

Risk Management

Impact of inflation, interest and exchange rate fluctuations, and preventive measures:

1. Impact of interest rate fluctuations

Interest rate fluctuations had a minimal impact on TWM's 2016 short-term bank borrowings, as interest rates remained low and stable. The Company signed a mid-term loan agreement with banks to lock in mid-to-long-term interest rates and minimize impacts from interest rate fluctuations.

2. Impact of exchange rate fluctuations

Only some of the Company's expenditures are denominated in euros and US dollars. To minimize the impact from foreign exchange rate fluctuations, the Company hedges risks through foreign exchange spot market transactions. Overall, exchange rate fluctuations had a minimal impact on the Company.

3. Impact of inflation

Inflation had a minimal impact on the Company's operating performance in 2016 up to publication date in 2017.

Investment policy and reasons for gains & losses for high-risk/high-leverage financial products, derivatives, loans to others and guarantees of debts:

1. The Company was not involved in any high-risk, high-leverage financial investment.
2. The Company passed the "Rules and Procedures on Lending and Making Endorsements/Guarantees" to regulate its financing and endorsement activities.
3. Derivatives transaction: None.

Research and development plans

Project name	Objective	Completion date
Personalized music and video recommendation service	Use machine learning algorithms to analyze personal profiles, listening and viewing behavior, and music and video features to provide personalized music and video recommendations.	Sept. 2017
Mobile commerce	Apply big data analytics using 4G customers' behavior, such as their social network, hobbies and lifestyle, to create a more effective mobile commerce marketing program.	Sept. 2017
M+ Messenger	Improve quality of video calls as a substitute for traditional voice calls, and integrate them with enterprise clients' electronic authorization procedure to enhance clients' business efficiency.	June 2017
TAMedia - Mobile advertisement platform	Provide new types of interactive ads. Improve ad performance by integrating big data technology.	Sept. 2017
myVideo	Enrich multimedia player solutions. Improve user experience of big-screen video playback.	Sept. 2017
Mobile payment	Allow users to input a variety of membership or identification cards, as well as social media accounts, into their mobile payment account, expanding services provided to include discounts, vouchers and membership points.	July 2017

Project name	Objective	Completion date
myBook	Apply big data analytics to provide a recommendation system, and integrate traditional and online sales channels according to various marketing strategies.	Sept. 2017

Regulatory changes and developments

1. Revision of digital convergence regulations

(1) Status

In response to the development of digital convergence services, the NCC is planning to amend the Digital Communication Broadcasting Act and the Telecommunication Administration Act. The commission has been soliciting public opinions on digital convergence development since January 4, 2017. The proposed amendments reference digital convergence models adopted by developed countries, and take into account the evolution and development of the local telecommunications industry, to establish a new regulatory framework for the industry.

(2) Countermeasures

The Company is closely monitoring the progress of the proposed amendments and continues to communicate with and forward suggestions and recommendations on related policies and regulations to the NCC and the Executive Yuan to ensure a favorable regulatory environment for the industry's development.

2. Revision of Type I telecommunications business regulations

(1) Status

The Ministry of Transportation and Communications (MoTC) on March 16, 2016 announced plans to amend the Regulations Governing the Operating Items and Scope, the Timetable for Deregulation and the Number of Operators to Be Allowed for Type I Telecom Services. As 3G licenses in the 2.1GHz frequency band are set to expire at the end of 2018, the MoTC and the NCC are planning to auction the spectrum for 4G licenses. Related policy planning, management regulations and auction rules are under way and are expected to be finalized in June 2017.

(2) Countermeasures

TWM will continue to put forth its recommendations on the issue and urge the MoTC and the NCC to step up their approval of the final rules. The 2.1GHz spectrum that is to be released this round is currently used for 3G services. The Company will participate in the auction to acquire the spectrum to continue its 3G services and provide better mobile internet service for 4G customers.

3. 2G user rights protection plan

(1) Status

With 2G licenses set to expire on June 30, 2017, the NCC on December 7, 2016 unveiled its 2G user rights protection plan to ensure "zero impact" and "zero dispute" as 2G users migrate to 3G/4G services.

