

White Paper on Small and Medium Enterprises in Taiwan, 2007



**Small and Medium Enterprise Administration
Ministry of Economic Affairs
September, 2007**

White Paper on Small and Medium Enterprises in Taiwan, 2007

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Editors:

Li-Min Hsueh, An-Loh Lin, Bruce S. Stewart

Proof Reader:

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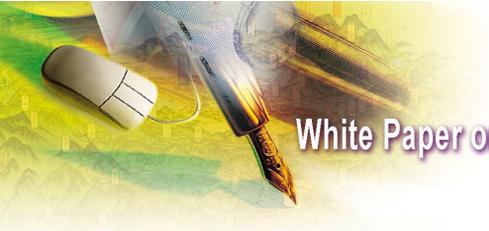
Foreword

In 2006, in line with the global economic boom, the overall economic sentiment in Taiwan was very optimistic, with a GDP growth rate of 4.68% being recorded, up by 0.61 percentage points compared with 2005. As for the performance of SMEs in 2006, the number of enterprises rose to 1,244,099, reflecting an increase of 1.47% compared to 2006. These enterprises employed 7,751,000 people, representing an increase of 1.35%, their combined sales in 2006 exceeded NT\$10,241 billion, up by 2.41%, and their export value stood at NT\$1,562 billion, up by 2.86%. In addition, in 2006, 108,320 new SMEs were established, representing a slight decrease in terms of the number of newly-established SMEs as compared with that in the previous year. In Part One of the *2007 White Paper on SMEs*, extended statistical figures are provided to describe the development of SMEs from a wide variety of perspectives in 2006, which includes a comparison with their performance in previous years, and with large enterprises. A comparison of fifteen economies in terms of major SME indicators is also provided.

However, when faced with severe challenges from globalization, the rise of emerging economies, the ever-changing new technologies, etc., the SMEs need special strategies and help from outside in order to become stronger and to grow. Hence, in Part Two of this volume, three special topics are tackled through in-depth analysis to deal with those special challenges faced by SMEs. They are the challenges and opportunities facing Taiwan's SMES under a M-shaped society, the strategies of SMEs' brand management, and the strategies of Taiwan's SMEs to expand market in the emerging economies.

The government has been helping the SMEs in various ways by ensuring that the necessary resources are available and that the overall business environment is conducive to them. In Part Three, the major government policies and measures related to SMEs are examined, along with their resulting effects over the past year. This section concludes with an examination and discussion of the prospects for future SME policies. The Appendix to this volume also provides, for reference purposes, important SME statistics covering 2003-2006.

Providing guidance to support the development of SMEs requires a long-term effort. In order to witness the development of SMEs in Taiwan, the Small and Medium Enterprise Administration has since 1992 published the White Paper on Small and



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Medium Enterprises in Taiwan on an annual basis, and the English version has been published since 1998. It is hoped that the White Paper will give readers both in Taiwan and overseas a better understanding of Taiwan's SMEs, while at the same time providing a useful reference work to assist SME managers in their decision-making. Your comments on the content of the White Paper would be most welcome.



Dr. Robert Sun-Quae Lai

Director General

Small and Medium Enterprise Administration

September 2007

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White Paper on SMEs in Taiwan, 2007

Summary

The Ministry of Economic Affairs has published the annual *White Paper on Small and Medium Enterprises in Taiwan* every year since 1992. The 2007 *White Paper* is presented in three parts, with the first part comprising six chapters that cover the macroeconomic environment in which small and medium enterprises (SMEs) have to operate, the overall performance of the SME sector as a whole, the SMEs' financial status, their current labor utilization, trade and overseas investment, and technology utilization, R&D and innovation, in which key statistics and a concise, clear analysis are together presented. The second part consists of three chapters on special topics, which this year include the status of SMEs within the M-shaped society, SME brand management models, and strategies for the development of emerging markets by SMEs. The last part comprises two chapters, one presenting a review of the government's guiding policies and measures adopted to assist SMEs, and the other examining the shape that the government's SME policy can be expected to take in the future. A summary of the content of the *White Paper on Small and Medium Enterprises in Taiwan, 2007* is presented below.

Part 1 – Overview of the Development and Current Status of the SME Sector

Macroeconomic and Social Environment

The many freak weather events that occurred throughout the world in 2006 demonstrated that the impact of global warming is becoming increasingly serious, and that limits to growth resulting from environmental change will be imposed earlier than had previously been anticipated; there is now deep concern as to the impact that climate change may have on global economic development. To this must be added the emergence of the M-shaped society, aging populations, high oil prices and interest rate fluctuations. As a result, growth in the first half of 2006 was followed by a global economic downturn in the second half of the year (the opposite of the pattern that was seen in 2005). The average economic growth rate for the global economy over the whole of 2006 was 0.5 percentage points up on 2005.

The performance of the Taiwanese economy mirrored that of the global economy

as a whole, with steady growth in the first half of the year followed by a downturn in the second half. The six key imponderables that were expected to affect the Taiwanese economy in 2007 were environmental degradation due to global warming, oil price fluctuations, changes in the foreign trade environment, the government's social welfare policy, policy disputes, and the emergence of the M-shaped society.

The Overall Performance of the SME Sector

As shown in the table below, the statistical indicators for Taiwan's SME sector in 2006 – including the number of SMEs, total sales, domestic sales and export sales – all displayed steady growth as compared to 2005.

Indicator	Enterprise Size	All Enterprises	SMEs	Large Enterprises
No. of enterprises		1,272,508	1,244,099	28,409
Share of total (%)		100.00	97.77	2.23
Annual growth rate (%)		1.50	1.47	2.93
Total sales (NT\$ millions)		34,326,070	10,241,215	24,084,855
Share of total (%)		100.00	29.84	70.16
Annual growth rate (%)		1.13	2.41	0.60
Domestic sales (NT\$ millions)		25,594,318	8,678,992	16,915,326
Share of total (%)		100.00	33.91	66.09
Annual growth rate (%)		1.12	2.33	0.51
Export sales (NT\$ millions)		8,731,753	1,562,224	7,169,529
Share of total (%)		100.00	17.89	82.11
Annual growth rate (%)		1.17	2.86	0.81

Financial Status of SMEs

The financial status of Taiwan's SMEs showed some improvement in 2005 compared to 2004. Only 29.62% of SMEs failed to make a profit in 2005, down from 35.66% in 2004. There was a slight decrease in current assets and fixed assets, a pronounced up in funds and long-term investments.

SMEs' long-term liabilities increased in 2005 compared to 2004, while current liabilities fell. Reserves and operating surplus was a negative value. The SMEs' operating cost ratio rose in 2005, but the operating expenses ratio fell; as a result, there was a slight increase in the operating profit ratio. The current ratio, quick ratio and inventory ratio all rose compared to 2005; the net liabilities ratio fell, but the long-term funds ratio rose. All of the turnover ratios rose, and all of the profitability ratios were positive.

