>		
Options outstanding at beginning of the year	5,318	\$ 66.20
Options forfeited	<u>(5,318)</u>	<u>-</u>
Options outstanding at end of the year	<u>-</u>	<u>-</u>
Options exercisable at end of the year	<u>-</u>	<u>66.20</u>
	<u>Number of Options (Thousand)</u>	<u>Weighted Average Exercise Price (NT\$)</u>
	5,926	\$ 70.70
	<u>(608)</u>	<u>-</u>

As of December 31, 2019, there was no outstanding stock options.

As of December 31, 2018, information about employee stock options outstanding was as follows:

	<u>Options Outstanding</u>		<u>Options Exercisable</u>	
	<u>Number of Options (Thousand)</u>	<u>Weighted Average Remaining Contractual Life (Years)</u>	<u>Weighted Average Exercise Price (NT\$)</u>	<u>Number of Options (Thousand)</u>
Range of Exercise Price (NT\$)	5,318	0.35	\$ 66.20	5,318
\$ 66.20	5,318	0.35	\$ 66.20	\$ 66.20

SENAO used the fair value method to evaluate the options using the Black-Scholes model and the related assumptions and the fair value of the options were as follows:

	<b>Stock Options Granted on May 7, 2013</b>
Grant-date share price (NT\$)	\$93.00
Exercise price (NT\$)	\$93.00
Dividends yield	-
Risk-free interest rate	0.91%
Expected life	4.375 years
Expected volatility	36.22%
Weighted average fair value of grants (NT\$)	\$28.72

Expected volatility was based on the historical share price volatility of SENAO over the period equal to the expected life of SENAO Plan.

b. SENAO transferred the treasury stock

The Board of Directors of SENAO resolved to transfer treasury stock 6,658 thousand shares to specific employees in April 2018. The aforementioned treasury stock transferred to employees were measured at the fair value on the grant date. The compensation cost of \$15,564 thousand was recognized for the year ended December 31, 2018.

SENAO used the fair value method to evaluate share-based payment transaction using the Black-Scholes model and the related assumptions and the fair value of the option were as follows:

	<b>Stock Options Granted on May 7, 2018</b>
Grant-date share price (NT\$)	\$51.60
Exercise price (NT\$)	\$49.28
Dividends yield	-
Risk-free interest rate	0.59%
Expected life	18 days
Expected volatility	8.78%
Weighted average fair value of grants (NT\$)	\$2.34

Expected volatility was based on the historical share price volatility of SENAO over three months before the grant date.

c. CHIEF share-based compensation plan ("CHIEF Plan") described as follows:

<b>Effective Date for Plan Registration</b>	<b>Resolution Date by CHIEF's Board of Directors</b>	<b>Stock Options Units</b>	<b>Exercise Price (NT\$)</b>
2017.12.18	2017.12.19	950.00	\$ 135.60 (Original price \$ 147.00)
	2018.10.31	50.00	\$ 141.70 (Original price \$ 147.00)
2015.11.17	2015.10.22	2,000.00	\$ 34.40 (Original price \$ 43.00)

Each option is eligible to subscribe for one thousand common stocks when exercisable. The options are granted to specific employees that meet the vesting conditions. The CHIEF Plan has exercise price adjustment formula upon the changes in common stocks or distribution of cash dividends. The options of CHIEF Plan are valid for five years and the graded vesting schedule will vest two years after the grant date.

The compensation cost for stock options granted on October 31, 2018, were \$552 thousand and \$92 thousand for the years ended December 31, 2019 and 2018, respectively.

The compensation costs for stock options granted on December 19, 2017 were \$582 thousand and \$596 thousand for the years ended December 31, 2019 and 2018, respectively.

The compensation costs for stock options granted on October 22, 2015 were \$272 thousand and \$1,050 thousand for the years ended December 31, 2019 and 2018, respectively.

CHIEF modified the plan terms of stock options granted on October 31, 2018 in June 2019 and the exercise price changed from \$147.00 to \$141.70 per share. The modification did not cause any incremental fair value granted.

CHIEF modified the plan terms of stock options granted on December 19, 2017 in June 2019 and the exercise price changed from \$140.60 to \$135.60 per share. The modification did not cause any incremental fair value granted.

CHIEF modified the plan terms of stock options granted on December 19, 2017 in June and August 2018 and the exercise price changed from \$147.00 to \$144.10 and \$140.60 per share, respectively. The modification did not cause any incremental fair value granted.

Information about CHIEF's outstanding stock options for the years ended December 31, 2019 and 2018 was as follows:

	<b>Year-Ended December 31, 2019</b>					
	<b>Granted on October 31, 2018</b>	<b>Granted on December 19, 2017</b>	<b>Granted on October 22, 2015</b>	<b>Weighted Average Exercise Price (NT\$)</b>	<b>Number of Options</b>	<b>Weighted Average Exercise Price (NT\$)</b>
<u>Employee stock options</u>						
Options outstanding at beginning of the year	50.00	\$ 147.00	925.00	\$ 140.60	882.75	\$ 34.40
Options exercised	-	-	-	-	(547.25)	34.40
Options forfeited	(4.00)	-	(28.00)	-	(21.25)	-
	<u>46.00</u>	<u>141.70</u>	<u>897.00</u>	<u>135.60</u>	<u>314.25</u>	<u>34.40</u>
Options exercisable at end of the year	<u>-</u>	<u>-</u>	<u>448.50</u>	<u>135.60</u>	<u>314.25</u>	<u>34.40</u>

As of December 31, 2018, information about employee stock options outstanding was as follows:

	Year Ended December 31, 2018		Granted on October 22, 2015	
	Granted on October 31, 2018	Granted on December 19, 2017	Weighted Average Exercise Price (NT\$)	Weighted Average Exercise Price (NT\$)
Options outstanding at beginning of the year	-	950.00	\$ 147.00	1,936.00
Options granted	50.00	-	-	-
Options exercised	-	-	-	(1,027.25)
Options forfeited	-	(25.00)	-	(26.00)
Options outstanding at end of the year	<u>50.00</u>	<u>925.00</u>	<u>140.60</u>	<u>882.75</u>
Options exercisable at end of the year	<u>-</u>	<u>-</u>	<u>-</u>	<u>416.50</u>

As of December 31, 2019, information about employee stock options outstanding was as follows:

	Granted on October 31, 2018		Options Exercisable	
	Options Outstanding	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price (NT\$)	Weighted Average Exercise Price (NT\$)
Range of Exercise Price (NT\$)	46.00	3.83	\$141.70	\$ -
Number of Options	46.00	3.83	\$141.70	-
Weighted Average Exercise Price (NT\$)				\$ -
Granted on December 19, 2017		Options Exercisable		
Options Outstanding	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price (NT\$)	Weighted Average Exercise Price (NT\$)	
Range of Exercise Price (NT\$)	897.00	2.96	\$135.60	\$135.60
Number of Options	897.00	2.96	\$135.60	448.50
Weighted Average Exercise Price (NT\$)				
Granted on October 22, 2015		Options Exercisable		
Options Outstanding	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price (NT\$)	Weighted Average Exercise Price (NT\$)	
Range of Exercise Price (NT\$)	314.25	0.81	\$ 34.40	\$ 34.40
Number of Options	314.25	0.81	\$ 34.40	314.25
Weighted Average Exercise Price (NT\$)				

#### Employee stock options

Options outstanding at beginning of the year

Options granted	50.00	147.00	-	-	34.40
Options exercised	-	-	-	(1,027.25)	-
Options forfeited	-	(25.00)	-	(26.00)	-

Options outstanding at end of the year

Options exercisable at end of the year	<u>50.00</u>	<u>147.00</u>	<u>140.60</u>	<u>882.75</u>	<u>34.40</u>
	<u>-</u>	<u>-</u>	<u>-</u>	<u>416.50</u>	<u>34.40</u>

	Options Outstanding		Options Exercisable	
	Number of Options	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price (NT\$)	Weighted Average Exercise Price (NT\$)
Range of Exercise Price (NT\$)	50.00	4.83	\$147.00	\$ -
Number of Options	50.00	4.83	\$147.00	-
Weighted Average Exercise Price (NT\$)				\$ -

#### Granted on December 19, 2017

	Options Outstanding		Options Exercisable	
	Number of Options	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price (NT\$)	Weighted Average Exercise Price (NT\$)
Range of Exercise Price (NT\$)	925.00	3.96	\$140.60	\$ -
Number of Options	925.00	3.96	\$140.60	-
Weighted Average Exercise Price (NT\$)				\$ -

#### Granted on October 22, 2015

	Options Outstanding		Options Exercisable	
	Number of Options	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price (NT\$)	Weighted Average Exercise Price (NT\$)
Range of Exercise Price (NT\$)	882.75	1.81	\$ 34.40	\$ 34.40
Number of Options	882.75	1.81	\$ 34.40	416.50
Weighted Average Exercise Price (NT\$)				\$ 34.40

CHIEF used the fair value method to evaluate the options using the Black-Scholes model and binomial option pricing model and the related assumptions and the fair value of the options were as follows:

	Stock Options Granted on October 31, 2018	Stock Options Granted on December 19, 2017	Stock Options Granted on October 22, 2015
Grant-date share price (NT\$)	\$166.00	\$95.92	\$39.55
Exercise price (NT\$)	\$147.00	\$147.00	\$43.00
Dividends yield	-	-	-
Risk-free interest rate	0.72%	0.62%	0.86%
Expected life	5 years	5 years	5 years
Expected volatility	16.60%	17.35%	21.02%
Weighted average fair value of grants (NT\$)	\$33,540	\$2,318	\$4,863

Expected volatility was based on the average annualized historical share price volatility of CHIEF's comparable companies before the grant date.

d. New shares reserved for subscription by employees under cash injection of CHIEF

In March 2018, the Board of Directors of CHIEF approved the cash injection to issue 7,842 thousand shares and simultaneously reserved 1,176 thousand shares for subscription by employees according to the Company Act of the ROC. Furthermore, when the employees subscribed some shares or discarded their rights to subscribe shares, the Board of Directors of CHIEF authorized the chairman of the Board of Directors to contact specific people or group to subscribe.

The aforementioned options granted to employees are accounted for and measured at fair value of the grant date. No compensation cost was recognized for the year ended December 31, 2018.

CHIEF used the fair value method to evaluate the options granted to employees on May 22, 2018 using the Black-Scholes model and the related assumptions and the fair value of the options were as follows:

	<b>Stock Options Granted on May 22, 2018</b>
Grant-date share price (NT\$)	\$156.41
Exercise price (NT\$)	\$170.00
Dividends yield	-
Risk-free interest rate	0.34%
Expected life	7 days
Expected volatility	14.33%
Weighted average fair value of grants (NT\$)	\$ -

Expected volatility was based on the average annualized historical share price volatility of CHIEF's comparable companies before the grant date.

e. CHTSC share-based compensation plan ("CHTSC Plan") described as follows:

The Board of Directors of CHTSC resolved to issue 4,500 options that are granted to specific employees that meet the vesting conditions on December 20, 2019. Each option is eligible to subscribe for one thousand common stocks when exercisable, and the exercisable price is \$19.085. The CHTSC Plan has exercise price adjustment formula upon the changes in common stocks. The options of CHTSC Plan are valid for five years and the graded vesting schedule will vest one year after the grant date.

The compensation costs of stock options granted were \$191 thousand for the year ended December 31, 2019.

Information about CHTSC's outstanding stock options for the year ended December 31, 2019 was as follows:

	<b>Year Ended December 31, 2019 Granted on December 20, 2019</b>	<b>Weighted Average Exercise Price (NT\$)</b>
Employee stock options	-	\$ -
Options outstanding at beginning of the year	-	-

(Continued)

**Year Ended December 31, 2019  
Granted on December 20, 2019**

	<b>Number of Options</b>	<b>Weighted Average Exercise Price (NT\$)</b>
Options granted	<u>4,500</u>	\$ 19.085
Options outstanding at end of the year	<u>4,500</u>	19.085
Options exercisable at end of the year	<u>-</u>	-

(Concluded)

As of December 31, 2019, information about employee stock options outstanding was as follows:

	<b>Options Outstanding</b>			<b>Options Exercisable</b>		
	<b>Range of Exercise Price (NT\$)</b>	<b>Number of Options</b>	<b>Weighted Average Remaining Contractual Life (Years)</b>	<b>Weighted Average Exercise Price (NT\$)</b>	<b>Number of Options</b>	<b>Weighted Average Exercise Price (NT\$)</b>
	\$19.085	4,500	4.97	\$19.085	-	\$ -

CHTSC used the fair value method to evaluate the options using the Black-Scholes model and the related assumptions and the fair value of the options were as follows:

	<b>Stock Options Granted on December 20,2019</b>
Grant-date share price (NT\$)	\$20.17
Exercise price (NT\$)	\$19.085
Dividends yield	12.49%
Risk-free interest rate	0.54%
Expected life	5 years
Expected volatility	42.41%
Weighted average fair value of grants (NT\$)	\$2,470

Expected volatility was based on the average annualized historical share price volatility of CHTSC's comparable companies before the grant date.

### 33. CASH FLOW INFORMATION

For the years ended December 31, 2019 and 2018, the Company entered into the following non-cash investing activities:

	<b>Year Ended December 31</b>	
	<b>2019</b>	<b>2018</b>
Increase in property, plant and equipment	\$ 23,164,284	\$ 27,979,440
Changes in other payables	<u>1,001,573</u>	<u>570,489</u>
	<u>\$ 24,165,857</u>	<u>\$ 28,549,929</u>

For the year ended December 31, 2019, changes in liabilities arising from financing activities, including non-cash transactions, were as follows:

	<b>Cash Flows from Financing Activities</b>	<b>Changes in Non-Cash Transactions</b>	<b>Cash Flows from Operation Activities - Interest Paid</b>	<b>Balance on December 31, 2019</b>
Balance on January 1, 2019	\$10,340,057			\$ 9,758,138
Lease liabilities	\$(3,727,792)	\$ 3,803,042	\$ (84,918)	\$ 9,758,138
		<u>\$(572,251)</u>		

### 34. CAPITAL MANAGEMENT

The Company manages its capital to ensure that entities in the Company will be able to continue as going concerns while maximizing the return to stakeholders through the optimization of the debt and equity balance.

The capital structure of the Company consists of debt of the Company and the equity attributable to the parent.

Some consolidated entities are required to maintain minimum paid-in capital amount as prescribed by the applicable laws.

The management reviews the capital structure of the Company as needed. As part of this review, the management considers the cost of capital and the risks associated with each class of capital.

According to the management's suggestion, the Company maintains a balanced capital structure through paying cash dividends, increasing its share capital, purchasing outstanding shares, and proceeds from new debt or repayment of debt.

### 35. FINANCIAL INSTRUMENTS

#### Fair Value Information

The fair value measurement guidance establishes a framework for measuring fair value and expands disclosure about fair value measurements. The standard describes a fair value hierarchy based on three levels of inputs that may be used to measure fair value. These levels are:

Level 1 fair value measurements: These measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 fair value measurements: These measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).

Level 3 fair value measurements: These measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

- a. Financial instruments that are not measured at fair value but for which fair value is disclosed
- The Company considers that the carrying amounts of financial assets and liabilities not measured at fair value approximate their fair values or the fair values cannot be reliable estimated, no financial instruments need to be disclosed on balance sheet date.
- b. Financial instruments that are measured at fair value on a recurring basis

#### December 31, 2019

	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total</b>
Financial assets at FVTPL				
Derivatives	\$ -	\$ 53	\$ -	\$ 53
Listed stocks	463	-	-	463
Non-listed stocks	-	-	778,105	778,105
	<u>\$ 463</u>	<u>\$ 53</u>	<u>\$ 778,105</u>	<u>\$ 778,621</u>
Hedging financial assets	-	327	-	327
Financial assets at FVOCI				
Equity investment	<u>\$ 2,453,616</u>	<u>\$ -</u>	<u>\$ 4,815,301</u>	<u>\$ 7,268,917</u>
Financial liabilities at FVTPL				
Derivatives	-	239	-	239

#### December 31, 2018

	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total</b>
Financial assets at FVTPL				
Non-listed stocks	-	-	517,362	517,362
Hedging financial assets	-	1,069	-	1,069
Financial assets at FVOCI				
Equity investment	<u>\$ 2,899,843</u>	<u>\$ -</u>	<u>\$ 4,032,660</u>	<u>\$ 6,932,503</u>
Financial liabilities at FVTPL				
Derivatives	-	1,114	-	1,114

There were no transfers between Levels 1 and 2 for the years ended December 31, 2019 and 2018.

The reconciliations for financial assets measured at Level 3 are listed below:

2019

Financial Assets	Measured at Fair Value through Profit or Loss	Measured at Fair Value through Other Comprehensive Income	Total
Balance at January 1, 2019	\$ 517,362	\$ 4,032,660	\$ 4,550,022
Acquisition	300,000	-	300,000
Recognized in profit or loss under "Other gains and losses"	(39,257)	-	(39,257)
Recognized in other comprehensive income under "Unrealized gain or loss on investments in equity instruments at fair value through other comprehensive income"	-	791,808	791,808
Proceed from return of investments	-	(9,167)	(9,167)
Balance at December 31, 2019	\$ 778,105	\$ 4,815,301	\$ 5,593,406
Unrealized loss in 2019	<u>(39,257)</u>		

2018

Financial Assets	Measured at Fair Value through Profit or Loss	Measured at Fair Value through Other Comprehensive Income	Total
Balance at January 1, 2018	\$ 542,521	\$ 3,925,129	\$ 4,467,650
Acquisition	-	289,580	289,580
Recognized in profit or loss under "Other gains and losses"	(25,159)	-	(25,159)
Recognized in other comprehensive income under "Unrealized gain or loss on investments in equity instruments at fair value through other comprehensive income"	-	(175,359)	(175,359)
Proceed from return of investments	-	(6,690)	(6,690)
Balance at December 31, 2018	\$ 517,362	\$ 4,032,660	\$ 4,550,022
Unrealized loss in 2018	<u>(25,159)</u>		

The fair values of financial assets and financial liabilities of Level 2 are determined as follows:

- 1) The fair values of financial assets and financial liabilities with standard terms and conditions and traded in active markets are determined with reference to quoted market prices.
- 2) For derivatives, fair values are estimated using discounted cash flow model. Future cash flows are estimated based on observable inputs including forward exchange rates at the end of the reporting periods and the forward and spot exchange rates stated in the contracts, discounted at a rate that reflects the credit risk of various counterparties.

The fair values of non-listed domestic and foreign equity investments were Level 3 financial assets, and determined using the market approach by reference the Price-to-Book ratios (P/B ratios) of peer companies that traded in active market or using assets approach. The significant unobservable inputs used were listed in the table below. A decrease in discount for the lack of marketability or noncontrolling interests discount would result in increases in the fair values.

	December 31, 2019	December 31, 2018
Discount for lack of marketability	13.73%-20.00%	12.73%-20.00%
Noncontrolling interests discount	21.45%-25.00%	24.41%-25.00%

If the inputs to the valuation model were changed to reflect reasonably possible alternative assumptions while all the other variables were held constant, the fair values of equity investments would increase as below table. When related discounts increase, the fair value of equity investments would be the negative amount of the same amount.

	December 31, 2019	December 31, 2018
Discount for lack of marketability 5% decrease	\$ 349,584	\$ 268,085
Noncontrolling interests discount 5% decrease	\$ 53,646	\$ 36,527

#### Categories of Financial Instruments

	December 31, 2019	December 31, 2018
<u>Financial assets</u>		
Measured at FVTPL	\$ 778,621	\$ 517,362
Mandatorily measured at FVTPL		
Hedging financial assets	327	1,069
Financial assets at amortized cost (Note a)	71,851,933	70,240,962
Financial assets at FVOCI	7,268,917	6,932,503
<u>Financial liabilities</u>		
Measured at FVTPL		
Held for trading	239	1,114
Measured at amortized cost (Note b)	34,433,210	40,335,289

Note a: The balances included cash and cash equivalents, trade notes and accounts receivable, receivables from related parties, other current monetary assets and refundable deposits (classified as other noncurrent assets), which were financial assets measured at amortized cost.

Note b: The balances included short-term loans, trade notes and accounts payable, payables to related parties, partial other payables, customers' deposits and long-term loans which were financial liabilities carried at amortized cost.

### Financial Risk Management Objectives

The main financial instruments of the Company include equity investments, trade notes and accounts receivable, trade notes and accounts payable, lease liabilities and loans. The Company's Finance Department provides services to its business units, co-ordinates access to domestic and international capital markets, monitors and manages the financial risks relating to the operations of the Company through internal risk reports which analyze exposures by degree and magnitude of risks. These risks include market risk (including foreign currency risk, interest rate risk and other price risk), credit risk, and liquidity risk.

The Company seeks to minimize the effects of these risks by using derivative financial instruments to hedge risk exposures. The use of financial derivatives is governed by the Company's policies approved by the Board of Directors. Those derivatives are used to hedge the risks of exchange rate fluctuation arising from operating or investment activities. Compliance with policies and risk exposure limits is reviewed by the Company's Finance Department on a continuous basis. The Company does not enter into or trade financial instruments, including derivative financial instruments, for speculative purposes.

Chunghwa reports the significant risk exposures and related action plans timely and actively to the audit committee and if needed to the Board of Directors.

#### a. Market risk

The Company is exposed to market risks of changes in foreign currency exchange rates and interest rates. The Company uses forward exchange contracts to hedge the exchange rate risk arising from assets and liabilities denominated in foreign currencies.

There were no changes to the Company's exposure to market risks or the manner in which these risks are managed and measured.

#### 1) Foreign currency risk

The carrying amounts of the Company's foreign currency denominated monetary assets and monetary liabilities at the balance sheet dates were as follows:

	2019	December 31 2018
Assets		
USD	\$ 5,781,593	\$ 5,903,025
EUR	11,792	34,059
SGD	224,501	123,916
JPY	17,092	16,689
RMB	8,854	2,082
Liabilities		
USD	4,120,881	6,998,564
EUR	206,447	1,216,812
SGD	1,262,926	50,921
JPY	14,206	13,968
RMB	310	-

The carrying amounts of the Company's derivatives with exchange rate risk exposures at the balance sheet dates were as follows:

	2019	December 31 2018
Assets		
USD	\$ 53	\$ -
EUR	327	1,069
Liabilities		
USD	11	217
EUR	228	897

#### Foreign currency sensitivity analysis

The Company is mainly exposed to the fluctuations of the currencies USD, EUR, SGD, JPY and RMB as listed above.

The following table details the Company's sensitivity to a 5% increase and decrease in the functional currency against the relevant foreign currencies. 5% is the sensitivity rate used when reporting foreign currency risk internally to key management personnel and represents management's assessment of the reasonably possible changes in foreign exchange rates. The sensitivity analysis includes only outstanding foreign currency denominated monetary items and forward exchange contracts. A positive number below indicates an increase in pre-tax profit or equity where the functional currency weakens 5% against the relevant currency.

	2019	Year Ended December 31 2018
Profit or loss		
Monetary assets and liabilities (a)		
USD	\$ 83,036	\$ (54,777)
EUR	(9,733)	(59,138)
SGD	(51,921)	3,650
JPY	144	136
RMB	427	104
Derivatives (b)		
USD	1,274	3,102
EUR	2,519	9,595
Equity		
Derivatives (c)		
EUR	4,195	8,644

a) This is mainly attributable to the exposure to foreign currency denominated receivables and payables of the Company outstanding at the balance sheet dates.

b) This is mainly attributable to forward exchange contracts.

c) This is mainly attributable to the changes in the fair value of derivatives that are designated as cash flow hedges.

For a 5% strengthening of the functional currency against the relevant currencies, there would be an equal and opposite effect on the pre-tax profit or equity for the amounts shown above.

2) Interest rate risk

The carrying amounts of the Company's exposures to interest rates on financial assets and financial liabilities at the balance sheet dates were as follows:

	Year Ended December 31	2018
	2019	
Fair value interest rate risk		
Financial assets	\$ 30,946,503	\$ 25,821,638
Financial liabilities	9,758,138	-
Cash flow interest rate risk		
Financial assets	7,681,032	9,160,863
Financial liabilities	1,690,000	1,700,000

Interest rate sensitivity analysis

The sensitivity analyses below have been determined based on the exposure to interest rates for non-derivative instruments at the end of the reporting period. A 25 basis point increase or decrease is used when reporting interest rate risk internally to key management personnel and represents management's assessment of the reasonably possible change in interest rates.

If interest rates had been 25 basis points higher/lower and all other variables were held constant, the Company's pre-tax income would increase/decrease by \$14,978 thousand and \$18,652 thousand for the years ended December 31, 2019 and 2018, respectively. This is mainly attributable to the Company's exposure to floating interest rates on its financial assets and short-term and long-term loan.

3) Other price risk

The Company is exposed to equity price risks arising from holding other company's equity. Equity investments are held for strategic rather than trading purposes. The management managed the risk through holding various risk portfolios. Further, the Company assigned finance and investment departments to monitor the price risk.

Equity price sensitivity analysis

The sensitivity analyses below have been determined based on the exposure to equity price risks at the end of the reporting period.

If equity prices had been 5% higher/lower, pre-tax profit and pre-tax other comprehensive income for the year ended December 31, 2019 would have increased/decreased by \$38,928 thousand and \$363,446 thousand as a result of the changes in fair value of financial assets at FVTPL and financial assets at FVTOCI, respectively. If equity prices had been 5% higher/lower, pre-tax profit and pre-tax other comprehensive income for the year ended December 31, 2018 would have increased/decreased by \$25,868 thousand and \$346,625 thousand as a result of the changes in fair value of financial assets at FVTPL and financial assets at FVTOCI, respectively.

b. Credit risk

Credit risk refers to the risk that a counterparty would default on its contractual obligations resulting in financial loss to the Company. The maximum credit exposure of the aforementioned financial instruments is equal to their carrying amounts recognized in consolidated balance sheet as of the balance sheet date.

The Company has large trade receivables outstanding with its customers. A substantial majority of the Company's outstanding trade receivables are not covered by collateral or credit insurance. The Company has implemented ongoing measures including enhancing credit assessments and strengthening overall risk management to reduce its credit risk. While the Company has procedures to monitor and limit exposure to credit risk on trade receivables, there can be no assurance such procedures will effectively limit its credit risk and avoid losses. This risk is heightened during periods when economic conditions worsen.

As the Company serves a large number of unrelated consumers, the concentration of credit risk was limited.

c. Liquidity risk

The Company manages and maintains sufficient cash and cash equivalent position to support the operations and reduce the impact on fluctuation of cash flow.

1) Liquidity and interest risk tables

The following tables detailed the Company's remaining contractual maturity for its non-derivative financial liabilities with agreed repayment periods. The tables had been drawn up based on the undiscounted cash flows of financial liabilities based on the earliest date on which the Company is required to pay.

December 31, 2019

	Weighted Average Effective Interest Rate (%)	Less than 1 Month	1-3 Months	3 Months to 1 Year	1-5 Years	Add More than 5 Years	Total
Non-derivative financial liabilities							
Non-interest bearing	-	\$ 36,387,024	-	\$ 2,531,721	\$ 4,747,644	-	\$ 43,666,389
Floating interest rate instruments	0.98	50,000	10,000	30,000	1,600,000	-	1,690,000
		<u>\$ 36,437,024</u>	<u>\$ 10,000</u>	<u>\$ 2,561,721</u>	<u>\$ 6,347,644</u>	<u>\$ -</u>	<u>\$ 45,346,389</u>

Information about the maturity analysis for lease liabilities was as follows:

	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years	Total
Lease liabilities	<u>\$ 3,309,578</u>	<u>\$ 4,394,009</u>	<u>\$ 1,581,034</u>	<u>\$ 645,520</u>	<u>\$ 9,930,141</u>

December 31, 2018

	Weighted Average Effective Interest Rate (%)	Less than 1 Month	1-3 Months	3 Months to 1 Year	1-5 Years	Add More than 5 Years	Total
Non-derivative financial liabilities							
Non-interest bearing	-	\$ 41,808,326	-	\$ 2,889,800	\$ 4,716,571	-	\$ 49,414,697
Floating interest rate instruments	0.98	-	-	100,000	1,600,000	-	1,700,000
		<u>\$ 41,808,326</u>	<u>\$ -</u>	<u>\$ 2,989,800</u>	<u>\$ 6,316,571</u>	<u>\$ -</u>	<u>\$ 51,114,697</u>

The following table detailed the Company's liquidity analysis for its derivative financial instruments. The table had been drawn up based on the undiscounted gross inflows and outflows on those derivatives that require gross settlement.

	Less than 1 Month	1-3 Months	3 Months to 1 Year	1-5 Years	Total
<u>December 31, 2018</u>					
<u>Gross settled</u>					
Forward exchange contracts					
Inflow	\$ 25,566	\$ 135,075	\$ -	\$ -	\$ 160,641
Outflow	<u>25,524</u>	<u>134,976</u>	<u>-</u>	<u>-</u>	<u>160,500</u>
	\$ <u>42</u>	\$ <u>99</u>	\$ <u>-</u>	\$ <u>-</u>	\$ <u>141</u>
<u>December 31, 2018</u>					
<u>Gross settled</u>					
Forward exchange contracts					
Inflow	\$ 62,035	\$ 238,302	\$ 126,401	\$ -	\$ 426,738
Outflow	<u>62,252</u>	<u>238,459</u>	<u>126,072</u>	<u>-</u>	<u>426,783</u>
	\$ <u>(217)</u>	\$ <u>(157)</u>	\$ <u>329</u>	\$ <u>-</u>	\$ <u>(45)</u>
<u>December 31</u>					
<u>2019</u>					
<u>2018</u>					
Unsecured bank loan facility					
Amount used		\$ 120,681	\$ -	\$ -	\$ 120,681
Amount unused		<u>46,109,219</u>	<u>-</u>	<u>-</u>	<u>46,328,280</u>
		\$ <u>46,229,900</u>	\$ <u>-</u>	\$ <u>-</u>	\$ <u>46,460,725</u>
Secured bank loan facility					
Amount used		\$ 1,600,000	\$ -	\$ -	\$ 1,600,000
Amount unused		<u>1,340,000</u>	<u>-</u>	<u>-</u>	<u>1,340,000</u>
		\$ <u>2,940,000</u>	\$ <u>-</u>	\$ <u>-</u>	\$ <u>2,940,000</u>

### 36. RELATED PARTIES TRANSACTIONS

The ROC Government, one of Chungghwa's customers, has significant equity interest in Chungghwa. Chungghwa provides fixed-line services, wireless services, internet and data and other services to the various departments and institutions of the ROC Government in the normal course of business and at arm's-length prices. The transactions with the ROC government bodies have not been disclosed because the transactions are not individually or collectively significant. However, the related revenues and operating costs have been appropriately recorded.

a. The Company engages in business transactions with the following related parties:

Company	Relationship
Taiwan International Standard Electronics Co., Ltd.	Associate
So-net Entertainment Taiwan Limited	Associate
KKBOX Taiwan Co., Ltd.	Associate
KingwayTek Technology Co., Ltd.	Associate
UUJON Inc.	Associate
Taiwan International Ports Logistics Corporation	Associate
International Integrated System, Inc.	Associate
Senao Networks, Inc.	Associate
EnRack Technology Inc.	Subsidiary of the Company's associate, Senao Networks, Inc.
Emplus Technologies, Inc.	Subsidiary of the Company's associate, Senao Networks, Inc.
ST-2 Satellite Ventures Pte., Ltd.	Associate
Viettel-CHT Co., Ltd.	Associate
Click Force Co., Ltd.	Associate
Alliance Digital Tech Co., Ltd.	Associate
MeWorks Limited (HK)	Associate
Chungghwa PChome Fund I Co., Ltd. ("CPPI")	Associate
Cornerstone Ventures Co., Ltd. ("CVC")	Associate
Next Commercial Bank Co., Ltd. (preparatory office) ("NCB")	Associate
Other related parties	
Chungghwa Telecom Foundation	A nonprofit organization of which the funds donated by Chungghwa exceeds one third of its total funds
Senao Technical and Cultural Foundation	A nonprofit organization of which the funds donated by SENAO exceeds one third of its total funds
Sochamp Technology Co., Ltd.	Investor of significant influence over CHST
E-Life Mall Co., Ltd.	One of the directors of E-Life Mall and a director of SENAO are members of an immediate family
Engenius Technologies Co., Ltd.	Chairman of Engenius Technologies Co., Ltd. is a member of SENAO's management
Cheng Keng Investment Co., Ltd.	Chairman of Cheng Keng Investment Co., Ltd. and SENAO's chief executive officer are members of an immediate family
Cheng Feng Investment Co., Ltd.	Chairman of Cheng Feng Investment Co., Ltd. and SENAO's chief executive officer are members of an immediate family
All Oriented Investment Co., Ltd.	Chairman of All Oriented Investment Co., Ltd. and SENAO's chief executive officer are members of an immediate family
Hwa Shun Investment Co., Ltd.	Chairman of Hwa Shun Investment Co., Ltd. and SENAO's chief executive officer are members of an immediate family
Yu Yu Investment Co., Ltd.	Chairman of Yu Yu Investment Co., Ltd. and SENAO's chief executive officer are members of an immediate family
United Daily News Co., Ltd.	Investor of significant influence over SFD
Shenzhen Century Communication Co., Ltd.	Investor of significant influence over SCT

b. Balances and transactions between Chungghwa and its subsidiaries, which are related parties of Chungghwa, have been eliminated on consolidation and are not disclosed in this note. Terms of the foregoing transactions with related parties were not significantly different from transactions with non-related parties. When no similar transactions with non-related parties can be referenced, terms were determined in accordance with mutual agreements. Details of transactions between the Company and other related parties are disclosed below:

1) Operating transactions

	<b>Revenues</b>	
	<b>Year Ended December 31</b>	<b>2018</b>
Associates	\$ 273,892	\$ 344,043
Others	<u>76,559</u>	<u>94,227</u>
	<u>\$ 350,451</u>	<u>\$ 438,270</u>
	<b>Operating Costs and Expenses</b>	
	<b>Year Ended December 31</b>	<b>2018</b>
Associates	\$ 963,627	\$ 1,304,008
Others	<u>76,153</u>	<u>75,345</u>
	<u>\$ 1,039,780</u>	<u>\$ 1,379,353</u>

2) Non-operating transactions

	<b>Non-operating Income and Expenses</b>	
	<b>Year Ended December 31</b>	<b>2018</b>
Associates	\$ 41,373	\$ 31,255
Others	<u>3,470</u>	<u>32</u>
	<u>\$ 44,843</u>	<u>\$ 31,287</u>

3) Receivables

	<b>December 31</b>	
	<b>2019</b>	<b>2018</b>
Associates	\$ 10,356	\$ 10,785
Others	<u>6,478</u>	<u>13,485</u>
	<u>\$ 16,834</u>	<u>\$ 24,270</u>

4) Payables

	<b>December 31</b>	
	<b>2019</b>	<b>2018</b>
Associates	\$ 650,617	\$ 914,177
Others	<u>3,366</u>	<u>3,774</u>
	<u>\$ 653,983</u>	<u>\$ 917,951</u>

5) Customers' deposits

	<b>December 31</b>	
	<b>2019</b>	<b>2018</b>
Associates	\$ 7,595	\$ 5,925

6) Acquisition of property, plant and equipment

	<b>Year Ended December 31</b>	
	<b>2019</b>	<b>2018</b>
Associates	\$ 241,626	\$ 311,519
Others	<u>182</u>	<u>-</u>
	<u>\$ 241,808</u>	<u>\$ 311,519</u>

7) Lease-in agreements

Chungghwa entered into a contract with ST-2 Satellite Ventures Pte., Ltd. on March 12, 2010 to lease capacity on the ST-2 satellite. This lease term is for 15 years which should start from the official operation of ST-2 satellite and the total contract value is approximately \$6,000,000 thousand (SG\$260,723 thousand), including a prepayment of \$3,067,711 thousand at the inception of the lease, and the rest of amount should be paid annually when ST-2 satellite starts its official operation. ST-2 satellite was launched in May 2011 and began its official operation in August 2011.

2019

The lease liabilities of ST-2 Satellite Ventures Pte., Ltd. as of December 31, 2019 was as follows:

	<b>December 31,</b>	
	<b>2019</b>	
Lease liabilities - current	\$ 188,271	
Lease liabilities - noncurrent	<u>1,023,889</u>	
	<u>\$ 1,212,160</u>	

The interest expense recognized for the aforementioned lease liabilities for the year ended December 31, 2019 was \$10,887 thousand.

2018

The total rental expense for the year ended December 31, 2018 was \$394,289 thousand, which consisted of an offsetting credit of the prepayment of \$204,398 thousand and an additional accrual of \$189,891 thousand. The prepaid rents (classified as prepayments) as of December 31, 2018, was as follows:

	<b>December 31, 2018</b>
Prepaid rents - current	\$ 204,398
Prepaid rents - noncurrent	<u>1,345,623</u>
	<u>\$ 1,550,021</u>

c. Compensation of key management personnel

The compensation of directors and key management personnel was as follows:

	<b>Year Ended December 31 2019</b>	<b>2018</b>
Short-term employee benefits	\$ 263,383	\$ 281,981
Post-employment benefits	8,560	9,971
Share-based payment	<u>355</u>	<u>9,484</u>
	<u>\$ 272,298</u>	<u>\$ 301,436</u>

The compensation of directors and key management personnel was mainly determined by the compensation committee having regard to the performance of individual and market trends.

**37. PLEDGED ASSETS**

The following assets are pledged as collaterals for bank loans and custom duties of the imported materials.