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(2) Countermeasures

In line with the government's 2G user rights protection plan, TWM offers preferential programs to encourage 2G users to migrate to 3G/4G services. The Company also plans to shut down the energy-consuming 2G network to improve spectrum efficiency and promote energy/carbon savings.

4. NCC drafting bill on preventing monopolies and promoting diversity in media

(1) Status

Driven by public opposition to Far EasTone Telecommunications Co., Ltd's bid to acquire China Network Systems Co., Ltd. (CNS), the NCC is drafting a bill to prevent media monopolization and promote diversity. In April 2016, the New Power Party released its draft version of the bill. The NCC has also stepped up its drafting of a proposal after new commission members took office in August of the same year. It plans to release a proposal to regulate horizontal and vertical integration in the broadcasting industry and cross-industry integration of print and broadcasting businesses.

(2) Countermeasures

The drafting of a bill against media monopolization is still in the initial phase due to differences in opinion among academics, politicians and the public. Legislative approval will also take time before the government, as well as ruling and opposition lawmakers, reach a consensus. The Company is closely monitoring the progress of the proposed amendments and continues to communicate with and forward suggestions and recommendations on related policies and regulations to the Legislative Yuan to prevent overregulation hindering the development of the media industry.

Technological changes and development

1. Long Term Evolution (LTE) and Long Term Evolution Advanced (LTE-A)

(1) Status

After taking into account the Company's network requirements, shareholders' interests, consumer benefits and operating cost, TWM dropped out of the 2.6GHz spectrum auction held in late 2015 when bidding prices exceeded their fair value. Industry developments over the past year include:

- a. Live streaming has become a popular social medium. Video content shared via mobile network led to significant traffic growth.
- b. Other operators actively deployed 2.6GHz frequency band to expand network capacity.
- c. LTE-A 3CCA technology was deployed by other operators to improve peak throughput.

(2) Countermeasures

TWM continued to step up 700MHz and 1800MHz deployment to cope with changes in the industry:

- a. Increased number of base stations to improve network coverage and deployed small cells to offload traffic in hotspots.
- b. Dynamically adjusted traffic load between 700MHz and 1800MHz to optimize spectrum efficiency, and extended two-band carrier aggregation (CA) coverage to enhance network capacity and throughput.
- c. Provided LTE-A 4X2 MIMO services through 4-way transmission (from radio network) with 2-way receiving (to handsets), enhancing signal stability at the cell edge and providing more network capacity compared with traditional LTE 2X2 MIMO technology.

The Company will continue to focus on providing high-speed 4G services with the widest network coverage to maintain its competitive edge.

2. Rising popularity of internet protocol

(1) Status

Software-defined networking (SDN) is a next-generation network architecture that separates the control layer and data transfer layer to optimize performance and simplify network configuration and deployment. Another important new technology is network function virtualization (NFV), which uses virtualization technology to separate network functions from proprietary hardware. NFV reduces the complexity of the integration and deployment of large numbers of specialized and proprietary hardware devices. The industry transformation by NFV and SDN will not only impact network computing platforms and network architecture, but also enable the rapid deployment of network infrastructure supporting smart cities, homes, cars, enterprises and the Internet of Things (IoT).

(2) Countermeasures

TWM is evaluating, trial testing and deploying SDN and NFV technologies to enhance network performance and provide users with innovative and diversified services through the most advanced network. TWM has completed the initial introduction of NFV technology in smart meters, vehicle positioning management system, home security and other

services via accelerated cross-industry cooperation in 1Q17 in response to the rapid changes and developments in the IoT industry. TWM is also designing an SDN network to deliver the new capabilities quickly and efficiently to meet its business needs.

3. Digital convergence and cloud services

(1) Status

Next generation network (NGN) utilizes a converged all-IP network to transport voice, data, image and video, and support a wide variety of devices. Meanwhile, cloud services have broken the traditional boundaries between industries, triggering cross-industry competition.

(2) Countermeasures

In 2016, TWM's IaaS received ISO27018 certification for personal information security, while its cloud data center received ISO14001 certification for environmental management. TWM's strategy is to continuously enhance its information security, service quality and cloud services, and complementing them with a world-class cloud IDC infrastructure.

