Chap. 6 Risk Management Analysis

In the course of operating its business, the Company faces three major types of internal and external risks, namely: industry risk, financial risk and operating risk. The Company realizes the damage these risks may cause and therefore has established a risk management committee to set policies in order to minimize the impact of any incident on the Company's operations.

Industry Risk

1. Technology Changes and Development

1. Wireless Broadband Access (WBA), still a fairly new technology

1. Current status

WBA is a communications technology based on orthogonal frequency division multiplexing (OFDM). WiMAX is the one of the examples of OFDM technologies and is capable of providing speeds of up to 10 Mbps on the equivalent frequency bandwidth of 3G's 5MHz. It poses a reasonable threat to 3G data service.

All six operators that were granted WBA regional licenses in 2007 adopted WiMAX as their core technology and have soft-launched regional services one after another since 2Q09. However, as interoperability problems between WiMAX base stations and customer premises equipment (CPE) have not been solved, CPE options are very limited. Roaming between WiMAX networks managed by different operators is still far from achievable in 2010.

2. Countermeasures

The technology for 3.5G high-speed downlink packet access (HSDPA), in comparison, is mature and has been commercialized. The speed of the connection throughput for 3.5G is 14.4Mbps, and should rise to 21Mbps in the near future, placing it on the same level as WBA. In the short term, HSDPA should be a more commercially competitive technology than WBA.

TWM has aggressively deployed 3.5G technology and promoted 3.5G data cards and netbooks bundled with mobile broadband access services to lock in heavy data users since late 2007. At the end of 2009, TWM had acquired more than 200,000 3.5G subscribers and started to rollout 14.4Mbps service in metropolitan areas. This year, TWM will expand deployment of 7.2Mbps and 14.4Mbps in 3.5G base stations to provide more comprehensive higher-speed mobile internet services. The Company will also continue its evaluation of 3G extended long-term evolution (LTE) technology, another promising technology that could rival WiMAX.

To deal with long-term challenges, TWM has employed a leading foreign telecom firm and a world-renowned consulting agency for the past three years to analyze industry trends and formulate effective strategies to cope with the dynamic changes in the market. The Company has drawn up a long-term plan to strengthen its wireless broadband and multimedia services.

2. Rising popularity of internet protocol

1. Current status

The popularity of internet protocol (IP) has revolutionized the telecommunications business and network infrastructure, giving rise to increased IP-based communications traffic. IP-based telecom is able to simplify network infrastructure, translating into big savings on operating costs. The introduction of voice-over IP (VoIP) service has therefore had a great impact on traditional fixed-line operators' long distance and international voice call revenue.

2. Countermeasures

The necessity of building an IP core network infrastructure based on next generation network (NGN) is an urgent task. On the recommendations made by its IP Infrastructure Committee over the past three years, TWM has been building the latest IP-based optical core network, studying and analyzing the demand for as well as the costs and benefits of developing an IP multimedia subsystem (IMS) and IP core access and transmission technologies as well as conducting laboratory tests of various IMS application services to lead industry development.

In 2010, the Company will continue to develop and test new IP application services and conduct research on the latest optical packet carrier ethernet technologies to introduce more services that provide households with the most advanced and innovative broadband services.

3. Digital convergence

1. Current status

The mobile and fixed-line communications and media industries, which have similar service models and technologies, have been on a converging trend in recent years. This has facilitated the exchange and transmission of digital content and services among different carriers, systems and platforms and is a factor for potential consolidation in the telecommunications and broadcasting industries.

2. Countermeasures

After merging Taiwan Fixed Network (TFN) and Taiwan Telecommunication Network Services (TTN) in 2007, the Company announced to acquire Carlyle's cable business in Taiwan in 2009, enhancing its status as a leader in the digital convergence era. TWM had integrated the group's resources to facilitate research and development in digital convergence and launched fixed-mobile convergence (FMC) services for corporate accounts. It is also aggressively planning new digital convergence services that will integrate cable TV, digital TV, cable broadband, and interactive entertainment services.