	<b>December 31 2019</b>	<b>2018</b>
Property, plant and equipment	\$ 2,491,324	\$ 2,520,838
Land held under development (included in inventories)	1,998,733	1,998,733
Restricted assets (included in other assets - others)	<u>2,500</u>	<u>2,500</u>
	<u>\$ 4,492,557</u>	<u>\$ 4,522,071</u>

**38. SIGNIFICANT CONTINGENT LIABILITIES AND UNRECOGNIZED COMMITMENTS**

As of December 31, 2019, the Company's significant commitments and contingent liabilities, excluding those disclosed in other notes, were as follows:

- Acquisitions of land and buildings of \$43,614 thousand.
- Acquisitions of telecommunications equipment of \$17,876,961 thousand.
- Unused letters of credit amounting to \$50,000 thousand.

d. A commitment to contribute \$2,000,000 thousand to a Piping Fund administered by the Taipei City Government, of which \$1,000,000 thousand was contributed by Chungghwa on August 15, 1996 (classified as other monetary assets - noncurrent). If the fund is not sufficient, Chungghwa will contribute the remaining \$1,000,000 thousand upon notification from the Taipei City Government.

e. Chungghwa committed that when its ownership interest in NCB is greater than 25% and NCB encounters financial difficulty or capital adequacy ratio of NCB cannot meet the related regulation requirements, the Company will provide financial support to assist NCB maintain in healthy financial condition.

f. CHPT signed the contract for its headquarters construction amounted to \$1,613,800 thousand in July 2017. The payment of \$1,525,227 thousand has been made as of December 31, 2019.

**39. SIGNIFICANT ASSETS AND LIABILITIES DENOMINATED IN FOREIGN CURRENCIES**

The following information summarizes the disclosure of the currency which is other than functional currency of Chungghwa and its subsidiaries. The following exchange rates are the exchange rates used to translate to the presentation currency in the consolidated financial statements, which is NTD:

	<b>December 31, 2019</b>		
	<b>Foreign Currencies (Thousands)</b>	<b>Exchange Rate</b>	<b>New Taiwan Dollars (Thousands)</b>
<u>Assets denominated in foreign currencies</u>			
Monetary items			
USD	\$ 192,849	29.98	\$ 5,781,593
EUR	351	33.59	11,792
SGD	10,076	22.28	224,501
JPY	61,929	0.276	17,092
RMB	2,057	4.305	8,854
Non-monetary items			
Investments accounted for using equity method			
SGD	22,483	22.28	500,930
VND	270,542,735	0.0012	316,535
<u>Liabilities denominated in foreign currencies</u>			
Monetary items			
USD	137,454	29.98	4,120,881
EUR	6,146	33.59	206,447
SGD	56,685	22.28	1,262,926
JPY	51,472	0.276	14,206
RMB	72	4.305	310

h. Receivables from related parties amounting to \$100 million or 20% of the paid-in capital: Please see Table 6.

i. Names, locations, and other information of investees on which the Company exercises significant influence (excluding investees in Mainland China): Please see Table 7.

j. Derivative instruments transactions: Please see Notes 7, 20 and 35.

k. Investment in Mainland China: Please see Table 8.

l. Intercompany relationships and significant intercompany transaction: Please see Table 9.

#### 41. SEGMENT INFORMATION

The Company has the following reportable segments that provide different products or services. The reportable segments are managed separately because each segment represents a strategic business unit that serves different markets. Segment information is provided to CEO who allocates resources and assesses segment performance. The Company's measure of segment performance is mainly based on revenues and income before income tax. The Company's reportable segments are as follows:

- Domestic fixed communications business - the provision of local telephone services, domestic long distance telephone services, broadband access, and related services;
- Mobile communications business - the provision of mobile services, sales of mobile handsets and data cards, and related services;
- Internet business - the provision of HiNet services and related services;
- International fixed communications business - the provision of international long distance telephone services and related services;
- Others - the provision of non-telecom services and the corporate related items not allocated to reportable segments.

Some operating segments have been aggregated into a single operating segment taking into account the following factors: (a) similar economic characteristics such as long-term gross profit margins; (b) the nature of the telecommunications products and services are similar; (c) the nature of production processes of the telecommunications products and services are similar; (d) the type or class of customer for the telecommunications products and services are similar; and (e) the methods used to provide the services to the customers are similar.

There was no material differences between the accounting policies of the operating segments and the accounting policies described in Note 3.

#### December 31, 2018

	Foreign Currencies (Thousands)	Exchange Rate	New Taiwan Dollars (Thousands)
<u>Assets denominated in foreign currencies</u>			
Monetary items			
USD	\$ 192,187	30.72	\$ 5,903,025
EUR	968	35.20	34,059
SGD	5,512	22.48	123,916
JPY	60,034	0.278	16,689
RMB	466	4.472	2,082
Non-monetary items			
Investments accounted for using equity method			
SGD	22,066	22.48	496,033
VND	238,757,968	0.0012	286,510
<u>Liabilities denominated in foreign currencies</u>			
Monetary items			
USD	227,855	30.72	6,998,564
EUR	34,569	35.20	1,216,812
SGD	2,265	22.48	50,921
JPY	50,243	0.278	13,968

The unrealized foreign exchange losses were \$9,938 thousand and \$7,872 thousand for the years ended December 31, 2019 and 2018, respectively. Due to the various foreign currency transactions and the functional currency of each individual entity of the Company, foreign exchange gains and losses cannot be disclosed by the respective significant foreign currency.

#### 40. ADDITIONAL DISCLOSURES

Following are the additional disclosures required by the FSC for the Company:

- Financing provided: None.
- Endorsement/guarantee provided: Please see Table 1.
- Marketable securities held (excluding investments in subsidiaries and associates: Please see Table 2. paid-in capital: Please see Table 3.
- Marketable securities acquired and disposed of at costs or prices at least \$300 million or 20% of the paid-in capital: Please see Table 3.
- Acquisition of individual real estate at costs of at least \$300 million or 20% of the paid-in capital: Please see Table 4.
- Disposal of individual real estate at prices of at least \$300 million or 20% of the paid-in capital: None.
- Total purchases from or sales to related parties amounting to at least \$100 million or 20% of the paid-in capital: Please see Table 5.

## Segment Revenues and Operating Results

Analysis by reportable segment of revenues and operating results of continuing operations was as follows:

	Year ended December 31, 2019				Year ended December 31, 2018							
	Domestic Fixed Communications Business	Mobile Communications Business	Internet Business	International Fixed Communications Business	Others	Total	Domestic Fixed Communications Business	Mobile Communications Business	Internet Business	International Fixed Communications Business	Others	Total
Revenues	\$ 65,727,627	\$ 95,469,002	\$ 30,090,738	\$ 11,485,197	\$ 4,747,477	\$ 207,520,061	\$ 58,703,003	\$ 63,905,960	\$ 21,137,189	\$ 22,453,133	\$ 41,288,763	\$ 215,483,158
From external customers	16,065,223	1,583,685	3,950,832	2,078,889	4,914,694	28,575,323	41,593,124	21,115,908	22,453,133	21,137,189	21,137,189	21,137,189
Intersegment revenues	17,125,311	1,701,768	4,038,032	2,234,202	5,007,565	30,106,878	245,590,036	245,590,036	245,590,036	245,590,036	245,590,036	245,590,036
Segment revenues	33,878,405	109,638,789	33,851,271	15,668,624	9,552,947	245,590,036	7,066,361	8,724,302	7,066,361	8,724,302	7,066,361	8,724,302
Intersegment elimination						(28,575,323)						
Consolidated revenues	\$ 56,268,655	\$ 72,952,530	\$ 13,849,557	\$ 11,427,554	\$ 12,248,607	\$ 207,520,061	\$ 207,520,061	\$ 215,483,158	\$ 207,520,061	\$ 215,483,158	\$ 207,520,061	\$ 215,483,158
Segments operating costs and expenses	\$ 19,536,966	\$ 11,249,716	\$ 12,514,656	\$ 799,078	\$ (2,350,624)	\$ 41,749,792	\$ 197,895,254	\$ 205,695,525	\$ 197,895,254	\$ 205,695,525	\$ 197,895,254	\$ 205,695,525
Segment income (loss) before income tax	\$ 36,731,689	\$ 61,702,814	\$ 1,334,901	\$ 10,628,476	\$ 14,601,231	\$ 165,770,269	\$ 199,624,707	\$ 199,789,633	\$ 199,624,707	\$ 199,789,633	\$ 199,624,707	\$ 199,789,633
Income tax expense	(1,243,503)	(829,264)	(504,594)	(83,831)	(1,560,048)	(4,217,240)	(1,243,503)	(829,264)	(504,594)	(83,831)	(1,243,503)	(829,264)
Year ended December 31, 2018	\$ 18,243,503	\$ 15,327,824	\$ 11,943,594	\$ 1,023,831	\$ (1,560,048)	\$ 44,978,704	\$ 198,381,204	\$ 198,960,369	\$ 198,381,204	\$ 198,960,369	\$ 198,381,204	\$ 198,960,369

## Other Segment Information

Other information reviewed by the chief operating decision maker or regularly provided to the chief operating decision maker was as follows:

	Year ended December 31, 2019				Year ended December 31, 2018							
	Domestic Fixed Communications Business	Mobile Communications Business	Internet Business	International Fixed Communications Business	Others	Total	Domestic Fixed Communications Business	Mobile Communications Business	Internet Business	International Fixed Communications Business	Others	Total
Share of profits of associates accounted for using equity method	\$ 15,156	\$ 8,688	\$ 20,160	\$ 40,937	\$ 165,846	\$ 250,787	\$ 15,156	\$ 8,688	\$ 20,160	\$ 40,937	\$ 165,846	\$ 250,787
Interest income	5,076	58,081	626	11,501	28,738	104,142	5,076	58,081	626	11,501	28,738	104,142
Depreciation and amortization	14,841,890	16,253,558	2,914,375	1,547,333	791,928	26,448,084	14,841,890	16,253,558	2,914,375	1,547,333	791,928	26,448,084
Capital expenditure	12,070,922	7,773,266	1,424,601	1,116,541	1,780,527	24,165,857	12,070,922	7,773,266	1,424,601	1,116,541	1,780,527	24,165,857
Impairment loss on property, plant and equipment						93,073						93,073
Reversal of impairment loss on investment properties	\$ 56,617	\$ 8,246	\$ 13,191	\$ 13,191	\$ 17,589	\$ 95,834	\$ 56,617	\$ 8,246	\$ 13,191	\$ 13,191	\$ 17,589	\$ 95,834
Impairment loss on intangible assets												
Year ended December 31, 2018	\$ 13,191	\$ 8,246	\$ 13,191	\$ 13,191	\$ 17,589	\$ 62,408	\$ 56,617	\$ 8,246	\$ 13,191	\$ 13,191	\$ 17,589	\$ 62,408

Share of profits of associates accounted for using equity method

## Main Products and Service Revenues

	Year Ended December 31	
	2019	2018
Mobile services revenue	\$ 58,703,003	\$ 63,905,960
Sales of products	41,593,124	41,288,763
Local telephone and domestic long distance telephone services revenue	27,929,263	29,995,695
Broadband access and domestic leased line services revenue	22,115,908	22,453,133
Data Communications internet services revenue	21,002,699	21,137,189
International network and leased telephone services revenue	7,066,361	8,724,302
Others	29,109,703	27,978,116
	\$ 207,520,061	\$ 215,483,158

## Geographic Information

The users of the Company's services are mainly from Taiwan, ROC. The revenues it derived outside Taiwan are mainly revenues from international long distance telephone and leased line services. The geographic information for revenues was as follows:

	Year Ended December 31	
	2019	2018
Taiwan, ROC	\$ 197,895,254	\$ 205,695,525
Overseas	9,624,807	9,787,633
	\$ 207,520,061	\$ 215,483,158

The Company has long-lived assets in U.S., Singapore, Hong Kong, China, Vietnam, Japan and Thailand for \$4,063,468 thousand and \$4,324,172 thousand at December 31, 2019 and 2018, respectively, in the aforementioned areas, the other long-lived assets are located in Taiwan, ROC.

## Major Customers

As of December 31, 2019 and 2018, the Company did not have any single customer whose revenue exceeded 10% of the total revenues.

**CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES**

**ENDORSEMENTS/GUARANTEES PROVIDED  
YEAR ENDED DECEMBER 31, 2019  
(Amounts in Thousands of New Taiwan Dollars)**

No. (Note 1)	Endorsement/ Guarantee Provider	Guaranteed Party		Limits on Endorsement/ Guarantee Amount Provided to Each Guaranteed Party	Maximum Balance for the Period	Ending Balance	Actual Borrowing Amount	Amount of Endorsement/ Guarantee Collateralized by Properties	Ratio of Accumulated Endorsement/ Guarantee to Net Equity Per Latest Financial Statements	Maximum Endorsement/ Guarantee Amount Allowable	Endorsement/ Guarantee Given by Parent on Behalf of Subsidiaries	Endorsement/ Guarantee Given by Subsidiaries on Behalf of Parent	Endorsement/ Guarantee Given on Behalf of Companies in Mainland China	Note
		Name	Nature of Relationship (Note 2)											
1	Senao International Co., Ltd.	Aval Technologies Co., Ltd. Winn Technology Co., Ltd.	b  b	\$ 584,817  584,817	\$ 300,000  100,000	\$ 300,000  100,000	\$ 300,000  100,000	\$ -  -	5.13  1.71	\$ 2,924,089  2,924,089	Yes  Yes	No  No	No  No	Notes 3 and 4  Notes 3 and 4

Note 1: Significant transactions between the Company and its subsidiaries or among subsidiaries are numbered as follows:

- "0" for the Company.
- Subsidiaries are numbered from "1".

Note 2: Relationships between the endorsement/guarantee provider and the guaranteed party:

- A company with which it does business.
- A company in which the Company directly and indirectly holds more than 50 percent of the voting shares.
- A company that directly and indirectly holds more than 50 percent of the voting shares in the Company.
- Companies in which the Company holds, directly or indirectly, 90% or more of the voting shares.
- The Company fulfills its contractual obligations by providing mutual endorsements/guarantees for another company in the same industry or for joint builders for purposes of undertaking a construction project.
- All capital contributing shareholders make endorsements/guarantees for their jointly invested company in proportion to their shareholding percentages.
- Companies in the same industry provide among themselves joint and several security for a performance guarantee of a sales contract for pre-construction homes pursuant to the Consumer Protection Act for each other.

Note 3: The limits on endorsement or guarantee amount provided to each guaranteed party is up to 10% of the net assets value of the latest financial statements of Senao International Co., Ltd.

Note 4: The total amount of endorsement or guarantee that the Company is allowed to provide is up to 50% of the net assets value of the latest financial statements of Senao International Co., Ltd.

**CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES**

**MARKETABLE SECURITIES HELD**

**DECEMBER 31, 2019**

(Amounts in Thousands of New Taiwan Dollars)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2019			Note	
				Shares (Thousands/Thousand Units)	Carrying Value (Note 1)	Percentage of Ownership		Fair Value
Chungghwa Telecom Co., Ltd.	Stocks Taipei Financial Center Corp.	-	Financial assets at FVOCI	172,927	\$ 4,388,984	12	\$ 4,388,984	-
	Innovation Works Development Fund, L.P.	-	Financial assets at FVTPL - noncurrent	-	267,304	4	267,304	-
	Industrial Bank of Taiwan II Venture Capital Co., Ltd. (IBT II)	-	Financial assets at FVOCI	5,252	17,084	17	17,084	-
	Global Mobile Corp.	-	Financial assets at FVOCI	7,617	-	3	-	-
	Innovation Works Limited	-	Financial assets at FVOCI	1,000	4,078	2	4,078	-
	RPPI Intergroup International Ltd.	-	Financial assets at FVOCI	4,765	-	10	-	-
	Taiwan mobile payment Co., Ltd.	-	Financial assets at FVOCI	1,200	4,510	2	4,510	-
	Taiwania Capital Buffalo Fund Co., Ltd.	-	Financial assets at FVTPL - noncurrent	600,000	510,801	13	510,801	-
	China Airlines Ltd.	-	Financial assets at FVOCI	263,622	2,388,416	5	2,388,416	Note 2
	4 Gamers Entertainment Inc.	-	Financial assets at FVOCI	136	120,243	19.9	120,243	-
Senao International Co., Ltd.	Stocks N.T.U. Innovation Incubation Corporation	-	Financial assets at FVOCI	1,200	10,648	9	10,648	-
	CHIEF Telecom Inc.	Stocks 3 Link Information Service Co., Ltd.	Financial assets at FVOCI	374	950	10	950	-
WPG Holdings Limited		-	Financial assets at FVTPL - current	9	463	-	463	Note 2
Chungghwa Investment Co., Ltd.		Stocks Tatung Technology Inc.	-	Financial assets at FVOCI	4,571	144,277	11	144,277
	iSing99 Inc.	-	Financial assets at FVOCI	10,000	-	7	-	-
	Powtec ElectroChemical Corporation	-	Financial assets at FVOCI	20,000	114,478	2	114,478	-
	Bosssdom Diginnovation Co., Ltd.	-	Financial assets at FVOCI	2,000	65,200	7	65,200	Note 2
Chungghwa Hsingta Co., Ltd.	Stocks Cotech Engineering Fuzhou Corp.	-	Financial assets at FVOCI	-	10,049	5	10,049	-

Note 1: Showed at carrying amounts with fair value adjustments.

Note 2: Fair value was based on the closing price on December 31, 2019.

## CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

MARKETABLE SECURITIES ACQUIRED AND DISPOSED OF AT COSTS OR PRICES OF AT LEAST NT\$300 MILLION OR 20% OF THE PAID-IN CAPITAL  
 YEAR ENDED DECEMBER 31, 2019  
 (Amounts in Thousands of New Taiwan Dollars)

Company Name	Marketable Securities Type and Name	Financial Statement Account	Counter-party	Nature of Relationship	Beginning Balance		Acquisition		Disposal			Ending Balance	
					Shares (Thousands/Thousand Units)	Amount	Shares (Thousands/Thousand Units)	Amount	Shares (Thousands/Thousand Units)	Amount	Carrying Value	Gain on Disposal	Shares (Thousands/Thousand Units)
Chunghwa Telecom Co., Ltd.	Stocks Taiwania Capital Buffalo Fund Co., Ltd. Next Commercial Bank Co., Ltd. (preparatory office)	Financial assets at FVTPL- noncurrent Investments accounted for using equity method	- -	- Associate	300,000 -	\$ 300,000 (Note 1)	300,000 419,000	\$ 300,000 4,190,000	- -	\$ - -	- -	600,000 419,000	\$ 600,000 (Note 1) 4,190,000 (Note 2)

Note 1: Showing at their original investment amounts without adjustments for fair values.

Note 2: The ending balance was based on the original investment amount without adjustments for share of the profit or loss of investments accounted for using equity method.

**CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES**

ACQUISITION OF INDIVIDUAL REAL ESTATE AT COSTS OF AT LEAST \$300 MILLION OR 20% OF THE PAID-IN CAPITAL  
 YEAR ENDED DECEMBER 31, 2019  
 (Amounts in Thousands of New Taiwan Dollars)

Buyer	Property	Event Date	Transaction Amount	Payment Status	Counterparty	Relationship	Information on Previous Title Relationship	Transaction Date	Information on Previous Title Transfer if Counterparty is a Related Party	Pricing Reference	Purpose of Acquisition	Other Terms
Chunghwa Precision Test Tech. Co., Ltd.	Headquarters	2017.07.29- 2019.12.25	\$ 1,460,105	Monthly settlement based on the construction progress and acceptance	Fu Tsu Construction Co., Ltd.	-	Not applicable	Not applicable	Not applicable	Bidding, price comparison and price negotiation	Manufacturing purpose	None

## CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

TOTAL PURCHASES FROM OR SALES TO RELATED PARTIES AMOUNTING TO AT LEAST NT\$100 MILLION OR 20% OF THE PAID-IN CAPITAL  
 YEAR ENDED DECEMBER 31, 2019  
 (Amounts in Thousands of New Taiwan Dollars)

Company Name	Related Party	Nature of Relationship	Transaction Details		Abnormal Transaction		Notes / Accounts Payable or Receivable Ending Balance (Notes 3 and 5)	% to Total
			Purchase/Sales (Note 1)	Amount (Notes 2 and 5)	Units Price	Payment Terms		
Chungghwa Telecom Co., Ltd.	Senaio International Co., Ltd.	Subsidiary	Sales	\$ 2,396,927	1	30 days	\$ 285,563	1
	CHIEF Telecom Inc.	Subsidiary	Purchase	878,601	1	30-90 days	(787,371)	(6)
	Chungghwa System Integration Co., Ltd.	Subsidiary	Purchase	354,556	-	30 days	48,736	-
	CHYP Multimedia Marketing & Communications Co., Ltd.	Subsidiary	Purchase	1,052,583	1	60 days	(23,165)	(5)
	Hongghwa International Co., Ltd.	Subsidiary	Purchase	107,346	-	30 days	(659,866)	-
		Subsidiary	Sales	109,606	-	30-60 days	(33,217)	-
		Subsidiary	Purchase	5,347,566	5	30-60 days	64,232	(6)
		Subsidiary	Sales	198,226	-	30 days	46,707	-
		Subsidiary	Purchase	606,424	1	90 days	(169,182)	(1)
		Subsidiary	Purchase	362,348	-	90 days	(38,134)	-
		Subsidiary	Sales	275,094	-	30 days	42,356	-
		Subsidiary	Purchase	353,121	-	90 days	(67,217)	-
		Subsidiary	Purchase	235,011	-	30 days	(57,268)	-
		Associate	Purchase	700,254	1	30-90 days	(432,307)	(3)
	Associate	Sales	143,772	-	60 days	5	-	
	Associate	Purchase	151,034	-	30 days	(48,182)	-	
Senaio International Co., Ltd.	Chungghwa Telecom Co., Ltd.	Parent company	Sales	6,441,498	22	30-90 days	797,620	47
	Aval Technologies Co., Ltd.	Subsidiary	Purchase	2,216,723	9	30 days	(261,139)	(14)
	Senyoung Insurance Agent Co., Ltd.	Subsidiary	Sales	602,456	2	30 days	(180)	-
	Youth Co., Ltd.	Fellow subsidiary	Sales	124,104	-	30 days	44,441	3
Aval Technologies Co., Ltd.	Chungghwa Telecom Co., Ltd.	Parent company	Sales	174,216	1	30 days	27,077	2
CHIEF Telecom Inc.	Chungghwa Telecom Co., Ltd.	Parent company	Sales	264,284	11	60 days	34,123	16
	Chungghwa System Integration Co., Ltd.	Parent company	Purchase	354,038	27	30 days	(48,736)	(45)
Chungghwa System Integration Co., Ltd.	Chungghwa Telecom Co., Ltd.	Parent company	Sales	1,965,251	85	30 days	657,839	80
CHYP Multimedia Marketing & Communications Co., Ltd.	Chungghwa Telecom Co., Ltd.	Parent company	Sales	107,346	27	30 days	30,697	40
Hongghwa International Co., Ltd.	Chungghwa Telecom Co., Ltd.	Parent company	Sales	5,318,598	96	30-60 days	788,779	98
Dongghwa Telecom Co., Ltd.	Chungghwa Telecom Co., Ltd.	Parent company	Sales	606,424	46	90 days	169,182	78
	Chungghwa Telecom Global, Inc.	Parent company	Purchase	198,226	16	30 days	(46,707)	(28)
Chungghwa Telecom Global, Inc.	Chungghwa Telecom Co., Ltd.	Parent company	Sales	362,348	59	90 days	38,134	71
Chungghwa Telecom Singapore Pte., Ltd.	Chungghwa Telecom Co., Ltd.	Parent company	Sales	353,121	31	90 days	67,217	12
	CHT Security Co., Ltd.	Parent company	Purchase	275,094	26	30 days	(42,356)	(7)
CHT Security Co., Ltd.	Chungghwa Telecom Co., Ltd.	Parent company	Sales	295,699	43	30 days	136,450	78

Note 1: Purchase included acquisition of services costs.

Note 2: The differences were because Chungghwa Telecom Co., Ltd. and subsidiaries classified the amount as incremental costs of obtaining contracts, inventories, property, plant and equipment, intangible assets, and operating expenses.

Note 3: Notes and accounts receivable did not include the amounts collected for others and other receivables.

Note 4: Transaction terms with the related parties were determined in accordance with mutual agreements when there were no similar transactions with third parties. Other transactions with related parties were not significantly different from those with third parties.

Note 5: All inter-company transactions, balances, income and expenses are eliminated upon consolidation.

**CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES**

RECEIVABLES FROM RELATED PARTIES AMOUNTING TO AT LEAST NT\$100 MILLION OR 20% OF THE PAID-IN CAPITAL  
DECEMBER 31, 2019  
(Amounts in Thousands of New Taiwan Dollars)

Company Name	Related Party	Nature of Relationship	Ending Balance	Turnover Rate (Note 1)	Overdue		Amounts Received in Subsequent Period	Allowance for Bad Debts
					Amounts	Action Taken		
Chunghwa Telecom Co., Ltd.	Senao International Co., Ltd.	Subsidiary	\$ 464,647 (Note 2)	10.31	\$ -	-	\$ 451,941	\$ -
Senao International Co., Ltd.	Chunghwa Telecom Co., Ltd.	Parent company	990,879 (Note 2)	7.48	-	-	123,369	-
Chunghwa System Integration Co., Ltd.	Chunghwa Telecom Co., Ltd.	Parent company	657,839 (Note 2)	3.06	-	-	482,712	-
Honghwa International Co., Ltd.	Chunghwa Telecom Co., Ltd.	Parent company	788,779 (Note 2)	5.76	-	-	171,232	-
Donghwa Telecom Co., Ltd.	Chunghwa Telecom Co., Ltd.	Parent company	169,182 (Note 2)	3.59	-	-	110,229	-

Note 1: Payments and receipts collected in trust for others are excluded from the accounts receivable for calculating the turnover rate.

Note 2: The amount was eliminated upon consolidation.

## CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

NAMES, LOCATIONS, AND OTHER INFORMATION OF INVESTEEES IN WHICH THE COMPANY EXERCISES SIGNIFICANT INFLUENCE (EXCLUDING INVESTEEES IN MAINLAND CHINA)  
 YEAR ENDED DECEMBER 31, 2019  
 (Amounts in Thousands of New Taiwan Dollars)

Investor Company	Investee Company	Location	Main Businesses and Products	Original Investment Amount		Balance as of December 31, 2019		Net Income (Loss) of the Investee	Recognized Gain (Loss) (Notes 1, 2 and 3)	Note
				December 31, 2019	December 31, 2018	Shares (Thousands)	Percentage of Ownership (%)			
Chungghwa Telecom Co., Ltd.	Senao International Co., Ltd.	Taiwan	Handset and peripherals retailer; sales of CHT mobile phone plans as an agent	\$ 1,065,813	\$ 1,065,813	71,773	28	\$ 409,348	\$ 108,059	Subsidiary (Note 6)
	Light Era Development Co., Ltd.	Taiwan	Planning and development of real estate and intelligent buildings, and property management	3,000,000	3,000,000	300,000	100	7,254	3,494	Subsidiary (Note 6)
	Dongghwa Telecom Co., Ltd.	Hong Kong	International private leased circuit, IP VPN service, and IP transit services	1,567,453	1,567,453	402,590	100	39,268	39,268	Subsidiary (Note 6)
	Chungghwa Telecom Singapore Pte., Ltd.	Singapore	International private leased circuit, IP VPN service, and IP transit services	574,112	574,112	26,383	100	143,145	143,152	Subsidiary (Note 6)
	Chungghwa System Integration Co., Ltd.	Taiwan	Providing system integration services and telecommunications equipment	838,506	838,506	60,000	100	13,135	(20,612)	Subsidiary (Note 6)
	CHIEF Telecom Inc.	Taiwan	Network integration, internet data center ("IDC"), communications integration and cloud application services	459,652	459,652	39,426	57	542,508	313,931	Subsidiary (Note 6)
	Chungghwa Investment Co., Ltd.	Taiwan	Investment	639,559	639,559	68,085	89	207,988	185,348	Subsidiary (Note 6)
	Prime Asia Investments Group Ltd. (B.V.I.)	British Virgin Islands	Investment	385,274	385,274	1	100	(2,462)	(2,462)	Subsidiary (Note 6)
	Hongghwa International Co., Ltd.	Taiwan	Telecommunication engineering, sales agent of mobile phone plan application and other business services	180,000	180,000	18,000	100	171,509	165,011	Subsidiary (Note 6)
	CHYP Multimedia Marketing & Communications Co., Ltd.	Taiwan	Digital information supply services and advertisement services	150,000	150,000	15,000	100	15,375	15,733	Subsidiary (Note 6)
	Chungghwa Telecom Vietnam Co., Ltd.	Vietnam	Intelligent energy saving solutions, international circuit, and information and communication technology ("ICT") services	148,275	148,275	-	100	(5,365)	(5,365)	Subsidiary (Note 6)
	Chungghwa Telecom Global, Inc.	United States	International private leased circuit, internet services, and transit services	70,429	70,429	6,000	100	66,530	68,770	Subsidiary (Note 6)
	CHT Security Co., Ltd.	Taiwan	Computing equipment installation, wholesale of computing and business machinery equipment and software, management consulting services, data processing services, digital information supply services and internet identify services	240,000	240,000	24,000	80	98,124	72,112	Subsidiary (Note 6)
	Chungghwa Telecom (Thailand) Co., Ltd.	Thailand	International private leased circuit, IP VPN service, ICT and cloud VAS services	119,624	100,000	1,300	100	(3,595)	(3,595)	Subsidiary (Note 6)
	Spring House Entertainment Tech. Inc.	Taiwan	Software design services, internet contents production and play, and motion picture production and distribution	41,941	62,209	8,251	56	21,322	11,949	Subsidiary (Note 6)
	Chungghwa leading Photonics Tech Co., Ltd.	Taiwan	Production and sale of electronic components and finished products	70,500	70,500	7,050	75	10,464	13,050	Subsidiary (Note 6)
	Smartfun Digital Co., Ltd.	Taiwan	Providing diversified family education digital services	65,000	65,000	6,500	65	10,260	7,466	Subsidiary (Note 6)
	Chungghwa Telecom Japan Co., Ltd.	Japan	International private leased circuit, IP VPN service, and IP transit services	17,291	17,291	1	100	15,073	15,073	Subsidiary (Note 6)
	Chungghwa Sochamp Technology Inc.	Taiwan	Design, development and production of Automatic License Plate Recognition software and hardware	20,400	20,400	2,040	51	(2,232)	(3,858)	Subsidiary (Note 6)
	International Integrated System, Inc.	Taiwan	IT solution provider, IT application consultation, system integration and package solution	283,500	283,500	22,498	31	129,400	41,699	Associate

## CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

NAMES, LOCATIONS, AND OTHER INFORMATION OF INVESTEEES IN WHICH THE COMPANY EXERCISES SIGNIFICANT INFLUENCE (EXCLUDING INVESTMENT IN MAINLAND CHINA)  
 YEAR ENDED DECEMBER 31, 2019  
 (Amounts in Thousands of New Taiwan Dollars)

Investor Company	Investee Company	Location	Main Businesses and Products	Original Investment Amount		Balance as of December 31, 2019		Net Income (Loss) of the Investee	Recognized Gain (Loss) (Notes 1, 2 and 3)	Note
				December 31, 2019	December 31, 2018	Shares (Thousands)	Percentage of Ownership (%)			
	Vietel-CHT Co., Ltd. Taiwan International Standard Electronics Co., Ltd.	Vietnam Taiwan	IDC services Manufacturing, selling, designing, and maintaining of telecommunications systems and equipment	\$ 288,327 164,000	\$ 288,327 164,000	- 1,760	30 40	\$ 253,315 259,592	\$ 76,008 135,438	Associate Associate
	KKBOX Taiwan Co., Ltd.	Taiwan	Providing of music on-line, software, electronic information, and advertisement services	67,025	67,025	4,438	30	12,645	3,793	Associate
	So-net Entertainment Taiwan Limited KingwayTek Technology Co., Ltd.	Taiwan Taiwan	Online service and sale of computer hardware Publishing books, data processing and software services	120,008 66,684	120,008 69,013	9,429 7,898	30 23	230,376 2,692	69,113 1,723	Associate Associate
	Taiwan International Ports Logistics Corporation UUPON Inc.	Taiwan Taiwan	Import and export storage, logistic warehouse, and ocean shipping service Information technology service and general advertisement service	80,000 97,598	80,000 97,598	8,000 5,400	27 15	4,921 (28,150)	1,329 (4,234)	Associate Associate
	Alliance Digital Tech Co., Ltd.	Taiwan	Development of mobile payments and information processing service	60,000	60,000	6,000	14	-	-	Associate
	Chungghwa PChome Fund I Co., Ltd.	Taiwan	Investment, venture capital, investment advisor, management consultant and other consultancy service	200,000	200,000	20,000	50	(9,785)	(4,893)	Associate
	Cornerstone Ventures Co., Ltd.	Taiwan	Investment, venture capital, investment advisor, management consultant and other consultancy service	4,900	4,900	490	49	1,530	750	Associate
	Next Commercial Bank Co., Ltd. (preparatory office)	Taiwan	Online banking business	4,190,000	-	419,000	42	(276,449)	(115,832)	Associate
Senao International Co., Ltd.	Senao Networks, Inc.	Taiwan	Telecommunication facilities manufactures and sales	202,758	202,758	16,579	34	424,479	143,443	Associate
	Senao International (Samoa) Holding Ltd. UUPON Inc.	Samoa Islands Taiwan	International investment Information technology service and general advertisement service	2,333,620 24,000	2,416,645 24,000	77,775 2,400	100 7	(50,646) (28,150)	(50,646) (1,883)	Subsidiary (Note 6) Associate
	Youth Co., Ltd.	Taiwan	Sale of information and communication technologies products	364,950	364,950	8,462	93	(3,130)	(20,345)	Subsidiary (Note 6)
	Avat Technologies Co., Ltd.	Taiwan	Sale of information and communication technologies products	89,550	60,000	9,843	100	2,363	2,367	Subsidiary (Note 6)
	Senyoung Insurance Agent Co., Ltd.	Taiwan	Property and liability insurance agency	59,000	59,000	5,900	100	25,036	25,044	Subsidiary (Note 6)
Light Era Development Co., Ltd.	Taoyuan Asia Silicon Valley Innovation Co., Ltd.	Taiwan	Development of real estate	-	7,500	750	60	(5,466)	(3,280)	Subsidiary (Notes 4 and 6)
CHIEF Telecom Inc.	Unigate Telecom Inc. Chief International Corp.	Taiwan Samoa Islands	Telecommunications and internet service Telecommunications and internet service	2,000 6,068	2,000 6,068	200 200	100 100	(1) 10,894	(1) 10,894	Subsidiary (Note 6) Subsidiary (Note 6)
Chungghwa Telecom Singapore Pte., Ltd.	ST-2 Satellite Ventures Pte., Ltd.	Singapore	Operation of ST-2 telecommunications satellite	409,061	409,061	18,102	38	306,425	116,442	Associate
Chungghwa Investment Co., Ltd.	Chungghwa Precision Test Tech. Co., Ltd. CHIEF Telecom Inc.	Taiwan Taiwan	Production and sale of semiconductor testing components and printed circuit board Network integration, internet data center ("IDC"), communications integration and cloud application services	178,608 19,064	178,608 19,064	11,230 2,078	34 3	625,164 542,508	214,115 16,275	Subsidiary (Note 6) Associate (Note 6)
	Senao International Co., Ltd.	Taiwan	Selling and maintaining mobile phones and its peripheral products	49,731	49,731	1,001	-	409,348	1,594	Associate (Note 6)

(Continued)

**CHUNGWA TELECOM CO., LTD. AND SUBSIDIARIES**

NAMES, LOCATIONS, AND OTHER INFORMATION OF INVESTEEES IN WHICH THE COMPANY EXERCISES SIGNIFICANT INFLUENCE (EXCLUDING INVESTMENT IN MAINLAND CHINA)  
YEAR ENDED DECEMBER 31, 2019  
(Amounts in Thousands of New Taiwan Dollars)

Investor Company	Investee Company	Location	Main Businesses and Products	Original Investment Amount		Balance as of December 31, 2019		Net Income (Loss) of the Investee	Recognized Gain (Loss) (Notes 1, 2 and 3)	Note
				December 31, 2019	December 31, 2018	Shares (Thousands)	Percentage of Ownership (%)			
Chungghwa Precision Test Tech. Co., Ltd.	Chungghwa Precision Test Tech USA Corporation	United States	Design and after-sale services of semiconductor testing components and printed circuit board	\$ 12,636	\$ 12,636	400	100	\$ 24,337	\$ 544	Subsidiary (Note 6)
	CHPT Japan Co., Ltd.	Japan	Related services of electronic parts, machinery processed products and printed circuit board	2,008	2,008	1	100	2,380	82	Subsidiary (Note 6)
	Chungghwa Precision Test Tech. International, Ltd.	Samoa Islands	Wholesale and retail of electronic materials, and investment	116,790	54,450	3,700	100	84,684	(13,893)	Subsidiary (Note 6)
Prime Asia Investments Group, Ltd. (B.V.I.)	Chungghwa Hsingia Co., Ltd. MeWorks Limited (HK)	Hong Kong Hong Kong	Investment	375,274	375,274	1	100	182,988	(2,460)	Subsidiary (Note 6)
	Senao International HK Limited	Hong Kong	Investment	10,000	10,000	-	20	-	-	Associate
Senao International (Samoa) Holding Ltd.	Senao International HK Limited	Hong Kong	International investment	2,328,754	2,393,646	80,440	100	332,131	(50,952)	Subsidiary (Note 6)
Youth Co., Ltd.	ISPOT Co., Ltd.	Taiwan	Sale of information and communication technologies products	53,021	53,021	-	100	9,098	(94)	Subsidiary (Note 6)
	Youyi Co., Ltd.	Taiwan	Maintenance of information and communication technologies products	21,354	21,354	-	100	17,152	315	Subsidiary (Note 6)
Aval Technologies Co., Ltd.	Winn Technology Co., Ltd.	Taiwan	Sale of information and communication technologies products	29,550	-	2,955	100	29,781	231	Subsidiary (Note 6)
Seryoung Insurance Agent Co., Ltd.	Seyoung Insurance Agent Co., Ltd.	Taiwan	Life insurance services	29,500	-	2,950	100	29,220	(280)	Subsidiary (Note 6)
CHYP Multimedia Marketing & Communications Co., Ltd	Click Force Marketing Company	Taiwan	Advertisement services	44,607	44,607	1,078	49	37,120	(756)	Associate

Note 1: The amounts were based on audited financial statements.