Impact of changes in brand image on the Company's risk management policies in 2016 up to publication date in 2017:

None. TWM has long built up a sound image among investors and customers for its continuing efforts to enhance corporate governance, network communication quality and customer service, as well as to fulfill its corporate social responsibility. These efforts won numerous recognitions and awards in 2016 (please refer to Chapter 1) and should aid the Company in preventing, controlling and managing latent risks that it may face and help it maintain its good corporate image.

Expected benefits and risks from mergers in 2016 up to publication date in 2017: None.

Expected benefits and risks related to plant facility expansions in 2016 up to publication date in 2017: Not applicable as the Company is not a manufacturer.

Risks from supplier and buyer concentration in 2016 up to publication date in 2017:

The Company has minimal risks from supplier and buyer concentrations (please refer to Chapter 4).

Significant changes in shareholdings of directors and major shareholders in 2016 up to publication date in 2017: None.

Changes in management controls in 2016 up to publication date in 2017: Not applicable.

Significant lawsuits and non-litigious matters in 2016 up to publication date in 2017

1. The Company:

(1) Spectrum dispute between Far EasTone Telecommunications Co., Ltd. ("FET") and the Company

Parties Involved: FET is the plaintiff and the Company is the defendant.

Grounds for Lawsuit:

FET filed a lawsuit claiming the Company: a) to file an immediate application to return the spectrum block 1748.7-1754.9/ 1843.7-1849.9 MHz (hereinafter referred to as "C4 spectrum block") to the NCC, b) to stop using the

spectrum block 1715.1-1721.3/1810.1-1816.3 MHz (hereinafter referred to as “C1 spectrum block”) until it has returned the C4 spectrum block to the NCC, and c) to pay FET NT\$1,005,800,000.

Status:

In May 2016, the Taipei District Court ruled that: (i) the Company shall apply to return the C4 spectrum block to the NCC; (ii) the Company shall not use the C4 spectrum block in any way; (iii) the Company shall not use the C1 spectrum block before the C4 spectrum block has been returned to the NCC, (iv) the rest of FET’s claims were rejected; and (v) FET may file a provisional execution with a collateral of NT\$320,630,000, and the Company may provide a counter security of NT\$961,913,313 or the same amount of negotiable certificates of deposit (NCDs) issued by Taipei Fubon Bank to be exempted from, or to move for revocation of FET’s provisional execution.

On June 27, 2016, the Company provided a counter security of NT\$962,000,000 to be exempted from the provisional execution. The Company shall not be required to return the C4 spectrum block to the NCC immediately, and its use of C1 and C4 spectrum blocks shall remain as is. The Company and FET filed separate appeals against parts of the judgment deemed as unfavorable to them. The appeals are pending in the Taiwan High Court.

In order to increase the efficiency of the overall spectrum, the Company submitted an application to return a part of C4 spectrum block, total of 10MHz, including uplink and downlink 5MHz each (actually used for the uplink 1748.7~1753.7MHz, downlink 1843.7~1848.7MHz).

(2) Provisional injunction filed over spectrum dispute between FET and the Company

Parties Involved: FET is the claimant and the Company is the counterparty.

Grounds for Lawsuit: FET filed a provisional injunction in May 2015 to prohibit the Company’s use of the C1 spectrum block.

Status: On July 1, 2015, the Taipei District Court ruled that FET may provide a collateral of NT\$1,048,703,000 or the same amount of NCDs issued by the Bank of Taiwan to restrict the Company’s use of the C1 spectrum block from July 1, 2015 to June 30, 2017, before the Company returns the C4 spectrum block and receives the NCC’s green light to use the C1 spectrum block. The Company may provide a counter security of NT\$927,000,000 or the same amount of NCDs issued by the Bank of Taiwan to be exempted from, or to move for revocation of said provisional injunction.

The Company provided the counter security on July 14, 2015 to continue using the C1 spectrum. The Company also filed an appeal against the above ruling. The Taiwan High Court rejected the Company’s appeal in a final ruling in September 2015.

(3) Provisional injunction filed over spectrum dispute between FET and the Company

Parties Involved: FET is the claimant and the Company is the counterparty.