2. Regulatory Changes

1. Revision of Telecommunications Act

1. Current status

In response to the trend toward digital convergence, the National Communications Commission (NCC) announced in June 2009 that it would hold public consultations with industry players to gather their opinions on proposed changes to the Telecommunications Act. The NCC said the law amendment was designed to encourage establishment of a new model to promote effective competition and strengthen oversight over cross-industry operation, multimedia content services, major market players, tariff control, network bottleneck, accounting policies, information security management and other areas. For one, the NCC aims to change the classification for major market players in line with market changes as the current standard has been in use for over a decade. The commission plans to raise the threshold for subscriber number or market share by revenue to over 25%. It also plans to change tariff control to apply to major market players only, as well as to regulate wholesale pricing.

2. Countermeasures

The Company will continue to communicate with the NCC and forward suggestions and recommendations on amending the law before a final decision is made.

2. Second round of mobile tariff cuts from April 1, 2010

1. Current status

On January 6, 2010, NCC announced that mobile tariffs should be cut per annum between April 1, 2010 and March 31, 2013. The adjustment coefficient ("X value) of 5% for SMS, mobile to fixed and mobile to mobile off-net calls and last year's CPI contraction of 0.87% translate into a rate cut of 5.87% for 2010. The NCC also plans to include mobile voice interconnection under tariff control and complete the law amendment before May 2010. 2G/3G mobile voice interconnection wholesale price control will then be affected in the following year after the amendment.

2. Countermeasures

As developed countries no longer regulate mobile retail tariffs, the Company will continue to communicate with the NCC on this issue to reduce its impact on revenues.

3. Expiration of GSM licenses

1. Current status

GSM (or 2G) operators' licenses will expire one after another starting from end of 2012. According to the "Regulations Governing Mobile Communications Businesses," the NCC shall start accepting 2G operators' applications for license renewal a year before their expiration, but the regulations contain no details on the procedures and conditions for renewal. The Cabinet is reviewing a plan by the Ministry of Transportation and Communications (MOTC) to reclaim 2G licenses in several stages. As 2G is expected to continue to play an important role in wireless communication in the short and medium term, the lack of a concrete policy to address this issue could have a huge impact on the telecom industry.

2. Countermeasures

The Company continues to encourage 2G subscribers to upgrade to 3G and has recommended that the government extend 2G licensing for a period while drawing new plans for utilizing the spectrum, such as following the international trend of adopting UMTS 900MHz.

4. Fixed-line interconnecting charge adjustment

1. Current status

In December 2009, the NCC adjusted interconnection charges retroactively to January 1, 2009, based on the following rate per minute: a) reducing mobile to fixed-line calls by NT$0.0681/NT$0.1182 for regular/off-peak hours, and b) increasing fixed-line operator premium charges from mobile operator for fixed-line to mobile calls by NT$0.127. The Company expects to save around NT$13mn annually in interconnection charges from the adjustment.

2. Countermeasures

The Company will continue to push for lower interconnection charges to lower operating costs.

5. Reducing IP peering charges

1. Current status

In August 2009, the NCC approved new IP peering rates from Chunghwa Telecom (CHT) retroactive to July 1, 2009. The adjustment translates into a 40% drop in the unit price per Mbps that the Company pays CHT, reducing the Company's internet business operating costs.

2. Countermeasures

The Company will continue to push for lower IP peering costs as it develops its broadband business.

6. Policy planning for mobile TV services

1. Current status

At the end of 2009, the Executive Yuan approved the MOTC's "Digital Wireless Television Plan" to offer five digital wireless television licenses and two mobile TV licenses. The NCC is charged with the task of issuing licenses and overseeing management. Mobile TV still lacks a concrete business model, but the two licenses represent a rare business opportunity that is expected to trigger intense competition in the industry.

2. Countermeasures

Aside from providing customers with mobile video streaming services through 3G networks, the Company will carefully evaluate the cost and benefit of bidding for a license. In the meantime, the Company will track and monitor business developments overseas to provide the NCC with sound advice on regulatory changes and monitor local developments to meet its long-term industry target.

7. CATV required to provide guarantees for advanced receipts

1. Current status

To protect consumer rights and interests, the NCC has approved a regulatory provision requiring cable operators to provide subscribers with a performance bond for receipt of payment in advance. The draft bill is under review by the Executive Yuan's Consumer Protection Committee. This provision will increase cable TV operators' financial and operating costs.