Note 2: Recognized gain (loss) of investees includes amortization of differences between the investment cost and net value and elimination of unrealized transactions.

Note 3: Recognized gain (loss) and carrying value of the investees did not include the adjustment of the difference between the accounting treatment on standalone basis and consolidated basis as a result of the application of IFRS 15.

Note 4: The liquidation of Taoyuan Asia Silicon Valley Innovation Co., Ltd. was completed in September 2019.

Note 5: Investment in mainland China is included in Table 8.

Note 6: The amount was eliminated upon consolidation.

(Concluded)

**CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES**

INVESTMENT IN MAINLAND CHINA  
YEAR ENDED DECEMBER 31, 2019  
(Amounts in Thousands of New Taiwan Dollars)

Investee	Main Businesses and Products	Total Amount of Paid-in Capital	Investment Type (Note 1)	Accumulated Outflow of Investment from Taiwan as of January 1, 2019	Investment Flows		Accumulated Outflow of Investment from Taiwan as of December 31, 2019	Net Income (Loss) of the Investee	% Ownership of Direct or Indirect Investment	Investment Gain (Loss) (Note 2)	Carrying Value as of December 31, 2019	Accumulated Inward Remittance of Earnings as of December 31, 2019	Note
					Outflow	Inflow							
Senao Trading (Fujian) Co., Ltd.	Sale of information and communication technologies products	\$ 1,073,170	2	\$ 1,073,170	\$ -	\$ -	\$ 1,073,170	\$ 1,435	100	\$ 1,435	\$ -	\$ -	Notes 7 and 11
Senao International Trading (Shanghai) Co., Ltd.	Sale of information and communication technologies products	955,838	2	955,838	-	-	955,838	(27,215)	100	(27,215)	50,497	-	Note 11
Senao International Trading (Shanghai) Co., Ltd. (Note 12)	Maintenance of information and communication technologies products	26,053	2	87,540	-	61,487	26,053	-	100	-	-	-	Notes 8 and 11
Senao International Trading (Jiangsu) Co., Ltd.	Sale of information and communication technologies products	263,736	2	263,736	-	-	263,736	310	100	310	-	-	Notes 9 and 11
Chunghua Telecom (China) Co., Ltd.	Integrated information and communication solution services for enterprise clients, and intelligent energy network service	177,176	2	177,176	-	-	177,176	(6,069)	100	(6,069)	44,475	-	Note 11
Jiangsu Zhenghua Information Technology Company, LLC	Providing intelligent energy saving solution and intelligent buildings services	189,410	2	142,057	-	-	142,057	-	75	-	-	-	Notes 10 and 11
Shanghai Taihua Electronic Technology Limited	Design of printed circuit board and related consultation service	51,233	2	51,233	-	-	51,233	(12,279)	100	(12,279)	25,943	-	Note 11
Su Zhou Precision Test Tech. Ltd.	Assembly processed of circuit board, design of printed circuit board and related consultation service	62,340	2	-	62,340	-	62,340	(1,955)	100	(1,955)	58,916	-	Note 11
Shanghai Chief Telecom Co., Ltd.	Telecommunications and internet service	10,150	1	4,973	-	-	4,973	6,822	49	3,343	10,852	-	Note 11

(Continued)

Investee	Accumulated Investment in Mainland China as of December 31, 2019	Investment Amounts Authorized by Investment Commission, MOEA	Upper Limit on Investment Stipulated by Investment Commission, MOEA
SENAO and its subsidiaries (Note 3)	\$ 2,318,797	\$ 2,318,797	\$ 3,517,513
Chunghwa Telecom (China) Co., Ltd. (Note 4)	177,176	177,176	231,836,259
Jiangsu Zhenhua Information Technology Company, LLC (Note 4)	142,057	142,057	231,836,259
Chunghwa Precision Test Tech Co., Ltd. and its subsidiaries (Note 5)	113,573	159,725	3,866,346
Shanghai Chief Telecom Co., Ltd. (Note 6)	4,973	4,973	1,720,100

Note 1: Investments are divided into three categories as follows:

- a. Direct investment.
- b. Investments through a holding company registered in a third region.
- c. Others.

Note 2: The amounts were calculated based on the investee's audited financial statements.

Note 3: Senao International Co., Ltd. and its subsidiaries were calculated based on the consolidated net assets value of Senao International Co., Ltd.

Note 4: Chunghwa Telecom (China) Co., Ltd. and Jiangsu Zhenhua Information Technology Company, LLC were calculated based on the consolidated net assets value of Chunghwa Telecom Co., Ltd.

Note 5: Chunghwa Precision Test Tech. Co., Ltd. and its subsidiaries were calculated based on the consolidated net assets value of Chunghwa Precision Test Tech. Co., Ltd.

Note 6: Shanghai Chief Telecom Co., Ltd. was calculated based on the consolidated net assets value of CHIEF Telecom Inc.

Note 7: The liquidation of Senao Trading (Fujian) Co., Ltd. was completed in May 2019.

Note 8: The liquidation of Senao International Trading (Shanghai) Co., Ltd. was completed in March 2018.

Note 9: The liquidation of Senao International Trading (Jiangsu) Co., Ltd. was completed in March 2019.

Note 10: The liquidation of Jiangsu Zhenhua Information Technology Company, LLC. was completed in December 2018.

Note 11: The amount was eliminated upon consolidation.

Note 12: The English name is the same as the above entity; however the Chinese name included in the respective Articles of Incorporations is different from the above entity.

(Concluded)

**CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES**

**INTERCOMPANY RELATIONSHIPS AND SIGNIFICANT TRANSACTIONS  
YEAR ENDED DECEMBER 31, 2019**

(Amounts in Thousands of New Taiwan Dollars)

Year	No. (Note 1)	Company Name	Related Party	Nature of Relationship (Note 2)	Transaction Details			% to Total Sales or Assets (Note 4)
					Financial Statement Account	Amount (Note 5)	Payment Terms (Note 3)	
2019	0	Chunghwa Telecom Co., Ltd.	Senao International Co., Ltd.	a	Accounts receivable	\$ 285,563	-	-
					Accrued custodial receipts	179,084	-	-
					Accounts payable	787,371	-	-
					Amounts collected for others	203,740	-	-
					Revenues	2,396,927	-	1
					Operating costs and expenses	862,598	-	-
					Inventories	16,003	-	-
					Property, plant and equipment	14,513	-	-
				a	Accounts receivable	48,736	-	-
		CHIEF Telecom Inc.			Accounts payable	23,165	-	-
					Revenues	354,556	-	-
					Operating costs and expenses	115,231	-	-
				a	Accounts payable	33,217	-	-
		CHYP Multimedia Marketing & Communications Co., Ltd.			Amounts collected for others	47,305	-	-
					Revenues	33,394	-	-
					Operating costs and expenses	107,346	-	-
			Chunghwa System Integration Co., Ltd.	a	Accounts receivable	48,136	-	-
					Accounts payable	659,866	-	-
					Revenues	11,578	-	-
					Operating costs and expenses	873,838	-	-
					Inventories	178,745	-	-
					Prepayments	102,421	-	-
					Property, plant and equipment	704,678	-	-
					Intangible assets	121,357	-	-
			Chunghwa Telecom Global Inc.	a	Accounts receivable	13,997	-	-
					Accounts payable	38,134	-	-
					Revenues	82,684	-	-
					Operating costs and expenses	362,348	-	-
			Donghua Telecom Co., Ltd.	a	Accounts receivable	46,707	-	-
					Accounts payable	169,182	-	-
					Revenues	198,226	-	-
					Operating costs and expenses	606,424	-	-
			Spring House Entertainment Tech. Inc.	a	Amounts collected for others	17,092	-	-
					Revenues	17,896	-	-

(Continued)

**CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES**

**INTERCOMPANY RELATIONSHIPS AND SIGNIFICANT TRANSACTIONS**

**YEAR ENDED DECEMBER 31, 2019**

**(Amounts in Thousands of New Taiwan Dollars)**

Year	No. (Note 1)	Company Name	Related Party	Nature of Relationship (Note 2)	Transaction Details			
					Financial Statement Account	Amount (Note 5)	Payment Terms (Note 3)	% to Total Sales or Assets (Note 4)
			Chunghwa Telecom Japan Co., Ltd.	a	Revenues	\$ 27,989	-	-
			Chunghwa Telecom Singapore Pte., Ltd.	a	Operating costs and expenses	96,096	-	-
					Accounts receivable	42,356	-	-
					Accounts payable	67,217	-	-
					Revenues	275,094	-	-
			Chunghwa Sochamp Technology Inc.	a	Operating costs and expenses	353,121	-	-
					Accounts payable	32,986	-	-
					Inventories	13,557	-	-
			Honghwa International Co., Ltd.	a	Accounts receivable	64,232	-	-
					Accounts payable	790,045	-	-
					Revenues	109,606	-	-
					Operating costs and expenses	5,318,598	-	3
					Inventories	28,968	-	-
			Smartfun Digital Co., Ltd.	a	Property, plant and equipment	95,291	-	-
					Accounts payable	14,417	-	-
					Operating costs and expenses	29,515	-	-
			Chunghwa Telecom Thailand Co., Ltd.	a	Operating costs and expenses	31,306	-	-
			CHT Security Co., Ltd.	a	Accounts payable	57,268	-	-
					Revenues	30,655	-	-
					Operating costs and expenses	204,074	-	-
					Inventories	30,937	-	-
					Property, plant and equipment	19,943	-	-
					Intangible assets	11,258	-	-
					Other noncurrent assets	34,578	-	-
			Aval Technologies Co., Ltd.	a	Accounts payable	15,438	-	-
			Senyoung Insurance Agent Co., Ltd.	a	Operating costs and expenses	79,019	-	-
					Accounts receivable	28,273	-	-
			Light Era Development Co., Ltd.	a	Revenues	34,670	-	-
					Accounts payable	47,371	-	-
					Property, plant and equipment	39,948	-	-
	1	Light Era Development Co., Ltd.	CHIEF Telecom Inc.	c	Revenues	96,390	-	-
	2	Chunghwa Telecom Singapore Pte., Ltd.	Donghwa Telecom Co., Ltd.	c	Prepayments	15,523	-	-

(Continued)

## CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

### INTERCOMPANY RELATIONSHIPS AND SIGNIFICANT TRANSACTIONS

YEAR ENDED DECEMBER 31, 2019

(Amounts in Thousands of New Taiwan Dollars)

Year	No. (Note 1)	Company Name	Related Party	Nature of Relationship (Note 2)	Transaction Details			
					Financial Statement Account	Amount (Note 5)	Payment Terms (Note 3)	% to Total Sales or Assets (Note 4)
	3	CHIEF Telecom Inc.	Chunghwa Telecom Singapore Pte., Ltd.	c	Revenues Operating costs and expenses	\$ 26,734 22,059	- -	- -

Note 1: Significant transactions between the Company and its subsidiaries or among subsidiaries are numbered as follows:

- a. "0" for the Company.
- b. Subsidiaries are numbered from "1".

Note 2: Related party transactions are divided into three categories as follows:

- a. The Company to subsidiaries.
- b. Subsidiaries to the Company.
- c. Subsidiaries to subsidiaries.

Note 3: Transaction terms with the related parties were determined in accordance with mutual agreements when there were no similar transactions with third parties. Other transactions with related parties were not significantly different from those with third parties.

Note 4: For assets and liabilities, amount is shown as a percentage to consolidated total assets as of December 31, 2019, while revenues, costs and expenses are shown as a percentage to consolidated revenues for the year ended December 31, 2019.

Note 5: The amount was eliminated upon consolidation.

(Concluded)

## 9. Parent-only Financial Statements and Independent Auditors' Report

## INDEPENDENT AUDITORS' REPORT

The Board of Directors and Stockholders  
Chunghwa Telecom Co., Ltd.

### Opinion

We have audited the accompanying financial statements of Chunghwa Telecom Co., Ltd. (the Company), which comprise the balance sheets as of December 31, 2019 and 2018, and the statements of comprehensive income, changes in equity and cash flows for the years then ended, and the related notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and its financial performance and its cash flows for the years then ended in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers.

### Basis for Opinion

We conducted our audits in accordance with the Regulations Governing Auditing and Attestation of Financial Statements by Certified Public Accountants and auditing standards generally accepted in the Republic of China. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Company in accordance with The Norm of Professional Ethics for Certified Public Accountant of the Republic of China, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements for the year ended December 31, 2019. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

The descriptions of the key audit matters of the financial statements for the year ended December 31, 2019 are as follows:

Revenue Recognition on Mobile Service

Key audit matter:

Refer to Notes 3 and 25 to the financial statements.

The Company's mobile service revenue consists of subscriber-based charges made up of a significant volume of low-dollar transactions. Because of the complexity and a variety of subscriber-based charges as

**Chunghwa Telecom Co., Ltd.**  
**Financial Statements for the**  
**Years Ended December 31, 2019 and 2018 and**  
**Independent Auditors' Report**

well as a large number of transactions, the Company uses highly automated systems to process and record its revenue transactions.

Given the Company's systems to process and record revenue are highly automated, auditing revenue was complex and challenging due to the extent of audit effort required and involvement of professionals with expertise in information technology (IT) necessary for us to identify, test, and evaluate the Company's IT systems.

Corresponding audit procedures:

Our audit procedures related to the Company's systems to process revenue transactions included the following, among others:

- With the assistance of our IT specialists, we:
  - Identified the significant systems used to process revenue transactions and tested the general IT controls over each of these systems, including testing of user access controls and change management controls.
  - Performed testing of system interface controls and automated controls within the relevant revenue streams, as well as the controls designed to ensure the accuracy and completeness of revenue.
  - We tested internal controls within the relevant revenue business processes, including those in place to reconcile the various systems to the Company's accounting system.
  - We selected samples from mobile service revenue and agreed to customer contracts and records of cash receipts.

#### Revenue Recognition on Project Business

Key audit matter:

Refer to Notes 3 and 4 to the financial statements.

The Company's project business is highly customized and mainly provides customers with combinations of various equipment and/or services. Project business contracts may likely outsource partial or substantial part of the obligations or services to third parties. The accounting for these contracts requires judgement, particularly as it relates to the determination of the Company acting as a principal or an agent.

Given the judgments on whether the Company is acting as a principal or an agent is required in order to determine if revenue should be recognized gross as principal versus net as agent, auditing such revenue required extensive audit effort due to the volume of contracts and involved a high degree of judgment when performing audit procedures and evaluating the result of these procedures.

Corresponding audit procedures:

Our audit procedures related to management's revenue recognition on project business included the following, among others:

- We tested the effectiveness of controls over project business revenue, including those over principal-versus-agent considerations and revenue recognition.
- We performed the following audit procedures on a sample basis:
  - Obtained project business contracts and the evaluation documentation prepared by management and determined the reasonableness of management's judgement on whether the Company is acting as a principal or an agent after considering whether the Company is the primary obligation provider, its exposures to inventory risks and the discretion in establishing the prices by reviewing the contractual

terms, comparing to the business substance and evaluating if it is consistent with relevant accounting standards.

- Performed detail transaction testing by agreeing the amounts recognized to source documents and testing the mathematical accuracy of the recorded revenue.
- Confirmed project business contract terms with customers.

#### **Emphasis of Matter**

As disclosed in Note 5 to the financial statements, the Company initially applied IFRS 16 "Leases" in 2019. Our audit opinion is not modified in respect of this matter.

#### **Responsibilities of Management and Those Charged with Governance for the Financial Statements**

Management is responsible for the preparation and fair presentation of the financial statements in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers, and for such internal control as management determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance, including the audit committee, are responsible for overseeing the Company's financial reporting process.

#### **Auditors' Responsibilities for the Audit of the Financial Statements**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the auditing standards generally accepted in the Republic of China will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with the auditing standards generally accepted in the Republic of China, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

1. Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
2. Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
3. Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

## CHUNGHWA TELECOM CO., LTD.

BALANCE SHEETS  
DECEMBER 31, 2019 AND 2018  
(In Thousands of New Taiwan Dollars)

ASSETS	2019		2018	
	Amount	%	Amount	%
<b>CURRENT ASSETS</b>				
Cash and cash equivalents (Notes 3 and 6)	\$ 25,081,712	5	\$ 16,922,851	4
Hedging financial assets (Notes 3 and 19)	327	-	1,069	-
Contract assets (Notes 3 and 25)	1,470,985	-	1,653,886	-
Trade notes and accounts receivable, net (Notes 3, 4, 9 and 25)	23,478,061	5	27,851,879	6
Receivables from related parties (Note 32)	785,570	-	817,874	-
Inventories (Notes 3, 4 and 10)	12,491,728	3	10,471,759	2
Prepayments (Notes 5, 11 and 32)	1,436,346	-	1,438,962	-
Other current monetary assets (Notes 12 and 23)	2,866,059	1	5,671,132	1
Other current assets (Note 18)	2,354,215	1	2,509,572	1
Total current assets	69,965,003	15	67,338,984	14
<b>NONCURRENT ASSETS</b>				
Financial assets at fair value through profit or loss (Notes 3, 4 and 7)	778,105	-	817,362	-
Financial assets at fair value through other comprehensive income (Notes 3, 4 and 8)	6,973,315	2	6,533,165	1
Financial assets measured at amortized cost (Notes 3, 4 and 13)	20,230,123	4	15,698,311	4
Property, plant and equipment (Notes 3, 4, 5, 14 and 32)	804,698	-	467,259	-
Right-of-use assets (Notes 3, 4, 5, 14 and 32)	274,744,872	60	281,056,057	64
Investment properties (Notes 3, 4 and 16)	10,292,025	2	-	-
Intangible assets (Notes 3, 4 and 17)	8,094,618	2	8,212,437	2
Deferred income tax assets (Notes 3, 5 and 27)	46,519,457	10	50,404,295	11
Incremental costs of obtaining contracts (Notes 3 and 25)	2,719,035	1	3,041,999	1
Net defined benefit assets (Notes 3, 4 and 23)	6,976,421	2	6,620,704	2
Prepayments (Notes 5, 11 and 32)	2,108,176	1	1,149,402	-
Other noncurrent assets (Note 18)	1,381,618	-	1,852,675	-
Other noncurrent assets (Note 18)	5,687,816	1	4,726,124	1
Total noncurrent assets	387,350,278	85	381,477,677	86
<b>TOTAL</b>	\$ 457,315,281	100	\$ 448,816,661	100
<b>LIABILITIES AND EQUITY</b>				
<b>CURRENT LIABILITIES</b>				
Financial liabilities at fair value through profit or loss (Notes 3, 4 and 7)	\$ 228	-	\$ 897	-
Contract liabilities (Notes 3, 5 and 25)	16,684,959	3	10,686,892	2
Trade notes and accounts payable (Note 20)	1,063,233	1	1,673,711	4
Payables to related parties (Note 32)	3,653,711	1	4,143,212	1
Contract liabilities (Notes 3, 4, 5, 15, 29 and 32)	3,739,435	1	4,070,910	1
Lease liabilities (Notes 3, 4, 5, 15, 29 and 32)	2,939,410	1	-	-
Other payables (Notes 5 and 21)	19,270,583	4	20,148,990	4
Provisions (Notes 3 and 22)	107,902	-	50,844	-
Other current liabilities (Note 5)	923,457	-	1,159,732	-
Total current liabilities	59,382,190	13	57,334,954	12
<b>NONCURRENT LIABILITIES</b>				
Contract liabilities (Notes 3, 5 and 25)	4,414,979	1	2,456,191	1
Deferred income tax liabilities (Notes 3 and 27)	1,880,925	-	1,957,503	-
Provisions (Notes 3 and 22)	97,382	-	78,627	-
Lease liabilities (Notes 3, 4, 5, 15, 29 and 32)	5,755,804	2	-	-
Customers' deposits (Note 32)	4,653,517	1	4,635,193	1
Net defined benefit liabilities (Notes 3, 4 and 23)	3,412,740	1	3,419,867	1
Other noncurrent liabilities (Notes 5 and 32)	1,607,501	-	2,371,954	-
Total noncurrent liabilities	21,822,848	5	14,919,335	4
<b>Total liabilities</b>	81,205,038	18	72,254,289	16
<b>EQUITY (Notes 5 and 24)</b>				
Common stock	77,574,465	17	77,574,465	18
Additional paid-in capital	171,255,985	37	171,136,764	39
Retained earnings	-	-	-	-
Legal reserve	77,574,465	17	77,574,465	17
Special reserve	2,675,419	1	2,675,419	1
Unappropriated earnings	46,341,361	10	47,141,345	10
Total retained earnings	126,591,245	28	127,391,239	27
Other adjustments	688,548	-	459,914	-
Total equity	376,110,243	82	376,562,372	84
<b>TOTAL</b>	\$ 457,315,281	100	\$ 448,816,661	100

The accompanying notes are an integral part of the financial statements.

4. Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Company to cease to continue as a going concern.

5. Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

6. Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Company to express an opinion on the financial statements. We are responsible for the direction, supervision, and performance of the audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements for the year ended December 31, 2019 and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partners on the audit resulting in this independent auditors' report are Mr. Dien Sheng Chang and Mr. Ching Pin Shih.

Dien Sheng Chang

Ching-Pin Shih

Deloitte & Touche  
Taipei, Taiwan  
Republic of China

February 26, 2020

Notice to Readers

The accompanying financial statements are intended only to present the financial position, financial performance and cash flows in accordance with accounting principles and practices generally accepted in the Republic of China and not those of any other jurisdictions. The standards, procedures and practices to audit such financial statements are those generally applied in the Republic of China.

For the convenience of readers, the independent auditors' report and the accompanying financial statements have been translated into English from the original Chinese version prepared and used in the Republic of China. If there is any conflict between the English version and the original Chinese version or any difference in the interpretation of the two versions, the Chinese-language independent auditors' report and financial statements shall prevail.

**CHUNGHWA TELECOM CO., LTD.**

**STATEMENTS OF COMPREHENSIVE INCOME  
YEARS ENDED DECEMBER 31, 2019 AND 2018  
(In Thousands of New Taiwan Dollars, Except Earnings Per Share)**

	2019		2018	
	Amount	%	Amount	%
REVENUES (Notes 3, 25, 32 and 36)	\$ 179,321,838	100	\$ 185,331,699	100
OPERATING COSTS (Notes 3, 10, 23, 25, 26, 32 and 36)	116,056,276	65	118,829,935	64
GROSS PROFIT	63,265,562	35	66,501,764	36
OPERATING EXPENSES (Notes 3, 9, 23, 26, 32 and 36)				
Marketing	18,130,247	10	18,807,803	10
General and administrative	3,558,580	2	3,427,037	2
Research and development	3,341,306	2	3,182,608	2
Expected credit loss (reversal of credit loss)	(127,019)	-	888,844	-
Total operating expenses	24,903,114	14	26,306,292	14
OTHER INCOME AND EXPENSES (Notes 16, 18, 26 and 36)	(16,583)	-	170,442	-
INCOME FROM OPERATIONS	38,345,865	21	40,365,914	22
NON-OPERATING INCOME AND EXPENSES				
Interest income (Note 36)	157,099	-	114,887	-
Other income (Notes 8, 26 and 32)	386,747	-	521,177	-
Other gains and losses (Notes 26, 31 and 32)	(5,572)	-	(64,694)	-
Interest expenses (Notes 15, 26, 32 and 36)	(61,873)	-	(267)	-
Share of profits of subsidiaries and associates accounted for using equity method (Notes 5, 13 and 36)	1,440,326	1	2,579,961	1
Total non-operating income and expenses	1,916,727	1	3,151,064	1
INCOME BEFORE INCOME TAX	40,262,592	22	43,516,978	23
INCOME TAX EXPENSE (Notes 3 and 27)	7,474,046	4	8,015,356	4
NET INCOME	32,788,546	18	35,501,622	19

(Continued)

**CHUNGHWA TELECOM CO., LTD.**

**STATEMENTS OF COMPREHENSIVE INCOME  
YEARS ENDED DECEMBER 31, 2019 AND 2018  
(In Thousands of New Taiwan Dollars, Except Earnings Per Share)**

	2019		2018	
	Amount	%	Amount	%
TOTAL OTHER COMPREHENSIVE INCOME (LOSS)				
Items that will not be reclassified to profit or loss:				
Remeasurements of defined benefit pension plans (Note 23)	\$ 1,506,290	1	\$ (1,201,469)	(1)
Unrealized gain or loss on investments in equity instruments at fair value through other comprehensive income (Notes 3, 24 and 31)	399,429	-	(346,223)	-
Gain or loss on hedging instruments subject to basis adjustment (Notes 3 and 19)	(742)	-	1,919	-
Share of unrealized gain or loss on investments in equity instruments at fair value through other comprehensive income of subsidiaries and associates (Notes 3, 13 and 24)	(101,103)	-	1,075	-
Share of remeasurements of defined benefit pension plans of subsidiaries and associates (Note 13)	2,864	-	(659)	-
Income tax relating to items that will not be reclassified to profit or loss (Note 27)	(301,258)	-	445,311	-
	1,505,480	1	(1,100,046)	(1)
Items that may be reclassified subsequently to profit or loss:				
Exchange differences arising from the translation of the foreign operations	(71,056)	-	91,956	-
Share of exchange differences arising from the translation of the foreign operations of subsidiaries and associates (Note 13)	2,106	-	3,210	-
	(68,950)	-	95,166	-
Total other comprehensive loss, net of income tax	1,436,530	1	(1,004,880)	(1)
TOTAL COMPREHENSIVE INCOME	\$ 34,225,076	19	\$ 34,496,742	18
EARNINGS PER SHARE (Note 28)				
Basic	\$ 4.23		\$ 4.58	
Diluted	\$ 4.22		\$ 4.57	

The accompanying notes are an integral part of the financial statements.

(Concluded)

## CHUNGWA TELECOM CO., LTD.

STATEMENTS OF CHANGES IN EQUITY  
YEARS ENDED DECEMBER 31, 2019 AND 2018  
(In Thousands of New Taiwan Dollars)

	Retained Earnings (Note 24)				Other Adjustments (Notes 19 and 24)			Total Equity
	Legal Reserve	Special Reserve	Unappropriated Earnings	Exchange Differences Arising from the Translation of the Foreign Operations	Unrealized Gain or Loss on Financial Assets at Fair Value through Other Comprehensive Income	Gain or Loss on Hedging Instruments		
BALANCE, JANUARY 1, 2018	\$ 77,574,465	\$ 2,680,823	\$ 49,595,850	\$ (174,593)	\$ 883,420	\$ (850)	\$ 377,600,463	
Appropriation of 2017 earnings	-	(5,404)	5,404	-	-	-	-	
Reversal of special reserve	-	-	(37,204,714)	-	-	-	(37,204,714)	
Cash dividends	-	-	-	-	-	-	-	
Unclaimed dividend	-	-	-	-	-	-	2,455	
Change in additional paid-in capital from investments in subsidiaries and associates accounted for using equity method	-	-	-	-	-	-	950,689	
Partial disposal of interests in subsidiaries	-	-	-	-	-	-	716,737	
Net income for the year ended December 31, 2018	-	-	35,501,622	-	-	-	35,501,622	
Other comprehensive income (loss) for the year ended December 31, 2018	-	-	(756,817)	95,166	(345,148)	1,919	(1,004,880)	
Total comprehensive income (loss) for the year ended December 31, 2018	-	-	34,744,805	95,166	(345,148)	1,919	34,496,742	
BALANCE, DECEMBER 31, 2018	77,574,465	2,675,419	47,141,345	(79,427)	538,272	1,069	376,562,372	
Effect of retrospective application (Note 5)	-	-	(50,823)	-	-	-	(50,823)	
BALANCE, JANUARY 1, 2019 AS ADJUSTED	77,574,465	2,675,419	47,090,522	(79,427)	538,272	1,069	376,511,549	
Appropriation of 2018 earnings	-	-	(34,745,603)	-	-	-	(34,745,603)	
Cash dividends	-	-	-	-	-	-	-	
Unclaimed dividend	-	-	-	-	-	-	1,266	
Change in additional paid-in capital from investments in subsidiaries and associates accounted for using equity method	-	-	-	-	-	-	117,955	
Net income for the year ended December 31, 2019	-	-	32,788,546	-	-	-	32,788,546	
Other comprehensive income (loss) for the year ended December 31, 2019	-	-	1,207,896	(68,950)	298,326	(742)	1,436,530	
Total comprehensive income (loss) for the year ended December 31, 2019	-	-	33,996,442	(68,950)	298,326	(742)	34,225,076	
BALANCE, DECEMBER 31, 2019	\$ 77,574,465	\$ 2,675,419	\$ 46,341,361	\$ (148,377)	\$ 836,598	\$ 327	\$ 376,110,243	

The accompanying notes are an integral part of the financial statements.

**CHUNGHWA TELECOM CO., LTD.**

**STATEMENTS OF CASH FLOWS  
YEARS ENDED DECEMBER 31, 2019 AND 2018  
(In Thousands of New Taiwan Dollars)**

	2019	2018
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Income before income tax	\$ 40,262,592	\$ 43,516,978
Adjustments to reconcile income before income tax to net cash provided by operating activities:		
Depreciation	29,852,819	26,867,479
Amortization	4,168,630	4,312,043
Amortization of incremental costs of obtaining contracts	6,269,916	9,958,119
Expected credit loss (reversal of loss)	(127,019)	888,844
Interest expenses	61,873	267
Interest income	(157,099)	(114,887)
Dividend income	(292,450)	(389,651)
Share of profits of subsidiaries and associates accounted for using equity method	(1,440,326)	(2,579,961)
Loss (gain) on disposal of property, plant and equipment	29,229	(151,309)
Gain on disposal of investments accounted for using equity method	(30,152)	-
Provision for inventory and obsolescence	475,024	352,833
Reversal of impairment loss on investment properties	(56,617)	(19,133)
Impairment loss on other assets	43,971	-
Valuation loss on financial assets and liabilities at fair value through profit or loss, net	38,588	25,961
Others	(23,322)	(3,105)
Changes in operating assets and liabilities:		
Decrease (increase) in:		
Contract assets	46,157	359,155
Trade notes and accounts receivable	4,747,965	1,201,810
Receivables from related parties	32,304	188,568
Inventories	(2,494,993)	(7,122,670)
Prepayments	(60,009)	350,427
Other current monetary assets	26,462	(100,041)
Other current assets	155,357	(270,216)
Incremental cost of obtaining contracts	(5,625,633)	(5,575,998)
Increase (decrease) in:		
Contract liabilities	6,785,691	3,196,632
Trade notes and accounts payable	(4,720,176)	1,124,526
Payables to related parties	(779,499)	220,147
Other payables	297,078	(1,195,293)
Provisions	75,813	23,225
Other operating liabilities	(49,362)	394,170
Net defined benefit plans	540,389	(1,530,400)
Cash generated from operations	78,053,201	73,928,520
Interest paid	(61,873)	(267)
Income tax paid	(7,846,879)	(10,358,286)
Net cash provided by operating activities	70,144,449	63,569,967
		(Continued)

**CHUNGHWA TELECOM CO., LTD.**

**STATEMENTS OF CASH FLOWS  
YEARS ENDED DECEMBER 31, 2019 AND 2018  
(In Thousands of New Taiwan Dollars)**

	2019	2018
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Acquisition of financial assets at fair value through other comprehensive income	\$ -	\$ (89,580)
Acquisition of financial assets at fair value through profit or loss	(300,000)	-
Proceeds from return of financial assets at fair value through other comprehensive income	9,167	6,690
Acquisition of negotiable certificates of deposit with maturities of more than three months	(9,700,000)	(6,502,000)
Proceeds from disposal of negotiable certificates of deposit with maturities of more than three months	12,500,000	3,700,000
Acquisition of investments accounted for using equity method	(4,221,032)	(204,900)
Proceeds from disposal of investments accounted for using equity method	32,470	-
Proceeds from capital reduction of investments accounted for using equity method	12,932	-
Acquisition of property, plant and equipment	(22,427,073)	(27,490,579)
Proceeds from disposal of property, plant and equipment	50,991	264,290
Acquisition of intangible assets	(283,792)	(433,085)
Acquisition of investment properties	(523)	(5,627)
Increase in other noncurrent assets	(1,240,253)	(64,036)
Interest received	162,411	108,389
Cash dividends received from others	292,450	389,651
Cash dividends received from subsidiaries and associates accounted for using equity method	939,221	897,743
Net cash used in investing activities	(24,173,031)	(29,423,044)
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>		
Increase (decrease) in customers' deposits	(8,028)	12,597
Payments for the principal of lease liabilities	(3,306,322)	-
Increase in other noncurrent liabilities	246,130	95,074
Cash dividends paid	(34,745,603)	(37,204,714)
Partial disposal of interests in subsidiaries without losing control	-	126,100
Unclaimed dividend	1,266	2,455
Net cash used in financing activities	(37,812,557)	(36,968,488)
<b>NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS</b>	8,158,861	(2,821,565)
<b>CASH AND CASH EQUIVALENTS, BEGINNING OF THE YEAR</b>	16,922,851	19,744,416
<b>CASH AND CASH EQUIVALENTS, END OF THE YEAR</b>	\$ 25,081,712	\$ 16,922,851

The accompanying notes are an integral part of the financial statements.

(Concluded)

## CHUNGHWA TELECOM CO., LTD.

### NOTES TO FINANCIAL STATEMENTS YEARS ENDED DECEMBER 31, 2019 AND 2018 (In Thousands of New Taiwan Dollars, Unless Stated Otherwise)

#### 1. GENERAL

Chunghwa Telecom Co., Ltd. ("the Company") was incorporated on July 1, 1996 in the Republic of China ("ROC") pursuant to the Article 30 of the Telecommunications Act. The Company is a company limited by shares and, prior to August 2000, was wholly owned by the Ministry of Transportation and Communications ("MOTC"). Prior to July 1, 1996, the current operations of the Company were carried out under the Directorate General of Telecommunications ("DGT"). The DGT was established by the MOTC in June 1943 to take primary responsibility in the development of telecommunications infrastructure and to formulate policies related to telecommunications. On July 1, 1996, the telecom operations of the DGT were spun-off as the Company which continues to carry out the business and the DGT continues to be the industry regulator.

Effective August 12, 2005, the MOTC completed the process of privatizing the Company by reducing the government ownership to below 50% in various stages. In July 2000, the Company received approval from the Securities and Futures Commission (the "SFC") for a domestic initial public offering and its common stocks were listed and traded on the Taiwan Stock Exchange (the "TWSE") on October 27, 2000. Certain of the Company's common stocks were sold, in connection with the foregoing privatization plan, in domestic public offerings at various dates from August 2000 to July 2003. Certain of the Company's common stocks were also sold in an international offering of securities in the form of American Depository Shares ("ADS") on July 17, 2003 and were listed and traded on the New York Stock Exchange (the "NYSE"). The MOTC sold common stocks of the Company by auction in the ROC on August 9, 2005 and completed the second international offering on August 10, 2005. Upon completion of the share transfers associated with these offerings on August 12, 2005, the MOTC owned less than 50% of the outstanding shares of the Company and completed the privatization plan.

The financial statements are presented in the Company's functional currency, New Taiwan dollars.

#### 2. APPROVAL OF FINANCIAL STATEMENTS

The financial statements were approved and authorized for issue by the Board of Directors on February 26, 2020.

#### 3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The Company initial applied IFRS 16 "Leases" on January 1, 2019 and elected not to reflect the figures on a retrospective basis in comparative periods. Different accounting policies for each accounting period as a result of the application of new accounting standards are listed by year separately.

#### Statement of Compliance

The accompanying financial statements have been prepared in conformity with the Regulations Governing the Preparation of Financial Reports by Securities Issuers.

#### Basis of Preparation

The financial statements have been prepared on the historical cost basis except for certain financial instruments that are measured at fair values and net defined benefit liabilities (assets) which are measured at the present value of the defined benefit obligation less the fair value of plan assets.

When preparing the accompanying financial statements, the Company used equity method to account for its investment in subsidiaries and associates. In order for the amounts of the net profit, other comprehensive income and total equity in the parent company only financial statements to be the same with those amounts attributable to the owner of the Company in its consolidated financial statements, adjustments arising from the differences in accounting treatment between parent company only basis and consolidated basis were made to the captions of "investments accounted for using equity method", "share of profit (loss) of subsidiaries and associates accounted for using equity method", "share of other comprehensive income of subsidiaries and associates accounted for using equity method" and related equity items, as appropriate, in the parent company only financial statements.

#### Current and Noncurrent Assets and Liabilities

Current assets include:

- Assets held primarily for the purpose of trading;
- Assets expected to be realized within twelve months after the reporting period; and
- Cash and cash equivalents unless the asset is restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period.

Current liabilities include:

- Liabilities held primarily for the purpose of trading;
- Liabilities due to be settled within twelve months after the reporting period; and
- Liabilities for which the Company does not have an unconditional right to defer settlement for at least twelve months after the reporting period.

Assets and liabilities that are not classified as current are classified as noncurrent.

#### Foreign Currencies

In preparing the Company's financial statements, transactions in currencies other than the Company's functional currency (foreign currencies) are recognized at the rates of exchange prevailing at the dates of the transactions.

At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Exchange differences on monetary items arising from settlement or translation are recognized in profit or loss in the period in which they arise.

Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined and related exchange differences are recognized in profit or loss. Conversely, when the fair value changes were recognized in other comprehensive income, related exchange difference shall be recognized in other comprehensive income.

Non-monetary items that are measured at historical cost in a foreign currency are not retranslated.

For the purposes of presenting financial statements, the assets and liabilities of the Company's foreign operations (including of the subsidiaries and associates in other countries or currencies used different with the Company) are translated into New Taiwan dollars using exchange rates prevailing at the end of each reporting period. Income and expense items are translated at the average exchange rates for the period. Exchange differences arising, if any, are recognized in other comprehensive income.