Grounds for Lawsuit: FET filed a provisional injunction in April 2016, claiming that: a) the Company must file an immediate application to return the C4 spectrum block to the NCC; b) the Company must not use the C4 spectrum block in any way; and c) the Company must not use the C1 spectrum block until it has returned the C4 spectrum block to the NCC.

Status: On April 28, 2016, a ruling received from the Taipei District Court ruled that: (i) after FET provides a collateral of NT\$143,050,272 or same amount of NCDs issued by Far Eastern International Bank, the Company shall apply to return the C4 spectrum block to the NCC and shall be prohibited from using the C4 spectrum block; and (ii) the Company may provide a counter security of NT\$547,118,523 or same amount of NCDs issued by the Bank of Taiwan to be exempted from, or to move for revocation of the above provisional injunction. The Company provided the

counter security on May 5, 2016. The Company shall not be required to return the C4 spectrum block to the NCC immediately. Its use of the C4 spectrum block shall remain as is. The Company and FET filed separate appeals against parts of the ruling deemed as unfavorable to them.

The High Court in August 2016 dismissed the ruling regarding the prohibition on the Company's use of the C4 spectrum block and that the Company may provide a counter security to be exempted from, or to move for revocation of the provisional injunction. With the above dismissal, the provisional injunction filed by FET was hereby rejected. Other appeals filed by the Company and FET were rejected.

The Company and FET filed separate appeals against the ruling. The appeals are pending in the Supreme Court.

2. The Company's directors, general manager, executives, major shareholder holding more than 10 percent of the Company's shares: None.

3. The Company's subsidiaries

(1) Taiwan Kuro Times Co., Ltd. ("Taiwan Kuro")

The Taiwan Intellectual Property Office ("TIPO") issued an administrative disposition in response to Taiwan Kuro's appeal for a review of the generalized licensing royalty rates announced by the Music Copyright Society of Chinese Taipei ("MUST"). Taiwan Kuro disagreed with TIPO's disposition and filed an administrative appeal. When the Ministry of Economic Affairs dismissed the appeal, Taiwan Kuro filed an administrative litigation. The Intellectual Property Court dismissed Taiwan Kuro's claim, and Taiwan Kuro appealed to the Supreme Administrative Court. The Supreme Administrative Court reversed the original judgment and remanded the case to the Intellectual Property Court.

Parties Involved: Taiwan Kuro is the plaintiff and TIPO is the defendant.

Grounds for Lawsuit:

On December 19, 2012, TIPO issued an administrative disposition in response to an appeal filed by Taiwan Kuro on September 1, 2010, for a review of the generalized licensing royalty rates announced by MUST on August 12, 2010. TIPO stated that pursuant to Article 25, Paragraph 6 of the Copyright Collective Management Organization Act: "When there is sufficient reason for an application for review under Paragraph 1, the specialized agency in charge of copyright matters shall make a determination of the given royalty rate, which shall be effective from the date of application for review, provided that in the case of applications made prior to the date of implementation of a given royalty rate, the newly determined rate shall take effect from the date of implementation." Taiwan Kuro disagreed with the generalized licensing royalty rates stipulated in TIPO's disposition and filed an administrative appeal.

Status:

The Ministry of Economic Affairs dismissed the appeal issued by Taiwan Kuro on June 25, 2013. Taiwan Kuro filed an administrative litigation to revoke TIPO's disposition on August 23, 2013. The Intellectual Property Court dismissed Taiwan Kuro's claim on March 26, 2014. Taiwan Kuro disagreed with the judgment and appealed to the Supreme Administrative Court on April 25, 2014. The Supreme Administrative Court reversed the original judgment and remanded the case to the Intellectual Property Court on August 17, 2015. The Intellectual Property Court rejected Taiwan Kuro's claim on July 14, 2016 (judgment received on July 27, 2016). Taiwan Kuro filed an appeal with the Supreme Administrative Court on August 15, 2016. The case is pending in the Supreme Administrative Court.

Other major risks

Customer fraud management policy

1. Verification before activation

Applicants' identity and qualifications are carefully reviewed and verified before service is activated.

2. Monitoring after activation

- (1) Exception management: Relatively "high-risk" applicants are filtered out by the system to protect users' interests.
- (2) Credit control: The system analyzes customers' behavioral patterns to strengthen client management.

Other significant items: None.