2. **Countermeasures**

The Company will comply with the requirement on providing financial guarantees by coordinating with banks to protect consumer interest.

Financial Risk

1. Impact of interest rate fluctuations

As the Company had no floating interest rate borrowing in 2009, interest rate fluctuations had a minimal impact on its profit. The Company has pegged the floating interest rate for its first unsecured corporate bonds of NT$15bn with a total value of NT$7.5bn at 2.25% and 2.45% through interest rate swap (IRS) agreements upon issuance. All other issued corporate bonds adopt fixed interest rates. The Company is thus completely hedged against interest rate fluctuations.

The Company entered into IRS contracts to hedge against cash flow risk from inverse floating interest rate fluctuation. As such, it was qualified to apply hedge accounting, according to the "Statement of Financial Accounting Standards."

The main factors that affect mark-to-market estimations are US interest rates, the yield curve and the US$ to NT$ interest rate differential. When the bonds mature and the IRS agreement ends, gains/losses associated with the IRS will cease.

2. Impact of exchange rate fluctuations

The Company's main service area is Taiwan. Except for its international roaming business, all operating revenues are denominated in NT dollars. Some of the Company's capital expenditures are denominated in Euros and US dollars. To minimize the impact from foreign exchange rate fluctuations, the Company hedges risks through foreign currency deposits and forward contracts.

In summary, 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 the past year up until the publication date.

Operating Risk

1. 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 did not engage in high-risk, high-leverage financial investment in recent years.

2. The Company passed the "Rules and Procedures on Lending and Making Endorsement/Guarantees" to supervise financing and endorsement activities. As the counterparties in its loans and guarantees are all its subsidiaries, there is minimal operating risk.

3. The derivative product positions the Company held in 2009 were for purposes other than trading. The interest rate swap contracts were signed to minimize the interest rate risks of inverse floating rate bond issuance. The Company's hedging strategies were meant to avoid cash flow risks. No substantial earnings/losses resulted from the derivative transactions.

2. Mergers and Acquisitions

1. Merger and acquisition update

1. Taiwan Fixed Network Co., Ltd. (TFN), a subsidiary of the Company, merged Reach & Range Inc. on May 1, 2009.

2. TCC Investment Co., Ltd. (TCCI), a subsidiary of the Company, merged TFN Investment Co., Ltd. on September 19, 2009.

2. Expected benefits and potential risks

1. **Expected benefits:**

   The mergers and acquisitions should contribute to corporate integration and enhance operating efficiency.

2. **Potential risks:**

   There are no potential risks involved as the Company owned controlling interest in the above mentioned companies and had control over their operations prior to the mergers.

3. **Countermeasures:**

Not applicable

3. Future merger and acquisition plan

On September 16, 2009, the Company's BOD approved the acquisition of Carlyle Group's CATV-related assets in Taiwan from PX Capital through the Company's subsidiary Wealth Media Technology Co., Ltd.. TFN Union Investment Co., Ltd. and TCCI Investment & Development Co., Ltd., subsidiaries of the Company (own 15.5% of the Company's treasury shares), will merge with Wei Mao Co., Ltd., with Wei Mao as the surviving company. The deal will be conducted after obtaining the regulatory authoritie's approval.

3. Supply and Distribution Concentration (Supplier and Customer Risk)

The Company's main supplier is Chunghwa Telecom (CHT) for network interconnections and leased lines. These costs accounted for 18.53% of total operating costs in 2009. The Company has been increasing usage of leased lines supplied by other fixed-line operators (e.g. Taiwan Fixed Network) to diversify supplier risk.

On the revenue side, CHT is the Company's largest source of interconnection revenue. However, the Company has a very diverse subscriber base for its mobile services. As such, there is no customer concentration risk.