#### **Cash Equivalents**

Cash equivalents include commercial paper, time deposits and negotiable certificates of deposit with original maturities within three months from the date of acquisition, highly liquid, readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value. These cash equivalents are held for the purpose of meeting short-term cash commitments.

#### **Inventories**

Inventories are stated at the lower of cost or net realizable value item by item, except for those that may be appropriate to group items of similar or related inventories. Net realizable value is the estimated selling price of inventories less all estimated costs of completion and costs necessary to make the sale. The calculation of the cost of inventory is derived using the weighted-average method.

#### **Investments Accounted for Using Equity Method**

Investments in subsidiaries and associates are accounted for using equity method.

##### **a. Investment in subsidiaries**

Subsidiaries are the entities controlled by the Company.

Under the equity method, the investment in subsidiaries is initially recognized at cost and the increase or decrease of carrying amount reflects the recognition of the Company's share of profit or loss and other comprehensive income of the subsidiaries after the date of acquisition. Besides, the Company also recognizes the Company's share of the change in other equity of the subsidiaries.

Changes in the Company's ownership interests in subsidiaries that do not result in the Company's loss of control over the subsidiaries are accounted for as equity transactions. Any difference between the carrying amounts of the investment of the subsidiaries and the fair value of the consideration paid or received is recognized directly in equity.

The acquisition cost in excess of the acquisition-date fair value of the identifiable net assets acquired is recognized as goodwill, which is included within the carrying amount of the investment and shall not be amortized. The acquisition-date fair value of the net identifiable assets acquired in excess of the acquisition cost is recognized immediately in profit or loss.

Unrealized profits and losses from downstream transactions with a subsidiary are eliminated in full. Profits and losses from upstream transactions with a subsidiary and sidestream transactions between subsidiaries are recognized in the Company's financial statements only to the extent of interests in the subsidiary that are not related to the Company.

##### **b. Investments in associates**

An associate is an entity over which the Company has significant influence and that is neither a subsidiary nor an interest in a joint venture.

Under the equity method, an investment in an associate is initially recognized at cost and adjusted thereafter to recognize the Company's share of profit or loss and other comprehensive income of the associate as well as the distribution received. The Company also recognizes its share in changes in the associates.

When the Company subscribes for new shares of the associate at a percentage different from its existing ownership percentage, the resulting carrying amount of the investment differs from the amount of the Company's proportionate interest in the associate. The Company records such a difference as an adjustment to investments with the corresponding amount charged or credited to additional paid-in capital. When the adjustment should be debited to additional paid-in capital but the additional paid-in capital recognized from investments accounted for using equity method is insufficient, the shortage is debited to retained earnings.

Any excess of the cost of acquisition over the Company's share of the fair value of the identifiable net assets and liabilities of an associate at the date of acquisition is recognized as goodwill, which is included within the carrying amount of the investment and shall not be amortized. Any excess of the Company's share of the net fair value of the identifiable assets and liabilities over the cost of acquisition is recognized immediately in profit or loss.

The entire carrying amount of an investment (including goodwill) is tested for impairment as a single asset by comparing its recoverable amount with its carrying amount. Any impairment loss recognized is not allocated to any asset, including goodwill, that forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognized to the extent that the recoverable amount of the investment subsequently increases.

When the Company transacts with its associate, profits and losses resulting from the transactions with the associate are recognized in the Company's financial statements only to the extent of interests in the associate that are not related to the Company.

#### **Property, Plant and Equipment**

Property, plant and equipment are initially measured at cost and subsequently measured at cost less accumulated depreciation and accumulated impairment loss.

Property, plant and equipment in the course of construction are depreciated and classified to the appropriate categories of property, plant and equipment when completed and ready for their intended use.

Depreciation on property, plant and equipment is recognized using the straight-line method. Each significant part is depreciated separately. Freehold land is not depreciated. The estimated useful lives, residual values and depreciation method are reviewed at the end of each year, with the effect of any changes in estimate accounted for on a prospective basis.

On derecognition of an item of property, plant and equipment, the difference between the net disposal proceeds and the carrying amount of the asset is recognized in profit or loss in the period in which the property is derecognized.

### Investment Properties

Investment properties are properties held to earn rentals and/or for capital appreciation. Investment properties also include land held for a currently undetermined future use.

Investment properties are measured initially at cost, including transaction costs. Subsequent to initial recognition, investment properties are measured at cost less accumulated depreciation and accumulated impairment loss. Depreciation is recognized using the straight-line method.

For a transfer from the investment properties to property, plant and equipment, the deemed cost of the property, plant and equipment for subsequent accounting is its carrying amount at the commencement of owner-occupation.

For a transfer from the property, plant and equipment to investment properties, the deemed cost of the investment properties for subsequent accounting is its carrying amount at the end of owner-occupation.

On derecognition of the investment properties, the difference between the net disposal proceeds and the carrying amount of the asset is recognized in profit or loss in the period in which the property is derecognized.

### Intangible Assets

Intangible assets with finite useful lives that are acquired separately are initially measured at cost and subsequently measured at cost less accumulated amortization and accumulated impairment loss. Amortization is recognized on a straight-line basis. The estimated useful life, residual value, and amortization method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis. The residual value of an intangible asset with a finite useful life shall be assumed to be zero unless the Company expects to dispose of the intangible asset before the end of its economic life.

Gains or losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset, are recognized in profit or loss in the period in which the asset is derecognized.

### Impairment of Tangible Assets, Intangible Assets and Incremental Costs of Obtaining Contracts

At the end of each reporting period, the Company reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss. When it is not possible to estimate the recoverable amount of an individual asset, the Company estimates the recoverable amount of the cash-generating unit to which the asset belongs.

Intangible assets not yet available for use are tested for impairment at least annually, and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value less costs to sell and value in use. If the recoverable amount of an asset or cash-generating unit is estimated to be less than its carrying amount, the carrying amount of the asset or cash-generating unit is reduced to its recoverable amount, with the resulting impairment loss recognized in profit or loss.

Impairment loss from the assets related to incremental cost of obtaining contracts is recognized to the extent that the carrying amount of the assets exceeds the remaining amount of consideration that the Company expects to receive in exchange for related goods or services less the costs which relate directly to providing those goods or services.

When an impairment loss is subsequently reversed, the carrying amount of the asset or cash-generating unit is increased to the revised estimate of its recoverable amount, but only to the extent of the carrying amount that would have been determined had no impairment loss been recognized for the asset or cash-generating unit in prior years. A reversal of an impairment loss is recognized in profit or loss.

### Financial Instruments

Financial assets and financial liabilities are recognized when the Company becomes a party to the contractual provisions of the instruments.

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss) are added to the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through profit or loss are recognized immediately in profit or loss.

#### a. Financial assets

All regular way purchases or sales of financial assets are recognized and derecognized on a trade date basis.

#### 1) Measurement category

##### a) Financial assets at fair value through profit or loss (FVTPL)

Financial asset is classified as at FVTPL when the financial asset is mandatorily classified as at FVTPL. Financial assets mandatorily classified as at FVTPL include investments in equity instruments which are not designated as at fair value through other comprehensive income (FVOCI).

Financial assets at FVTPL are stated at fair value, with any gains or losses arising on remeasurement recognized in profit or loss. The net gain or loss recognized in profit or loss does not incorporate any dividend earned on the financial asset. Fair value is determined in the manner described in Note 31.

##### b) Financial assets at amortized cost

Financial assets that meet the following conditions are subsequently measured at amortized cost:

- i. The financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows; and
- ii. The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Subsequent to initial recognition, financial assets at amortized cost are measured at amortized cost, which equals to gross carrying amount determined by the effective interest method less any impairment loss, except for short-term receivables as the effect of discounting is immaterial. Exchange differences are recognized in profit or loss.

Interest income is calculated by applying the effective interest rate to the gross carrying amount of such financial assets.

c) Investments in equity instruments at FVOCI

On initial recognition, the Company may make an irrevocable election to designate investments in equity instruments as at FVOCI. Designation at FVOCI is not permitted if the equity investment is held for trading or if it is contingent consideration recognized by an acquirer in a business combination.

Investments in equity instruments at FVOCI are subsequently measured at fair value with gains and losses arising from changes in fair value recognized in other comprehensive income and accumulated in other equity. The cumulative gain or loss will not be reclassified to profit or loss on disposal of the equity investments. Instead, it will be transferred to retained earnings.

Dividends on these investments in equity instruments are recognized in profit or loss when the Company's right to receive the dividends is established, unless the dividends clearly represent a recovery of part of the cost of the investment.

2) Impairment of financial assets and contract assets

The Company recognizes a loss allowance for expected credit losses on financial assets at amortized cost (including accounts receivable) and contract assets.

The Company recognizes lifetime Expected Credit Loss (ECL) for accounts receivable and contract assets. For all other financial instruments, the Company recognizes lifetime ECL when there has been a significant increase in credit risk since initial recognition. If, on the other hand, the credit risk on the financial instrument has not increased significantly since initial recognition, the Company measures the loss allowance for that financial instrument at an amount equal to 12-month ECL.

Expected credit losses reflect the weighted average of credit losses with the respective risks of a default occurring as the weights. Lifetime ECL represents the expected credit losses that will result from all possible default events over the expected life of a financial instrument. In contrast, 12-month ECL represents the portion of ECL that is expected to result from default events on a financial instrument that are possible within 12 months after the reporting date.

The Company recognizes an impairment loss for all financial instruments with a corresponding adjustment to their carrying amount through a loss allowance account.

3) Derecognition of financial assets

The Company derecognizes a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity.

On derecognition of a financial asset measured at amortized cost in its entirety, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognized in profit or loss.

On derecognition of investments in equity instruments at FVOCI in its entirety, the cumulative gain or loss is directly transferred to retained earnings, and it is not reclassified to profit or loss.

b. Financial liabilities

1) Subsequent measurement

Except for financial liabilities at FVTPL, all the financial liabilities are subsequently measured at amortized cost using the effective interest method.

2) Derecognition of financial liabilities

The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable, including any non-cash assets transferred or liabilities assumed, is recognized in profit or loss.

c. Derivative financial instruments

The Company enters into derivative financial instruments to manage its exposure to foreign exchange rate risks, including forward exchange contracts.

Derivatives are initially measured at fair value at the date the derivative contracts are entered into and are subsequently remeasured to their fair value at the end of each reporting period. The resulting gain or loss is recognized in profit or loss immediately unless the derivative is designated and effective as a hedging instrument, in which event the timing of the recognition in profit or loss depends on the nature of the hedge relationship. When the fair value of derivative financial instruments is positive, the derivative is recognized as a financial asset; when the fair value of derivative financial instruments is negative, the derivative is recognized as a financial liability.

**Hedge Accounting**

The Company designates some derivatives instruments as cash flow hedges. Hedges of foreign exchange risk on firm commitments are accounted for as cash flow hedges.

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognized in other comprehensive income. The gain or loss relating to the ineffective portion is recognized immediately in profit or loss.

The associated gains or losses that were recognized in other comprehensive income are reclassified from equity to profit or loss as a reclassification adjustment in the line item relating to the hedged item in the same period when the hedged item affects profit or loss. If a hedge of a forecast transaction subsequently results in the recognition of a non-financial asset or a non-financial liability, the associated gains and losses that were recognized in other comprehensive income are removed from equity and are included in the initial cost of the non-financial asset or non-financial liability.

The Company discontinues hedge accounting only when the hedging relationship ceases to meet the qualifying criteria; for instance, when the hedging instrument expires or is sold, terminated or exercised. The cumulative gain or loss on the hedging instrument that has been previously recognized in other comprehensive income from the period when the hedge was effective remains separately in equity until the forecast transaction occurs. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in equity is recognized immediately in profit or loss.

**Provisions**

Provisions are measured at the best estimate of the expenditure required to settle the Company's obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. The provisions for warranties claims are made by management according to the sales agreements which represent the management's best estimate of the future outflow of economic benefits. The provisions of warranties claims are recognized as operating cost in the period in which the goods

are sold. The provision for onerous contracts represents the present obligation resulting from the measurement for the unavoidable costs of meeting the Company's contractual obligations exceed the economic benefits expected to be received from the contracts.

#### Revenue Recognition

The Company identifies the performance obligations in the contract with the customers, allocates transaction price to each performance obligation and recognizes revenue when performance obligations are satisfied.

Sales of products are recognized as revenue when the Company delivers products and the customer accepts and controls the product. Except for the consumer electronic products such as mobile devices sold in channel stores which are usually in cash sale, the Company recognizes revenues for sale of other electronic devices and corresponding trade notes and accounts receivable.

Usage revenues from fixed-line services (including local, domestic long distance and international long distance telephone services), mobile services, internet and data services, and interconnection and call transfer fees from other telecommunications companies and carriers are billed in arrears and are recognized based upon seconds or minutes of traffic processed when the services are provided in accordance with contract terms. The usage revenues and corresponding trade notes and accounts receivable are recognized monthly.

Other revenues are recognized as follows: (a) one-time subscriber connection fees (on fixed-line services) are first recognized as contract liabilities and revenues are recognized subsequently over the average expected customer service periods, (b) monthly fees (on fixed-line services, mobile, internet and data services) and related receivables are accrued monthly, and (c) prepaid services (fixed-line, mobile, internet and data services) are recognized as contract liabilities upon collection considerations from customers and are recognized as revenues subsequently based upon actual usage by customers.

Where the Company enters into transactions which involve both the provision of telecommunications service bundled with products such as handsets, total consideration received from products and telecommunications service in these arrangements are allocated based on their relative stand-alone selling price. The amount of sales revenue recognized for products is not limited to the amount paid by the customer for the products. When the amount of sales revenue recognized for products exceeded the amount paid by the customer for the products, the difference is recognized as contract assets. Contract assets are reclassified to accounts receivable when the amounts become collectible from customers subsequently. When the amount of sales revenue recognized for products was less than the amount paid by the customer for the products, the difference is recognized as contract liabilities and revenues are recognized subsequently when the telecommunications service are provided.

For project business contracts, if a substantial part of the Company's promise to customers is to manage and coordinate the various tasks and assume the risks of those tasks to ensure the individual goods or services are incorporated into the combined output, they are treated as a single performance obligation since the Company provides a significant integration service. The Company recognizes revenues and corresponding accounts receivable when the project business contract is completed and accepted by customers.

For service contracts such as maintenance and warranties, customers simultaneously receive and consume the benefits provided by the Company; thus revenues and corresponding accounts receivable of service contracts are recognized over the related service period.

When another party is involved in providing goods or services to a customer, the Company is acting as a principal if it controls the specified good or service before that good or service is transferred to a customer; otherwise, the Company is acting as an agent. When the Company is acting as a principal, gross inflow of economic benefits arising from transactions is recognized as revenue. When the Company is acting as an agent, revenue is recognized as its share of transaction.

#### Incremental Costs of Obtaining Contracts

Commissions and equipment subsidy related to telecommunications service as a result of obtaining contracts are recognized as an asset under the incremental costs of obtaining contracts to the extent the costs are expected to be recovered, and are amortized over the contract period. However, the Company elects not to capitalize the incremental costs of obtaining contracts if the amortization period of the assets that the Company otherwise would have recognized is expected to be one year or less.

#### Leasing

##### 2019

At inception of a contract, the Company assesses whether the contract is, or contains, a lease.

a. The Company as lessor

Rental income from operating leases is recognized on a straight-line basis over the term of the relevant lease.

a. The Company as lessee

The Company recognizes right-of-use assets and lease liabilities for all leases at the commencement date of a lease, except for lease payments for low-value assets are recognized as expenses on a straight-line basis over the lease terms accounted for applying recognition exemption.

Right-of-use assets are initially measured at cost, which comprises the initial measurement of lease liabilities and for lease payments made at or before the commencement date. Right-of-use assets are subsequently measured at cost less accumulated depreciation and accumulated impairment losses and adjusted for any remeasurement of the lease liabilities. Right-of-use assets are presented separately on the balance sheets.

Right-of-use assets are depreciated using the straight-line basis from the commencement dates to the earlier of the end of the useful lives of the right-of-use assets or the end of the lease terms.

Lease liabilities were initially measured at the present value of the lease payments, which comprise fixed payments, in-substance fixed payments, variable lease payments which depend on an index or a rate. The lease payments are discounted using the interest rate implicit in a lease, if that rate can be readily determined. If such rate cannot be readily determined, the lessee's incremental borrowing rate is used.

Lease liabilities are subsequently measured at amortized cost using the effective interest method, with interest expense recognized over the lease terms. When there is a change in a lease term or a change in future lease payments resulting from a change in an index or a rate used to determine those payments, the Company remeasures the lease liabilities with a corresponding adjustment to the right-of-use-assets. However, if the carrying amount of the right-of-use assets is reduced to zero, any remaining amount of the remeasurement is recognized in profit or loss. Lease liabilities are presented separately on the balance sheets.

Variable lease payments not depending on an index or a rate are recognized as expenses in the periods in which they are incurred.

- a. The Company as lessor

Rental income from operating leases is recognized on a straight-line basis over the term of the relevant lease.

- b. The Company as lessee

Operating lease payments are recognized as an expense on a straight-line basis over the lease term.

#### **Government Grants**

Government grants are not recognized until there is reasonable assurance that the Company will comply with the conditions attached to government grants and that the grants will be received.

Government grants are recognized in profit or loss on a systematic basis over the periods in which the Company recognizes expenses of the related costs for which the grants are intended to compensate. Specifically, government grants whose primary condition is that the Company should construct noncurrent assets are recognized as deferred revenue and transferred to profit or loss on a systematic and rational basis over the useful lives of the related assets.

#### **Employee Benefits**

- a. Short-term employee benefits

Liabilities recognized in respect of short-term employee benefits are measured at the undiscounted amount of the benefits expected to be paid in exchange for the related service.

- b. Retirement benefits

Payments to defined contribution retirement benefit plans are recognized as an expense when employees have rendered service entitling them to the contributions.

Defined benefit costs (including service cost, net interest and remeasurement) under the defined benefit retirement benefit plans are determined using the projected unit credit method. Service cost (including current service cost and gains or losses on settlements) and net interest on the net defined benefit liability (asset) are recognized as employee benefits expense in the period they occur. Remeasurement, comprising (a) actuarial gains and losses; and (b) the return on plan assets, excluding amounts included in net interest on the net defined benefit liability (asset), is recognized in other comprehensive income in the period in which they occur. Remeasurement recognized in other comprehensive income is reflected immediately in retained earnings and will not be reclassified to profit or loss.

Net defined benefit liability (asset) represents the actual deficit (surplus) in the Company's defined benefit plan. Any surplus resulting from this calculation is limited to the present value of any refunds from the plans or reductions in future contributions to the plans.

- c. Other long-term employee benefits

Other long-term employee benefits are accounted for in the same way as the accounting required for defined benefit plan except that remeasurement is recognized in profit or loss.

#### **Income Tax**

Income tax expense represents the sum of the tax currently payable and deferred tax.

- a. Current tax

According to the Income Tax Act in the ROC, an additional tax of unappropriated earnings is provided for in the year the stockholders approve to retain the earnings.

Adjustments of prior years' tax liabilities are added to or deducted from the current year's tax provision.

- b. Deferred tax

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities in the Company's financial statements and the corresponding tax bases used in the computation of taxable profit.

Deferred tax liabilities are generally recognized for all taxable temporary differences. Deferred tax assets are generally recognized for all deductible temporary differences and unused tax credits from purchases of machinery, equipment and technology and research and development expenditures to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilized.

Deferred tax liabilities are recognized for taxable temporary differences associated with investments in subsidiaries and associates, except where the Company is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognized to the extent that it is probable that there will be sufficient taxable profits against which to utilize the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered. A previously unrecognized deferred tax asset is also reviewed at the end of each reporting period and recognized to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset realized, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred tax assets and liabilities reflects the tax consequences that would follow from the manner in which the Company expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

- c. Current and deferred tax

Current and deferred tax are recognized in profit or loss, except when they relate to items that are recognized in other comprehensive income, in which case, the current and deferred tax are also recognized in other comprehensive income.

#### 4. CRITICAL ACCOUNTING JUDGMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY AND ASSUMPTION

In the application of the Company's accounting policies, the management is required to make judgments, estimates and assumptions which are based on historical experience and other factors that are not readily apparent from other sources. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed by the management on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

##### a. Critical accounting judgments

###### Revenue recognition

The Company's project agreements are customized and mainly to provide one or more equipment or services to customers. In order to fulfill the agreements, another party may be involved in some agreements. The Company considers the following factors to determine whether the Company is a principal of the transaction: whether the Company is the primary obligation provider of the agreements, its exposures to inventory risks and the discretion in establishing prices, etc. The determination of whether the Company is a principal or an agent will affect the amount of revenue recognized by the Company. Only when the Company is acting as a principal, gross inflows of economic benefits arising from transactions is recognized as revenue.

###### Control over subsidiaries

As discussed in Note 13, some entities are subsidiaries of the Company although the Company only owns less than 50% ownership interests in these entities. After considering the Company's absolute size of holding in the entity and the relative size of and the dispersion of shares owned by the other stockholders, and the contractual arrangements between the Company and other investors, potential voting interests and the written agreement between stockholders, the management concluded that the Company has a sufficiently dominant voting interest to direct the relevant activities of the entity and therefore the Company has control over these entities.

##### b. Key sources of estimation uncertainty and assumption

The following are the key assumptions concerning the future, and other key sources of estimation uncertainty at the end of the reporting period. Actual results may differ from these estimates.

###### 1) Impairment of trade notes and accounts receivable

The provision for impairment of trade notes and accounts receivable is based on assumptions about risk of default and expected loss rates. The Company uses judgment in making these assumptions and in selecting the inputs to the impairment calculation, based on the Company's past experience, current market conditions as well as forward looking information at the end of each reporting period. For details of the key assumptions and inputs used, see Note 9. Where the actual future cash flows are less than expected, a material impairment loss may arise.

###### 2) Fair value measurements and valuation processes

For the assets and liabilities measured at fair value without quoted prices in active markets, the Company's management determines the appropriate valuation techniques for the fair value measurements and whether to engage third party qualified appraisers based on the related regulations and professional judgments.

Information about the valuation techniques and inputs used in determining the fair value of various assets and liabilities was disclosed in Note 31. If the actual changes of inputs in the future differ from expectation, the fair value may vary accordingly. The Company updates inputs periodically to monitor the appropriateness of the fair value measurement.

##### 3) Provision for inventory valuation and obsolescence

Inventories are stated at the lower of cost or net realizable value. Net realizable value is calculated as the estimated selling price less the estimated selling costs. Comparison of net realizable value and cost is determined on an item by item basis, except for those similar items which could be categorized into the same groups. The Company uses the inventory holding period and turnover as the evaluation basis for inventory obsolescence losses.

##### 4) Impairment of tangible and intangible assets

When an indication of impairment is assessed with objective evidence, the Company considers whether the recoverable amount of an asset is less than its carrying amount and recognizes the impairment loss based on difference between the recoverable amount and its carrying amount. The estimate of recoverable amount would impact on the timing and the amount of impairment loss recognition.

##### 5) Useful lives of property, plant and equipment

As discussed in Note 3, "Summary of Significant Accounting Policies - Property, Plant and Equipment", the Company reviews estimated useful lives of property, plant and equipment at the end of each year.

##### 6) Recognition and measurement of defined benefit plans

Net defined benefit liabilities and the resulting pension expense under defined benefit pension plans are calculated using the Projected Unit Credit Method. Actuarial assumptions comprise the discount rate, employee turnover rate, average future salary increase and etc. Changes in economic circumstances and market conditions will affect these assumptions and may have a material impact on the amount of the expense and the liability.

##### 7) Lessees' incremental borrowing rates

2019

In determining a lessee's incremental borrowing rate used in discounting lease payments, a risk-free rate for relevant duration and the same currency is selected as a reference rate. The lessee's credit spread adjustments and lease specific adjustments are also taken into account.

#### 5. APPLICATION OF NEW AND REVISED STANDARDS AND INTERPRETATIONS

- a. Initial application of the amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the International Financial Reporting Standards (IFRS), International Accounting Standards (IAS), International Financial Reporting Interpretations Committee Interpretations (IFRIC) and SIC Interpretations (SIC) endorsed and issued into effect by the Financial Supervisory Commission (FSC).

Except for the following, whenever applied, the initial application of the amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the IFRS, IAS, IFRIC and SIC issued by the International Accounting Standards Board and endorsed and issued

into effect by the FSC (collectively, the "Taiwan-IFRSs") does not have material impacts on the Company's financial statements.

#### IFRS 16 "Leases"

IFRS 16 sets out the accounting standards for identifying leases and accounting treatments for lessors and lessees. It supersedes IAS 17, IFRIC 4 - Determining Whether an Arrangement Contains a Lease and a number of related interpretations. Refer to Note 3 for information relating to the relevant accounting policies.

The Company reassessed whether a contract is, or contains, a lease in accordance with the definition of a lease under IFRS 16. Some contracts previously identified as containing a lease under IAS 17 and IFRIC 4 do not meet the definition of a lease under IFRS 16 and are accounted for in accordance with other accounting standards because the Company does not have the right to direct the use of the identified assets. Contracts that are reassessed as leases or containing a lease are accounted for in accordance with the transitional provisions under IFRS 16.

If the Company is a lessee, it shall recognize right-of-use assets and lease liabilities for all leases on the balance sheets except for those whose payments for low-value assets are recognized as expenses on a straight-line basis. On the statements of comprehensive income, the Company presents the depreciation expense charged on the right-of-use asset separately from the interest expense accrued on lease liability using the effective interest method. On the statements of cash flows, cash payments for the principal portion of lease liability are classified within financing activities; cash payments for interest portion are classified within operating activities. Before the application of IFRS 16, payments under operating lease contracts were recognized as expenses on a straight-line basis. Prepaid lease payments for use rights of leased assets were recognized as prepaid rents. Cash flows for operating leases were classified within operating activities on the statements of cash flows.

The Company did not make any adjustments for leases in which the Company is a lessor and accounted for those leases with the application of IFRS 16 starting from January 1, 2019.

The Company applied IFRS 16 retrospectively with the cumulative effect of the initial application of IFRS 16 recognized in retained earnings on January 1, 2019. Comparative financial information is not restated.

Lease liabilities are recognized on January 1, 2019 for leases previously classified as operating leases under IAS 17 and measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate on January 1, 2019. Right-of-use assets are measured at the present value discounted using the aforementioned incremental borrowing rate as if IFRS 16 had been applied since the commencement date of leases. The Company applies IAS 36 for assessing impairment of right-of-use assets.

The Company's weighted average incremental borrowing rate applied to lease liabilities recognized on January 1, 2019 was 0.67%. The difference between the (1) lease liabilities recognized on January 1, 2019 and (2) future aggregate minimum lease payments of non-cancellable operating lease under IAS 17 on December 31, 2018 is as follows:

The future aggregate minimum lease payments of non-cancellable operating lease on December 31, 2018 and undiscounted amount on January 1, 2019	<u>\$ 9,334,719</u>
Discounted lease liabilities using the incremental borrowing rate on January 1, 2019	<u>\$ 9,181,564</u>

The impact on assets, liabilities and equity as of January 1, 2019 from the initial application of IFRS 16 is set out as follows:

	Carrying Amount as of January 1, 2019	Adjustments Arising from Initial Application of IFRS 16	Adjusted Carrying Amount as of January 1, 2019
Prepayments - current	<u>\$ 1,438,962</u>	\$ (281,266)	<u>\$ 1,157,696</u>
Investments accounted for using equity method	\$ 15,696,310	3,234	\$ 15,699,544
Property, plant and equipment	<u>\$ 281,056,057</u>	(1,401,581)	<u>\$ 279,654,476</u>
Right-of-use assets	\$ 11,000,544	11,000,544	\$ 22,001,088
Deferred income tax assets	<u>\$ 3,041,999</u>	13,514	<u>\$ 3,055,513</u>
Prepayments - noncurrent	<u>\$ 1,852,675</u>	(252,416)	<u>\$ 1,600,259</u>
Total effect on assets		<u>\$ 9,082,029</u>	
Contract liabilities - current	\$ 160,561	\$ 160,561	\$ 321,122
Lease liabilities - current	<u>\$ 3,043,530</u>	3,043,530	<u>\$ 6,087,060</u>
Other payables	<u>\$ 20,148,990</u>	(48,712)	<u>\$ 20,100,278</u>
Other current liabilities	<u>\$ 1,159,732</u>	(160,561)	<u>\$ 999,171</u>
Contract liabilities - noncurrent	<u>\$ 2,456,191</u>	1,010,583	<u>\$ 3,466,774</u>
Lease liabilities - noncurrent	<u>\$ 2,371,954</u>	6,138,034	<u>\$ 8,510,008</u>
Other noncurrent liabilities	<u>\$ 2,371,954</u>	(1,010,583)	<u>\$ 1,361,371</u>
Total effect on liabilities		<u>\$ 9,132,852</u>	
Total effect on equity (unappropriated earnings)	<u>\$ 47,141,345</u>	\$ (50,823)	<u>\$ 47,090,522</u>

b. Amendments to IFRSs endorsed by the FSC for application starting from January 1, 2020

	New, Revised or Amended Standards and Interpretations	Effective Date Issued by IASB
Amendments to IFRS 3 and IFRS 7	Definition of a Business	January 1, 2020 (Note 1)
Amendments to IFRS 9, IAS 39 and IFRS 7	Interest Rate Benchmark Reform	January 1, 2020 (Note 2)
Amendments to IAS 1 and IAS 8	Definition of Materiality	January 1, 2020 (Note 3)

Note 1: The Company shall apply these amendments to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after January 1, 2020 and to asset acquisitions that occur on or after the beginning of that period.

Note 2: The Company shall apply these amendments retrospectively in annual periods beginning on or after January 1, 2020.

Note 3: The Company shall apply these amendments prospectively in annual periods beginning on or after January 1, 2020.

The application of the above new, revised or amended standards and interpretations will not have material impact on the Company's financial statements.

c. IFRSs issued by the IASB but not yet endorsed and issued into effect by the FSC

<u>New, Revised or Amended Standards and Interpretations</u>	<u>Effective Date Announced by IASB (Note)</u>
Amendments to IFRS 10 and IAS 28	To be determined by IASB
Amendments to IAS 1	January 1, 2022
	Classification of liabilities as current or noncurrent

Note: Unless stated otherwise, the above New IFRSs are effective for annual periods beginning on or after their respective effective dates.

As of the date the financial statements were authorized for issue, the Company is continuously assessing the possible impact that the application of above standards and interpretations will have on the Company's financial position and operating result and will disclose the relevant impact when the assessment is completed.

## 6. CASH AND CASH EQUIVALENTS

	<u>December 31</u>	
	<u>2019</u>	<u>2018</u>
Cash	\$ 137,811	\$ 210,125
Bank deposits	4,114,398	4,016,515
	<u>4,252,209</u>	<u>4,226,640</u>
Cash equivalents (investments with maturities of less than three months)	19,129,503	5,095,053
Commercial paper	-	1,158
Time deposits	1,700,000	7,600,000
Negotiable certificates of deposit	<u>20,829,503</u>	<u>12,696,211</u>
	<u>\$ 25,081,712</u>	<u>\$ 16,922,851</u>

The annual yield rates of bank deposits, commercial paper, time deposits and negotiable certificates of deposit were as follows:

	<u>December 31</u>	
	<u>2019</u>	<u>2018</u>
Bank deposits	0.00%-0.33%	0.00%-0.48%
Commercial paper	0.48%-0.54%	0.52%-0.57%
Time deposits	-	0.62%
Negotiable certificates of deposit	0.58%-0.60%	0.55%-0.60%

## 7. FINANCIAL INSTRUMENTS AT FAIR VALUE THROUGH PROFIT OR LOSS

	<u>December 31</u>	
	<u>2019</u>	<u>2018</u>
<u>Financial assets - noncurrent</u>		
Mandatorily measured at FVTPL		
Non-derivative financial assets	\$ 510,801	\$ 292,910
Non-listed stocks - domestic	<u>267,304</u>	<u>224,452</u>
Non-listed stocks - foreign	\$ 778,105	\$ 517,362

### Financial liabilities - current

Held for trading

Derivatives (not designated for hedge)

Forward exchange contracts

\$ 228

\$ 897

The Company increased its investment in Taiwan Capital Buffalo Fund Co., Ltd. proportionally for 300,000 thousand in October 2019 and the Company's ownership interest in Taiwan Capital Buffalo Fund Co., Ltd. remained at 12.9%.

Outstanding forward exchange contracts not designated for hedge as of balance sheet dates were as follows:

	<u>December 31, 2019</u>	<u>December 31, 2018</u>	<u>Contract Amount (In Thousands)</u>
Forward exchange contracts - buy	EUR/NT\$	2020.03	EUR 1,500 / NT\$ 50,910
Forward exchange contracts - buy	EUR/NT\$	2019.03-06	EUR 5,452 / NT\$ 192,734

The Company entered into the above forward exchange contracts to manage its exposure to foreign currency risk due to fluctuations in exchange rates. However, the aforementioned derivatives did not meet the criteria for hedge accounting.

## 8. FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME - NONCURRENT

	<u>December 31</u>	
	<u>2019</u>	<u>2018</u>
Domestic investments	\$ 2,388,416	\$ 2,899,843
Listed stocks	4,410,578	3,512,405
Non-listed stocks		
Foreign investments	<u>124,321</u>	<u>120,805</u>
Non-listed stocks	\$ 6,923,315	\$ 6,533,053

The Company holds the above foreign and domestic stocks for medium to long-term strategic purposes and expects to profit from long-term investment. Accordingly, the management elected to designate these investments in equity instruments at FVOCI as they believe that recognizing short-term fair value fluctuations of these investments in profit or loss is not consistent with the Company's strategy of holding these investments for long-term purposes.

The Company recognized dividend income of \$292,450 thousand and \$389,651 thousand for the years ended December 31, 2019 and 2018, respectively, from those investments still held on balance sheet dates.

## 9. TRADE NOTES AND ACCOUNTS RECEIVABLE, NET

	2019	2018
Trade notes and accounts receivable	\$ 25,778,712	\$ 30,396,566
Less: Loss allowance	<u>(2,300,651)</u>	<u>(2,544,687)</u>
	<u>\$ 23,478,061</u>	<u>\$ 27,851,879</u>

The main credit terms range from 30 to 90 days.

The Company serves a large consumer base for telecommunications business; therefore, the concentration of credit risk is limited. When having transactions with customers, the Company considers the record of arrears in the past. In addition, the Company may also collect some telecommunication charges in advance to reduce the payment arrears in subsequent periods.

The Company adopted a policy of dealing with counterparties with certain credit ratings for project business and to obtain collateral where necessary to mitigate the risk of loss arising from default. Credit rating information is provided by independent rating agencies where available and, if such credit rating information is not available, the Company uses other publicly available financial information and its own historical transaction experience to rate its major customers. The Company continues to monitor the credit exposure and credit ratings of its counterparties and spread the credit risk amongst qualified counterparties.

In order to mitigate credit risk, the management of the Company has delegated a team responsible for determining credit limits, credit approvals and other monitoring procedures to ensure the recoverability of receivables. In addition, the Company reviews the recoverable amount of receivables at balance sheet dates to ensure that adequate allowance is provided for possible irrecoverable amounts. In this regard, the management believes the Company's credit risk could be reasonably reduced.

The Company applies the simplified approach to providing for expected credit losses prescribed by IFRS 9, which permits the use of lifetime expected loss provision for receivables. The expected credit losses on receivables are estimated using a provision matrix by reference to past default experience of the customers and an analysis of the customers' current financial positions, as well as the forward-looking indicators such as macroeconomic business indicator.

When there are evidences indicating that the counterparty is in evasion, bankruptcy, deregistration of its company or the accounts receivable are over two years past due and the recoverable amount cannot be reasonably estimated, the Company writes off the trade notes and accounts receivable. For accounts receivable that have been written off, the Company continues to engage in enforcement activity to attempt to recover the receivables due. Where recoveries are made, these are recognized in profit or loss.

The Company's provision matrix arising from telecommunications business and project business is disclosed below.

### December 31, 2019

Telecommunications business	Net Past Due	Past Due Less than 30 Days	Past Due 31 to 60 Days	Past Due 61 to 90 Days	Past Due 91 to 120 Days	Past Due 121 to 180 Days	Past Due over 180 Days	Total
Expected credit loss rate (Note a)	0% - 2%	0% - 2.5%	0% - 68%	0% - 83%	11% - 90%	17% - 96%	100%	
Gross carrying amount	\$ 19,020,326	\$ 267,902	\$ 74,775	\$ 46,782	\$ 40,771	\$ 28,021	\$ 600,985	\$ 20,079,562
Loss allowance (lifetime ECL)	(655,982)	(25,517)	(27,620)	(54,624)	(26,281)	(27,366)	(600,985)	(798,306)
Amortized cost	<u>\$ 18,964,423</u>	<u>\$ 242,385</u>	<u>\$ 47,155</u>	<u>\$ 12,158</u>	<u>\$ 14,490</u>	<u>\$ 655</u>	<u>\$ -</u>	<u>\$ 19,281,256</u>
Project business								
Expected credit loss rate (Note b)	0% - 5%	5%	10%	30%	50%	80%	100%	
Gross carrying amount	\$ 4,051,044	\$ 78,147	\$ 52,227	\$ 29,527	\$ 12,688	\$ 1,040	\$ 1,471,840	\$ 5,099,150
Loss allowance (lifetime ECL)	(2,637)	(4,892)	(6,223)	(10,577)	(6,344)	(832)	(1,471,840)	(1,502,345)
Amortized cost	<u>\$ 4,051,044</u>	<u>\$ 73,255</u>	<u>\$ 47,004</u>	<u>\$ 18,950</u>	<u>\$ 6,344</u>	<u>\$ 208</u>	<u>\$ -</u>	<u>\$ 4,196,805</u>

### December 31, 2018

Telecommunications business	Net Past Due	Past Due Less than 30 Days	Past Due 31 to 60 Days	Past Due 61 to 90 Days	Past Due 91 to 120 Days	Past Due 121 to 180 Days	Past Due over 180 Days	Total
Expected credit loss rate (Note a)	0% - 3%	3% - 3.0%	7% - 68%	19% - 83%	32% - 90%	61% - 95%	100%	
Gross carrying amount	\$ 23,307,276	\$ 454,465	\$ 94,715	\$ 48,924	\$ 37,640	\$ 36,090	\$ 418,101	\$ 24,397,211
Loss allowance (lifetime ECL)	(79,857)	(26,872)	(24,023)	(28,432)	(28,196)	(25,618)	(418,101)	(631,099)
Amortized cost	<u>\$ 23,227,419</u>	<u>\$ 427,593</u>	<u>\$ 70,692</u>	<u>\$ 20,492</u>	<u>\$ 9,444</u>	<u>\$ 10,472</u>	<u>\$ -</u>	<u>\$ 23,766,112</u>
Project business								
Expected credit loss rate (Note b)	0% - 5%	5%	10%	30%	50%	80%	100%	
Gross carrying amount	\$ 4,066,271	\$ 88,384	\$ 92,343	\$ 8,248	\$ 12,132	\$ 6,809	\$ 1,725,168	\$ 5,999,355
Loss allowance (lifetime ECL)	(152,624)	(8,609)	(10,142)	(2,910)	(8,492)	(5,643)	(1,725,168)	(1,913,588)
Amortized cost	<u>\$ 3,913,647</u>	<u>\$ 79,775</u>	<u>\$ 82,201</u>	<u>\$ 5,338</u>	<u>\$ 3,640</u>	<u>\$ 1,166</u>	<u>\$ -</u>	<u>\$ 4,085,767</u>

Note a: Please refer to Notes 25 and 36 for the information of disaggregation of telecommunications service revenue. The expected credit loss rate applicable to different business revenue varies so as to reflect the risk level indicating by factors like historical experience.