As of the end of 2006, the total outstanding loans (excluding overseas loans) of Taiwan's commercial banks were up 3.55% compared to the end of 2005. Loans to SMEs had risen from NT\$2.56 trillion to NT\$2.83 trillion, an increase of 0.27%. The share of total bank loans going to SMEs rose by 1.10 percentage points, from 16.06% to 17.16%.

SME Labor Utilization

The total number of employed persons working in SMEs in 2006 was 7,751,000, representing an increase of 103,000 compared to 2005. The number of paid employees working in SMEs rose by 2.75% to 5,186,000; the number of SME owners rose by 14,000, climbing to 513,000. The percentage of SME owners who were women increased slightly, rising to 18.2%.

The number of self-employed persons falling into the SME category stood at 1,406,000 in 2006; this figure represented a decline of 32,000 compared to 2005. The number of unemployed persons whose last employer was an SME fell in 2006, as did the number of SME employees switching to a new employer. There was a slight increase in the number of foreign laborers working for SMEs, probably reflecting the upturn in the economy.

As regards the working conditions, most SME employees experienced little change in their pay and number of hours worked per week in 2006. Manpower costs continued to account for a slightly larger share of total costs and expenses in SMEs than they did in large enterprises; the number of labor disputes involving SMEs fell in 2006.

The number of SMEs participating in training or manpower cultivation programs fell in 2006, but the SMEs' share of total spending on vocational training by all enterprises rose slightly. The main motivation for SME participation in manpower cultivation activities for them is to upgrade their manpower quality and strengthen the professional capabilities of their employees. However, SME employees are generally not very enthusiastic about participating in manpower cultivation activities, and most SMEs do not set aside a budget for this type of activity; clearly, this is an area to which SMEs should be attaching more importance.

SME Trade and Investment Activity

As of the end of March 2006, Taiwan's direct overseas investment totaled US\$94.2 billion. This overseas investment was heavily concentrated in the Asian region, and particularly in China. In the past, the main motivation for overseas investment was

usually the development potential of the overseas market in question, or the opportunity to exploit abundant supplies of cheap labor. Recently, a growing number of SMEs have been investing overseas to be able to supply major customers from close at hand.

Of those main manufacturing operations of Taiwanese companies that are based in China, in 2005 more than 40% made a profit, and just under 40% made a loss. The main reasons given for making a loss were intense competition in the local market and the rising cost of raw materials. The main problems that these firms reported included intense competition (58.80%), the revaluation of the Chinese Yuan, the Chinese government's macroeconomic adjustment policies, and rising manufacturing costs.

Faced with the challenges presented by intense competition, high unemployment and a low economic growth rate, besides leveraging the power of the Internet and adopting new marketing techniques, SMEs also need to focus on innovation, the recruitment of overseas talent, the adoption of globalized managerial techniques, and the development of core competencies and strong brands; doing so will help them to boost sales and expand into overseas markets, thereby helping to create or maintain international competitiveness.

SMEs' Utilization of Technology, R&D and Innovation

In today's knowledge-intensive world, R&D and innovation have become a business enterprise's most fundamental core resources; R&D and innovation are two of the areas on which SMEs will need to focus heavily in the future. R&D spending in Taiwan in 2005 totaled NT\$280.98 billion, most of which was in the corporate sector; the corporate sector's share of total national R&D expenditure rose from 62.2% in 2002 to 66.9% in 2005. To encourage SMEs to innovate and undertake R&D, the government has been promoting the Small Business Innovation Research (SBIR) project, the Service Sector R&D Guidance Support Plan, and the establishment of new SME incubator centers. It is anticipated that, besides helping SMEs to develop or adopt new technology, these measures will also enable SMEs to make progress in terms of products, resource utilization, operational processes, service quality, production efficiency, etc. In the last few years, impressive results have already been achieved in this area.

Part 2 – Special Topics Relating to SMEs

SMEs in the M-shaped Society

The emergence of the M-shaped society is a worldwide phenomenon. Faced with a society that is increasingly becoming polarized into the high-income and low-income segments, SMEs need to think carefully about their response. The differences between these two market segments are pronounced, but if SMEs can adopt flexible manufacturing and marketing strategies, they can turn danger into opportunity. Kenichi Ohmae's book *The M-shaped Society* gives many examples of successful adjustment to the new realities by SMEs in Japan that offer useful lessons for Taiwanese firms.

Besides the emergence of the M-shaped society, global warming and the rapid consumption of natural resources are bringing the day on which the limits to growth will be reached that much nearer. In response, more rigorous environmental legislation is being introduced, some of which has already had a severe impact on the operations of Taiwanese SMEs. The question of how to adapt to this new legislation is a key issue for SMEs. Given the potential for accumulating intangible assets in the new era of the knowledge economy, this too constitutes a chance for SMEs to turn danger into opportunity.

SME Brand Management Models

The process of economic globalization has re-drawn the economic map of the world. Taiwan's contract manufacturers now find themselves under increasingly intense competitive pressure from new entrants in other countries, particularly emerging economies such as China and the countries of Southeast Asia; low production costs enable manufacturers in these regions to erode the competitive advantage that Taiwanese companies previously enjoyed. Taiwan needs to move away from its dependence on contract manufacturing and create its own brands; this is one of the key preconditions for the successful transformation and upgrading of Taiwanese industry, and for the achievement of sustainable development by individual enterprises. More and more Taiwanese companies are working to develop their own brands, and shifting the main focus of their operations away from manufacturing to marketing, and from regional markets towards global markets. Some Taiwanese brands are already beginning to win international recognition.

This year's *White Paper* presents case studies on brand development by a number of Taiwanese SMEs, including Topower Computer, Cheerful Fashion Goods, Shuter, Lin's Ceramic Studio, Lucoral & Lupearl, Sunflower Organic Farm, Your Choice Fasteners & Tools, and DragonSoft Security Associates. From these case studies, it can be seen that the main brand development models adopted by SMEs in Taiwan include

the building of core brand value, the formulation of appropriate brand development strategies, and the undertaking of branded marketing activities. As regards the building of core brand value, the planning for this must be based on the owner's business philosophy; the enterprise can then go on to create core competitive value and formulate a strategy for building awareness of the brand among consumers. When formulating its brand development strategy, an SME will usually focus on quality, integrity and good after-sales service. Sometimes, the brand development strategy may involve the development of multiple brands, emphasizing innovation and R&D to differentiate a firm's products from those of competitors, or leveraging industry networks. With regard to marketing strategies, the methods available to SMEs include participation in international trade shows, advertising, obtaining certification, taking part in product comparisons in the media, the development of online communities, charity marketing, and theme-, event- or issue-based marketing.

Taiwan's SMEs are beginning to respond to the ongoing process of economic globalization and liberalization by developing their own brands. Taiwanese SMEs already possess significant advantages, including their experience in operating as part of a well-integrated division of labor that forms a comprehensive supply chain, the high quality of their manpower and technology, and their geographical closeness to several major markets. What is now needed is for SMEs to strengthen awareness of their brands by focusing more on design, developing "green" products, and undertaking collaborative marketing projects. The government can help by encouraging incubator centers to work with local cultural industries to help them develop their own brands, providing subsidies and tax breaks for own brand development, compiling brand development roadmaps based on the experience of leading international brands, providing information services, and promoting the establishment of specialist brand development consulting firms. These measures will help to boost name recognition for Taiwanese SME brands, and will help to increase brand value, giving the brands in question a better chance of developing into world-class, international brands.