1. Top supplier

	2009				2008			
	Company	Amount (NT$'000)	% of Operating Costs	Nature of Relationship	Company	Amount (NT$'000)	% of Operating Costs	Nature of Relationship
1	Chunghwa Telecom	5,032,712	18.52	Third party	Chunghwa Telecom	5,054,973	20.97	Third party
2	Taiwan Fixed Network	1,390,303	5.12	Subsidiary	Taiwan Fixed Network	965,962	4.01	Subsidiary
3	Fubon Insurance Co., Ltd.	51,412	0.19	Related party in substance	Fubon Insurance Co. Ltd.	58,406	0.24	Related party in substance
4					TransAsia Telecom	257,796	1.07	Subsidiary
	Others	20,691,498	76.17		Others	17,769,662	73.71	
	Total	27,165,925	100.00		Total	24,106,799	100.00	

2. Top customer

	2009				2008			
	Company	Amount (NT$'000)	% of Operating Costs	Nature of Relationship	Company	Amount (NT$'000)	% of Operating Costs	Nature of Relationship
1	Chunghwa Telecom	8,730,057	15.31	Third party	Chunghwa Telecom	8,956,659	16.49	Third party
2	Taiwan Fixed Network	2,276,319	3.99	Subsidiary	Taiwan Fixed Network	2,087,756	3.84	Subsidiary
3	Taipei Fubon Commercial Bank Co., Ltd.	9,796	0.02	Related party in substance	Taipei Fubon Commercial Bank Co., Ltd.	13,848	0.03	Related party in substance
4					TransAsia Telecom	459,338	0.85	Subsidiary
	Others	45,999,280	80.68		Others	42,794,004	78.79	
	Total	57,015,452	100.00		Total	54,311,605	100.00	

4. Impact of changes in brand image to the Company's risk management policies: None

5. Expected benefits and risks related to plant facility expansions: Not applicable

6. Significant changes in shareholding of directors, supervisors and major shareholders:

Changes in the shareholding of directors, supervisors and major shareholders, which are detailed in Chapter 4, had minimal impact on the Company.

7. Changes in management control: Not applicable

8. Significant Lawsuits and Non-litigious Matters

Summary of all material litigations, administrative proceedings, and other non-litigious matters in which the Company or its directors, supervisors, managers, major shareholders (with more than 10% shareholding) or subsidiaries were involved within the past year up to the report's publication date that may have a significant impact on shareholders' equity or the share price is listed below:

1. The Company

The Fair Trade Commission (FTC) fined the Company NT$3 million as administrative penalty for its "401/801 Rate Plan" advertisement.

Parties Involved: The Company is the defaulting party.

Date of Filing: February 19, 2008

Grounds: The Company disagreed with the FTC's decision and filed an administrative appeal.

Status: The Executive Yuan rejected the Company's administrative appeal. The FTC's administrative disposition is confirmed to be irrevocable and conclusive.

2. The Company's directors, supervisors, managers and major shareholders (with more than 10% shareholding): None

3. The Company's subsidiaries

1. Taiwan Fixed Network Co., Ltd. (TFN)

Dispute between TFN and Kaohsiung City Government over land usage fee

Parties Involved: TFN is the plaintiff and Kaohsiung City Government is the defendant.

Amount Claimed: NT$11,972,865

Date of Filing: December 24, 2007

Grounds: TFN laid pipes under land owned by the Kaohsiung City Government. Citing related regulations, the city government said in 2007 that TFN should pay NT$13,094,147 for land usage fees between 2002 and 2004. Disagreeing with the administrative disposition, TFN filed an administrative appeal with the Ministry of Finance. Following the ministry's dismissal of the administrative appeal, TFN brought the case to the Kaohsiung High Administrative Court, which revoked charges amounting to NT$1,121,282 claimed by the city government, saying they had already expired, but ordered TFN to pay the remaining amount. TFN believed the Kaohsiung High Administrative Court's ruling was in contravention of the laws and regulations and filed an appeal with the Supreme Administrative Court.

Status: The case is pending in the Supreme Administrative Court.

2. Globalview Cable TV Co., Ltd., Phoenix Cable TV Co., Ltd., Union Cable TV Co., Ltd., Yeong Jia Leh Cable TV Co., Ltd. (collectively "4 SOs")

The NCC fined the four SOs NT$100,000 each and ordered them to divest holdings by the Taipei City Government within one year after the ruling.

Parties Involved: The four SOs are the defaulting parties.

Date of Filing Administrative Appeal: January 2009

Grounds: The NCC ruled that the four SOs had violated Paragraph 4, Article 19 of the "Cable Radio and Television Act" which states that political parties, the government and foundations established with their endowments, and those commissioned by them, should not directly or indirectly invest in cable, radio and/or television system operators. The four SOs disagreed with the NCC's disposition and have all filed administrative appeals.