Note b: The project business has different loss types according to the customer types. The expected credit loss rate listed above is for general customers. When customer is the government or its affiliates, it is expected that no credit loss will occur. For those who had bounced or exchanged checks as well as those accounts receivable were overdue more than six months that are classified as high risk customers, the expected credit loss of high risk customers is at least 50%, and the rate is increased when the overdue days increases.

Movements of loss allowance for trade notes and accounts receivable were as follows:

	Year Ended December 31	December 31
	2019	2018
Beginning balance	\$ 2,544,687	\$ 2,064,137
Add: Provision for (reversal of) credit loss	(57,088)	786,250
Less: Amounts written off	(186,948)	(305,700)
Ending balance	<u>\$ 2,300,651</u>	<u>\$ 2,544,687</u>

## 10. INVENTORIES

	December 31	December 31
	2019	2018
Merchandise	\$ 1,722,201	\$ 3,645,462
Project in process	<u>10,769,527</u>	<u>6,826,297</u>
	<u>\$ 12,491,728</u>	<u>\$ 10,471,759</u>

The operating costs related to inventories were \$25,510,905 thousand (including the valuation loss on inventories of \$475,024 thousand) and \$22,230,534 thousand (including the valuation loss on inventories of \$352,833 thousand) for the years ended December 31, 2019 and 2018, respectively.

## 11. PREPAYMENTS

	December 31	December 31
	2019	2018
Prepaid rents	\$ 1,934,752	\$ 2,358,439
Others	<u>883,212</u>	<u>933,198</u>
	<u>\$ 2,817,964</u>	<u>\$ 3,291,637</u>
Current		
Prepaid rents	\$ 553,134	\$ 505,764
Others	<u>883,212</u>	<u>933,198</u>
	<u>\$ 1,436,346</u>	<u>\$ 1,438,962</u>
Noncurrent		
Prepaid rents	<u>\$ 1,381,618</u>	<u>\$ 1,852,675</u>

Prepaid rents in 2019 comprises the prepayments from the lease agreements applying the recognition exemption and the prepayments for leases that do not meet the definition of leases under IFRS 16.

## 12. OTHER CURRENT MONETARY ASSETS

	December 31	December 31
	2019	2018
Negotiable certificates of deposit with maturities of more than three months	\$ 1,600,000	\$ 4,402,000
Others	<u>1,266,059</u>	<u>1,269,132</u>
	<u>\$ 2,866,059</u>	<u>\$ 5,671,132</u>

The annual yield rates of negotiable certificates of deposit with maturities of more than three months at the balance sheet dates were as follows:

	December 31	December 31
	2019	2018
Negotiable certificates of deposit with maturities of more than three months	0.63%	0.58%-1.04%

## 13. INVESTMENTS ACCOUNTED FOR USING EQUITY METHOD

	December 31	December 31
	2019	2018
Investments in subsidiaries	\$ 14,460,961	\$ 14,210,385
Investments in associates	<u>5,859,161</u>	<u>1,485,925</u>
	<u>\$ 20,320,122</u>	<u>\$ 15,696,310</u>

### a. Investments in subsidiaries

Investments in subsidiaries were as follows:

	December 31	December 31
	2019	2018
<u>Listed</u>		
Senao International Co., Ltd. ("SENAO")	\$ 456,545	\$ 335,629
CHIEF Telecom Inc. ("CHIEF")	<u>1,729,189</u>	<u>1,694,950</u>
<u>Non-listed</u>		
Light Era Development Co., Ltd. ("LED")	3,850,095	3,853,824
Chunghwa Investment Co., Ltd. ("CHI")	<u>3,130,389</u>	<u>3,152,229</u>
Donghua Telecom Co., Ltd. ("DHT")	<u>1,627,491</u>	<u>1,619,155</u>
Chunghwa Telecom Singapore Pte., Ltd. ("CHTS")	935,228	915,532
Chunghwa System Integration Co., Ltd. ("CHSI")	717,883	738,139
Honghua International Co., Ltd. ("HHI")	<u>411,291</u>	<u>457,449</u>
Chunghwa Telecom Global, Inc. ("CHTG")	<u>347,380</u>	<u>288,207</u>
CHT Security Co., Ltd. ("CHTSC")	<u>306,851</u>	<u>237,927</u>

(Continued)

CHIEF issued new shares in March and November 2019, March and November 2018 as its employees exercised their options. In addition, the Company disposed some shares of CHIEF in May 2018 before CHIEF traded its shares on the General Stock Market of the Taipei Exchange according to the local requirements. Furthermore, the Company did not participate in the capital increase of CHIEF in June 2018. Therefore, the Company's ownership interest in CHIEF decreased to 57.21% and 56.76% as of December 31, 2018 and 2019, respectively

SHE reduced 19.72% of its capital to offset accumulated deficits in December 2019 and the Company's ownership interest in SHE remained the same.

The Company increased its investment in CHTT proportionally in October 2019 and the Company's ownership interest in CHTT remained the same.

For the details of the subsidiaries indirectly held by the Company, please refer to Note 3.5.

The Company's share of profit (loss) and other comprehensive income (loss) of the subsidiaries was recognized based on the audited financial statements.

b. Investments in associates

Investments in associates were as follows:

	Carrying Amount
	December 31
	2019
	2018
<u>Material associate</u>	
Next Commercial Bank Co., Ltd. (preparatory office) ("NCB")	\$ 4,074,168
<u>Associates that are not individually material</u>	
<u>Listed</u>	
KingwayTek Technology Co., Ltd. ("KWT")	253,021
<u>Non-listed</u>	
International Integrated System, Inc. ("IISI")	340,240
Viettel-CHT Co., Ltd. ("Viettel-CHT")	316,535
Taiwan International Standard Electronics Co., Ltd. ("TISE")	272,166
Chunghua PChome Fund I Co., Ltd. ("CPFI")	194,081
So-net Entertainment Taiwan Limited ("So-net")	189,396
KKBOX Taiwan Co., Ltd. ("KKBOXTW", previously known as Skysoft Co., Ltd.)	150,789
Taiwan International Ports Logistics Corporation ("TIPL")	50,979
UUUPON Inc. ("UUUPON", previously known as Dian Zuan Integrating Marketing Co., Ltd.)	7,199
Alliance Digital Tech Co., Ltd. ("ADT")	5,080
Cornerstone Ventures Co., Ltd. ("CVC")	5,507
KingwayTek Technology Co., Ltd. ("KWT")	-
	<u>1,784,993</u>
	<u>1,485,925</u>
	<u>\$ 5,859,161</u>
	<u>\$ 1,485,925</u>

	Carrying Amount
	December 31
	2019
	2018
CHYP Multimedia Marketing & Communications Co., Ltd. ("CHYP")	\$ 190,972
Prime Asia Investments Group Ltd. (B.V.I.) ("Prime Asia")	\$ 197,996
Chunghua Telecom (Thailand) Co., Ltd. ("CHTT")	182,989
Chunghua Leading Photonics Tech. Co., Ltd. ("CLPT")	192,841
Spring House Entertainment Tech. Inc. ("SHE")	114,231
Chunghua Telecom Vietnam Co., Ltd. ("CHTV")	94,931
Chunghua Telecom Japan Co., Ltd. ("CHJT")	111,680
Smartfun Digital Co., Ltd. ("SFD")	98,763
Chunghua Sochamp Technology Inc. ("CHST")	110,357
	98,298
	98,221
	106,091
	62,626
	76,567
	73,688
	72,031
	<u>(10,086)</u>
	<u>(6,233)</u>
	<u>\$ 14,460,961</u>
	<u>\$ 14,210,385</u>
	(Concluded)

The percentages of ownership and voting rights in subsidiaries held by the Company as of balance sheet dates were as follows:

	% of Ownership and Voting Right
	December 31
	2019
	2018
Senao International Co., Ltd. ("SENAO")	28
CHIEF Telecom Inc. ("CHIEF")	28
Light Era Development Co., Ltd. ("LED")	57
Chunghua Investment Co., Ltd. ("CHI")	100
Donghua Telecom Co., Ltd. ("DHT")	100
Chunghua Telecom Singapore Pte. Ltd. ("CHTS")	89
Chunghua System Integration Co., Ltd. ("CHSI")	100
Honghua International Co., Ltd. ("HHI")	100
Chunghua Telecom Global, Inc. ("CHTG")	100
CHT Security Co., Ltd. ("CHTSC")	100
CHYP Multimedia Marketing & Communications Co., Ltd. ("CHYP")	80
Prime Asia Investments Group Ltd. (B.V.I.) ("Prime Asia")	100
Chunghua Telecom (Thailand) Co., Ltd. ("CHTT")	100
Chunghua Leading Photonics Tech. Co., Ltd. ("CLPT")	100
Spring House Entertainment Tech. Inc. ("SHE")	75
Chunghua Telecom Vietnam Co., Ltd. ("CHTV")	56
Chunghua Telecom Japan Co., Ltd. ("CHJT")	100
Smartfun Digital Co., Ltd. ("SFD")	100
Chunghua Sochamp Technology Inc. ("CHST")	65
	51
	51

SENAO transferred its treasury stock to employees in June 2018 and the Company's ownership interest in SENAO decreased to 27.79% as of December 31, 2018 and 2019. As the Company continues to control over half of the seats of the Board of Directors of SENAO (six out of eleven seats as of December 31, 2019) through the support of large beneficial stockholders, the accounts of SENAO are included in the consolidated financial statements.

The percentages of ownership and voting rights in associates held by the Company as of balance sheet dates were as follows:

	% of Ownership and Voting Rights	
	2019	2018
<u>Material associate</u>		
Next Commercial Bank Co., Ltd. (preparatory office) (“NCB”)	42	-
<u>Associates that are not individually material</u>		
<u>Listed</u>		
KingwayTek Technology Co., Ltd. (“KWT”)	23	26
<u>Non-listed</u>		
International Integrated System, Inc. (“IISI”)	31	32
Vietel-CHT Co., Ltd. (“Viettel-CHT”)	30	30
Taiwan International Standard Electronics Co., Ltd. (“TISE”)	40	40
Chungghwa PChome Fund I Co., Ltd. (“CPFI”)	50	50
So-net Entertainment Taiwan Limited (“So-net”)	30	30
KKBOX Taiwan Co., Ltd. (“KKBOXTW”)	30	30
Taiwan International Ports Logistics Corporation (“TIPL”)	27	27
UIPON Inc. (“UIPON”)	15	15
Alliance Digital Tech Co., Ltd. (“ADT”)	14	14
Cornerstone Ventures Co., Ltd. (“CVC”)	49	49

Summarized financial information of NCB (preparatory office) is set out below:

	December 31
	2019
Current assets	\$ 10,000,028
Noncurrent assets	451,897
Current liabilities	(291,399)
Noncurrent liabilities	(436,975)
Equity	\$ 9,723,551
Percentage of the Company’s ownership	41.9%
Equity attributable to the Company and the carrying amount of investment	\$ 4,074,168

**Period From the Beginning of Preparation to 31 December, 2019**

Revenue	\$ -
Net loss for the period	\$ (276,449)
Other comprehensive income (loss)	-
Total comprehensive loss for the year	\$ (276,449)

Except for NCB (preparatory office), no associate is considered individually material to the Company. Summarized financial information of associates that are not individually material to the Company was as follows:

	Year Ended December 31	
	2019	2018
The Company’s share of profits	\$ 320,726	\$ 235,356
The Company’s share of other comprehensive income (loss)	(1,201)	4,060
The Company’s share of total comprehensive income	\$ 319,525	\$ 239,416

The Level 1 fair values based on the closing market prices of KWT as of the balance sheet date was as follows:

	December 31	
	2019	2018
KWT	\$ 872,729	\$ -

The participation of establishing NCB was approved by the Company’s Board of Directors in January 2019. The establishment of NCB was approved by the FSC in July 2019 and the incorporation of NCB was approved by the Ministry of Economic Affairs Department of Commerce in January 2020. The Company prepaid investment funds to NCB in February and November 2019 amounted to \$4,190,000 thousand, for the Company’s ownership interest of 41.9%. The Company obtained 6 out of 15 seats of the Board of Directors of NCB; therefore, the Company does not have control over NCB and merely has significant influence over NCB and treats it as an associate. NCB mainly engages in online banking business, which located in Taiwan.

IISI issued new shares in March and September 2019 as its employees exercised their options; therefore, the Company’s ownership interest in IISI decreased to 31% as of December 31, 2019. The investment of 20.58% of ownership interest in IISI was approved by the Company’s Board of Directors in January 2020. Upon the completion of the transaction, the Company’s ownership interest in IISI is expected to increase from 31% to 52%. Therefore, the Company will gain control over IISI and treat it as a subsidiary.

The Company disposed some shares of KWT in April 2019 before KWT traded its shares on the General Stock Market of the Taipei Exchange according to the local requirements and recognized disposal gain of \$30,152 thousand. In addition, the Company did not participate in the capital increase of KWT in May 2019 and KWT repurchased its stock in December 2019. Therefore, the Company’s ownership interest in KWT decreased to 23% as of December 31, 2019.

The Company invested 50% equity shares of CPFI in October 2018. The Company has only two out of five seats of the Board of Directors of CPFI, and has no control but significant influence over CPFI. Therefore, the Company recognized CPFI as investment in associate. CPFI engages mainly in investment business.

The Company invested 49% equity shares of CVC in October 2018. The Company has only two out of five seats of the Board of Directors of CVC, and has no control but significant influence over CVC. Therefore, the Company recognized CVC as investment in associate. CVC engages mainly in investment business.

The Company owns 14% equity shares of ADT. As the Company remains the seat in the Board of Directors of ADT and considers the relative size of ownership interest and the dispersion of shares owned by the other stockholders, the Company remains significant influence over ADT. In June 2018, the stockholders of ADT approved to dissolve. The liquidation of ADT is still in process.

The Company's share of profits and other comprehensive income (loss) of associates was recognized based on the audited financial statements.

#### 14. PROPERTY, PLANT AND EQUIPMENT

**December 31**  
**2019**

Assets used by the Company  
Assets subject to operating leases

\$ 267,191,318  
7,553,554  
\$ 274,744,872

#### a. Assets used by the Company - 2019

Cost	Land	Land Improvements	Buildings	Computer Equipment	Telecommunications Equipment	Transportation Equipment	Miscellaneous Equipment	Contracts in Progress and Equipment to be Acquired	Total
Balance on January 1, 2019	\$ 1,007,205	\$ 1,603,323	\$ 70,525,001	\$ 13,775,663	\$ 712,090,699	\$ 3,877,386	\$ 7,824,354	\$ 17,965,874	\$ 928,606,485
Effect of retrospective application of IFRS 16	(1,496,682)	(689)	(1,100,018)	-	(13,983,114)	-	-	-	(16,083,503)
Balance on January 1, 2019 as adjusted	97,485,116	1,599,634	67,334,983	13,775,663	700,997,585	3,877,386	7,824,354	17,965,874	917,958,975
Disposal	(37,951)	(6,630)	(3,101)	(1,793,567)	(39,467)	(59,467)	(341,906)	(2,129,195)	(32,306,579)
Others	(1,053,117)	75,477	(1,013,649)	61,500	24,905,869	79,333	(411,603)	(63,782,526)	(2,321,104)
Balance on December 31, 2019	\$ 36,229,468	\$ 1,644,481	\$ 66,318,233	\$ 12,992,596	\$ 202,214,883	\$ 3,896,212	\$ 7,392,651	\$ 14,843,229	\$ 486,264,543
Accumulated depreciation and impairment	-	\$ (1,377,704)	\$ (27,386,608)	\$ (1,783,362)	\$ (97,277,098)	\$ (3,467,334)	\$ (6,116,322)	\$ -	\$ (6,917,504,428)
Balance on January 1, 2019	-	-	-	-	2,881,533	-	-	-	3,678,927
Effect of retrospective application of IFRS 16	-	512	(1,096,932)	-	-	-	-	-	(1,096,420)
Balance on January 1, 2019 as adjusted	-	(1,377,192)	(29,290,676)	(1,783,362)	(94,098,565)	(3,467,334)	(6,116,322)	-	(64,071,451)
Depreciation expenses	-	(43,481)	(1,209,310)	(1,797,191)	(32,654,699)	(90,496)	(428,574)	-	(36,305,579)
Disposal	-	6,630	3,101	1,783,404	39,467	59,467	341,906	-	32,577,975
Others	-	(6,822)	(4,823)	(6,213)	(4,027)	(4,027)	(47,026)	-	(64,122)
Balance on December 31, 2019	-	\$ (4,370,662)	\$ (27,492,808)	\$ (1,602,968)	\$ (97,966,801)	\$ (3,909,293)	\$ (6,544,298)	-	\$ (6,917,504,428)
Balance on January 1, 2019, net	\$ 30,977,216	\$ 369,618	\$ 43,186,307	\$ 11,992,301	\$ 114,019,016	\$ 3,368,053	\$ 1,708,032	\$ 17,965,874	\$ 382,109,602
Balance on January 1, 2019 as adjusted	\$ 29,480,516	\$ 362,987	\$ 41,985,389	\$ 11,198,733	\$ 111,035,900	\$ 3,308,586	\$ 1,286,706	\$ 17,965,874	\$ 374,104,124
Balance on December 31, 2019, net	\$ 36,229,468	\$ 264,442	\$ 61,045,302	\$ 11,389,628	\$ 111,240,020	\$ 2,986,919	\$ 1,208,032	\$ 14,843,229	\$ 486,264,543
net	-	\$ (243,829)	\$ (39,266,648)	\$ (1,817,066)	\$ (1,445,483)	\$ (21,629)	\$ (1,666,626)	\$ -	\$ (24,109,115)

There was no indication that property, plant and equipment was impaired so the Company did not recognize any impairment loss for the year ended December 31, 2019.

Depreciation expense for assets used by the Company is computed using the straight-line method over the following estimated service lives:

	Land improvements	Buildings	Total
Land improvements	10-30 years		
Main buildings	35-60 years		
Other building facilities	4-10 years		
Computer equipment	4-6 years		
Telecommunications equipment	10-15 years		
Telecommunication circuits	3-10 years		
Telecommunication machinery and antennas equipment	3-7 years		
Transportation equipment			
Miscellaneous equipment	2-6 years		
Leasehold improvements	5-16 years		
Mechanical and air conditioner equipment	3-15 years		
Others			

#### b. Assets subject to operating leases - 2019

Cost	Land	Land Improvements	Buildings	Total
Balance on January 1, 2019	\$ -	\$ -	\$ -	\$ -
Effect of retrospective application of IFRS 16	3,496,689	689	3,190,018	6,687,396
Balance on January 1, 2019 as adjusted	3,496,689	689	3,190,018	6,687,396
Transferred from (to) assets used by the Company	1,310,917	(689)	1,141,811	2,452,039
Balance on December 31, 2019	\$ 4,807,606	\$ -	\$ 4,331,829	\$ 9,139,435
Accumulated depreciation and impairment	-	(512)	(1,096,932)	(1,097,444)
Balance on January 1, 2019	-	-	-	-
Effect of retrospective application of IFRS 16	-	(512)	(1,096,932)	(1,097,444)
Balance on January 1, 2019 as adjusted	-	(47)	(73,882)	(73,929)
Depreciation expenses	-	-	-	-
Transferred to (from) assets used by the company	-	559	(415,067)	(414,508)
Balance on December 31, 2019	\$ -	\$ -	\$ (1,585,881)	\$ (1,585,881)
Balance on January 1, 2019 as adjusted, net	\$ 3,496,689	\$ 177	\$ 2,093,086	\$ 5,589,952
Balance on December 31, 2019, net	\$ 4,807,606	\$ -	\$ 2,745,948	\$ 7,553,554

The Company leases out land and buildings with lease terms between 1 to 20 years. The lessees do not have bargain purchase options to acquire the assets at the expiry of the lease periods.

The future aggregate lease collection under operating lease for the freehold plant, property and equipment is as follows:

	<u>December 31</u> <u>2019</u>
Year 1	\$ 346,425
Year 2	257,181
Year 3	194,524
Year 4	147,722
Year 5	116,375
Onwards	<u>1,224,416</u>
	<u>\$ 2,286,643</u>

The above items of property, plant and equipment subject to operating leases are depreciated on a straight-line basis over their estimated useful lives as follows:

Land improvements	10-30 years
Buildings	35-60 years
Main buildings	4-10 years
Other building facilities	

c. Property, plant and equipment - 2018

Cost	Land	Land Improvements	Buildings	Computer Equipment	Telecommunications Equipment	Transportation Equipment	Miscellaneous Equipment	Construction in Progress	Total
Balance on January 1, 2018	\$ 5,10,064,540	\$ 1,594,899	\$ 70,331,936	\$ 13,672,865	\$ 718,672,941	\$ 3,429,643	\$ 7,839,666	\$ 10,271,159	\$ 8,95,489,293
Additions	(71,335)	(337)	-	6,944	6,644	(29,250)	(538,897)	2	26,832,323
Disposal	(32,862)	-	10,665	(89,923)	(1,999,302)	(2,250)	50,043	-	(3,178,061)
Other	-	5,361	-	694,330	77,075	-	-	-	(748,002)
Balance on December 31, 2018	<u>\$ 4,69,672,266</u>	<u>\$ 1,600,323</u>	<u>\$ 70,331,936</u>	<u>\$ 13,778,164</u>	<u>\$ 1,126,090,659</u>	<u>\$ 3,377,356</u>	<u>\$ 7,891,816</u>	<u>\$ 10,271,161</u>	<u>\$ 9,98,696,485</u>
Accumulated depreciation and impairment									
Balance on January 1, 2018	\$ -	\$ (1,292,627)	\$ (26,135,797)	\$ (11,416,595)	\$ (669,237,217)	\$ (3,510,198)	\$ (6,181,086)	\$ -	\$ (653,771,420)
Depreciation expenses	-	(45,731)	(1,281,264)	(943,621)	(23,970,020)	(161,226)	(442,840)	-	(26,846,782)
Disposal	-	317	-	584,095	31,918,865	29,186	5,80,625	-	33,960,060
Other	-	232	28,453	(1,023)	(1,162)	(5,021)	(2,021)	-	(6,021)
Balance on December 31, 2018	<u>\$ -</u>	<u>\$ (1,337,281)</u>	<u>\$ (27,388,608)</u>	<u>\$ (11,781,165)</u>	<u>\$ (657,277,694)</u>	<u>\$ (3,672,354)</u>	<u>\$ (6,181,086)</u>	<u>\$ -</u>	<u>\$ (667,599,869)</u>
Balance on January 1, 2018, net	<u>\$ 5,10,064,540</u>	<u>\$ 302,172</u>	<u>\$ 44,196,139</u>	<u>\$ 2,256,269</u>	<u>\$ 1,133,201,174</u>	<u>\$ 3,194,455</u>	<u>\$ 1,658,520</u>	<u>\$ 10,271,161</u>	<u>\$ 8,95,489,293</u>
Balance on December 31, 2018, net	<u>\$ 4,69,672,266</u>	<u>\$ 265,040</u>	<u>\$ 43,156,133</u>	<u>\$ 1,195,104</u>	<u>\$ 1,124,812,965</u>	<u>\$ 2,703,002</u>	<u>\$ 1,206,832</u>	<u>\$ 10,271,161</u>	<u>\$ 9,98,696,485</u>

There was no indication that property, plant and equipment was impaired so the Company did not recognize any impairment loss for the year ended December 31, 2018.

Depreciation expense is computed using the straight-line method over the following estimated service lives:

Land improvements	8-30 years
Buildings	35-60 years
Main buildings	4-10 years
Other building facilities	5-6 years
Computer equipment	9-15 years
Telecommunications equipment	5-10 years
Telecommunication circuits	-
Telecommunication machinery and antennas equipment	-

Transportation equipment  
Miscellaneous equipment  
Leasehold improvements  
Mechanical and air conditioner equipment  
Others

3-10 years  
2-6 years  
8-16 years  
3-10 years  
(Concluded)

15. LEASE ARRANGEMENTS

a. Right-of-use Assets - 2019

	<u>December 31</u> <u>2019</u>
Land and buildings	\$ 6,848,041
Handsets base stations	857,552
Others	<u>2,586,432</u>
	<u>\$ 10,292,025</u>
<b>Year Ended</b>	
<b>December 31</b>	
<b>2019</b>	<u>\$ 3,324,178</u>

Additions to right-of-use assets

Depreciation charge for right-of-use assets

Land and buildings	\$ 2,728,814
Handsets base stations	414,295
Others	<u>404,045</u>
	<u>\$ 3,547,154</u>

b. Lease liabilities - 2019

Lease liabilities	
Current	\$ 2,939,410
Non-current	<u>5,755,804</u>
	<u>\$ 8,695,214</u>

Range of discount rate for lease liabilities is as follows:

	<u>December 31</u> <u>2019</u>
Land and buildings	0.58%-1.18%
Handsets base stations	0.58%-1.12%
Others	0.58%-0.82%
Equipment	-

c. Important lease-in activities and terms-2019

The Company mainly enters into lease-in agreements of land and buildings for handsets base stations located all over Taiwan with lease terms from 1 to 20 years. There's no clause for bargain purchase options to acquire the assets at the expiry of the lease periods in the agreement. In most lease-in agreements of handsets base station agreements, the Company is able to terminate the agreement prior to the maturity date provided that the premise the Company fails to meet the purpose to build telecommunication equipment due to legal restriction, controversial events, or other events.

The Company also leases land and buildings for the use of offices, server rooms, and stores with lease terms from 1 to 30 years. Most of the lease agreements for national land adjust the lease payment according to the changes of present values of land announced by the authority. At the expiry of the lease term, the Company does not have bargain purchase options to acquire the assets.

The lease agreements for equipment include a contract between the Company and ST-2 Satellite Ventures Pte., Ltd. to lease capacity on the ST-2 satellite. The information of lease agreements with related parties, please refer to Note 32 to the financial statements for details.

d. Other lease information

2019

	<u>Year Ended December 31 2019</u>
Expenses relating to low-value asset leases	\$ <u>908</u>
Expenses relating to variable lease payments not included in the measurement of lease liabilities	\$ <u>15,348</u>
Total cash outflow for leases	\$ <u>3,382,739</u>

The Company leases certain equipment which qualify as low-value asset leases. The Company has elected to apply the recognition exemption and, thus, not to recognize right-of-use assets and lease liabilities for these leases.

Lease-out arrangements under operating leases for freehold property, plant, and equipment and investment properties are set out in Notes 14 and 16 to the financial statements.

2018

The future aggregate minimum lease payments under non-cancellable operating leases are as follows:

	<u>December 31 2018</u>
Within one year	\$ 3,066,871
Longer than one year but within five years	5,572,686
Longer than five years	<u>695,162</u>
	\$ <u>9,334,719</u>

16. INVESTMENT PROPERTIES

	<u>Investment Properties</u>
<u>Cost</u>	
Balance on January 1, 2018	\$ 9,060,042
Additions	5,627
Reclassification	<u>252,008</u>
Balance on December 31, 2018	<u>\$ 9,317,677</u>

Accumulated depreciation and impairment

Balance on January 1, 2018	\$ (1,087,024)
Depreciation expense	(20,777)
Reclassification	(16,572)
Reversal of impairment loss	19,133
Balance on December 31, 2018	<u>\$ (1,105,240)</u>
Balance on January 1, 2018, net	<u>\$ 7,973,018</u>
Balance on December 31, 2018, net	<u>\$ 8,212,437</u>

Cost

Balance on January 1, 2019	\$ 9,317,677
Additions	523
Disposal	(5,831)
Reclassification	<u>(173,165)</u>
Balance on December 31, 2019	<u>\$ 9,139,204</u>

Accumulated depreciation and impairment

Balance on January 1, 2019	\$ (1,105,240)
Depreciation expense	(25,157)
Disposal	5,831
Reclassification	23,363
Reversal of impairment loss	<u>56,617</u>
Balance on December 31, 2019	<u>\$ (1,044,586)</u>
Balance on January 1, 2019, net	<u>\$ 8,212,437</u>
Balance on December 31, 2019, net	<u>\$ 8,094,618</u>

After the evaluation of land and buildings, the Company concluded the recoverable amount which represented the fair value less costs to sell of some land and buildings was higher than the carrying amount. Therefore, the Company recognized reversal of impairment losses of \$56,617 thousand and \$19,133 thousand for the years ended December 31, 2019 and 2018, respectively, and the amounts were recognized only to the extent of impairment losses that had been recognized in prior years. The reversal of impairment loss was included in other income and expenses in the statements of comprehensive income.

Depreciation expense is computed using the straight-line method over the following estimated service lives:

Land improvements	10-30 years
Buildings	
Main buildings	35-60 years
Other building facilities	4-10 years

The fair values of the Company's investment properties as of December 31, 2019 and 2018 were determined by Level 3 fair value measurements inputs based on the appraisal reports conducted by independent appraisers. Those appraisal reports are based on the comparison approach, income approach or cost approach. Key assumptions and the fair values were as follows:

	December 31	
	2019	2018
Fair value	\$ 18,469,212	\$ 18,282,068
Overall capital interest rate	1.03%-4.04%	1.02%-4.04%
Profit margin ratio	12%-20%	12%-20%
Discount rate	-	-
Capitalization rate	0.79%-1.74%	0.79%-1.75%

All of the Company's investment properties are held under freehold interest.

#### 2019

The future aggregate lease collection under operating lease for investment properties is as follows:

	December 31
	2019
Year 1	\$ 112,884
Year 2	90,701
Year 3	70,794
Year 4	61,115
Year 5	39,386
Onwards	96,010
	<u>\$ 470,890</u>

#### 2018

The future aggregate minimum lease collection under non-cancellable operating leases is as follows:

	December 31
	2018
Within one year	\$ 324,788
Longer than one year but within five years	613,868
Longer than five years	206,433
	<u>\$ 1,145,089</u>

## 17. INTANGIBLE ASSETS

	3G and 4G Concession	Computer Software	Others	Total
<u>Cost</u>				
Balance on January 1, 2018	\$ 70,144,000	\$ 2,963,762	\$ 9,231	\$ 73,116,993
Additions - acquired separately	-	424,397	8,688	433,085
Disposal	-	(363,953)	(9)	(363,962)
Balance on December 31, 2018	<u>\$ 70,144,000</u>	<u>\$ 3,024,206</u>	<u>\$ 17,910</u>	<u>\$ 73,186,116</u>
<u>Accumulated amortization and impairment</u>				
Balance on January 1, 2018	\$ (16,674,565)	\$ (2,154,765)	\$ (4,410)	\$ (18,833,740)
Amortization expenses	(3,957,909)	(352,634)	(1,500)	(4,312,043)
Disposal	-	363,953	9	363,962
Balance on December 31, 2018	<u>\$ (20,632,474)</u>	<u>\$ (2,143,446)</u>	<u>\$ (5,901)</u>	<u>\$ (22,781,821)</u>
Balance on January 1, 2018, net	\$ 53,469,435	\$ 808,997	\$ 4,821	\$ 54,283,253
Balance on December 31, 2018, net	<u>\$ 49,511,526</u>	<u>\$ 880,760</u>	<u>\$ 12,009</u>	<u>\$ 50,404,295</u>
<u>Cost</u>				
Balance on January 1, 2019	\$ 70,144,000	\$ 3,024,206	\$ 17,910	\$ 73,186,116
Additions - acquired separately	-	281,691	2,101	283,792
Disposal	(10,179,000)	(250,865)	-	(10,429,865)
Balance on December 31, 2019	<u>\$ 59,965,000</u>	<u>\$ 3,055,032</u>	<u>\$ 20,011</u>	<u>\$ 63,040,043</u>
<u>Accumulated amortization and impairment</u>				
Balance on January 1, 2019	\$ (20,632,474)	\$ (2,143,446)	\$ (5,901)	\$ (22,781,821)
Amortization expenses	(3,839,572)	(326,157)	(2,901)	(4,168,630)
Disposal	10,179,000	250,865	-	10,429,865
Balance on December 31, 2019	<u>\$ (14,293,046)</u>	<u>\$ (2,218,738)</u>	<u>\$ (8,802)</u>	<u>\$ (16,520,586)</u>
Balance on January 1, 2019, net	\$ 49,511,526	\$ 880,760	\$ 12,009	\$ 50,404,295
Balance on December 31, 2019, net	<u>\$ 45,671,954</u>	<u>\$ 836,294</u>	<u>\$ 11,209</u>	<u>\$ 46,519,457</u>

The concessions are granted and issued by the NCC. The concession fees are amortized using the straight-line method from the date operations commence through the date the license expires. The carrying amount of 3G concession fee was fully amortized in December 2018, and 4G concession fees will be fully amortized by December 2030 and December 2033.

The computer software is amortized using the straight-line method over the estimated useful lives of 1 to 10 years. Other intangible assets are amortized using the straight-line method over the estimated useful lives of 1 to 11 years.



December 31, 2018

Hedging Instruments	Currency	Notional Amount (in Thousands)	Maturity	Forward Rate	Line Item in Balance Sheet	Carrying Amount Asset / Liability	Change in Fair Values of Hedging Instruments Used for Calculating Hedge Ineffectiveness
Cash flow hedge Forecast purchases - forward exchange contracts	EUR/NTS	EUR 4,911 / NTS 171,797	2019/03	\$ 34.98	Hedging financial assets (liabilities)	\$ 1,069 \$ -	\$ 1,919

Hedged Items	Change in Value of Hedged Item Used for Calculating Hedge Ineffectiveness	Accumulated Gain or Loss on Hedging Instruments in Other Equity	
		Continuing Hedges	Accounting No Longer Applied
Cash flow hedge	\$ (1,919)	\$ 1,069	\$ -

Cash flow hedge  
Forecast equipment purchases  
Year ended December 31, 2019

Hedge Transaction	Hedging Gain or Loss Recognized in OCI	Amount of Hedge Ineffectiveness Recognized in Profit or Loss	Line Item in Which Hedge Ineffectiveness is Included	Reclassification from Equity to Profit or Loss and the Adjusted Line Item	
				Amount Reclassified to P/L and the Adjusted Line Item	Due to Hedged Future Cash Flows No Longer Expected to Occur
Cash flow hedge Forecast equipment purchases	\$ (742)	\$ -	-	\$ (2,026)	Construction in progress and equipment to be accepted Other gains and losses

Year ended December 31, 2018

Hedge Transaction	Hedging Gain or Loss Recognized in OCI	Amount of Hedge Ineffectiveness Recognized in Profit or Loss	Line Item in Which Hedge Ineffectiveness is Included	Comprehensive Income	
				Reclassification from Equity to Profit or Loss and the Adjusted Line Item	Due to Hedged Future Cash Flows No Longer Expected to Occur
Cash flow hedge Forecast equipment purchases	\$ 1,919	\$ -	-	\$ (4,030)	Construction in progress and equipment to be accepted Other gains and losses (297)

## 20. TRADE NOTES AND ACCOUNTS PAYABLE

	December 31 2019	December 31 2018
Trade notes and accounts payable	\$ 12,052,523	\$ 16,773,477

Trade notes and accounts payable were attributable to operating activities and the trading conditions were agreed separately.