SME Strategies for the Development of Emerging Markets

In the last few years, the rapid growth of emerging markets has become a major focus of attention throughout the world. The BRIC (Brazil, Russia, India and China) economies continue to grow strongly, Vietnam offers immense business opportunities, and the economies of the Persian Gulf region are developing fast. To develop the business opportunities that these emerging markets offer, Taiwanese SMEs will need to

formulate suitable business strategies; this is an area of great concern not only to the business community but also to the Taiwanese government and the university sector. The *White Paper on Small and Medium Enterprises in Taiwan, 2007* examines the opportunities and challenges presented by three key emerging markets – Vietnam, India, and the six member-states of the Gulf Co-ordination Council – along with the strategies that Taiwanese SMEs are adopting to develop these markets, and suggests ways in which the government could provide support for their efforts.

Taiwanese SMEs seeking to develop emerging markets need to adjust to environments that are often very different from what they are used to, and they must adjust their business strategies accordingly. Countries and regions that have an abundant supply of cheap labor can serve as the manufacturing base for the SMEs' global supply chain; in countries and regions where the domestic market offers significant growth potential, SMEs may want to focus more on brand development and marketing, with the aim of growing their market share in these regions. The signing of free trade agreements can have a major impact in this area, causing investment and trade to shift from one region to another, or encouraging firms to undertake strategic investment in countries that they might previously not have considered investing in, to establish production or trans-shipment facilities. Multinational corporations are already making effective use of the free trade agreements that Vietnam has signed with the European Union and the US, and of its participation in the ASEAN Free Trade Area; they have positioned Vietnam as a manufacturing center for the production of goods that can then be shipped to the US, Europe, or other countries in the Asia-Pacific region.

Given the rapidly changing international trade environment and the ongoing trend towards regional economic integration, Taiwanese SMEs find themselves faced with some increasingly serious challenges. The Taiwanese government should be working to create a trading environment conducive to SME development, and should be doing its best to help SMEs develop emerging markets. In terms of the overall business environment, this would involve negotiating the elimination of trade barriers; in terms of market development, the government should be working to build up Taiwan's international marketing capability, and strengthening Taiwan's international image. At the level of individual industries, the government should continue to encourage Taiwan's traditional industries to transform and upgrade themselves, while at the same time promoting innovation and R&D activity in emerging industries, so as to strengthen

the competitiveness of the SME sector as a whole.

Part 3 – The Government’s SME Policy, Past, Present and Future

Review of Government Policies and Measures Targeting the SME Sector

As of 2006, there were over 1.24 million SMEs in Taiwan, accounting for nearly 98% of all business enterprises in the country. SMEs are the foundations on which the Taiwanese economy rests; however, due to the combined impact of a number of factors – including the ongoing processes of internationalization and globalization, the adoption of increasingly complex division of labor systems, the rise of the emerging economies, the magnetic attraction of the Chinese market, and the impact of the global business cycle – many Taiwanese enterprises have found that they no longer enjoy a cost advantage with respect to their competitors in other countries. The old business models are no longer adequate to support sustainable development and growth. Handicapped by their small size, which makes it difficult for them to build economies of scale, SMEs need to focus on R&D and design, brand development and marketing. They should be constantly working to upgrade themselves so as to maintain their edge over emerging rivals in terms of quality, and should be on the look out for opportunities in new markets that can help to boost their competitive advantage. At the same time, the government should be working to create a business environment conducive to SME growth and development.

The government’s SME policy has for many years now emphasized five key areas: creating an environment conducive to SME development, establishing incubation platforms for SME start-ups, upgrading SMEs’ IT capabilities, strengthening the provision of management guidance to SMEs, and achieving effective integration of the various SME financing mechanisms. SME development strategy has to be constantly revised in light of changes in the domestic and global economy, and in light of business enterprises’ current and future needs. The government also needs to formulate suitable ancillary measures to help SMEs to strengthen their competitive advantage and achieve steady growth.

The Outlook for SME Policy in the Future

The five aspects of SME policy on which the government will need to focus in the

future include: building an environment conducive to SME development, promoting innovation and business start-ups, providing effective management guidance, strengthening the digital competitiveness of Taiwan's SMEs, and improving the functioning of the SME funding support mechanisms.



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White Paper on SMEs in Taiwan, 2007

Chapter 1

Changes in the Macroeconomic Environment

The constantly changing social and economic environment (both domestic and international) in which we have our existence affects everyone, whether individuals, enterprises or entire nations. SMEs, which occupy such an important place within society, are of course no exception. So what major changes took place in the economic and social environment in 2006? This chapter will present an overview of the most significant developments; the four sections into which the chapter is divided focus respectively on social change, developments in the global economy as a whole, the macroeconomic environment in China, and the macroeconomic environment in Taiwan.

I Changes in the Domestic and International Social Environment

1. Global Warming and Bird Flu

The effects of global warming are becoming increasingly serious. Worldwide, 2006 was the hottest year on record. Ski resorts in the Alps were unable to operate because there was no snow, rising temperatures in Siberia prevented polar bears from hibernating. If steps are not taken to combat the impact of global warming, the price that humanity has to pay will be enormous. There is a risk that, in the near future, many parts of the Earth will become unfit for human habitation, turning their inhabitants into “environmental refugees.” Drought, pollution, the drying up of water sources and desertification will all contribute to the creation of environmental refugees. It is estimated that, worldwide, there are already around 25 million environmental refugees. Research conducted by the UK charity Tear fund suggests that this figure will have risen to over 200 million by the middle of this century.

Global warming has been accompanied by a spate of natural disasters throughout the world. In early 2006, the northeast region of the US experienced the worst snowstorms for 60 years. The Philippines have suffered torrential rains, earthquakes and landslides, with enormous loss of life. A severe earthquake in western Iran caused

immense damage; the earthquake that took place in Java in late May 2006 killed over 2,700 people and injured many thousands more. Avian influenza (bird flu) continued to spread throughout the world in 2006; Turkey and Indonesia both reported a dozen or so cases of humans being infected with bird flu in January 2006, and the first cases of cats being infected with bird flu were reported in Germany in late February.

In all, 2006 was another year in which natural and man-made disasters occurred with depressing frequency. It is now clear that environmental and climatic issues are among the most serious problems facing humanity at the moment.

2. The M-shaped Society Is Already Here

The concept of the M-shaped society (in which a high percentage of the middle class either move up into the higher-income segment of society or down into the lower-income segment, with most moving downwards) was first proposed in 2005. By 2006, this concept was starting to attract a great deal of attention; the book *The M-Shaped Society* by leading trend-spotter Kenichi Ohmae has been a global bestseller, sparking debate on the issues of wealth inequality and the widening disparities between rich and poor.