Status: The Executive Yuan has revoked the administrative dispositions imposed by NCC against these 4 SOs in April, 2010. The above cases are now pending in NCC.

3. **Win TV broadcasting Co., Ltd.**

The NCC fined Win TV broadcasting Co., Ltd. NT$200,000 as administrative penalty and instructed it to dispose of holdings by the Taipei City Government within one year after the ruling.

Parties Involved: Win TV is the defaulting party.

Date of Filing: February 2010

Grounds: The NCC ruled that Win TV had violated Paragraph 3, Article 9 of the "Satellite Broadcasting Act," which stipulates that political parties, the government and foundations established with their endowments and those commissioned by them, should not directly or indirectly invest in satellite broadcasting businesses. Win TV disagreed with NCC's disposition and has filed an administrative appeal.

Status: The case is under review by the Executive Yuan.

Risk Management

1. Risk Management Policies

1. Promote a risk management-based business model
2. Establish a risk management mechanism that can effectively cite, evaluate, supervise and control risks
3. Create a company-wide risk management structure that can limit risks to an acceptable level
4. Introduce best risk management practices and continue to seek improvements

2. Risk Management Structure

The Company's risk management structure is made up of three committee, which function as follows:

1. Operations and Management Committee

Conduct periodic reviews of each business group's operating target and performance to meet the Company's guidance and budget.

2. Safety and Health Committee

Tasked with supervising and reducing potential risks to workers' safety and health.

3. Information Security Management Committee

Supervise important information assets for confidentiality, integrity, availability, and regulatory compliance in order to control and reduce operational risks to an effective and reasonable level.

3. Risk Management Operation Mechanism

1. Three levels of controlling mechanism

1. 1st level: Every risk factor shall be assigned to the appropriate responsible unit to ensure timely and effective detection. On a daily basis, the units shall ensure that risk is controlled under an acceptable level. Should there be any change in condition or additional factors, the units shall report to the Company for the appropriate course of action.

2. 2nd level: The second controlling mechanism is under the supervision of several examining committees, which are composed of unit chief officers or executive vice presidents, to take necessary measures when facing material change in risk.

3. Highest level: The Board of Directors is the highest decision-making and supervisory unit and is responsible for confirming material risk assessment, designating activities to control risk and track their execution. Additionally, the internal audit office shall monitor and confirm that risk controls are properly executed on a daily basis and should report any discrepancy to the chief officer of the responsible unit.

2. Risk factors and management structure

	Important risk factors	Responsible unit	Examining Committee	Decision-making and supervision
1	Operating risk: telecom equipment shutdown and information system failure	Technology Group/ IT	Technology management meeting IT management meeting	Board of Directors: the highest decision-making unit Internal audit office: conduct the examining, monitoring, tracking and reporting of risk items
2	Changes related to technology and industry	Systems Design Division	Technology management meeting	
3	Risks related to information security	Quality Management Division	Information Security Management Committee	
4	Market risk A. Competition B. New products C. Channel management	A. Marketing unit B. Marketing unit C. Business Operations Management Division	CBG management meeting	
5	Government policies and regulatory compliance	Regulatory & Carrier Relations Division		
6	Corporate image	Brand Management & Customer Communication Division		
7	M&A and investments	Presidential Office		
8	Employee safety	Occupational Safety & Health Office and Administrative Division	Safety and Health Committee	
9	Employee behavior, code and ethics	Human Resources Division	Human Affairs Appraisal Committee	
10	Volatility of interest rates, exchange rates and financial risks	Finance Division	Audit Committee	
11	Financing and endorsement/ guarantee provided to others, derivatives transaction and working capital management	Finance Division	Audit Committee	
12	Financial report disclosure	Accounting Division	Audit Committee	
13	Litigious and non-litigious Matters	Legal Office	Legal Office, Internal Audit Office	
14	Changes in shareholding of directors/supervisors and major shareholders	Secretarial Division	Legal Office, Internal Audit Office	
15	Board meeting facilitation	Secretarial Division	Legal Office, Internal Audit Office	