## 21. OTHER PAYABLES

	December 31 2019	December 31 2018
Accrued salary and compensation	\$ 8,084,105	\$ 7,628,124
Payables to contractors	1,602,855	1,530,713
Amounts collected for others	1,139,049	1,100,599
Accrued compensation to employees and remuneration to directors	1,161,404	1,442,480
Accrued franchise fees	1,088,333	1,148,241
Accrued maintenance costs	953,441	1,046,412
Payables to equipment suppliers	220,650	1,399,296
Others	5,020,746	4,853,125
	\$ 19,270,583	\$ 20,148,990

## 22. PROVISIONS

	December 31 2019	December 31 2018	
Warranties	\$ 74,235	\$ 54,308	
Onerous contracts	66,907	19,323	
Employee benefits	59,745	51,393	
Others	4,397	4,447	
	\$ 205,284	\$ 129,471	
Current	\$ 107,902	\$ 50,844	
Noncurrent	97,382	78,627	
	\$ 205,284	\$ 129,471	
	Employee Benefits	Others	Total
Balance on January 1, 2018	\$ 43,429	\$ 4,467	\$ 106,246
Additional provisions recognized	9,180	80	52,953
Used /forfeited during the year	(1,216)	(100)	(29,728)
Balance on December 31, 2018	\$ 51,393	\$ 4,447	\$ 129,471

Balance on December 31, 2018

The amounts included in the balance sheets arising from the Company's obligation in respect of its defined benefit plans were as follows:

	2019	2018
Present value of funded defined benefit obligation	\$ 40,917,777	\$ 41,088,052
Fair value of plan assets	<u>(39,613,213)</u>	<u>(38,817,587)</u>
Funded status - deficit	<u>\$ 1,304,564</u>	<u>\$ 2,270,465</u>
Net defined benefit liabilities	\$ 3,412,740	\$ 3,419,867
Net defined benefit assets	<u>(2,108,176)</u>	<u>(1,149,402)</u>
	<u>\$ 1,304,564</u>	<u>\$ 2,270,465</u>

Movements in the defined benefit obligation and the fair value of plan assets were as follows:

	Present Value of Funded Benefit Obligation	Fair Value of Plan Assets	Net Defined Liabilities (Assets)
Balance on January 1, 2018	\$ 37,369,934	\$ 34,770,538	\$ 2,599,396
Current service cost	3,023,221	-	3,023,221
Interest expense / interest income	545,268	540,995	4,273
Amounts recognized in profit or loss	<u>3,568,489</u>	<u>540,995</u>	<u>3,027,494</u>
Remeasurement on the net defined benefit liability			
Return on plan assets (excluding amounts included in net interest)	-	870,224	(870,224)
Actuarial losses recognized from changes in financial assumptions	1,255,589	-	1,255,589
Actuarial losses recognized from experience adjustments	816,104	-	816,104
Amounts recognized in other comprehensive income	<u>2,071,693</u>	<u>870,224</u>	<u>1,201,469</u>
Contributions from employer	-	4,366,333	(4,366,333)
Benefits paid	(1,730,503)	(1,730,503)	-
Benefits paid directly by the Company	(191,561)	-	(191,561)
Balance on December 31, 2018	41,088,052	38,817,587	2,270,465
Current service cost	2,925,862	-	2,925,862
Interest expense / interest income	397,224	388,140	9,084
Amounts recognized in profit or loss	<u>3,323,086</u>	<u>388,140</u>	<u>2,934,946</u>
Remeasurement on the net defined benefit liability			
Return on plan assets (excluding amounts included in net interest)	-	1,330,346	(1,330,346)
Actuarial losses recognized from changes in financial assumptions	639,398	-	639,398
Actuarial gains recognized from experience adjustments	(815,342)	-	(815,342)
Amounts recognized in other comprehensive income	<u>(175,944)</u>	<u>1,330,346</u>	<u>(1,506,290)</u>

(Continued)

	Warranties	Onerous Contracts	Employee Benefits	Others	Total
Balance on January 1, 2019	\$ 54,308	\$ 19,323	\$ 51,393	\$ 4,447	\$ 129,471
Additional provisions recognized	40,503	47,584	9,194	-	97,281
Used /forfeited during the year	<u>(20,576)</u>	<u>-</u>	<u>(842)</u>	<u>(50)</u>	<u>(21,468)</u>
Balance on December 31, 2019	<u>\$ 74,235</u>	<u>\$ 66,907</u>	<u>\$ 59,745</u>	<u>\$ 4,397</u>	<u>\$ 205,284</u>

(Concluded)

- The provision for warranties claims represents the present value of the management's best estimate of the future outflow of economic benefits that will be required under the Company's obligation for warranties in sales agreements. The estimate has been made based on the historical warranty experience.
- The provision for employee benefits represents vested long-term service compensation accrued.
- The provision for onerous contracts represents the present obligation resulting from the measurement for the unavoidable costs of meeting the Company's contractual obligations exceed the economic benefits expected to be received from the contracts.

## 23. RETIREMENT BENEFIT PLANS

- Defined contribution plans
 

The pension plan under the Labor Pension Act of ROC (the "LPA") is considered as a defined contribution plan. Based on the LPA, the Company makes monthly contributions to employees' individual pension accounts at 6% of monthly salaries and wages.
- Defined benefit plans
 

The Company completed its privatization plans on August 12, 2005. The Company is required to pay all accrued pension obligations including service clearance payment, lump sum payment under civil service plan, additional separation payments, etc. upon the completion of the privatization in accordance with the Statute Governing Privatization of State-owned Enterprises. After paying all pension obligations for privatization, the plan assets of the Company should be transferred to the Fund for Privatization of Government-owned Enterprises (the "Privatization Fund") under the Executive Yuan. On August 7, 2006, the Company transferred the remaining balance of fund to the Privatization Fund. However, according to the instructions of MOITC, the Company was requested to administer the distributions to employees for pension obligations including service clearance payment, lump sum payment under civil service plan, additional separation payments, etc. upon the completion of the privatization and recognized in other current monetary assets.

The Company with the pension mechanism under the Labor Standards Law is considered as defined benefit plans. These pension plans provide benefits based on an employee's length of service and average six-month salary prior to retirement. The Company contributes an amount no more than 15% of salaries paid each month to their respective pension funds (the Funds), which are administered by the Labor Pension Fund Supervisory Committee (the Committee) and deposited in the names of the Committees in the Bank of Taiwan. The plan assets are held in a commingled fund which is operated and managed by the government's designated authorities; as such, the Company does not have any right to intervene in the investments of the funds. According to the Article 56 of the Labor Standards Law in the ROC, entities are required to contribute the difference in one appropriation to the Funds before the end of next March when the balance of the Funds is insufficient to pay employees who will meet the retirement eligibility criteria within next year.

	<b>Present Value of Funded Defined Benefit Obligation</b>	<b>Fair Value of Plan Assets</b>	<b>Net Defined Benefit Liabilities (Assets)</b>
Contributions from employer	\$ -	\$ 2,091,936	\$ (2,091,936)
Benefits paid	(3,014,796)	(3,014,796)	-
Benefits paid directly by the Company	<u>(302,621)</u>	<u>-</u>	<u>(302,621)</u>
Balance on December 31, 2019	<u>\$ 40,917,777</u>	<u>\$ 39,613,213</u>	<u>\$ 1,304,564</u>
			(Concluded)

Relevant pension costs recognized in profit and loss for defined benefit plans were as follows:

	<b>Year Ended December 31</b>	
	<b>2019</b>	<b>2018</b>
Operating costs	\$ 1,725,459	\$ 1,795,299
Marketing expenses	864,796	883,744
General and administrative expenses	163,940	163,958
Research and development expenses	<u>103,156</u>	<u>107,494</u>
	<u>\$ 2,857,351</u>	<u>\$ 2,950,495</u>

The Company is exposed to following risks for the defined benefits plans under the Labor Standards Law:

a. Investment risk

Under the Labor Standards Law, the rate of return on assets shall not be lower than the average interest rate on a two-year time deposit published by the local banks and the government is responsible for any shortfall in the event that the rate of return is less than the required rate of return. The plan assets are held in a commingled fund mainly invested in foreign and domestic equity and debt securities and bank deposits which is operated and managed by the government's designated authorities; as such, the Company does not have any right to intervene in the investments of the funds.

b. Interest rate risk

The decline in government bond interest rate will increase the present value of the obligation on the defined benefit plan, while the return on plan assets will increase. The net effect on the present value of the obligation on defined benefit plan is partially offset by the return on plan assets.

c. Salary risk

The calculation of the present value of defined benefit obligation is referred to the plan participants' future salary. Hence, the increase in plan participants' salary will increase the present value of the defined benefit obligation.

The most recent actuarial valuation of plan assets and the present value of the defined benefit obligation were carried out by the independent actuary. The principal assumptions used for the purpose of the actuarial valuations were as follows:

	<b>Measurement Date</b>	
	<b>2019</b>	<b>2018</b>
Discount rates	0.75%	1.00%
Expected rates of salary increase	1.20%	1.20%

If reasonably possible changes of the respective significant actuarial assumptions occur at the end of reporting periods, while holding all other assumptions constant, the present value of the defined benefit obligation would increase (decrease) as follows:

	<b>December 31</b>	
	<b>2019</b>	<b>2018</b>
Discount rates	\$ (1,259,747)	\$ (1,240,406)
0.5% increase	<u>\$ 1,339,198</u>	<u>\$ 1,318,726</u>
0.5% decrease	<u>\$ 1,431,825</u>	<u>\$ 1,410,497</u>
Expected rates of salary increase	<u>\$ (1,358,894)</u>	<u>\$ (1,338,223)</u>
0.5% increase		
0.5% decrease		

The sensitivity analysis presented above may not be representative of the actual change in the present value of the defined benefit obligation as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated. There is no change in the methods and assumptions used in preparing the sensitivity analysis from the previous period.

	<b>December 31</b>	
	<b>2019</b>	<b>2018</b>
The expected contributions to the plan for the next year	<u>\$ 2,069,215</u>	<u>\$ 2,229,507</u>
The average duration of the defined benefit obligation	6.5 years	6.5 years

As of December 31, 2019, the Company's maturity analysis of the undiscounted benefit payments was as follows:

<b>Year</b>	<b>Amount</b>
2020	\$ 2,950,393
2021	7,253,722
2022	10,965,985
2023	12,748,665
2024 and thereafter	<u>42,605,064</u>
	<u>\$ 76,523,829</u>



The appropriation for legal reserve shall be made until the accumulated reserve equals the aggregate par value of the outstanding capital stock of the Company. This reserve can only be used to offset a deficit, or, when the legal reserve has exceeded 25% of the Company's paid-in capital, the excess may be transferred to capital or distributed in cash.

The appropriations of the 2018 and 2017 earnings of the Company approved by the stockholders in their meetings on June 21, 2019 and on June 15, 2018 were as follows:

	Appropriation of Earnings		Dividends Per Share	
	For Fiscal Year 2018	For Fiscal Year 2017	For Fiscal Year 2018	For Fiscal Year 2017
Reversal of special reserve	\$ -	\$ 5,404		
Cash dividends	34,745,603	37,204,714	\$ 4.479	\$ 4.796

The appropriations of earnings for 2019 had been proposed by the Company's Board of Directors on February 26, 2020. The appropriations and dividends per share were as follows:

	Appropriation of Earnings	Dividends Per Share (NT\$)
Cash dividends	\$ 32,782,969	\$ 4.226

The appropriations of earnings for 2019 are subject to the resolution of the stockholders' meeting planned to be held on May 29, 2020. Information of the appropriation of the Company's earnings proposed by the Board of Directors and approved by the stockholders is available on the Market Observation Post System website.

d. Other adjustments

1) Exchange differences arising from the translation of the foreign operations

The exchange differences arising from the translation of the foreign operations from their functional currency to New Taiwan dollars were recognized as exchange differences arising from the translation of the foreign operations in other comprehensive income.

2) Unrealized gain or loss on financial assets at FVOCI

	Year Ended December 31 2019	2018
Beginning balance	\$ 538,272	\$ 883,420
Recognized for the year		(346,223)
Unrealized gain (loss) - equity instruments	399,429	
Share from subsidiaries and associates accounted for using the equity method	(101,103)	1,075
Ending balance	\$ 836,598	\$ 538,272

25. REVENUES

	Year Ended December 31 2019	2018
Revenue from contracts with customers	\$ 178,227,341	\$ 184,335,136
Other revenues		
Rental income	752,622	705,623
Other	341,875	290,940
	1,094,497	996,563
	\$ 179,321,838	\$ 185,331,699

The information of performance obligations in customer contracts, please refer to Note 3 Summary of Significant Accounting Policies for details.

a. Disaggregation of revenue

	2019				2018				
	Domestic Fixed Communications Business	Mobile Communications Business	Internet Business	International Fixed Communications Business	Domestic Fixed Communications Business	Mobile Communications Business	Internet Business	International Fixed Communications Business	Total
Main Products and Service Revenues									
Mobile services revenue	\$ -	\$ 62,808,959	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 62,808,959
Sales of products	1,958,028	11,634,139	8,691	8,804	-	-	-	-	13,609,662
Local telephone and domestic long distance telephone services	-	-	-	-	-	-	-	-	-
Broadband access and domestic leased line services revenue	27,949,534	-	-	-	-	-	-	-	27,949,534
Data Communications internet services revenue	22,180,256	-	-	-	-	-	-	-	22,180,256
International network and leased telephone services revenue	-	-	19,637,375	-	-	-	-	-	19,637,375
Others	13,169,912	354,495	8,148,535	6,513,830	-	-	110,477	-	25,527,725
	\$ 65,257,730	\$ 74,797,593	\$ 27,794,621	\$ 10,266,920	\$ -	\$ -	\$ 110,477	\$ -	\$ 178,227,341

2018

	2019				2018				
	Domestic Fixed Communications Business	Mobile Communications Business	Internet Business	International Fixed Communications Business	Domestic Fixed Communications Business	Mobile Communications Business	Internet Business	International Fixed Communications Business	Total
Main Products and Service Revenues									
Mobile services revenue	\$ -	\$ 67,868,502	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 67,868,502
Sales of products	1,731,703	9,878,434	-	8,299	-	-	-	-	11,618,436
Local telephone and domestic long distance telephone services revenue	-	-	-	-	-	-	-	-	-
Broadband access and domestic leased line services revenue	30,018,026	-	-	-	-	-	-	-	30,018,026
Data Communications internet services revenue	22,489,839	-	-	-	-	-	-	-	22,489,839
International network and leased telephone services revenue	-	-	19,784,304	-	-	-	-	-	19,784,304
Others	12,036,469	268,469	8,200,599	3,597,271	-	-	123,240	-	24,226,048
	\$ 66,276,037	\$ 78,015,405	\$ 27,984,903	\$ 11,935,551	\$ -	\$ -	\$ 123,240	\$ -	\$ 184,335,136

b. Contract balances

	<b>December 31</b>	
	<b>2019</b>	<b>2018</b>
Trade notes and accounts receivable (Note 9)	<u>\$ 23,478,061</u>	<u>\$ 27,851,879</u>
Contract assets		
Products and service bundling	\$ 2,190,217	\$ 2,225,636
Other	91,152	101,890
Less: Loss allowance	<u>(5,686)</u>	<u>(6,381)</u>
	<u>\$ 2,275,683</u>	<u>\$ 2,321,145</u>
Current	\$ 1,470,985	\$ 1,653,886
Noncurrent	<u>804,698</u>	<u>667,259</u>
	<u>\$ 2,275,683</u>	<u>\$ 2,321,145</u>
Contract liabilities		
Telecommunications business	\$ 10,559,858	\$ 8,443,296
Project business	10,265,409	4,439,286
Products and service bundling	23,319	28,689
Other	<u>251,332</u>	<u>231,812</u>
	<u>\$ 21,099,918</u>	<u>\$ 13,143,083</u>
Current	\$ 16,684,939	\$ 10,686,892
Noncurrent	<u>4,414,979</u>	<u>2,456,191</u>
	<u>\$ 21,099,918</u>	<u>\$ 13,143,083</u>

The changes in the contract asset and the contract liability balances primarily result from the timing difference between the satisfaction of performance obligations and the payments collected from customers. Significant changes of contract assets and liabilities recognized resulting from product and service bundling were as follows:

	<b>Year Ended December 31</b>	
	<b>2019</b>	<b>2018</b>
Contract assets		
Net increase of customer contracts	\$ 1,943,860	\$ 1,266,174
Reclassified to trade receivables	<u>(2,078,331)</u>	<u>(2,483,958)</u>
	<u>\$ (134,471)</u>	<u>\$ (1,217,784)</u>
Contract liabilities		
Net increase of customer contracts	\$ 16,289	\$ 22,162
Recognized as revenues	<u>(21,659)</u>	<u>(34,567)</u>
	<u>\$ (5,370)</u>	<u>\$ (12,405)</u>

The Company applies the simplified approach to providing for expected credit losses prescribed by IFRS 9, which permits the use of lifetime expected loss provision for receivables. Contract assets will be reclassified to trade receivables when the corresponding invoice is billed to the client. Contract assets have substantially the same risk characteristics as the trade receivables of the same

types of contracts. Therefore, the Company concluded that the expected loss rates for trade receivables can be applied to the contract assets.

Revenue recognized for the period that was included in the contract liability at the beginning of the period was as follows:

	<b>Year Ended December 31</b>	
	<b>2019</b>	<b>2018</b>
Telecommunications business	\$ 6,176,801	\$ 7,147,288
Project business	3,989,780	619,731
Others	<u>180,839</u>	<u>142,940</u>
	<u>\$ 10,347,420</u>	<u>\$ 7,909,959</u>

c. Incremental costs of obtaining contracts

	<b>December 31</b>	
	<b>2019</b>	<b>2018</b>
Noncurrent		
Incremental costs of obtaining contracts	<u>\$ 6,976,421</u>	<u>\$ 7,620,704</u>

The Company considered the past experience and the default clauses in the telecommunications service contract and believes the commissions and equipment subsidy paid for obtaining contracts are expected to be recoverable; therefore, incremental costs of obtaining contracts are recognized as an asset. Amortization expense of incremental costs of obtaining contracts for the years ended December 31, 2019 and 2018 was \$6,269,916 thousand and \$9,958,119 thousand, respectively.

d. Remaining Performance Obligations

As of December 31, 2019, the aggregate amount of transaction price allocated to performance obligations for non-cancellable telecommunications service contracts that are unsatisfied is \$40,520,769 thousand. The Company recognizes revenue when service is provided over contract terms. The Company expects to recognize such revenue of \$23,346,664 thousand, \$13,630,040 thousand and \$3,544,065 thousand in 2020, 2021 and 2022, respectively. The variable consideration collected from customers on nonrecurring basis resulting from exceeded usage from monthly fee and revenue recognized for contracts that the Company has a right to consideration from customers in the amount corresponding directly with the value to the customers of the Company's performance completed to date have been excluded from the disclosure of remaining performance obligations.

As of December 31, 2019, the aggregate amount of transaction price allocated to performance obligations for non-cancellable project business contracts that are unsatisfied is \$23,053,527 thousand. The Company recognizes revenues when the project business contract is completed and accepted by customers. The Company expects to recognize such revenue of \$14,108,579 thousand, \$5,348,533 thousand and \$3,596,415 thousand in 2020, 2021 and 2022, respectively. Project business contracts whose expected duration are less than a year have been excluded from the aforementioned disclosure.



	Year Ended December 31	2018
Summary by functions		
Operating costs	\$ 21,192,623	\$ 21,972,929
Operating expenses	<u>16,134,251</u>	<u>16,023,736</u>
	<u>\$ 37,326,874</u>	<u>\$ 37,996,665</u>
		(Concluded)

The Company distributes employees' compensation at the rates from 1.7% to 4.3% and remuneration to directors not higher than 0.17%, respectively, of pre-tax income. As of December 31, 2019, the payables of the employees' compensation and of the remuneration to directors were \$1,126,194 thousand and \$35,210 thousand, respectively. Such amounts have been approved by the Company's Board of Directors on February 26, 2020 and will be reported to the stockholders in their meeting planned to be held on May 29, 2020.

If there is a change in the proposed amounts after the annual financial statements are authorized for issue, the differences are recorded as a change in accounting estimate.

The compensation to the employees and remuneration to the directors of 2018 and 2017 approved by the Board of Directors on March 19, 2019 and March 13, 2018, respectively, were as follows.

	2018	2017
Compensation distributed to the employees	\$ 1,404,264	\$ 1,596,012
Remuneration paid to the directors	38,216	40,750

There was no difference between the initial accrual amounts and the amounts proposed in the Board of Directors in 2019 and 2018 of the aforementioned compensation to employees and the remuneration to directors.

Information of the appropriation of the Company's employees compensation and remuneration to directors and those approved by the Board of Directors is available on the Market Observation Post System website.

## 27. INCOME TAX

### a. Income tax recognized in profit or loss

The major components of income tax expense were as follows:

	Year Ended December 31	2018
Current tax		
Current tax expenses recognized for the year	\$ 7,590,104	\$ 7,751,176
Income tax adjustments on prior years	(85,360)	5,419
Income tax on unappropriated earnings	-	298
Others	<u>10,660</u>	<u>6,874</u>
	7,515,404	7,763,767
		(Continued)

	Year Ended December 31	2018
Deferred tax		
Deferred tax expenses recognized for the year	\$ (41,358)	\$ 200,763
Income tax adjustments on prior years	-	19,766
Change in tax rate	<u>(41,358)</u>	<u>31,060</u>
	251,589	
Income tax expense recognized in profit or loss	<u>\$ 7,474,046</u>	<u>\$ 8,015,356</u>
		(Concluded)

Reconciliation of accounting profit and income tax expense was as follows:

	Year Ended December 31	2018
Income before income tax	\$ 40,262,592	\$ 43,516,978
Income tax expense calculated at the statutory rate	\$ 8,052,518	\$ 8,703,396
Nondeductible income and expenses in determining taxable income	5,140	10,422
Tax-exempt income	(323,439)	(580,553)
Investment credits	(192,921)	(188,773)
Income tax on unappropriated earnings	-	298
Income tax adjustments on prior years	(85,360)	25,185
Change in tax rate	-	31,060
Others	<u>18,108</u>	<u>14,321</u>
Income tax expense recognized in profit or loss	<u>\$ 7,474,046</u>	<u>\$ 8,015,356</u>

Income Tax Act in the ROC was amended in 2018, and the corporate income tax rate was adjusted from 17% to 20%. In addition, the rate of the corporate surtax applicable to 2018 unappropriated earnings was reduced from 10% to 5%.

In July 2019, the President of the ROC announced of the amendments to Article 23-3 of the Statute of Industrial Innovation, which stipulate that the unappropriated earnings in 2018 and thereafter that are reinvested in certain assets or technologies are allowed as deduction when computing the income tax on unappropriated earnings, the Company has deducted the reinvested capital expenditure from the 2018 unappropriated earnings while calculating income tax on unappropriated earnings in 2019.

### b. Income tax recognized in other comprehensive income

	Year Ended December 31	2018
Deferred tax		
Remeasurement on defined benefit plan	\$ 301,258	\$ (240,294)
Change in tax rate	-	(205,017)
Total income tax expense (benefit) recognized in other comprehensive income	<u>\$ 301,258</u>	<u>\$ (445,311)</u>

## c. Current tax liabilities

	<u>December 31</u>	
	<u>2019</u>	<u>2018</u>
Current tax liabilities	\$ 3,739,435	\$ 4,070,910
Income tax payable		

## d. Deferred income tax assets and liabilities

The movements of deferred income tax assets and liabilities were as follows:

For the year ended December 31, 2019

	January 1, 2019	Adjustments Arising from Application of IFRS 16	Recognized in Profit or Loss	Recognized in Other Comprehensive Income	December 31, 2019
<u>Deferred income tax assets</u>					
Temporary differences					
Allowance for doubtful receivables over quota	\$ 2,285,421	-	\$ 33,067	\$ (301,258)	\$ 2,017,230
Valuation loss on inventory	431,538	-	(31,471)	-	400,067
Deferred revenue	73,841	-	53,438	-	127,279
Accrued award credits liabilities	110,929	-	(13,472)	-	97,457
Estimated warranty liabilities	13,913	-	3,405	-	17,318
Trade-in right	10,861	-	3,986	-	14,847
Impairment loss on property, plant and equipment	10,335	-	(9,693)	-	642
Others	93,411	13,514	(93,386)	-	25
	<u>11,750</u>	<u>13,514</u>	<u>18,906</u>	<u>-</u>	<u>44,170</u>
	<u>\$ 3,041,999</u>	<u>\$ 13,514</u>	<u>\$ (35,220)</u>	<u>\$ (301,258)</u>	<u>\$ 2,719,035</u>

Deferred income tax liabilities

Temporary differences					
Defined benefit obligation	\$ 1,831,328	-	\$ (75,011)	-	\$ 1,756,317
Land value incremental tax	94,986	-	-	-	94,986
Deferred revenue for award credits net	30,690	-	(2,147)	-	28,543
Unrealized foreign exchange gain, net	499	-	580	-	1,079
	<u>\$ 1,957,503</u>	<u>\$ -</u>	<u>\$ (76,578)</u>	<u>\$ -</u>	<u>\$ 1,880,925</u>

For the year ended December 31, 2018

	January 1, 2018	Recognized in Profit or Loss	Recognized in Other Comprehensive Income	December 31, 2018
<u>Deferred income tax assets</u>				
Temporary differences				
Defined benefit obligation	\$ 1,706,451	\$ 133,659	\$ 445,311	\$ 2,285,421
Allowance for doubtful receivables over quota	287,279	144,259	-	431,538

(Continued)

	January 1, 2018	Recognized in Profit or Loss	Recognized in Other Comprehensive Income	December 31, 2018
Deferred revenue	\$ 105,741	\$ 5,188	-	\$ 110,929
Impairment loss on property, plant and equipment	112,219	(18,808)	-	93,411
Accrued award credits liabilities	15,388	(1,475)	-	13,913
Valuation loss on inventory	13,393	60,448	-	73,841
Estimated warranty liabilities	9,919	942	-	10,861
Unrealized foreign exchange loss, net	13,024	(13,024)	-	-
Trade-in right	14,887	(4,552)	-	10,335
Others	<u>823</u>	<u>10,927</u>	<u>-</u>	<u>11,750</u>
	<u>\$ 2,279,124</u>	<u>\$ 317,564</u>	<u>\$ 445,311</u>	<u>\$ 3,041,999</u>
				(Concluded)

Deferred income tax liabilities

Temporary differences				
Land value incremental tax	\$ 94,986	-	-	\$ 94,986
Unrealized foreign exchange gain, net	-	499	-	499
Defined benefit obligation	1,264,554	566,774	-	1,831,328
Deferred revenue for award credits	<u>28,810</u>	<u>1,880</u>	<u>-</u>	<u>30,690</u>
	<u>\$ 1,388,350</u>	<u>\$ 569,153</u>	<u>\$ -</u>	<u>\$ 1,957,503</u>

e. All deductible temporary differences were recognized as deferred tax assets in the balance sheets.

f. Income tax examinations

Income tax returns of the Company have been examined by the tax authorities through 2017.

## 28. EARNINGS PER SHARE

Net income and weighted average number of common stocks used in the calculation of earnings per share were as follows:

Net Income	Year Ended December 31 2019	2018
Net income used to compute the basic earnings per share	\$ 32,788,546	\$ 35,501,622
Assumed conversion of all dilutive potential common stocks	<u>(3,617)</u>	<u>(6,333)</u>
Employee stock options and employee compensation of subsidiaries	<u>\$ 32,784,929</u>	<u>\$ 35,495,289</u>

### Weighted Average Number of Common Stocks

	(Thousand Shares)	
	Year Ended December 31 2019	2018
Weighted average number of common stocks used to compute the basic earnings per share	7,757,447	7,757,447
Assumed conversion of all dilutive potential common stocks	<u>7,862</u>	<u>9,062</u>
Employee compensation	<u>7,765,309</u>	<u>7,766,509</u>

Because the Company may settle the employee compensation in shares or cash, the Company shall presume that it will be settled in shares and takes those shares into consideration when calculating the weighted average number of outstanding shares used in the calculation of diluted EPS if the shares have a dilutive effect. The dilutive effect of the shares needs to be considered until the approval of the number of shares to be distributed to employees as compensation in the following year.

## 29. NON-CASH TRANSACTIONS

For the years ended December 31, 2019 and 2018, the Company entered into the following non-cash investing activities:

	Year Ended December 31 2019	2018
Increase in property, plant and equipment	\$ 21,310,261	\$ 26,837,323
Changes in other payables	<u>1,116,812</u>	<u>653,256</u>
	<u>\$ 22,427,073</u>	<u>\$ 27,490,579</u>

For the year ended December 31, 2019, changes in liabilities arising from financing activities, including non-cash transactions, were as follows:

	Balance on January 1, 2019	Cash Flows from Financing Activities	Changes in Non-Cash Transactions	Cash Flows from Operation Activities - Interest Paid	Balance on September 30, 2019
Lease liabilities	\$ 9,181,564	\$ (3,306,322)	\$ 3,324,178	\$ (60,161)	\$ 8,695,214
			<u>\$ (444,045)</u>		

## 30. CAPITAL MANAGEMENT

The Company manages its capital to ensure that the Company will be able to continue as going concerns while maximizing the return to stakeholders through the optimization of the debt and equity balance.

The capital structure of the Company consists of debt and the equity of the Company.

The Company is required to maintain minimum paid-in capital amount as prescribed by the applicable laws.

The management reviews the capital structure of the Company as needed. As part of this review, the management considers the cost of capital and the risks associated with each class of capital.

According to the management's suggestion, the Company maintains a balanced capital structure through paying cash dividends, increasing its share capital, purchasing outstanding shares, and proceeds from new debt or repayment of debt.

## 31. FINANCIAL INSTRUMENTS

### Fair Value Information

The fair value measurement guidance establishes a framework for measuring fair value and expands disclosure about fair value measurements. The standard describes a fair value hierarchy based on three levels of inputs that may be used to measure fair value. These levels are:

Level 1 fair value measurements: These measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 fair value measurements: These measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).

Level 3 fair value measurements: These measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

- a. Financial instruments that are not measured at fair value but for which fair value is disclosed

The Company considers that the carrying amounts of financial assets and liabilities not measured at fair value approximate their fair values or the fair values cannot be reliable estimated, no financial instruments need to be disclosed on balance sheet date.

## b. Financial instruments that are measured at fair value on a recurring basis

December 31, 2019

	Level 1	Level 2	Level 3	Total
Hedging financial assets	\$ -	\$ <u>327</u>	\$ -	\$ <u>327</u>
Financial assets at FVTPL Non-listed stocks	\$ -	\$ -	\$ <u>778,105</u>	\$ <u>778,105</u>
Financial assets at FVOCI Equity investment	\$ <u>2,388,416</u>	\$ -	\$ <u>4,534,899</u>	\$ <u>6,923,315</u>
Financial liabilities at FVTPL Derivatives	\$ -	\$ <u>228</u>	\$ -	\$ <u>228</u>

December 31, 2018

	Level 1	Level 2	Level 3	Total
Hedging financial assets	\$ -	\$ <u>1,069</u>	\$ -	\$ <u>1,069</u>
Financial assets at FVTPL Non-listed stocks	\$ -	\$ -	\$ <u>517,362</u>	\$ <u>517,362</u>
Financial assets at FVOCI Equity investment	\$ <u>2,899,843</u>	\$ -	\$ <u>3,633,210</u>	\$ <u>6,533,053</u>
Financial liabilities at FVTPL Derivatives	\$ -	\$ <u>897</u>	\$ -	\$ <u>897</u>

There were no transfers between Levels 1 and 2 for the years ended December 31, 2019 and 2018.

The reconciliations for financial assets measured at Level 3 are listed below.

2019

Financial Assets	Measured at Fair Value through Profit or Loss	Measured at Fair Value through Other Comprehensive Income	Total
Balance at January 1, 2019	\$ 517,362	\$ 3,633,210	\$ 4,150,572
Acquisition	300,000	-	300,000
Recognized in profit or loss under "Other gains and losses"	(39,257)	-	(39,257)
Recognized in other comprehensive income under "Unrealized gain or loss on investments in equity instruments at fair value through other comprehensive income"	-	910,856	910,856

(Continued)

Financial Assets	Measured at Fair Value through Profit or Loss	Measured at Fair Value through Other Comprehensive Income	Total
Proceed from return of investments	\$ -	\$ (9,167)	\$ (9,167)
Balance at December 31, 2019	\$ <u>778,105</u>	\$ <u>4,534,899</u>	\$ <u>5,313,004</u>
Unrealized loss in 2019	\$ <u>(39,257)</u>		

2018

Financial Assets	Measured at Fair Value through Profit or Loss	Measured at Fair Value through Other Comprehensive Income	Total
Balance at January 1, 2018	\$ 542,521	\$ 3,725,187	\$ 4,267,708
Acquisition	-	89,580	89,580
Recognized in profit or loss under "Other gains and losses"	(25,159)	-	(25,159)
Recognized in other comprehensive income under "Unrealized gain or loss on investments in equity instruments at fair value through other comprehensive income"	-	(174,867)	(174,867)
Proceed from return of investments	-	(6,690)	(6,690)
Balance at December 31, 2018	\$ <u>517,362</u>	\$ <u>3,633,210</u>	\$ <u>4,150,572</u>
Unrealized loss in 2018	\$ <u>(25,159)</u>		

The fair values of financial assets and financial liabilities of Level 2 are determined as follows:

- 1) The fair values of financial assets and financial liabilities with standard terms and conditions and traded in active markets are determined with reference to quoted market prices.
- 2) For derivatives, fair values are estimated using discounted cash flow model. Future cash flows are estimated based on observable inputs including forward exchange rates at the end of the reporting periods and the forward and spot exchange rates stated in the contracts, discounted at a rate that reflects the credit risk of various counterparties.

The fair values of non-listed domestic and foreign equity investments were Level 3 financial assets, and determined using the market approach by reference the Price-to-Book ratios (P/B ratios) of peer companies that traded in active market or using assets approach. The significant unobservable inputs used were listed in the table below. A decrease in discount for the lack of marketability or noncontrolling interests discount would result in increases in the fair values.

	2019	2018
Discount for lack of marketability	20%	20%
Noncontrolling interests discount	25%	25%

If the inputs to the valuation model were changed to reflect reasonably possible alternative assumptions while all the other variables were held constant, the fair values of equity investments would increase as below table. When related discounts increase, the fair value of equity investments would be the negative amount of the same amount.

	<u>December 31</u>	
	<u>2019</u>	<u>2018</u>
Discount for lack of marketability 5% decrease	\$ <u>332,063</u>	\$ <u>259,411</u>
Noncontrolling interests discount 5% decrease	\$ <u>53,585</u>	\$ <u>36,465</u>

#### **Categories of Financial Instruments**

	<u>December 31</u>	<u>2018</u>
	<u>2019</u>	<u>2018</u>
<b>Financial assets</b>		
Measured at FVTPL		
Mandatorily measured at FVTPL	\$ 778,105	\$ 517,362
Hedging financial assets	327	1,069
Financial assets at amortized cost (Note a)	55,772,774	53,922,997
Financial assets at FVOCI	6,923,315	6,533,053
<b>Financial liabilities</b>		
Measured at FVTPL		
Held for trading	228	897
Measured at amortized cost (Note b)	30,394,827	36,930,268

Note a: The balances included cash and cash equivalents, trade notes and accounts receivable, receivables from related parties, other current monetary assets and refundable deposits (classified as other noncurrent assets), which were financial assets measured at amortized cost.

Note b: The balances included trade notes and accounts payable, payables to related parties, partial other payables and customers' deposits which were financial liabilities carried at amortized cost.

#### **Financial Risk Management Objectives**

The main financial instruments of the Company include equity investments, trade notes and accounts receivable, trade notes and account payable as well as lease liabilities. The Company's Finance Department provides services to its business units, co-ordinates access to domestic and international capital markets, monitors and manages the financial risks relating to the operations of the Company through internal risk reports which analyze exposures by degree and magnitude of risks. These risks include market risk (including foreign currency risk, interest rate risk and other price risk), credit risk, and liquidity risk.

The Company seeks to minimize the effects of these risks by using derivative financial instruments to hedge risk exposures. The use of financial derivatives is governed by the Company's policies approved by the Board of Directors. Those derivatives are used to hedge the risks of exchange rate fluctuation arising from operating or investment activities. Compliance with policies and risk exposure limits is reviewed by the Company's Finance Department on a continuous basis. The Company does

not enter into or trade financial instruments, including derivative financial instruments, for speculative purposes.

The Company reports the significant risk exposures and related action plans timely and actively to the audit committee and if needed to the Board of Directors.

#### **a. Market risk**

The Company is exposed to market risks of changes in foreign currency exchange rates and interest rates. The Company uses forward exchange contracts to hedge the exchange rate risk arising from assets and liabilities denominated in foreign currencies.

There were no changes to the Company's exposure to market risks or the manner in which these risks are managed and measured.

#### **1) Foreign currency risk**

The carrying amounts of the Company's foreign currency denominated monetary assets and monetary liabilities at the balance sheet dates were as follows:

	<u>December 31</u>	<u>2018</u>
	<u>2019</u>	<u>2018</u>
<b>Assets</b>		
USD	\$ 3,398,099	\$ 4,757,950
EUR	10,618	29,102
SGD	69	986
JPY	539	329
<b>Liabilities</b>		
USD	3,772,682	6,698,663
EUR	206,447	1,216,812
SGD	1,260,190	49,977
JPY	6,271	14,448

The carrying amounts of the Company's derivatives with exchange rate risk exposures at the balance sheet dates were as follows:

	<u>December 31</u>	<u>2018</u>
	<u>2019</u>	<u>2018</u>
<b>Assets</b>		
EUR	\$ 327	\$ 1,069
<b>Liabilities</b>		
EUR	228	897

#### **Foreign currency sensitivity analysis**

The Company is mainly exposed to the fluctuations of the currencies USD, EUR, SGD, and JPY as listed above.

The following table details the Company's sensitivity to a 5% increase and decrease in the functional currency against the relevant foreign currencies. 5% is the sensitivity rate used when reporting foreign currency risk internally to key management personnel and represents management's assessment of the reasonably possible changes in foreign exchange rates. The sensitivity analysis includes only outstanding foreign currency denominated monetary items and

forward exchange contracts. A positive number below indicates an increase in pre-tax profit or equity where the functional currency weakens 5% against the relevant currency.

	Year Ended December 31	2018
Profit or loss		
Monetary assets and liabilities (a)		
USD	\$ (18,729)	\$ (97,036)
EUR	(9,791)	(59,386)
SGD	(63,006)	(2,450)
JPY	(287)	(706)
Derivatives (b)		
EUR	2,519	9,596
Equity		
Derivatives (c)		
EUR	4,195	8,644

a) This is mainly attributable to the exposure to foreign currency denominated receivables and payables of the Company outstanding at the balance sheet dates.

b) This is mainly attributable to forward exchange contracts.

c) This is mainly attributable to the changes in the fair value of derivatives that are designated as cash flow hedges.