It is not only Japan where an M-shaped society can be seen to be emerging. As families get smaller, populations age, and the process of economic globalization continues, countries all over the world are beginning to experience the same problems, and Taiwan is no exception. The emergence of the M-shaped society will have a major impact on social welfare, economic development, and lifestyles; business enterprises will also need to change the way they operate in response to the new social structure.

3. Many Serious Social and Political Issues Affecting Taiwan

The dramatic changes taking place in the rest of the world in 2006 were mirrored in Taiwan. “Cross-strait” relations with China remained a thorny issue, one that has had a complex impact on both politics and society. Other problems, such as the falling birth rate, the large number of “mail-order brides” and the difficulties that their children experience, domestic violence, unscrupulous business practices and high unemployment, also continued to affect the country in 2006. These problems have brought about changes in people’s way of life, in the social structure, and even in the way different ethnic groups interact with one another; at the same time, the changes have created new types of job opportunities and new possibilities for business start-up. The overall impact on SMEs—in terms of encouraging investment and the choice of

business models—has been significant.

Right at the beginning of 2006, President Shui-bian Chen announced a new policy for cross-strait economic and trading relations that would be based on “proactive management and effective liberalization.” This announcement sparked off renewed debate as to how far the restrictions on Taiwanese investment in China should be lifted. This debate continued throughout the year, with no real breakthroughs being achieved. During the Cross-strait Economic and Trade Forum that was held in Beijing in mid-April 2006, the Chinese government announced 15 new measures that, while on the surface appearing to be of benefit to Taiwan, were actually of no benefit whatsoever. The Chinese government continues to exercise great subtlety and deviousness in its efforts to secure “reunification.”

II Changes in the International Economic Environment

1. The Global Economy Grew Steadily in 2006

The growth rate achieved by the global economy as a whole rose from 3.5% in 2005 to 4.0% in 2006. This performance was significantly better than the forecasts that had been made in late 2005, mainly because the fall in oil prices eased the upward pressure on prices in general. At the same time, the decision by the US Federal Reserve to refrain from further interest rate rises led to widespread speculation that the global trend towards tighter monetary policy was coming to an end.

Despite the impressive performance of the global economy in whole-year terms, by the fourth quarter there were signs that growth might be slowing again. Interest rates were high worldwide, and oil prices remained high; there was a general feeling that the global economy was heading for a downturn. According to forecasts published by Global Insight in April 2007, the global economy was expected to grow by only 3.4% in 2007, 0.6 percentage points down on 2006 (Table 1-2-1).

There was considerable variation in economic performance between regions in 2006.

(1) A Slight Upturn in the US Economy in 2006

In 2006, the US economy posted a whole-year growth rate of 3.3%. However, the real estate market began to show clear signs of weakening. Rising house prices have fueled consumer spending in the US for several years now; now that house prices are starting

to fall, households are starting to save more, and consumer spending is being squeezed. The market response to changes in inflation, monetary policy and exchange rates may cause long-term bond rates, which have so far remained low, to rise; this in turn would prompt a rapid adjustment of asset values, personal saving behavior and commercial investment patterns. It is anticipated that the economic growth rate in the US could fall to 2.1% in 2007.

Table 1-2-1 Global Economic Growth Rates, 2003 – 2007

							Unit: %
Year \ Region	World	USA	European Union	Japan	China	Asia ²	
2003	2.7	2.5	1.3	1.5	10.0	4.8	
2004	4.1	3.9	2.3	2.7	10.1	6.2	
2005	3.5	3.2	1.9	1.9	10.4	5.6	
2006	4.0	3.3	3.1	2.2	10.7	5.9	
2007 ¹	3.5	2.1	2.9	2.2	10.6	5.6	

Note: 1. Indicates a forecast.

2. The figures for Asia excluded Japan and China.

Source: Global Insight, June 2007.

(2) The Economic Performance of the Euro Zone Continues to Improve

After a five-year slump, the European Union began to experience a mild recovery in 2006. Unemployment continued to fall, and there was a significant improvement in consumer confidence, which caused the (previously very high) saving rate to fall slightly. The capacity utilization rate is above its long-term average, creating new demand for investment in fixed assets. There has been a marked improvement in corporate balance sheets, and profit margins have risen. Tight monetary policy appears to have been beneficial to European companies' financial health. However, the economic growth rate for the EU region as a whole is expected to fall from 3.0% in 2006 to 2.7% in 2007, due to a slackening in overseas demand and the strong Euro. The new members of the EU will continue to experience rapid growth, but the small size of their economies relative to the other EU member nations will prevent their high growth from having much effect on the growth rate for the region as a whole.

(3) Continued Growth in Japan in 2006

The Japanese economy has already broken free from the slump in which it was mired throughout the 1990s. Both the financial sector and the business environment as a whole are in much better shape than they were in the 1990s. Business enterprises have restructured, profit margins have risen, and the fall in unemployment has boosted

consumer demand. Corporate investment continued to grow rapidly in 2006, with rising domestic demand having become the main driver of growth. At the same time, exporters are less worried about the state of global markets. Overseas demand for Japanese products remains strong, particularly in China, and interest rates are still at a level conducive to further investment. It is estimated that Japan's economic growth rate in 2006 may have been as high as 2.2%.

(4) Continuing Rapid Growth in China

The Chinese economy continued to grow strongly in 2006. Prices rose slowly but steadily; on the other hand, overcapacity has developed in some industries, and house prices have been rising too quickly. The Chinese government has used a mixture of economic and administrative measures to prevent the economy from overheating, but at the same time, China will need to maintain a reasonable level of growth to ensure continued job creation and improve income distribution. Global Insight estimates that China's whole-year growth rate in 2006 was around 10.7%, and forecasts that this may fall to 10.0% in 2007.

(5) Steady Growth in South Korea

The South Korean economy performed worse than expected in 2006. Slower growth in the second half of the year dragged the whole-year growth rate down to 4.7%, rather than the 4.9% that had been forecast at the beginning of the year. Even the 4.7% figure represented South Korea's highest GDP growth rate for three years. As had been anticipated, increased consumer spending and strong export performance were the main drivers of growth in 2006. South Korea benefited from the revaluation of the Won, from a slight fall in unemployment, and from the adoption of a more relaxed lending policy by Korean banks. Demand for consumer durables rose, and household sector credit purchases rose by 10% (higher than the increase in salaries).

(6) Slow but Steady Growth in the Southeast Asian Economies

The Southeast Asian economies continued to grow steadily in 2006, mainly because of the upturn in the global economy as a whole. Although the global economy is expected to remain reasonably strong in 2007, growth in the major economies (including the US) is forecast to be lower than in 2006, and the Southeast Asian nations will inevitably be affected by this trend. Electronics is the single most important industry for the Southeast Asian economies. Worldwide, demand for electronics products remains strong, which should boost the performance of these countries. Even so, for most of the

Southeast Asian nations, growth rates in 2007 will be lower than in 2006. Fluctuations in international oil prices could also have a negative impact on growth in the region in 2007.