For a 5% strengthening of the functional currency against the relevant currencies, there would be an equal and opposite effect on the pre-tax profit or equity for the amounts shown above.

## 2) Interest rate risk

The carrying amounts of the Company's exposures to interest rates on financial assets and liabilities at the balance sheet dates were as follows:

	December 31	2018
Fair value interest rate risk		
Financial assets	\$ 23,072,032	\$ 18,087,241
Financial liabilities	8,695,214	-
Cash flow interest rate risk		
Financial assets	2,414,392	2,698,729

## Interest rate sensitivity analysis

The sensitivity analyses below have been determined based on the exposure to interest rates for non-derivative instruments at the end of the reporting period. A 25 basis point increase or decrease is used when reporting interest rate risk internally to key management personnel and represents management's assessment of the reasonably possible change in interest rates.

If interest rates had been 25 basis points higher/lower and all other variables were held constant, the Company's pre-tax income would increase/decrease by \$6,036 thousand and \$6,747 thousand for the years ended December 31, 2019 and 2018, respectively. This is mainly attributable to the Company's exposure to floating interest rates on its financial assets.

## 3) Other price risk

The Company is exposed to equity price risks arising from holding other company's equity. Equity investments are held for strategic rather than trading purposes. The management managed the risk through holding various risk portfolios. Further, the Company assigned finance and investment departments to monitor the price risk.

### Equity price sensitivity analysis

The sensitivity analyses below have been determined based on the exposure to equity price risks at the end of the reporting period.

If equity prices had been 5% higher/lower, pre-tax profit and pre-tax other comprehensive income for the year ended December 31, 2019 would have increased/decreased by \$38,905 thousand and \$346,166 thousand as a result of the changes in fair value of financial assets at FVTPL and financial assets at FVTOCI, respectively. If equity prices had been 5% higher/lower, pre-tax profit and pre-tax other comprehensive income for the year ended December 31, 2018 would have increased/decreased by \$25,868 thousand and \$326,653 thousand as a result of the changes in fair value of financial assets at FVTPL and financial assets at FVTOCI, respectively.

## b. Credit risk

Credit risk refers to the risk that a counterparty would default on its contractual obligations resulting in financial loss to the Company. The maximum credit exposure of the aforementioned financial instruments is equal to their carrying amounts recognized in balance sheet as of the balance sheet date.

The Company has large trade receivables outstanding with its customers. A substantial majority of the Company's outstanding trade receivables are not covered by collateral or credit insurance. The Company has implemented ongoing measures including enhancing credit assessments and strengthening overall risk management to reduce its credit risk. While the Company has procedures to monitor and limit exposure to credit risk on trade receivables, there can be no assurance such procedures will effectively limit its credit risk and avoid losses. This risk is heightened during periods when economic conditions worsen.

As the Company serves a large number of unrelated consumers, the concentration of credit risk was limited.

## c. Liquidity risk

The Company manages and maintains sufficient cash and cash equivalent position to support the operations and reduce the impact on fluctuation of cash flow.

### 1) Liquidity and interest risk tables

The following tables detailed the Company's remaining contractual maturity for its non-derivative financial liabilities with agreed repayment periods. The tables had been drawn up based on the undiscounted cash flows of financial liabilities based on the earliest date on which the Company is required to pay.

December 31, 2019	Weighted Average Effective Interest Rate (%)					Total
	Less than 1 Month	1-3 Months	3 Months to 1 Year	1-5 Years	More than 5 Years	
Non-derivative financial liabilities	\$ 2,727,462	\$ -	\$ 2,249,227	\$ 4,653,517	\$ -	\$ 9,630,206
Non-interest bearing	-	-	-	-	-	-

Information about the maturity analysis for lease liabilities was as follows:

Lease liabilities	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years	Total
	\$ 2,948,276	\$ 3,815,757	\$ 1,456,469	\$ 614,828	\$ 8,835,330

December 31, 2018	Less than 1 Month	1-3 Months	3 Months to 1 Year	1-5 Years	More than 5 Years	Total
	Non-derivative financial liabilities	\$ 38,774,938	\$ 2,590,721	\$ 4,635,125	\$ 46,000,872	
Non-interest bearing						

The following table detailed the Company's liquidity analysis for its derivative financial instruments. The table had been drawn up based on the undiscounted gross inflows and outflows on those derivatives that require gross settlement.

Gross settled	Less than 1 Month	1-3 Months	3 Months to 1 Year	1-5 Years	Total
	Forward exchange contracts	\$ -	\$ 135,075	\$ -	\$ -
Inflow		134,976			134,976
Outflow		99			99

Gross settled	December 31				
	2019	2018			
Forward exchange contracts	\$ -	\$ 238,302	\$ 126,401	\$ -	\$ 364,703
Inflow		238,459	126,072		364,531
Outflow		(157)	329		172

2) Financing facilities

Unsecured bank loan facility	December 31	
	2019	2018
Amount used	\$ 40,000,000	\$ 40,307,150
Amount unused	\$ 40,000,000	\$ 40,307,150

32. RELATED PARTIES TRANSACTIONS

The ROC Government, one of the Company's customers, has significant equity interest in the Company. The Company provides fixed-line services, wireless services, internet and data and other services to the various departments and institutions of the ROC Government in the normal course of business and at arm's-length prices. The transactions with the ROC government bodies have not been disclosed because the transactions are not individually or collectively significant. However, the related revenues and operating costs have been appropriately recorded.

a. The Company engages in business transactions with the following related parties:

Company	Relationship
Senao International Co., Ltd. ("SENAO")	Subsidiary
Light Era Development Co., Ltd.	Subsidiary
Donghua Telecom Co., Ltd.	Subsidiary
Chunghwa Telecom Singapore Pte., Ltd. ("CHTS")	Subsidiary
Chunghwa System Integration Co., Ltd. ("CHSI")	Subsidiary
Chunghwa Investment Co., Ltd. ("CHI")	Subsidiary
CHIEF Telecom, Inc. ("CHIEF")	Subsidiary
CHYP Multimedia Marketing & Communications Co., Ltd. ("CHYP")	Subsidiary
Prime Asia Investments Group Ltd. (B.V.I.) ("Prime Asia")	Subsidiary
Spring House Entertainment Tech. Inc. ("SHE")	Subsidiary
Chunghwa Telecom Global, Inc.	Subsidiary
Chunghwa Telecom Vietnam Co., Ltd.	Subsidiary
Smartfun Digital Co., Ltd.	Subsidiary
Chunghwa Telecom Japan Co., Ltd.	Subsidiary
Chunghwa Sochamp Technology Inc.	Subsidiary
Honghua International Co., Ltd.	Subsidiary
Chunghwa Leading Photonics Tech. Co., Ltd. ("CLPT")	Subsidiary
Chunghwa Telecom (Thailand) Co., Ltd. ("CHTT")	Subsidiary
CHT Security Co., Ltd. ("CHTSC")	Subsidiary
Senao International (Samoa) Holding Ltd. ("SIS")	Subsidiary of SENAO
Youth Co., Ltd.	Subsidiary of SENAO
Aval Technologies Co., Ltd.	Subsidiary of SENAO
ISPOT Co., Ltd.	Subsidiary of SENAO
Yoyui Co., Ltd.	Subsidiary of SENAO
Senyoung Insurance Agent Co., Ltd.	Subsidiary of SENAO
Seyoung Insurance Agent Co., Ltd.	Subsidiary of SENAO
Wint Technologies Co., Ltd. ("Wint")	Subsidiary of SENAO
Unigate Telecom Inc.	Subsidiary of CHIEF
Chief International Corp.	Subsidiary of CHIEF
Shanghai Chief Telecom Co., Ltd.	Subsidiary of CHIEF
Concord Technology Co., Ltd. ("Concord")	Subsidiary of CHI
Chunghwa Precision Test Tech. Co., Ltd. ("CHPT")	Subsidiary of CHPT
Chunghwa Precision Test Tech. USA Corporation	Subsidiary of CHPT
CHPT Japan Co., Ltd.	Subsidiary of CHPT
Chunghwa Precision Test Tech. International, Ltd. ("CHPT (International)")	Subsidiary of CHPT
Senao International HK Limited ("SIHK")	Subsidiary of SIS
Senao Trading (Fujian) Co., Ltd.	Subsidiary of SIHK
Senao International Trading (Shanghai) Co., Ltd.	Subsidiary of SIHK
Senao International Trading (Jiangsu) Co., Ltd.	Subsidiary of SIHK
Senao International Trading (Shanghai) Co., Ltd. ("SIET")	Subsidiary of SIHK
Shanghai Taihua Electronic Technology Limited	Subsidiary of CHPT (International)
Chunghwa Telecom (China) Co., Ltd.	Subsidiary of CHC
Jiangsu Zherhua Information Technology Company, LLC.	Subsidiary of CHC
Su Zhou Precision Test Tech. Ltd.	Subsidiary of CHPT (International)
Chunghwa Hsingta Co., Ltd. ("CHC")	Subsidiary of Prime Asia

## 2) Non-operating transactions

	Non-operating Income and Expenses	
	Year Ended December 31 2019	2018
Subsidiaries	\$ 13,091	\$ 11,255
Associates	257	44
	<u>\$ 13,348</u>	<u>\$ 11,299</u>
	<b>December 31 2019</b>	<b>2018</b>
3) Receivables		
Subsidiaries	\$ 781,356	\$ 814,642
Associates	4,209	3,217
Others	5	15
	<u>\$ 785,570</u>	<u>\$ 817,874</u>
	<b>December 31 2019</b>	<b>2018</b>
4) Payables		
Subsidiaries	\$ 3,021,896	\$ 3,533,243
Associates	641,817	909,969
	<u>\$ 3,663,713</u>	<u>\$ 4,443,212</u>
	<b>December 31 2019</b>	<b>2018</b>
5) Customers' deposits		
Subsidiaries	\$ 10,477	\$ 14,765
Associates	5,035	5,925
	<u>\$ 15,512</u>	<u>\$ 20,690</u>
	<b>December 31 2019</b>	<b>2018</b>
6) Acquisition of property, plant and equipment		
Subsidiaries	\$ 874,373	\$ 632,002
Associates	241,626	311,519
	<u>\$ 1,115,999</u>	<u>\$ 943,521</u>
	<b>Year Ended December 31 2019</b>	<b>2018</b>

Company	Relationship
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Taiwan International Standard Electronics Co., Ltd.	Associate
So-net Entertainment Taiwan Limited	Associate
KKBOX Taiwan Co., Ltd.	Associate
KingwayTek Technology Co., Ltd.	Associate
UUPON Inc.	Associate
Vietel-CHT Co., Ltd.	Associate
International Integrated System, Inc.	Associate
Alliance Digital Tech Co., Ltd.	Associate
Taiwan International Ports Logistics Corporation	Associate
Chunghwa PChome Fund I Co., Ltd.	Associate
Cornerstone Ventures Co., Ltd.	Associate
Next Commercial Bank Co., Ltd. (preparatory office) ("NCB")	Associate
Click Force Co., Ltd.	Associate of CHYP
ST-2 Satellite Ventures Pte., Ltd.	Associate of CHTS
Other related parties	
Chunghwa Telecom Foundation	

A nonprofit organization of which the funds donated by the Company exceeds one third of its total funds  
(Concluded)

- b. Terms of the foregoing transactions with related parties were not significantly different from transactions with non-related parties. When no similar transactions with non-related parties can be referenced, terms were determined in accordance with mutual agreements. Details of transactions between the Company and other related parties are disclosed below:

## 1) Operating transactions

	Revenues	
	Year Ended December 31 2019	2018
Subsidiaries	\$ 3,587,663	\$ 3,006,332
Associates	201,078	224,681
Others	3,728	3,843
	<u>\$ 3,792,469</u>	<u>\$ 3,234,856</u>
	<b>Year Ended December 31 2019</b>	<b>2018</b>
	<b>Operating Costs and Expenses</b>	
	<u>\$ 9,070,165</u>	<u>\$ 9,688,175</u>
Subsidiaries	924,410	1,270,638
Associates	57,700	57,700
Others	10,052,275	11,016,513
	<u>\$ 10,052,275</u>	<u>\$ 11,016,513</u>
	<b>Year Ended December 31 2019</b>	<b>2018</b>

7) Lease-in agreements

Chunghwa entered into a contract with ST-2 Satellite Ventures Pte., Ltd. on March 12, 2010 to lease capacity on the ST-2 satellite. This lease term is for 15 years which should start from the official operation of ST-2 satellite and the total contract value is approximately \$6,000,000 thousand (SG\$260,723 thousand), including a prepayment of \$3,067,711 thousand at the inception of the lease, and the rest of amount should be paid annually when ST-2 satellite starts its official operation. ST-2 satellite was launched in May 2011, and began its official operation in August 2011.

2019

The lease liabilities of ST-2 Satellite Ventures Pte., Ltd. as of December 31, 2019 was as follows:

	<u>December 31</u> <u>2019</u>
Lease liabilities - current	\$ 188,271
Lease liabilities - noncurrent	<u>1,023,889</u>
	<u>\$ 1,212,160</u>

The interest expense recognized for the aforementioned lease liabilities for the year ended December 31, 2019 was \$10,887 thousand.

2018

The total rental expense for the year ended December 31, 2018 was \$394,289 thousand, which consisted of an offsetting credit of the prepayment of \$204,398 thousand and an additional accrual of \$189,891 thousand. The prepaid rents (classified as prepayments) as of December 31, 2018, was as follows:

	<u>December 31</u> <u>2018</u>
Prepaid rents - current	\$ 204,398
Prepaid rents - noncurrent	<u>1,345,623</u>
	<u>\$ 1,550,021</u>

The Company sold the land with a carrying value of \$936,016 thousand to LED at the consideration of \$2,421,932 thousand in 2008. However, since the gain on disposal of land amounting to \$1,485,916 thousand is unrealized, the gain was recognized as deferred credit - profit on intercompany transactions. There is no gain arising from disposal of land recognized in 2019 and 2018. The unrealized gain on disposal of land amounted to \$83,859 thousand (classified as other noncurrent liabilities) as of December 31, 2019.

c. Compensation of key management personnel

The compensation of directors and key management personnel was as follows:

	<u>Year Ended December 31</u> <u>2019</u>	<u>2018</u>
Short-term employee benefits	\$ 66,341	\$ 70,793
Post-employment benefits	<u>5,578</u>	<u>6,266</u>
	<u>\$ 71,919</u>	<u>\$ 77,059</u>

The compensation of directors and key management personnel was mainly determined by the compensation committee having regard to the performance of individual and market trends.

**33. SIGNIFICANT CONTINGENT LIABILITIES AND UNRECOGNIZED COMMITMENTS**

As of December 31, 2019, the Company's significant commitments and contingent liabilities, excluding those disclosed in other notes, were as follows:

- a. Acquisitions of land and buildings of \$6,072 thousand.
- b. Acquisitions of telecommunications equipment of \$17,711,094 thousand.
- c. A commitment to contribute \$2,000,000 thousand to a Piping Fund administered by the Taipei City Government, of which \$1,000,000 thousand was contributed by the Company on August 15, 1996 (classified as other monetary assets - noncurrent). If the fund is not sufficient, the Company will contribute the remaining \$1,000,000 thousand upon notification from the Taipei City Government.
- d. The Company committed that when its ownership interest in NCB is greater than 25% and NCB encounters financial difficulty or capital adequacy ratio of NCB cannot meet the related regulation requirements, the Company will provide financial support to assist NCB maintain in healthy financial condition.

**34. SIGNIFICANT ASSETS AND LIABILITIES DENOMINATED IN FOREIGN CURRENCIES**

The information of significant assets and liabilities denominated in foreign currencies was as follows:

	<u>December 31, 2019</u>	
	<u>Foreign Currencies (Thousands)</u>	<u>New Taiwan Dollars (Thousands)</u>
<u>Assets denominated in foreign currencies</u>		
Monetary items		
USD	\$ 113,346	29.98
EUR	316	33.59
SGD	3	22.28
JPY	1,954	0.276
		539
		(Continued)

Non-monetary items  
Investments accounted for using equity  
method

	December 31, 2019		
	Foreign Currencies (Thousands)	Exchange Rate	New Taiwan Dollars (Thousands)
\$	42,782	29.98	\$ 1,282,608
USD	422,835	3.849	1,627,491
HKD	277,417	0.276	76,567
JPY	354,492,164	0.0012	414,756
VND	42,506	4.31	182,989
RMB	113,123	1.0098	114,231
THB			

Liabilities denominated in foreign currencies

	December 31, 2018		
	Foreign Currencies (Thousands)	Exchange Rate	New Taiwan Dollars (Thousands)
Monetary items			
USD	125,840	29.98	3,772,682
EUR	6,146	33.59	206,447
SGD	56,561	22.28	1,260,190
JPY	22,720	0.276	6,271
			(Concluded)

Assets denominated in foreign currencies

	December 31, 2018		
	Foreign Currencies (Thousands)	Exchange Rate	New Taiwan Dollars (Thousands)
Monetary items			
USD	154,906	30.72	\$ 4,757,950
EUR	827	35.20	29,102
SGD	44	22.48	986
JPY	1,183	0.278	329

Non-monetary items  
Investments accounted for using equity  
method

	December 31, 2019		
	Foreign Currencies (Thousands)	Exchange Rate	New Taiwan Dollars (Thousands)
USD	39,191	30.72	1,203,739
HKD	412,944	3.921	1,619,155
JPY	225,275	0.278	62,626
VND	327,166,873	0.0012	392,601
RMB	43,122	4.47	192,841
THB	99,592	0.9532	94,931

Liabilities denominated in foreign currencies

	December 31, 2018		
	Foreign Currencies (Thousands)	Exchange Rate	New Taiwan Dollars (Thousands)
Monetary items			
USD	218,091	30.72	6,698,663
EUR	34,569	35.20	1,216,812
SGD	2,223	22.48	49,977
JPY	51,972	0.278	14,448

The unrealized foreign currency exchange gains were \$8,315 thousand and \$2,495 thousand for the years ended December 31, 2019 and 2018, respectively. Due to the various foreign currency transactions of the Company, foreign exchange gains and losses cannot be disclosed by the respective significant foreign currency.

### 35. ADDITIONAL DISCLOSURES

Following are the additional disclosures required by the FSC for the Company:

- Financing provided: None.
- Endorsement/guarantee provided: Please see Table 1.
- Marketable securities held (excluding investments in subsidiaries and associates): Please see Table 2.
- Marketable securities acquired and disposed of at costs or prices at least \$300 million or 20% of the paid-in capital: Please see Table 3.
- Acquisition of individual real estate at costs of at least \$300 million or 20% of the paid-in capital: Please see Table 4.
- Disposal of individual real estate at prices of at least \$300 million or 20% of the paid-in capital: None.
- Total purchases from or sales to related parties amounting to at least \$100 million or 20% of the paid-in capital: Please see Table 5.
- Receivables from related parties amounting to \$100 million or 20% of the paid-in capital: Please see Table 6.
- Names, locations, and other information of investees on which the Company exercises significant influence (excluding investees in Mainland China): Please see Table 7.
- Derivative instruments transactions: Please see Notes 7, 19 and 31.
- Investment in Mainland China: Please see Table 8.

### 36. SEGMENT INFORMATION

The Company has the following reportable segments that provide different products or services. The reportable segments are managed separately because each segment represents a strategic business unit that serves different markets. Segment information is provided to CEO who allocates resources and assesses segment performance. The Company's measure of segment performance is mainly based on revenues and income before income tax. The Company's reportable segments are as follows:

- Domestic fixed communications business - the provision of local telephone services, domestic long distance telephone services, broadband access, and related services;
- Mobile communications business - the provision of mobile services, sales of mobile handsets and data cards, and related services;
- Internet business - the provision of HiNet services and related services;

d. International fixed communications business - the provision of international long distance telephone services and related services;

e. Others - the provision of non-telecom services and the corporate related items not allocated to reportable segments.

Some operating segments have been aggregated into a single operating segment taking into account the following factors: (a) similar economic characteristics such as long-term gross profit margins; (b) the nature of the telecommunications products and services are similar; (c) the nature of production processes of the telecommunications products and services are similar; (d) the type or class of customer for the telecommunications products and services are similar; and (e) the methods used to provide the services to the customers are similar.

There was no material differences between the accounting policies of the operating segments and the accounting policies described in Note 3.

### Segment Revenues and Operating Results

Analysis by reportable segment of revenues and operating results of continuing operations was as follows:

	Year ended December 31, 2019				Year ended December 31, 2018			
	Domestic Fixed Communications Business	Mobile Communications Business	Internet Business	International Fixed Communications Business	Others	Total		
Revenues	\$ 66,077,403	\$ 74,880,047	\$ 27,889,068	\$ 10,282,592	\$ 242,738	\$ 179,331,638		
From external customers	15,668,086	1,157,136	3,670,430	1,690,231	12,225	22,388,178		
Intersegment revenues	\$ 31,895,489	\$ 76,037,183	\$ 31,559,518	\$ 11,972,823	\$ 255,003	\$ 201,720,016		
Intersegment elimination						(22,398,178)		
Revenues	\$ 59,888,575	\$ 53,854,203	\$ 13,057,295	\$ 10,154,672	\$ 4,003,665	\$ 140,959,390		
Segments operating costs and expenses	\$ 20,295,017	\$ 9,644,680	\$ 11,561,837	\$ 6,010,811	\$ (2,349,753)	\$ 40,262,592		
Segment income (loss) before income tax	\$ 67,003,798	\$ 78,078,487	\$ 28,051,785	\$ 11,950,325	\$ 247,304	\$ 185,331,699		
Income tax expense	\$ 16,571,612	\$ 3,815,403	\$ 3,815,403	\$ 1,837,410	\$ 19,384	\$ 23,999,428		
Segment income (loss) after income tax	\$ 33,825,410	\$ 79,457,890	\$ 24,236,382	\$ 13,787,725	\$ 299,688	\$ 209,331,127		
Revenues	\$ 63,026,647	\$ 53,619,339	\$ 13,198,024	\$ 11,688,750	\$ 3,603,417	\$ 145,136,227		
Segments operating costs and expenses	\$ 19,412,472	\$ 12,749,895	\$ 11,294,421	\$ 837,939	\$ (777,749)	\$ 43,516,978		
Segment income (loss) before income tax	\$ 43,614,175	\$ 40,869,444	\$ 21,903,603	\$ 10,850,811	\$ 4,381,166	\$ 121,619,259		
Income tax expense	\$ 10,588,765	\$ 10,391,554	\$ 8,707,981	\$ 4,632,586	\$ 1,000,000	\$ 35,319,886		
Segment income (loss) after income tax	\$ 33,025,410	\$ 30,477,890	\$ 13,195,622	\$ 6,218,225	\$ 3,381,166	\$ 86,300,373		

Year ended December 31, 2019

Year ended December 31, 2018

### Other Segment Information

Other information reviewed by the chief operating decision maker or regularly provided to the chief operating decision maker was as follows:

	Year ended December 31, 2019				Year ended December 31, 2018			
	Domestic Fixed Communications Business	Mobile Communications Business	Internet Business	International Fixed Communications Business	Others	Total		
Share of profits of subsidiaries and associates accounted for using equity method	\$ 15,156	\$ 409	\$ 1,201	\$ 3,384	\$ 1,410,226	\$ 1,410,326		
Interest income	\$ 5,077	\$ 41,055	\$ 1,637	\$ 1,027	\$ 1,874	\$ 47,986		
Interest expenses	\$ 4,841,809	\$ 20,974,997	\$ 2,915,493	\$ 1,389,064	\$ 40,291,316	\$ 47,874,479		
Depreciation and amortization	\$ 12,070,927	\$ 7,755,829	\$ 1,263,403	\$ 982,893	\$ 354,026	\$ 22,427,078		
Capital expenditure								

(Continued)

	Domestic Fixed Communications Business	Mobile Communications Business	Internet Business	International Fixed Communications Business	Others	Total
Reversal of impairment loss on investment properties	\$ 56,617	\$ -	\$ -	\$ -	\$ -	\$ 56,617
Impairment loss on other assets	\$ 13,191	\$ -	\$ 13,191	\$ -	\$ 17,839	\$ 43,971

Year ended December 31, 2018

Share of profits of subsidiaries and associates accounted for using equity method	\$ 2,570,961	\$ -	\$ -	\$ -	\$ -	\$ 2,570,961
Interest income	\$ 17,535	\$ 405	\$ 1,508	\$ 1,451	\$ 93,596	\$ 114,887
Interest expenses	\$ 15,027,196	\$ 31,673,656	\$ 3,982,357	\$ 1,282,464	\$ 171,342	\$ 41,137,641
Capital expenditure	\$ 12,659,526	\$ 10,602,879	\$ 6,662,238	\$ 1,229,362	\$ 303,574	\$ 27,959,579
Reversal of impairment loss on investment properties	\$ 19,133	\$ -	\$ -	\$ -	\$ -	\$ 19,133

(Concluded)

### Main Products and Service Revenues

	Year Ended December 31	
	2019	2018

Mobile services revenue	\$ 62,808,959	\$ 67,868,502
Local telephone and domestic long distance telephone services revenue	27,949,534	30,018,026
Broadband access and domestic leased line services revenue	22,180,256	22,489,839
Data Communications internet services revenue	19,637,375	19,784,304
Sale of products	13,609,662	11,618,436
International network and leased telephone services revenue	6,513,830	8,329,981
Others	26,622,222	25,222,611
	\$ 179,321,838	\$ 185,331,699

### Geographic Information

The users of the Company's services are mainly from Taiwan, ROC. The revenues it derived outside Taiwan are mainly revenues from international long distance telephone and leased line services. The geographic information for revenues was as follows:

	Year Ended December 31	
	2019	2018
Taiwan, ROC	\$ 172,531,947	\$ 178,258,528
Overseas	6,789,891	7,073,171
	\$ 179,321,838	\$ 185,331,699

The Company does not have material noncurrent assets in foreign operations.

### Major Customers

As of December 31, 2019 and 2018, the Company did not have any single customer whose revenue exceeded 10% of the total revenues.

**CHUNGHWA TELECOM CO., LTD.**  
**ENDORSEMENTS/GUARANTEES PROVIDED**  
**YEAR ENDED DECEMBER 31, 2019**  
(Amounts in Thousands of New Taiwan Dollars)

No. (Note 1)	Endorsee/ Guarantee Provider	Guaranteed Party		Limits on Endorsement/ Guarantee Amount Provided to Each Guaranteed Party	Maximum Balance for the Period	Ending Balance	Actual Borrowing Amount	Amount of Endorsement/ Guarantee Collateralized by Properties	Ratio of Accumulated Endorsement/ Guarantee to Net Equity Per Latest Financial Statements	Maximum Endorsement/ Guarantee Amount Allowable	Endorsement/ Guarantee Given by Parent on Behalf of Subsidiaries	Endorsement/ Guarantee Given by Subsidiaries on Behalf of Parent	Endorsement/ Guarantee Given on Behalf of Companies in Mainland China	Note
		Name	Nature of Relationship (Note 2)											
1	Senao International Co., Ltd.	Aval Technologies Co., Ltd. W'inn Technology Co., Ltd.	b b	\$ 584,817 584,817	\$ 300,000 100,000	\$ 300,000 100,000	\$ 300,000 100,000	\$ - -	5.13 1.71	\$ 2,924,089 2,924,089	Yes Yes	No No	No No	Notes 3 and 4 Notes 3 and 4

Note 1: Significant transactions between the Company and its subsidiaries or among subsidiaries are numbered as follows:

- "0" for the Company.
- Subsidiaries are numbered from "1".

Note 2: Relationships between the endorsement/guarantee provider and the guaranteed party:

- A company with which it does business.
- A company in which the Company directly and indirectly holds more than 50 percent of the voting shares.
- A company that directly and indirectly holds more than 50 percent of the voting shares in the Company.
- Companies in which the Company holds, directly or indirectly, 90% or more of the voting shares.
- The Company fulfills its contractual obligations by providing mutual endorsements/guarantees for another company in the same industry or for joint builders for purposes of undertaking a construction project.
- All capital contributing shareholders make endorsements/guarantees for their jointly invested company in proportion to their shareholding percentages.
- Companies in the same industry provide among themselves joint and several security for a performance guarantee of a sales contract for pre-construction homes pursuant to the Consumer Protection Act for each other.

Note 3: The limits on endorsement or guarantee amount provided to each guaranteed party is up to 10% of the net assets value of the latest financial statements of Senao International Co., Ltd.

Note 4: The total amount of endorsement or guarantee that the Company is allowed to provide is up to 50% of the net assets value of the latest financial statements of Senao International Co., Ltd.

## CHUNGHWA TELECOM CO., LTD.

## MARKETABLE SECURITIES HELD

DECEMBER 31, 2019

(Amounts in Thousands of New Taiwan Dollars)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2019			Note	
				Shares (Thousands/Thousand Units)	Carrying Value (Note 1)	Percentage of Ownership		Fair Value
Chungghwa Telecom Co., Ltd.	<u>Stocks</u> Taipei Financial Center Corp.	-	Financial assets at FVOCI	172,927	\$ 4,388,984	12	\$ 4,388,984	-
	Innovation Works Development Fund, L.P.	-	Financial assets at FVTPL-noncurrent	-	267,304	4	267,304	-
	Industrial Bank of Taiwan II Venture Capital Co., Ltd. (IBT II)	-	Financial assets at FVOCI	5,252	17,084	17	17,084	-
	Global Mobile Corp.	-	Financial assets at FVOCI	7,617	-	3	-	-
	Innovation Works Limited	-	Financial assets at FVOCI	1,000	4,078	2	4,078	-
	RPTI Intergroup International Ltd.	-	Financial assets at FVOCI	4,765	-	10	-	-
	Taiwan mobile payment Co., Ltd.	-	Financial assets at FVOCI	1,200	4,510	2	4,510	-
	Taiwania Capital Buffalo Fund Co., Ltd.	-	Financial assets at FVTPL-noncurrent	600,000	510,801	13	510,801	-
	China Airlines Ltd.	-	Financial assets at FVOCI	263,622	2,388,416	5	2,388,416	Note 2
	4 Gamers Entertainment Inc.	-	Financial assets at FVOCI	136	120,243	19.9	120,243	-
Senao International Co., Ltd.	<u>Stocks</u> N.T.U. Innovation Incubation Corporation	-	Financial assets at FVOCI	1,200	10,648	9	10,648	-
	CHIEF Telecom Inc.	-	Financial assets at FVOCI	374	950	10	950	-
Financial assets at FVTPL-current			9	463	-	463	Note 2	
Chungghwa Investment Co., Ltd.	<u>Stocks</u> Tatung Technology Inc.	-	Financial assets at FVOCI	4,571	144,277	11	144,277	-
	iSing99 Inc.	-	Financial assets at FVOCI	10,000	-	7	-	-
	Powtec ElectroChemical Corporation	-	Financial assets at FVOCI	20,000	114,478	2	114,478	-
	Bosssdom Diginnovation Co., Ltd.	-	Financial assets at FVOCI	2,000	65,200	7	65,200	Note 2
Chungghwa Hsingta Co., Ltd.	<u>Stocks</u> Cotech Engineering Fuzhou Corp.	-	Financial assets at FVOCI	-	10,049	5	10,049	-

Note 1: Showed at carrying amounts with fair value adjustments.

Note 2: Fair value was based on the closing price on December 31, 2019.

**CHUNGHWA TELECOM CO., LTD.**

MARKETABLE SECURITIES ACQUIRED AND DISPOSED OF AT COSTS OR PRICES OF AT LEAST NT\$300 MILLION OR 20% OF THE PAID-IN CAPITAL  
YEAR ENDED DECEMBER 31, 2019  
(Amounts in Thousands of New Taiwan Dollars)

Company Name	Marketable Securities Type and Name	Financial Statement Account	Counter-party	Nature of Relationship	Beginning Balance		Acquisition		Disposal		Ending Balance	
					Shares (Thousands/Units)	Amount	Shares (Thousands/Units)	Amount	Shares (Thousands/Units)	Amount	Shares (Thousands/Units)	Amount
Chunghwa Telecom Co., Ltd.	Stocks Tarwama Capital Buffalo Fund Co., Ltd. Next Commercial Bank Co., Ltd. (preparatory office)	Financial assets at FVTPL-noncurrent Investments accounted for using equity method	- -	- Associate	300,000	\$ 300,000 (Note 1)	300,000	\$ 300,000	-	\$ -	600,000	\$ 600,000 (Note 1)
					-	-	419,000	4,190,000	-	-	419,000	4,190,000 (Note 2)

Note 1: Showing at their original investment amounts without adjustments for fair values.

Note 2: The ending balance was based on the original investment amount without adjustments for share of the profit or loss of investments accounted for using equity method.

## CHUNGHWA TELECOM CO., LTD.

ACQUISITION OF INDIVIDUAL REAL ESTATE AT COSTS OF AT LEAST \$300 MILLION OR 20% OF THE PAID-IN CAPITAL  
 YEAR ENDED DECEMBER 31, 2019  
 (Amounts in Thousands of New Taiwan Dollars)

Buyer	Property	Event Date	Transaction Amount	Payment Status	Counterparty	Relationship	Information on Previous Title Transfer If Counterparty is a Related Party		Pricing Reference	Purpose of Acquisition	Other Terms
							Property Owner	Transaction Date			
Chunghwa Precision Tech. Co., Ltd.	Headquarters	2017.07.29- 2019.12.25	\$ 1,460,105	Monthly settlement based on the construction progress and acceptance	Fu Tsu Construction Co., Ltd.	-	Not applicable	Not applicable	Bidding, price comparison and price negotiation	Manufacturing purpose	None

### CHUNGHWA TELECOM CO., LTD.

TOTAL PURCHASES FROM OR SALES TO RELATED PARTIES AMOUNTING TO AT LEAST NT\$100 MILLION OR 20% OF THE PAID-IN CAPITAL  
YEAR ENDED DECEMBER 31, 2019  
(Amounts in Thousands of New Taiwan Dollars)

Company Name	Related Party	Nature of Relationship	Transaction Details		Abnormal Transaction		Notes / Accounts Payable or Receivable Ending Balance (Note 3)	% to Total
			Purchase/Sales (Note 1)	Amount (Note 2)	Units Price	Payment Terms		
Chungghwa Telecom Co., Ltd.	Senao International Co., Ltd. CHIEF Telecom Inc. Chungghwa System Integration Co., Ltd. CHYP Multimedia Marketing & Communications Co., Ltd. Hongghwa International Co., Ltd. Dongghwa Telecom Co., Ltd. Chungghwa Telecom Global, Inc. Chungghwa Telecom Singapore Pte., Ltd. CHT Security Co., Ltd. Taiwan International Standard Electronics Co., Ltd. So-net Entertainment Taiwan Limited International Integrated System, Inc.	Subsidiary Subsidiary Subsidiary Subsidiary Subsidiary Subsidiary Subsidiary Subsidiary Associate Associate Parent company Subsidiary Subsidiary Fellow subsidiary	Sales	\$ 2,396,927	1	-	\$ 285,563	1
			Purchase	878,601	1	-	(787,371)	(6)
			Sales	354,556	1	-	48,736	-
			Purchase	115,231	1	-	(23,165)	(5)
			Purchase	1,052,583	1	-	(659,866)	(5)
			Purchase	107,346	-	-	(33,217)	-
			Sales	109,606	-	-	64,232	-
			Purchase	5,347,566	5	-	(790,045)	(6)
			Sales	198,226	-	-	46,707	-
			Purchase	606,424	1	-	(169,182)	(1)
			Purchase	362,348	-	-	(38,134)	-
			Sales	275,094	-	-	42,356	-
			Purchase	353,121	-	-	(67,217)	-
			Purchase	235,011	-	-	(57,268)	-
Purchase	700,254	1	-	(432,307)	(3)			
Sales	143,772	-	-	5	-			
Purchase	151,034	-	-	(48,182)	-			
Senao International Co., Ltd.	Chungghwa Telecom Co., Ltd.	Parent company	Sales	6,441,498	22	-	797,620	47
			Purchase	2,216,723	9	-	(261,139)	(14)
			Purchase	602,456	2	-	(180)	-
Aval Technologies Co., Ltd.	Senyoung Insurance Agent Co., Ltd.	Subsidiary Subsidiary	Sales	124,104	-	-	44,441	3
			Sales	174,216	1	-	27,077	2
CHIEF Telecom Inc.	Chungghwa Telecom Co., Ltd.	Parent company	Sales	264,284	11	-	34,123	16
			Purchase	354,038	27	-	(48,736)	(45)
Chungghwa System Integration Co., Ltd.	Chungghwa Telecom Co., Ltd.	Parent company	Sales	1,965,251	85	-	657,839	80
			Sales	107,346	27	-	30,697	40
Hongghwa International Co., Ltd.	Chungghwa Telecom Co., Ltd.	Parent company	Sales	5,318,598	96	-	788,779	98
			Sales	606,424	46	-	169,182	78
			Purchase	198,226	16	-	(46,707)	(28)
Chungghwa Telecom Global, Inc.	Chungghwa Telecom Co., Ltd.	Parent company	Sales	362,348	59	-	38,134	71
			Sales	353,121	31	-	67,217	12
Chungghwa Telecom Singapore Pte., Ltd.	Chungghwa Telecom Co., Ltd.	Parent company	Purchase	275,094	26	-	(42,356)	(7)
			Sales	295,699	43	-	136,450	78

Note 1: Purchase included acquisition of services costs.

Note 2: The differences were because Chungghwa Telecom Co., Ltd. and subsidiaries classified the amount as incremental costs of obtaining contracts, inventories, property, plant and equipment, intangible assets, and operating expenses.

Note 3: Notes and accounts receivable did not include the amounts collected for others and other receivables.

Note 4: Transaction terms with the related parties were determined in accordance with mutual agreements when there were no similar transactions with third parties. Other transactions with related parties were not significantly different from those with third parties.