(7) Vietnam – Impressive Growth Performance

With foreign investment helping to stimulate production, Vietnam has achieved impressive export performance in the last few years. In 2005, when international oil prices were going through the roof, Vietnam posted double-digit export growth (oil is one of Vietnam's main export products). As the opportunities for foreign investment in China become less attractive, multinationals have begun to establish production facilities in Vietnam instead. It is anticipated that electronics products will soon overtake marine and timber products to become Vietnam's most important export product. Textiles, garments and shoe manufacturing are also important export industries, although in the last few years they have had to face intense competition from China, Pakistan and India. In 2005, the value of Vietnam's textile exports to the European Union fell by 8%; however, the imposition of import quotas by the EU and the US on imports of Chinese textile and garment products caused the export performance of the Vietnamese textile industry to bounce back in 2006. Vietnam's accession to the WTO in early 2007 will provide further stimulus to foreign investment, and should help to ensure continued export growth.

(8) India—Immense Development Potential

With a strong performance by both the manufacturing and service sectors, India was able to maintain an economic growth rate of 8% in 2006. The target set in India's Tenth Five-year Plan (2002–2007) was an average annual growth rate of 8.1%. In the event, the economic growth rate averaged 7% in 2002–2005. Nevertheless, with international oil prices having stabilized and foreign investment flooding in, despite continuing problems with infrastructure, it is anticipated that India's growth rate in 2007 will exceed 7%.

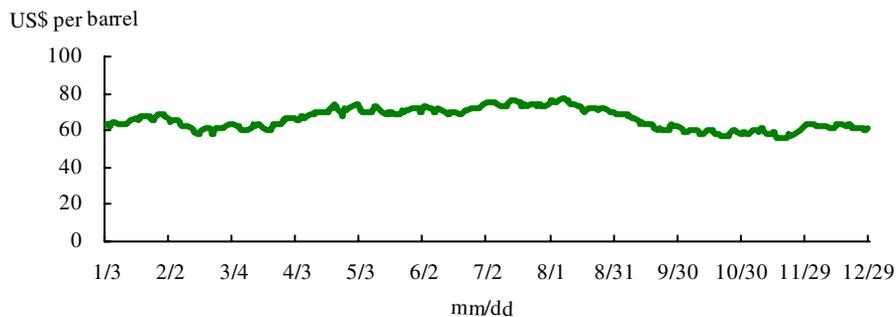
Since the process of economic reform began in the early 1990s, restrictions on foreign investment have been relaxed, investment procedures have been simplified, and new industrial policies have been adopted. These changes have helped India to attract foreign investment and acquire advanced technology, thereby helping to compensate for inadequate investment by domestic enterprises.

2. International Oil Prices are Starting to Fall

International oil prices are affected by many different factors. In 2006, most of the factors impacting oil prices were negative ones. In the first quarter of 2006, oil prices rose because of the continuing dispute between the US and Iran over Iran's nuclear weapons capabilities, and the danger that Iran might cut back or even completely halt its oil exports. In July, North Korea's missile tests and the Israeli invasion of Lebanon caused the price of oil to shoot up to US\$78 a barrel. In early August, oil leaks from corroded pipelines at BP's Prudhoe Bay oilfield on Alaska's North Slope forced an emergency pipeline closure, disrupting what had been a 400,000-barrel a day supply of oil, accounting for 8% of total crude oil production in the US. These events were followed by underground nuclear weapon testing in North Korea in October, and by OPEC's decision in November to cut production by 1 million barrels a day.

Fortunately, the summer of 2006 did not see any major natural disasters that might have affected oilfield production. As a result, the US was able to maintain a respectable level of oil reserves. The warm winter resulting from the El Nino effect led to reduced demand for crude oil, contributing to the fall in price (Figure 1-2-1).

Figure 1-2-1 Fluctuations in the Spot Price of Crude Oil (West Texas Intermediate) in 2006



Source: US Department of Energy (2007).

3. Pronounced Fluctuation in the Value of the US Dollar

Assuming that there is no intervention in the currency markets by the US Department of the Treasury or the leading Japanese banks, the main factors affecting the value of the US dollar are the relative economic performance of the US, Japan, and the Euro zone. If any one of these regions performs worse than expected, its currency will fall. Although the US economy experienced a slowdown in the second quarter of 2006, growth picked up again in the third quarter, helping to boost the value of the US dollar. Broadly speaking, the value of the dollar has fluctuated according to whatever economic

indicators have just been released.

4. Unexpected Changes in Global Interest Rates

In June 2004, the revitalization of the US economy led the Federal Reserve to raise interest rates for the first time in a considerable period. This increase coincided with a rise in international oil prices, causing price rises in oil importer nations, and thereby creating pressure for interest rate hikes in other parts of the world. Improved economic performance in the Euro region led the EU to raise interest rates in December 2005. July 2006 saw Japan's first interest rate hike for several years, in response to an extended period of economic growth and reduced deflationary pressure; this increase put an end to five years of zero interest rates in Japan. In the US, meanwhile, an economic slowdown in the second quarter led the Fed to refrain from further interest rate hikes after the 17th increase in June 2006; an announcement to this effect was made in August 2006. 2006 was thus a year of dramatic changes in global interest rates.

5. The Period of Growth in the Global Economy Appears to be Coming to an End

The global economy as a whole is estimated to have grown by 4.0% in 2006, compared to 3.5% in 2005. However, by the fourth quarter of 2006 signs of a slowdown were already starting to appear. With interest rates rising all over the world, and with oil prices remaining high, the recent period of growth seemed to be coming to an end. There is a general consensus that a slowdown is beginning; it is anticipated that the global economic growth rate in 2007 will be only around 3.4% (Table 1-2-1).

III The Chinese Economy – Key Trends and Major Issues

1. Imbalance between Urban and Rural Areas in Terms of Income and Expenditure

Although average incomes in rural communities have been rising faster than average incomes in the cities since 2005, when viewed in absolute terms, China's rural inhabitants continue to lag far behind urban residents. Average per capita income in rural areas in the first half of 2006 was 1,797.0 RMB; the corresponding figure for urban residents was 5,996.7 RMB.

2. A Pronounced Increase in the Price of Intermediates

Overall, the price rises in China in 2006 were relatively mild, although there were

significant differences in the extent of the price increase between upstream and downstream products. In the second quarter of 2006, the agricultural inputs price index was significantly higher than the agricultural products price index, indicating that production costs in the agricultural sector were growing faster than earnings. Similarly, in the manufacturing sector, the raw materials, fuel and energy price index has been consistently higher than the industrial goods ex-factory price index since 2005, reflecting a pronounced rise in production costs.

3. Imbalance between Energy and Environmental Needs and Economic Growth

In 2004, environmental pollution caused economic damage totaling 511.8 billion RMB in China, equivalent to 3.05% of GDP. The environmental costs of water pollution came to 286.2 billion RMB, accounting for 55.9% of the total; the costs of atmospheric pollution totaled 219.8 billion RMB (42.9%); the costs of solid pollution and pollution-related accidents totaled 5.74 billion RMB (1.2%).

Environmental and resource-related problems remained a serious issue in the first three quarters of 2006. The combined production value of the main energy-consuming industries remained high throughout 2006. In the first half of 2006, energy consumption per unit of GDP was up 0.8% year-on-year. So far from falling, pollution emissions actually rose; it was clear that China would have difficulty in meeting its goal of reducing energy consumption per unit of GDP by 4% in 2006.

4. A Substantial Export Surplus, Putting Upward Pressure on the RMB

China's trade surplus has been increasing steadily since 2005. This trend has had four significant consequences: (1) excessive growth in foreign exchange reserves, putting upward pressure on the RMB; (2) a rapid increase in trade friction with those countries and regions that run the largest import surplus with respect to China; (3) greater challenges for China's domestic banks in terms of their earning ability and risk control capabilities, due to the easier access to funds; and (4) an increase in China's dependency on foreign trade, adding greater uncertainty to the country's future growth prospects.

5. Serious Problems with the Tax System

The main problems relating to the Chinese tax system are the heavy tax burden on

business enterprises, the unequal tax treatment of domestic and foreign-invested enterprises, the inappropriate distribution of tax revenue between the central and local governments, and excessively high land taxes.

As regards the unequal tax treatment of domestic and foreign-invested enterprises, in the past, the Chinese government formulated preferential tax treatment provisions in order to attract foreign investment. These measures proved very effective in attracting investment; however, the negative effects have now come to outweigh the advantages. While foreign-invested enterprises have come to account for a large share of China's exports, the Chinese government has been losing a great deal of potential tax revenue, and the unequal tax treatment puts domestic enterprises at a disadvantage, thereby hindering the development of China's own domestic industry. The adoption of uniform tax treatment will reduce the risk of foreign investment "overheating" while at the same time reducing the tax burden on domestic enterprises and so making them more competitive.

6. The Emergence of a Bubble Economy

The rapid growth that China has maintained over the last few years has caused the economy to overheat. On several occasions, the Chinese government has implemented "macroeconomic adjustment measures" to try to cool the economy down. Despite these efforts, China's trade surplus continues to grow, and "hot money" continues to flow into the country. As of the end of October 2006, China's foreign exchange reserves had risen to over US\$1 trillion. Awash with money, China was experiencing booms in both the stock market and real estate market, along with a rash of speculative investment. Exacerbated by the struggle for power taking place within the Chinese leadership, warnings about the emergence of a "bubble economy" are no longer confined to the international media; even China's Premier, Wen Jiabao, has warned that there is a serious danger of the economy going into meltdown.

7. China's Economic Growth Rate is Expected to Slow in 2007

Although growth will slow in 2007, it is anticipated that China will still be able to maintain a respectable economic growth rate of around 9.5%. Examination of the forecasts made by the World Bank the IMF, the Asian Development Bank, and Global Insight indicates that GDP growth will slow to around 9%. The IMF offers the highest forecast, at just over 10%; the Asian Development Bank offers the lowest, at 8.8%; the forecasts of the World Bank and Global Insight were 9.3% and 10.0% respectively.

IV Changes in the Business Environment in Taiwan

1. Economic Growth in the First Half of 2006 was Followed by a Downturn Later in the Year

The downturn in the global economy that began in the second half of 2004 continued in the first half of 2005. However, by the second half of 2005, the global economy was starting to pick up again, and this recovery continued into the first half of 2006, before petering out in the second half of the year. Broadly speaking, the pattern of global economic growth in 2006 was the opposite of that seen in 2005, with growth in the first half of the year followed by a downturn in the second half. However, as noted above, the whole-year growth rate for the global economy as a whole was higher than in 2005 (Table 1-2-1).

The state of the Taiwanese economy tends to mirror that of the global economy as a whole. As a result, slow but steady growth in the first half of 2006 was followed by a downturn in the second half of the year. The Council for Economic Planning and Development announced the following indicators for the health of the Taiwanese economy in 2006: a “green light” indicating steady growth from January to May 2006; a “yellow-blue light” in June warning that the economy was on the brink of a downturn (the Council’s comprehensive index fell to 21 points in June); a “blue light,” representing a downturn, from July through to December, with the comprehensive index falling to 16 points. January and February of 2007 saw a return to a “yellow-blue light.” It would thus appear that the economy had bottomed out by the end of 2006, and was showing signs of a gradual recovery in 2007 (Figure 1-4-1).

As can be seen from Table 1-4-1, the economic growth rates for Taiwan over the period 2002–2006 were as follows: 2002–4.64%; 2003–3.50%; 2004–6.15%; 2005–4.07%; 2006–4.68%.

2. Prices Remained Reasonably Stable, but the NT Dollar Fell Against the US Dollar

The prices of oil, gas and electricity all rose in 2006, but vegetables and fruit fell in price due to oversupply, and the price of consumer durables continued to fall. The whole-year consumer price index rose (CPI) slightly (by 0.60%); the rise in the core price index was less pronounced, at 0.54% (Table 1-4-1).

The wholesale price index (WPI) continued to climb, rising by 5.64% compared to

2005. This was mainly due to the increase in the wholesale price of commodities such as basic metals, chemical materials, crude oil, corn and soybeans.

Figure 1-4-1 Economic Indicator Signals for Taiwan in 2006

Item	Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
		Comprehensive Evaluation	Light	○	○	○	○	○	●	●	●	●	●
	Composite Index Score	28	28	23	23	24	21	21	22	22	20	21	16
Financial Indicators	M1 money supply	○	○	●	●	○	●	●	●	●	●	●	●
	Direct and indirect financing	●	●	●	●	●	●	●	●	●	●	●	●
	Bank clearances and remittances	○	○	●	●	●	●	●	●	●	●	●	●
	Stock market index	○	○	○	○	●	○	○	○	○	○	●	○
Non-financial Indicators	Manufacturing sector new orders index (constant-price)	○	○	●	●	●	●	●	●	●	●	●	●
	Value of exports (constant-price) as reported by the Customs	●	●	●	○	○	●	●	●	●	○	○	●
	Industrial production index	●	●	○	●	○	○	○	○	●	●	●	●
	Manufacturing sector inventory levels (finished goods)	○	○	○	○	○	○	○	○	○	○	○	○
	Employment (non-agricultural sector)	○	○	○	○	○	○	●	●	●	○	○	○

Notes: 1. Red light ● ; Yellow-red light ● ; Green light ○ ; Yellow-blue light ● ; Blue light ● .

2. The comprehensive index scores corresponding to the different "lights" are as follows: Red light: 45 – 38; Yellow-red light: 37 – 32; Green light: 31 – 23; Yellow-blue light: 22 – 17; Blue light: 16 – 9.

3. All indicators except the stock market index are seasonally adjusted; growth rates are year-on-year.

Source: Council for Economic Planning and Development website (<http://www.cepd.gov.tw>).