## CHUNGHWA TELECOM CO., LTD.

RECEIVABLES FROM RELATED PARTIES AMOUNTING TO AT LEAST NT\$100 MILLION OR 20% OF THE PAID-IN CAPITAL  
DECEMBER 31, 2019

(Amounts in Thousands of New Taiwan Dollars)

Company Name	Related Party	Nature of Relationship	Ending Balance	Turnover Rate (Note)	Overdue		Amounts Received in Subsequent Period	Allowance for Bad Debts
					Amounts	Action Taken		
Chungghwa Telecom Co., Ltd.	Senao International Co., Ltd.	Subsidiary	\$ 464,647	10.31	\$ -	-	\$ 451,941	\$ -
Senao International Co., Ltd.	Chungghwa Telecom Co., Ltd.	Parent company	990,879	7.48	-	-	123,369	-
Chungghwa System Integration Co., Ltd.	Chungghwa Telecom Co., Ltd.	Parent company	657,839	3.06	-	-	482,712	-
Hongghwa International Co., Ltd.	Chungghwa Telecom Co., Ltd.	Parent company	788,779	5.76	-	-	171,232	-
Dongghwa Telecom Co., Ltd.	Chungghwa Telecom Co., Ltd.	Parent company	169,182	3.59	-	-	110,229	-

Note: Payments and receipts collected in trust for others are excluded from the accounts receivable for calculating the turnover rate.

## CHUNGHWA TELECOM CO., LTD.

NAMES, LOCATIONS, AND OTHER INFORMATION OF INVESTEEES IN WHICH THE COMPANY EXERCISES SIGNIFICANT INFLUENCE (EXCLUDING INVESTEEES IN MAINLAND CHINA)  
 YEAR ENDED DECEMBER 31, 2019  
 (Amounts in Thousands of New Taiwan Dollars)

Investor Company	Investee Company	Location	Main Businesses and Products	Original Investment Amount		Balance as of December 31, 2019		Net Income (Loss) of the Investee	Recognized Gain (Loss) (Notes 1, 2 and 3)	Note
				December 31, 2019	December 31, 2018	Shares (Thousands)	Percentage of Ownership (%)			
Chungghwa Telecom Co., Ltd.	Senao International Co., Ltd.	Taiwan	Handset and peripherals retailer; sales of CHT mobile phone plans as an agent	\$ 1,065,813	\$ 1,065,813	71,773	28	\$ 1,616,907	\$ 108,059	Subsidiary
	Light Era Development Co., Ltd.	Taiwan	Planning and development of real estate and intelligent buildings, and property management	3,000,000	3,000,000	300,000	100	3,850,095	3,494	Subsidiary
	Dongghwa Telecom Co., Ltd.	Hong Kong	International private leased circuit, IP VPN service, and IP transit services	1,567,453	1,567,453	402,590	100	1,627,491	39,268	Subsidiary
	Chungghwa Telecom Singapore Pte., Ltd.	Singapore	International private leased circuit, IP VPN service, and IP transit services	574,112	574,112	26,383	100	935,228	143,145	Subsidiary
	Chungghwa System Integration Co., Ltd.	Taiwan	Providing system integration services and telecommunications equipment	838,506	838,506	60,000	100	717,883	(20,612)	Subsidiary
	CHIEF Telecom Inc.	Taiwan	Network integration, internet data center ("IDC"), communications integration and cloud application services	459,652	459,652	39,426	57	1,729,189	313,931	Subsidiary
	Chungghwa Investment Co., Ltd.	Taiwan	Investment	639,559	639,559	68,085	89	3,130,389	185,348	Subsidiary
	Prime Asia Investments Group Ltd. (B.V.I)	British Virgin Islands	Investment	385,274	385,274	1	100	182,989	(2,462)	Subsidiary
	Hongghwa International Co., Ltd.	Taiwan	Telecommunication engineering, sales agent of mobile phone plan application and other business services	180,000	180,000	18,000	100	422,269	165,011	Subsidiary
	CHYP Multimedia Marketing & Communications Co., Ltd.	Taiwan	Digital information supply services and advertisement services	150,000	150,000	15,000	100	190,972	15,375	Subsidiary
	Chungghwa Telecom Vietnam Co., Ltd.	Vietnam	Intelligent energy saving solutions, international circuit, and information and communication technology ("ICT") services	148,275	148,275	-	100	98,221	(5,365)	Subsidiary
	Chungghwa Telecom Global, Inc.	United States	International private leased circuit, internet services, and transit services	70,429	70,429	6,000	100	347,380	68,770	Subsidiary
	CHT Security Co., Ltd.	Taiwan	Computing equipment installation, wholesale of computing and business machinery equipment and software, management consulting services, data processing services, digital information supply services and internet identity services	240,000	240,000	24,000	80	306,851	72,112	Subsidiary
	Chungghwa Telecom (Thailand) Co., Ltd.	Thailand	International private leased circuit, IP VPN service, ICT and cloud VAS services	119,624	100,000	1,300	100	114,231	(3,595)	Subsidiary
	Spring House Entertainment Tech. Inc.	Taiwan	Software design services; internet contents production and play, and motion picture production and distribution	41,941	62,209	8,251	56	110,357	11,949	Subsidiary
	Chungghwa Leading Photonics Tech Co., Ltd.	Taiwan	Production and sale of electronic components and finished products	70,500	70,500	7,050	75	111,680	13,050	Subsidiary
	Smartfun Digital Co., Ltd.	Taiwan	Providing diversified family education digital services	65,000	65,000	6,500	65	73,688	7,466	Subsidiary
	Chungghwa Telecom Japan Co., Ltd.	Japan	International private leased circuit, IP VPN service, and IP transit services	17,291	17,291	1	100	76,567	15,073	Subsidiary
	Chungghwa Soehamp Technology Inc.	Taiwan	Design, development and production of Automatic License Plate Recognition software and hardware	20,400	20,400	2,040	51	(10,086)	(3,858)	Subsidiary
	International Integrated System, Inc.	Taiwan	IT solution provider, IT application consultation, system integration and package solution	283,500	283,500	22,498	31	340,240	41,699	Associate

(Continued)

**CHUNGHWA TELECOM CO., LTD.**

**NAMES, LOCATIONS, AND OTHER INFORMATION OF INVESTEEES IN WHICH THE COMPANY EXERCISES SIGNIFICANT INFLUENCE (EXCLUDING INVESTMENT IN MAINLAND CHINA)**  
**YEAR ENDED DECEMBER 31, 2019**  
 (Amounts in Thousands of New Taiwan Dollars)

Investor Company	Investee Company	Location	Main Businesses and Products	Original Investment Amount		Balance as of December 31, 2019			Net Income (Loss) of the Investee	Recognized Gain (Loss) (Notes 1, 2 and 3)	Note
				December 31, 2019	December 31, 2018	Shares (Thousands)	Percentage of Ownership (%)	Carrying Value (Note 3)			
	Vietel-CHT Co., Ltd. Taiwan International Standard Electronics Co., Ltd.	Vietnam Taiwan	IDC services Manufacturing, selling, designing, and maintaining of telecommunications systems and equipment Providing of music on-line, software, electronic information, and advertisement services	\$ 288,327 164,000	\$ 288,327 164,000	- 1,760	30 40	\$ 316,535 272,166	\$ 76,008 135,438	Associate Associate	
	KKBOX-Taiwan Co., Ltd.	Taiwan	Import and export storage, logistic warehouse, and ocean shipping service	67,025	67,025	4,438	30	150,789	3,793	Associate	
	So-net Entertainment Taiwan Limited KingwayTek Technology Co., Ltd.	Taiwan Taiwan	Online service and sale of computer hardware Publishing books, data processing and software services	120,008 66,684	120,008 69,013	9,429 7,898	30 23	189,396 253,021	69,113 1,723	Associate Associate	
	Taiwan International Ports Logistics Corporation UIPON Inc.	Taiwan Taiwan	Information technology service and general advertisement service	80,000 97,598	80,000 97,598	8,000 5,400	27 15	50,979 7,199	1,329 (4,234)	Associate Associate	
	Alliance Digital Tech Co., Ltd.	Taiwan	Development of mobile payments and information processing service	60,000	60,000	6,000	14	5,080	-	Associate	
	Chunghua PChome Fund I Co., Ltd.	Taiwan	Investment, venture capital, investment advisor, management consultant and other consultancy service	200,000	200,000	20,000	50	194,081	(4,893)	Associate	
	Cornerstone Ventures Co., Ltd.	Taiwan	Investment, venture capital, investment advisor, management consultant and other consultancy service	4,900	4,900	490	49	5,507	750	Associate	
	Next Commercial Bank Co., Ltd. (preparatory office)	Taiwan	Online banking business	4,190,000	-	419,000	42	4,074,168	(115,832)	Associate	
Senao International Co., Ltd.	Senao Networks, Inc.	Taiwan	Telecommunication facilities manufactures and sales	202,758	202,758	16,579	34	953,685	143,443	Associate	
	Senao International (Samoa) Holding Ltd. UIPON Inc.	Samoa Islands Taiwan	International investment Information technology service and general advertisement service	2,333,620 24,000	2,416,645 24,000	77,775 2,400	100 7	352,254 3,330	(50,646) (1,883)	Subsidiary Associate	
	Youth Co., Ltd.	Taiwan	Sale of information and communication technologies products	364,950	364,950	8,462	93	185,858	(20,345)	Subsidiary	
	Aval Technologies Co., Ltd.	Taiwan	Sale of information and communication technologies products	89,550	60,000	9,843	100	101,850	2,363	Subsidiary	
	Senyoung Insurance Agent Co., Ltd.	Taiwan	Property and liability insurance agency	59,000	59,000	5,900	100	75,728	25,036	Subsidiary	
Light Era Development Co., Ltd.	Taoyuan Asia Silicon Valley Innovation Co., Ltd.	Taiwan	Development of real estate	-	7,500	750	60	-	(5,466)	Subsidiary (Note 4)	
CHIEF Telecom Inc.	Unigate Telecom Inc. Chief International Corp.	Taiwan Samoa Islands	Telecommunications and internet service Telecommunications and internet service	2,000 6,068	2,000 6,068	200 200	100 100	886 73,369	(1) 10,894	Subsidiary Subsidiary	
Chunghua Telecom Singapore Pte., Ltd.	ST-2 Satellite Ventures Pte., Ltd.	Singapore	Operation of ST-2 telecommunications satellite	409,061	409,061	18,102	38	500,930	116,442	Associate	
Chunghua Investment Co., Ltd.	Chunghua Precision Test Tech. Co., Ltd. CHIEF Telecom Inc.	Taiwan Taiwan	Production and sale of semiconductor testing components and printed circuit board Network integration, internet data center ("IDC"), communications integration and cloud application services	178,608 19,064	178,608 19,064	11,230 2,078	34 3	2,207,040 85,381	625,164 542,508	Subsidiary Associate	
	Senao International Co., Ltd.	Taiwan	Selling and maintaining mobile phones and its peripheral products	49,731	49,731	1,001	-	43,412	1,594	Associate	

(Continued)

**CHUNGHWA TELECOM CO., LTD.**

NAMES, LOCATIONS, AND OTHER INFORMATION OF INVESTEEES IN WHICH THE COMPANY EXERCISES SIGNIFICANT INFLUENCE (EXCLUDING INVESTMENT IN MAINLAND CHINA)  
 YEAR ENDED DECEMBER 31, 2019  
 (Amounts in Thousands of New Taiwan Dollars)

Investor Company	Investee Company	Location	Main Businesses and Products	Original Investment Amount		Balance as of December 31, 2019		Net Income (Loss) of the Investee	Recognized Gain (Loss) (Notes 1, 2 and 3)	Note
				December 31, 2019	December 31, 2018	Shares (Thousands)	Percentage of Ownership (%)			
Chungghwa Precision Test Tech. Co., Ltd.	Chungghwa Precision Test Tech. Corporation	United States	Design and after-sale services of semiconductor testing components and printed circuit board	\$ 12,636	\$ 12,636	400	100	\$ 24,337	\$ 544	Subsidiary
	CHPT Japan Co., Ltd.	Japan	Related services of electronic parts, machinery processed products and printed circuit board	2,008	2,008	1	100	2,380	82	Subsidiary
	Chungghwa Precision Test Tech. International, Ltd.	Samoa Islands	Wholesale and retail of electronic materials, and investment	116,790	54,450	3,700	100	84,684	(13,893)	Subsidiary
Prime Asia Investments Group, Ltd. (B.V.I.)	Chungghwa Hsingta Co., Ltd. MeWorks Limited (HK)	Hong Kong Hong Kong	Investment	375,274 10,000	375,274 10,000	1 -	100 20	182,988 -	(2,460) -	Subsidiary Associate
Senao International (Samoa) Holding Ltd.	Senao International HK Limited	Hong Kong	International investment	2,328,754	2,393,646	80,440	100	332,131	(50,952)	Subsidiary
Youth Co., Ltd.	ISPOT Co., Ltd.	Taiwan	Sale of information and communication technologies products	53,021	53,021	-	100	9,098	(286)	Subsidiary
	Yoyui Co., Ltd.	Taiwan	Maintenance of information and communication technologies products	21,354	21,354	-	100	17,152	87	Subsidiary
Aval Technologies Co., Ltd.	Wiin Technology Co., Ltd.	Taiwan	Sale of information and communication technologies products	29,550	-	2,955	100	29,781	231	Subsidiary
Senyoung Insurance Agent Co., Ltd.	Senyoung Insurance Agent Co., Ltd.	Taiwan	Life insurance services	29,500	-	2,950	100	29,220	(280)	Subsidiary
CHYP Multimedia Marketing & Communications Co., Ltd	Click Force Marketing Company	Taiwan	Advertisement services	44,607	44,607	1,078	49	37,120	(756)	Associate

Note 1: The amounts were based on audited financial statements.

Note 2: Recognized gain (loss) of investees includes amortization of differences between the investment cost and net value and elimination of unrealized transactions.

Note 3: Recognized gain (loss) and carrying value of the investees did not include the adjustment of the difference between the accounting treatment on standalone basis and consolidated basis as a result of the application of IFRS 15.

Note 4: The liquidation of Taoyuan Asia Silitecon Valley Innovation Co., Ltd. was completed in September 2019.

Note 5: Investment in mainland China is included in Table 8.

(Concluded)

## CHUNGWA TELECOM CO., LTD.

## INVESTMENT IN MAINLAND CHINA

YEAR ENDED DECEMBER 31, 2019

(Amounts in Thousands of New Taiwan Dollars)

Investee	Main Businesses and Products	Total Amount of Paid-in Capital	Investment Type (Note 1)	Accumulated Outflow of Investment from Taiwan as of January 1, 2019	Investment Flows		Accumulated Outflow of Investment from Taiwan as of December 31, 2019	Net Income (Loss) of the Investee	% Ownership of Direct or Indirect Investment	Investment Gain (Loss) (Note 2)	Carrying Value as of December 31, 2019	Accumulated Inward Remittance of Earnings as of December 31, 2019	Note
					Outflow	Inflow							
Senao Trading (Fujian) Co., Ltd.	Sale of information and communication technologies products	\$ 1,073,170	2	\$ 1,073,170	\$ -	\$ -	\$ 1,073,170	\$ 1,435	100	\$ 1,435	\$ -	\$ -	Note 7
Senao International Trading (Shanghai) Co., Ltd.	Sale of information and communication technologies products	955,838	2	955,838	-	-	955,838	(27,215)	100	(27,215)	50,497	-	-
Senao International Trading (Shanghai) Co., Ltd. (Note 12)	Maintenance of information and communication technologies products	26,053	2	87,540	-	61,487	26,053	-	100	-	-	-	Note 8
Senao International Trading (Jiangsu) Co., Ltd.	Sale of information and communication technologies products	263,736	2	263,736	-	-	263,736	310	100	310	-	-	Note 9
Chungwa Telecom (China) Co., Ltd.	Integrated information and communication solution services for enterprise clients, and intelligent energy network service	177,176	2	177,176	-	-	177,176	(6,069)	100	(6,069)	44,475	-	-
Jiangsu Zhenghua Information Technology Company, LLC	Providing intelligent energy saving solution and intelligent buildings services	189,410	2	142,057	-	-	142,057	-	75	-	-	-	Note 10
Shanghai Taihua Electronic Technology Limited	Design of printed circuit board and related consultation service	51,233	2	51,233	-	-	51,233	(12,279)	100	(12,279)	25,943	-	-
Su Zhou Precision Test Tech. Ltd.	Assembly processed of circuit board, design of printed circuit board and related consultation service	62,340	2	-	62,340	-	62,340	(1,955)	100	(1,955)	58,916	-	-
Shanghai Chief Telecom Co., Ltd.	Telecommunications and internet service	10,150	1	4,973	-	-	4,973	6,822	49	3,343	10,852	-	-

(Continued)

Investee	Accumulated Investment in Mainland China as of December 31, 2019	Investment Amounts Authorized by Investment Commission, MOEA	Upper Limit on Investment Stipulated by Investment Commission, MOEA
SENAO and its subsidiaries (Note 3)	\$ 2,318,797	\$ 2,318,797	\$ 3,517,513
Chunghwa Telecom (China) Co., Ltd. (Note 4)	177,176	177,176	231,836,259
Jiangsu Zhenghua Information Technology Company, LLC (Note 4)	142,057	142,057	231,836,259
Chunghwa Precision Test Tech Co., Ltd and its subsidiaries (Note 5)	113,573	159,725	3,866,346
Shanghai Chief Telecom Co., Ltd. (Note 6)	4,973	4,973	1,720,100

Note 1: Investments are divided into three categories as follows:

- a. Direct investment.
- b. Investments through a holding company registered in a third region.
- c. Others.

Note 2: The amounts were calculated based on the investee's audited financial statements.

Note 3: Senao International Co., Ltd. and its subsidiaries were calculated based on the consolidated net assets value of Senao International Co., Ltd.

Note 4: Chunghwa Telecom (China) Co., Ltd. and Jiangsu Zhenghua Information Technology Company, LLC were calculated based on the consolidated net assets value of Chunghwa Telecom Co., Ltd.

Note 5: Chunghwa Precision Test Tech. Co., Ltd. and its subsidiaries were calculated based on the consolidated net assets value of Chunghwa Precision Test Tech. Co., Ltd

Note 6: Shanghai Chief Telecom Co., Ltd. was calculated based on the consolidated net assets value of CHIEF Telecom Inc.

Note 7: The liquidation of Senao Trading (Fujian) Co., Ltd. was completed in May 2019.

Note 8: The liquidation of Senao International Trading (Shanghai) Co., Ltd. was completed in March 2018.

Note 9: The liquidation of Senao International Trading (Jiangsu) Co., Ltd. was completed in March 2019.

Note 10: The liquidation of Jiangsu Zhenhua Information Technology Company, LLC. was completed in December 2018.

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ACCOUNTING ITEMS**

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**CHUNGHWA TELECOM CO., LTD.**

**STATEMENT OF CASH AND CASH EQUIVALENTS**

**DECEMBER 31, 2019**

**(In Thousands of New Taiwan Dollars, Unless Specified Otherwise)**

Item	Period	Annual Interest Rate / Earnings Rate	Amount
Cash			\$ 137,811
Cash on hand			1,700,005
Bank deposits			2,414,393
Checking deposits			4,114,398
Demand deposits			4,252,209
Cash equivalents			3,898,218
Commercial paper			3,495,056
CTBC Bank Co., Ltd.	2019.12.16-2020.01.08	0.50%-0.53%	2,697,989
Grand Bills Finance Corporation	2019.12.05-2020.01.09	0.53%-0.54%	2,693,800
Taishin International Bank Co., Ltd.	2019.12.09-2019.01.08	0.52%-0.53%	2,597,527
Taiwan Finance Corporation	2019.12.03-2020.01.08	0.53%	2,247,888
China Bills Finance Corporation	2019.12.05-2020.01.08	0.53%	1,499,025
International Bills Finance Corporation	2019.12.05-2020.01.07	0.53%	19,129,503
Mega Bills Finance Co., Ltd.	2019.12.06-2020.01.06	0.48%-0.52%	1,700,000
Negotiable certificates of deposit	2019.10.24-2020.1.6	0.58%-0.60%	20,829,503
			<u>\$ 25,081,712</u>

Note: Including USD8,767 thousand @29.98, EUR296 thousand @33.59, JPY1,954 thousand @0.276 and SGD3 thousand @22.28.

**CHUNGHWA TELECOM CO., LTD.**

**STATEMENT OF CHANGES IN FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS-NONCURRENT  
FOR THE YEAR ENDED DECEMBER 31, 2019**  
(In Thousands of New Taiwan Dollars)

Investee Company	Balance, January 1, 2019		Additions in Investment		Decrease in Investment		Balance, December 31, 2019		Note
	Shares (In Thousand)	Amount	Shares (In Thousand)	Amount	Shares (In Thousand)	Amount	Shares (In Thousand)	Percentage of Ownership (%)	
Financial assets at fair value through profit or loss									
Taiwania Capital Buffalo Fund Co., Ltd.	300,000	\$ 292,910	300,000	\$ 300,000	-	\$ 82,109	600,000	12.90	Notes 1 and 2
Innovation Works Development Fund, L.P.	-	224,452	-	42,852	-	-	-	4.44	Note 1
		\$ 517,362		\$ 342,852		\$ 82,109			

Note 1: Showed at amounts with fair value adjustments.

Note 2: Additions in investment was issuance of common stock for cash.

STATEMENT 3

**CHUNGHWA TELECOM CO., LTD.**

**STATEMENT OF TRADE NOTES AND ACCOUNTS RECEIVABLE, NET  
DECEMBER 31, 2019  
(In Thousands of New Taiwan Dollars)**

Item	Amount
Mobile phone services revenue	\$ 6,303,425
International call services revenue	3,694,540
Leased line services revenue	3,138,717
Local telephone services revenue	1,969,080
Internet and value-added services revenue	2,275,516
Project services revenue	5,699,150
Others (Note)	<u>2,698,284</u>
	25,778,712
Less: Loss allowance	<u>(2,300,651)</u>
	<u>\$ 23,478,061</u>

Note: The amount of individual item included in others does not exceed 5% of the account balance.

STATEMENT 4

**CHUNGHWA TELECOM CO., LTD.**

**STATEMENT OF INVENTORIES  
DECEMBER 31, 2019  
(In Thousands of New Taiwan Dollars)**

Item	Cost	Amount	Market Price (Note)
Merchandise	\$ 1,722,201		\$ 2,286,356
Project in process	<u>10,769,527</u>		<u>12,408,605</u>
	<u>\$ 12,491,728</u>		<u>\$ 14,694,961</u>

Note: Amount of net realizable value.

**CHUNGHWA TELECOM CO., LTD.**

**STATEMENT OF CHANGES IN FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME-NONCURRENT  
FOR THE YEAR ENDED DECEMBER 31, 2019**  
(In Thousands of New Taiwan Dollars)

Investee Company	Balance, January 1, 2019		Additions in Investment (Note 1)		Decrease in Investment (Note 1)		Balance, December 31, 2019		Note
	Shares (In Thousand)	Amount	Shares (In Thousand)	Amount	Shares (In Thousand)	Amount	Shares (In Thousand)	Percentage of Ownership (%)	
Financial assets at fair value through other comprehensive income									
Listed stocks									
China Airlines Ltd.	263,622	\$ 2,899,843	-	\$ -	-	\$ 511,427	263,622	4.86	\$ 2,388,416
Non-listed stocks									
Taipei Financial Center Corp.	172,927	3,485,638	-	903,346	-	-	172,927	11.76	4,388,984
Industrial Bank of Taiwan II Venture Capital Co., Ltd. (IBT II)	5,252	21,930	-	4,321	-	9,167	5,252	16.67	17,084
Global Mobile Corp.	7,617	-	-	-	-	-	7,617	2.76	-
Innovation Works Limited	1,000	2,850	-	1,228	-	-	1,000	1.93	4,078
RPTI Intergroup International Ltd.	4,765	-	-	-	-	-	4,765	10.19	-
Taiwan mobile payment Co., Ltd.	1,200	4,837	-	-	-	327	1,200	2.00	4,510
4 Gamers Entertainment Inc.	136	117,955	-	2,288	-	-	136	19.93	120,243
		<u>\$ 6,533,053</u>		<u>\$ 911,183</u>		<u>\$ 520,921</u>			<u>\$ 6,923,315</u>

Note 1: Showed at amounts with fair value adjustments.

Note 2: Decrease in investment was proceed from return of investments.

## CHUNGHWA TELECOM CO., LTD.

STATEMENT OF CHANGES IN INVESTMENTS ACCOUNTED FOR USING EQUITY METHOD  
FOR THE YEAR ENDED DECEMBER 31, 2019  
(In Thousands of New Taiwan Dollars)

Investee Company	Balance, January 1, 2019		Effect of retrospective application of IFRS 16	Balance on January 1, 2019 as adjusted	Additions in Investment		Decrease in Investment		Increase (Decrease) in Using the Equity Method		Balance, December 31, 2019		Market Value / Net Asset Value	Note
	Shares (In Thousand)	Amount			Shares (In Thousand)	Amount	Shares (In Thousand)	Amount	Shares (In Thousand)	Percentage of Ownership (%)	Amount			
Investments accounted for using equity method														
Subsidiaries														
Listed stocks														
Senao International Co., Ltd	71,773	\$ 335,629	\$ (3,170)	\$ 332,459	-	\$ -	-	\$ 104,071	\$ 228,157	28	\$ 456,545	\$ 2,303,913	Notes 2 and 3	
CHEF Telecom Inc.	39,426	1,694,950	18,425	1,713,375	-	-	-	295,694	311,508	57	1,729,189	8,673,720	Notes 2 and 3	
Non-listed stocks														
Light Era Development Co., Ltd.	300,000	3,853,824	17	3,853,841	-	-	7,240	-	3,494	100	3,850,095	3,858,806	Notes 1 and 3	
Donghua Telecom Co., Ltd.	402,590	1,619,155	(248)	1,618,907	-	-	-	-	8,584	100	1,627,491	1,629,315	Note 1	
Chunghua Telecom Singapore Pte., Ltd.	26,383	915,532	(69)	915,463	-	-	-	-	125,623	100	935,228	920,611	Notes 1 and 3	
Chunghua System Integration Co., Ltd.	60,000	738,139	(27)	738,112	-	-	-	-	(20,229)	100	717,883	650,602	Note 1	
Chunghua Investment Co., Ltd.	68,085	3,152,229	(1,067)	3,151,162	-	-	-	-	81,555	89	3,130,389	3,206,239	Notes 1 and 3	
Prime Asia Investments Group Ltd. (B.V.)	1	192,841	71	192,912	-	-	-	-	(9,923)	100	182,989	182,989	Note 1	
Honghua International Co., Ltd.	18,000	457,449	(9,548)	447,901	-	-	-	-	162,473	100	438,634	438,634	Notes 1 and 3	
CHYP Multimedia Marketing & Communications Co., Ltd.	15,000	197,996	30	198,026	-	-	-	-	15,732	100	190,972	190,570	Notes 1 and 3	
Spring House Entertainment Tech. Inc.	10,277	98,298	(47)	98,251	-	-	2,026	-	12,106	56	110,357	94,622	Notes 1 and 6	
Chunghua Telecom Global, Inc.	6,000	288,207	(757)	287,450	-	-	-	-	59,930	100	347,380	344,074	Note 1	
Chunghua Telecom Vietnam Co., Ltd.	-	106,091	(30)	106,061	-	-	-	-	(7,840)	100	98,221	98,221	Note 1	
Smazifun Digital Co., Ltd.	6,500	72,031	-	72,031	-	-	-	5,809	7,466	65	73,688	73,871	Notes 1 and 3	
Chunghua Telecom Japan Co., Ltd.	1	62,626	(226)	62,397	-	-	-	-	14,170	100	76,567	76,104	Note 1	
Chunghua Soehamp Technology Inc.	2,040	(6,233)	6	(6,227)	-	-	-	-	(3,859)	51	(10,086)	6,774	Note 1	
Chunghua Leading Photonics Tech. Co., Ltd.	7,050	98,763	(133)	98,630	-	-	-	-	13,050	75	111,680	118,947	Note 1	
Chunghua Telecom (Thailand) Co., Ltd.	1,000	94,931	-	94,931	300	31,032	-	11,408	(324)	100	114,231	114,231	Notes 1, 5 and 8	
CHT Security Co., Ltd.	24,000	237,927	10	237,937	-	-	-	3,352	72,266	80	306,851	319,303	Notes 1 and 3	
		<u>14,210,385</u>	<u>3,234</u>	<u>14,213,619</u>		<u>31,032</u>		<u>857,429</u>	<u>1,073,739</u>		<u>14,460,961</u>			
Associates														
Listed stocks														
KingwayTek Technology Co., Ltd.	6,993	134,925	-	134,925	1,141	-	236	4,305	122,401	23	253,021	872,729	Notes 2, 3, 4, and 7	
Non-listed stocks														
International Integrated System, Inc.	22,498	310,842	-	310,842	-	-	-	14,624	44,022	31	340,240	304,266	Notes 1 and 3	
Viettel-CHT Co., Ltd.	1,760	286,510	-	286,510	-	-	-	38,170	68,195	30	316,535	316,387	Notes 1 and 3	
Taiwan International Standard Electronics Co., Ltd.	4,438	216,439	-	216,439	-	-	-	76,759	132,486	40	272,166	378,524	Notes 1 and 3	
KKBOX Taiwan Co., Ltd.	9,429	147,360	-	147,360	-	-	-	-	3,429	30	150,789	111,490	Note 1	
So-net Entertainment Taiwan Limited	6,000	119,956	-	119,956	-	-	-	-	69,440	30	189,396	171,541	Note 1	
Alliance Digital Tech Co., Ltd.	5,400	5,080	-	5,080	-	-	-	-	-	14	5,080	5,080	Note 1	
ULUPON Inc.	8,000	11,432	-	11,432	-	-	-	-	(4,233)	15	7,199	7,199	Note 1	
Taiwan International Ports Logistics Corporation	20,000	49,650	-	49,650	-	-	-	-	1,329	27	50,979	50,987	Note 1	
Chunghua PChome Fund 1 Co., Ltd.	20,000	198,974	-	198,974	-	-	-	-	(4,893)	50	194,081	194,081	Note 1	
Comerstone Ventures Co., Ltd.	490	4,757	-	4,757	-	-	-	-	750	49	5,507	5,507	Note 1	
Next Commercial Bank Co., Ltd. (preparatory office)	-	1,485,925	-	1,485,925	419,000	4,190,000	-	133,858	(115,832)	42	4,074,168	4,074,168	Notes 1 and 9	
		<u>\$ 15,696,310</u>	<u>\$ 3,234</u>	<u>\$ 15,699,544</u>		<u>\$ 4,221,032</u>		<u>\$ 991,287</u>	<u>\$ 1,390,833</u>		<u>\$ 20,320,122</u>			

Note 1: The amounts of net asset value were based on audited financial statements.

Note 2: Fair value was based on the closing price at the end of 2019.

Note 3: Decrease in investment was cash dividends paid.

Note 4: Decrease in investment was partial disposal of interests in subsidiary.

Note 5: Decrease in investment was cash refund capital reduction.

Note 6: Decrease in shares of investment was capital reduction to write off accumulated losses.

Note 7: Additions in shares of investment was stock dividends paid

Note 8: Additions in investment was issuance of common stock for cash.

Note 9: Prepayments for investments of Next Commercial Bank Co., Ltd.

STATEMENT 7**CHUNGHWA TELECOM CO., LTD.****STATEMENT OF RIGHT-OF-USE ASSETS  
DECEMBER 31, 2019  
(In Thousands of New Taiwan Dollars)**

<u>Cost</u>	<u>Land and buildings (Handsets base stations)</u>	<u>Land and buildings (Others)</u>	<u>Equipment</u>	<u>Total</u>
Balance on January 1, 2019	\$ 6,938,137	\$ 1,088,086	\$ 2,974,321	\$ 11,000,544
Additions	2,844,024	463,761	16,393	3,324,178
Decreases	(243,595)	(291,821)	(1,189)	(536,605)
Balance on December 31, 2019	\$ 9,538,566	\$ 1,260,026	\$ 2,989,525	\$ 13,788,117
<u>Accumulated depreciation and impairment</u>				
Balance on January 1, 2019	\$ -	\$ -	\$ -	\$ -
Depreciation expenses	2,728,814	414,295	404,045	3,547,154
Decreases	(38,289)	(11,821)	(952)	(51,062)
Balance on December 31, 2019	\$ 2,690,525	\$ 402,474	\$ 403,093	\$ 3,496,092
Balance on December 31, 2019, net	\$ 6,848,041	\$ 857,552	\$ 2,586,432	\$ 10,292,025

STATEMENT 8**CHUNGHWA TELECOM CO., LTD.****STATEMENT OF TRADE NOTES AND ACCOUNTS PAYABLE  
DECEMBER 31, 2019  
(In Thousands of New Taiwan Dollars)**

<u>Item</u>	<u>Amount</u>
International call allocation expenses	\$ 3,494,729
Payable of spare parts for equipment	1,109,640
Payable of products	442,739
Other (Note)	7,005,415
	<u>\$ 12,052,523</u>

Note: The amount of each item in others does not exceed 5% of the account balance.

## STATEMENT 9

## CHUNGHWA TELECOM CO., LTD.

STATEMENT OF LEASE LIABILITIES  
DECEMBER 31, 2019  
(In Thousands of New Taiwan Dollars)

Item	Period	Discount Rate (%)	Amount	Note
Land and buildings				
Handsets base stations	1-20 years	0.58-1.18	\$ 6,546,202	
Others	1-30 years	0.58-1.12	869,132	
Equipment	1-15 years	0.58-0.82	<u>1,279,880</u>	
			8,695,214	
Less: Lease Liabilities-current			<u>(2,939,410)</u>	
Lease Liabilities-noncurrent			<u>\$ 5,755,804</u>	

## STATEMENT 10

## CHUNGHWA TELECOM CO., LTD.

STATEMENT OF OPERATING COSTS  
FOR THE YEAR ENDED DECEMBER 31, 2019  
(In Thousands of New Taiwan Dollars)

Item	Amount
Depreciation	\$ 28,630,553
Cost of products	14,367,766
Salaries	11,218,855
Amortization	10,281,841
Repair, maintenance and warranty expenses	6,325,988
Compensation	6,029,347
Other (Note)	<u>39,201,926</u>
	<u>\$ 116,056,276</u>

Note: The amount of each item in others does not exceed 5% of the account balance.

## STATEMENT 11

## CHUNGHWA TELECOM CO., LTD.

STATEMENT OF OPERATING EXPENSES  
FOR THE YEAR ENDED DECEMBER 31, 2019  
(In Thousands of New Taiwan Dollars)

Item	Marketing	General and Administrative	Research and Development	Expected Credit Loss	Total
Salaries	\$ 5,883,126	\$ 1,364,720	\$ 1,421,256	\$ -	\$ 8,669,102
Compensation	3,221,688	630,666	774,762	-	4,627,116
Professional service fee	1,648,085	183,007	302,223	-	2,133,315
Depreciation	700,440	329,464	192,362	-	1,222,266
Outsourcing fee	922,705	3,931	3,336	-	929,972
Marketing and Promotion expenses	848,116	-	-	-	848,116
Expected credit loss	-	-	-	(127,019)	(127,019)
Other (Note)	4,906,087	1,046,792	647,367	-	6,600,246
	<u>\$ 18,130,247</u>	<u>\$ 3,558,580</u>	<u>\$ 3,341,306</u>	<u>\$ (127,019)</u>	<u>\$ 24,903,114</u>

Note: The amount of each item in others does not exceed 5% of the account balance.

## STATEMENT 12

## CHUNGHWA TELECOM CO., LTD.

STATEMENT OF EMPLOYEE BENEFIT, DEPRECIATION AND AMORTIZATION BY FUNCTION  
FOR THE YEAR ENDED DECEMBER 31, 2019 AND 2018  
(In Thousands of New Taiwan Dollars)

	Year Ended December 31, 2019		Year Ended December 31, 2018			
	Classified as Operating Costs	Classified as Operating Expenses	Total	Classified as Operating Costs	Classified as Operating Expenses	Total
Employee benefit expenses						
Salaries	\$ 11,218,855	\$ 8,669,102	\$ 19,887,957	\$ 11,748,400	\$ 8,628,578	\$ 20,376,978
Insurance	1,161,980	869,502	2,031,482	1,167,127	858,173	2,025,300
Pension	1,861,185	1,299,078	3,160,263	1,918,414	1,306,333	3,224,747
Remuneration to directors	-	40,565	40,565	-	43,478	43,478
Others	6,950,603	5,256,004	12,206,607	7,138,988	5,187,174	12,326,162
	<u>\$ 21,192,623</u>	<u>\$ 16,134,251</u>	<u>\$ 37,326,874</u>	<u>\$ 21,972,929</u>	<u>\$ 16,023,736</u>	<u>\$ 37,996,665</u>
Depreciation	<u>\$ 28,630,553</u>	<u>\$ 1,222,266</u>	<u>\$ 29,852,819</u>	<u>\$ 25,585,731</u>	<u>\$ 1,281,748</u>	<u>\$ 26,867,479</u>
Amortization	<u>\$ 10,281,841</u>	<u>\$ 156,705</u>	<u>\$ 10,438,546</u>	<u>\$ 14,090,573</u>	<u>\$ 179,589</u>	<u>\$ 14,270,162</u>

Note 1: The average numbers of the Company's employees were 21,661 and 22,109, including 10 non-employee directors in 2019 and 2018, respectively.

Note 2: The average employee benefits expense were \$1,721 thousand and \$1,717 thousand for the years ended December 31, 2019 and 2018, respectively. (Which refers to [total employee benefits-total directors' remuneration] divided by [number of employees-number of non-employee directors]).

Note 3: The average salary expenses were \$918 thousand and \$922 thousand for the years ended December 31, 2019 and 2018, respectively. (Which refers to [salary expenses] divided by [number of employees-number of non-employee directors]). The adjustment on the average salary expenses in 2019 is approximately -0.4%.

Note 4: The Company's salary expenses refer to recurring grants such as base salary, job premiums, and overtime, etc.



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中華電信股份有限公司

董事長 謝繼茂



總經理 郭水義