Table 1-4-1 Key Indicators for the Taiwanese Economy, 2002 – 2006

Year	Indicator	Economic Growth Rate	Wholesale Prices	Retail Prices	Tax Revenue	Money Supply		Labor Force Participation Rate	Unemployment Rate	Exchange Rate (NT\$ to the US\$)
						M1B	M2			
2002		4.64	0.05	-0.20	-0.8	17.01	3.55	57.34	5.17	34.575
2003		3.50	2.48	-0.28	2.5	11.82	3.77	57.34	4.99	34.418
2004		6.15	7.03	1.62	10.9	18.98	7.45	57.66	4.44	33.422
2005		4.07	0.61	2.30	12.9	7.10	6.22	57.78	4.13	32.167
2006		4.68	5.64	0.60	1.3	5.30	6.22	57.92	3.91	32.531

Unit: %

Note: With the exception of the labor force participation rate and unemployment rate, all other indicators are expressed as growth rates.

Source: Directorate General of Budget, Accounting and Statistics; Ministry of Economic Affairs; Central Bank, May 2007.

On a monthly basis, the NT Dollar tended to fall against the US Dollar more than it rose in 2006. The average exchange rate for the whole year was NT\$32.53 to the US Dollar, representing a devaluation of 1.09% compared to 2005.

3. A Slight Increase in Tax Revenue Compared to 2005

The Taiwanese government's tax revenue in 2006 totaled NT\$1,551.2 billion, representing an annual increase of 1.3%. The revenue from securities transaction tax rose by 31.9% and the revenue from income tax increased by 3.3%; all other taxation items saw negative revenue growth.

With the increase in the employed population and the elimination of several tax evasion methods, the tax revenue collected in 2006 exceeded the government's target by NT\$115.4 billion. Total tax revenue amounted to 108.0% of the government's budgetary target. Income tax had the highest revenue target achievement rate, at 120.2%.

4. A Continuing Loose Money Supply

In December 2006, the daily average value for the growth rates in the M2 and M1B money supply were 5.9% and 5.4%, respectively. The whole-year average growth rate for the M2 money supply was 6.2%, which was roughly the same as in 2005. The whole-year average growth rate for the M1B money supply was 5.3%, 1.8 percentage points down on 2005; this was mainly due to slower growth in bank lending and in investment.

As a result of the Central Bank's continuing interest rate hikes, interest rates in Taiwan rose slowly in 2006. The inter-bank offered rate and the commercial paper interest rate both rose by 1.66% in December 2006. The whole-year average for the inter-bank offered rate was 1.55%, representing an annual increase of 0.24 percentage points compared to 2005; the whole-year average for the commercial paper interest rate was 1.54%, representing an annual increase of 0.27 percentage points. Overall, the money supply remained loose throughout 2006.

There was significant fluctuation in the Taiwan stock market index in 2006. Having risen in the first half of the year, the stock market was then affected by the mid-year political upheavals. However, the rise in international stock prices combined with aggressive buying by overseas and domestic institutional investors towards the end of the year pushed the Taiwan stock market index up to an average of 7,630 points in December, 363 points up on December 2005.

5. Unemployment Continues to Fall

In 2006, the labor force participation rate in Taiwan averaged 57.92%, 0.14 percentage points up on 2005, and representing the highest figure for nearly 7 years. The number of employed persons averaged 10.11 million, representing an annual increase of 1.7%.

The unemployment rate averaged 3.91% in 2006, down 0.22 percentage points from 2005; this was the lowest level for nearly 6 years. By December 2006, the unemployment rate had dropped to 3.81%. Clearly, the measures implemented by the government to create new jobs have had a significant impact.

6. Foreign Trade Continues to Expand, with a Pronounced Increase in Taiwan's Trade Surplus

Taiwan's exports and imports rose to US\$224.02 billion and US\$202.71 billion, respectively, in 2006; these figures were both historic highs. The annual growth rates were 12.9% for exports and 11.0% for imports. Taiwan's trade surplus grew to US\$21.31 billion, the third highest figure since 1991 (Table 1-4-2).

Exports of heavy industry and chemical products rose to a record US\$183.56 billion in 2006; their share of total exports increased from 80.2% to 81.9%. Other industrial products' share of total exports fell to 17.1%, reflecting the ongoing upgrading of Taiwan's industrial structure. Agricultural and industrial raw materials accounted for around 75% of Taiwan's imports in 2006. Owing to the rise in international oil and raw materials prices, the value of Taiwan's imports increased by 15.6%. Imports of capital goods and consumer products fell by 0.5% and 2.3%, respectively. The decline in imports of capital goods was due to a fall in imports of aircraft and other transportation equipment and IT and communications products. However, imports of capital goods began to grow again in the second half of the year; the growth rates for the first and second halves of 2006 were -10.6% and 11.1%, respectively.

Table 1-4-2 Taiwan's Foreign Trade Performance

Units: US\$ billions; %

Indicator Year	Total Foreign Trade (Imports + Exports)		Exports		Imports		Trade Surplus or Deficit	
	Amount	Annual Growth Rate	Amount	Annual Growth Rate	Amount	Annual Growth Rate	Amount	Annual Growth Rate
2001	234.28	-20.0	126.31	-16.9	107.97	-23.3	18.34	63.5
2002	248.56	6.1	135.32	7.1	113.24	4.9	22.07	20.3
2003	278.61	12.1	150.60	11.3	128.01	13.0	22.59	2.4
2004	351.13	26.0	182.37	21.1	168.76	31.8	13.61	-39.7
2005	381.05	8.5	198.44	8.8	182.62	8.3	15.82	16.2
2006	426.72	12.0	224.02	12.9	202.71	11.0	21.31	34.8

Note: Exports include re-exported goods; imports include re-imported goods.

Source: Department of Statistics, Ministry of Finance, Customs Import/Export Data, March 2007.

7. China, Hong Kong, the US, Japan and South Korea Are Taiwan's Most Important Trading Partners

Taiwan's foreign trade performance with respect to its major trading partners continued to improve in 2006. The rate of growth in exports to China and to Japan was higher than the overall rate of export growth. Trading partners that accounted for 10% or more of Taiwan's total exports included China (23.13%), Hong Kong (16.69%), and the US (14.45%). Taiwan's exports to the US grew by 11.17% in 2006, 1.3 percentage points up on 2005. As regards imports from major trading partners, while imports from Hong Kong continued to fall, dropping by 10.87%, there was positive growth in imports from all other major trading partners. The most impressive growth was in imports from China (23.36%), followed by South Korea (13.29%). Exports to China and Hong Kong combined continued to account for a very large share of Taiwan's total exports, at 39.81% (representing an increase of 14.80% compared to 2005); the combined share of Taiwan's imports held by China and Hong Kong rose by 20.11% to 13.15% (Table 1-4-3).

Table 1-4-3 Taiwan's Exports to and Imports from Its Major Trading Partners in 2006

Unit: US\$ millions; %

Country/ Region	Exports			Imports			Total Foreign Trade (Imports + Exports)	
	Amount	Share of Total (%)	Annual Growth Rate (%)	Amount	Share of Total (%)	Annual Growth Rate (%)	Amount	Annual Growth Rate (%)
Total	224,017	100.00	12.89	202,698	100.00	8.30	21,319	34.76
China	51,809	23.13	18.69	24,783	12.23	23.36	27,026	14.71
Hong Kong	37,381	16.69	9.81	1,881	0.93	-10.87	35,500	11.18
USA	32,361	14.45	11.17	22,664	11.18	7.06	9,697	22.13
Japan	16,300	7.28	7.88	46,284	22.83	0.49	-29,984	-3.12
South Korea	7,154	3.19	21.46	15,000	7.40	13.29	-7,846	6.75
Other	79,012	35.27	11.85	92,086	45.43	15.18	-13,074	40.43
China and Hong Kong	89,190	39.81	14.80	26,664	13.15	20.11	62,526	12.68

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Statistics of the ROC*.

8. Economic Growth Expected to Slow in 2007

As of the end of 2006, Global Insight, the IMF, the OECD and the World Bank all forecast that the global economy as a whole would grow more slowly in 2007 than it did in 2006. Although these forecasts were revised upwards in early 2007, the revised forecasts were still lower than the 2006 growth rate.

Taiwan is heavily dependent on foreign trade, and its growth rates tend to mirror

those of the global economy as a whole. In late 2006, the Directorate General of Budget, Accounting and Statistics forecast that the Taiwanese economy would grow by 4.14% in 2007; in May 2007, this forecast was revised upwards to 4.38%. Most private-sector research institutes have made similar forecasts, as have leading overseas institutional investors.

Overall, it can be anticipated that the Taiwanese economy will experience slow but steady growth in 2007.

9. Imponderables Affecting the Taiwanese Economy

The main imponderables that were expected to affect the Taiwanese economy in 2007 included: the impact of global warming on the environment; fluctuating oil prices; changes in the international business environment; the government's social welfare policies; political instability.

(1) Global Warming

Global warming and environmental protection have become critical issues threatening the very survival of the human race. Their impact is starting to make itself felt in the form of rising production costs and slower growth. At the same time, natural disasters such as unusually severe weather, earthquakes, floods and epidemics (such as bird flu) are occurring with great frequency. Business enterprises of all sizes need to recognize that they may be facing a future in which economic growth (as measured in material terms) is held back by environmental factors.

(2) Oil Price Fluctuations

Although the fluctuations in the price of oil in 2006 were much less severe than those in 2005, there was continuing concern about the political situation in major producer nations such as Saudi Arabia and Venezuela; at the same time, demand for oil is rising rapidly in emerging economies such as China, India and Vietnam. Adding to this the impact of natural disasters and speculation by international hedge funds, it seems certain that the price of oil will continue to fluctuate in 2007.

Taiwan imports almost all of its crude oil from overseas; the price of oil is thus a matter of great concern for everyone in Taiwan. Although Taiwan has adopted a new policy of allowing oil and gasoline prices to fluctuate within Taiwan, with the aim of using the power of the market to regulate usage rates, the impact of changes in international oil prices is still being felt. The government will need to be on the watch

for short-term fluctuations in the price of oil, and be ready to take appropriate steps in response. In the long term, Taiwan will need to adjust the charges paid for public utilities to ensure more efficient use of resources in what is still a resource-poor nation.

(3) Social Welfare Policy

With a presidential election coming up in 2008, along with the impact of the reduction of the number of seats in the Legislative Yuan and the adoption of new electoral systems, Taiwan's ruling and opposition parties have all been doing their best to curry favor with the electorate. Political parties concentrate on developing policies that will appeal to electors; social welfare policies are a particular favorite in this respect. The raising of the minimum wage and of the monthly payments to the elderly in early 2007 reflected a new emphasis on social welfare provision. This trend could have a severe negative impact on the economy. The electoral upset in Sweden in September 2006 and the election of the right-wing candidate in the French presidential election in 2007 are indicative of citizens' increasing doubts about the advisability of high welfare spending; these developments may offer a warning to Taiwan as to the results of focusing too heavily on social welfare provision.

(4) The Impact of Political Upheavals

Ideally, politics should make a positive contribution to economic development. In Taiwan, however, the reverse has generally been the case. There is a general consensus among observers both within Taiwan and overseas that the intense hostility between the ruling and opposition parties has created a situation where politics has been holding the economy back. If a breakthrough could be achieved in this respect, the future for the Taiwanese economy would become much brighter.

Calls to "put politics to one side and focus on the economy" have been heard throughout Taiwan for many years now. Unfortunately, the polarization and wrangling have, if anything, grown even worse. The tendency for politicians to put personal and party interest above those of the nation as a whole has become steadily more pronounced. The only remedy for this situation is for the electorate to vote dishonest politicians out of office; only when the current political instability has been brought to an end will there be any chance of the economy getting back on course.

Chapter 2

An Overview of SME Development

The upturn in the global economy continued into 2006, with a global economic growth rate of 4.0%. The US economy remained in good health, the Euro zone experienced a rapid recovery, and the Japanese economy maintained slow but steady growth. Asia (excluding Japan) continued its vigorous growth. In Taiwan, domestic demand grew only slowly, but strong demand in overseas markets enabled Taiwan to achieve impressive export performance, with an increase in the country's trade surplus. While the economy as a whole continued to grow, investment and consumer spending were both weak; however, there was a slight increase in industrial production, and the unemployment rate continued to fall. Taiwan's financial markets were characterized by the ready availability of liquidity, the stock market boomed, the NT Dollar rose in value against the US Dollar, and there was a slow but steady increase in the consumer price index. Taiwan's whole-year economic growth rate in 2006 was 4.68%.

How have Taiwan's small and medium enterprises (SMEs) fared in this economic climate? The analysis presented in this chapter is based mainly on business tax data compiled by the Tax Data Center, Ministry of Finance. Sections I to III of this chapter present an analysis of the changes in the various indicators, and examine the role that SMEs play within Taiwan's industrial structure.

Unless otherwise noted, the following points apply to the statistics presented in this chapter:

1. Indicators studied: The main indicators used in this chapter are the number of enterprises, total sales, domestic sales, and export sales.
2. Industry classification: In 2003, the classification of industries was revised according to the ROC Standard Industry Classification, 7th Revision. When comparing data for different years, the changes in the classification system must be taken into account.
3. Definition of SMEs: According to the new Definition of SMEs following the July 2005 revision (see Appendix B), enterprises in the manufacturing, construction and mining and quarrying sectors that have paid-in capital of less than NT\$80 million or

fewer than 200 regular employees are classed as SMEs. For other industries, those enterprises that had annual operating revenue of less than NT\$100 million in the previous year or that have fewer than 50 regular employees are classed as SMEs.

4. Data relating to the number of enterprises, total sales, domestic sales and export sales are based on business tax data compiled by the Tax Data Center, Ministry of Finance; the definition of SMEs in these data is based on either paid-in capital or annual sales revenue.
5. “Newly-established enterprises” are defined as those that have been in existence for less than one year, according to the business tax data compiled by the Tax Data Center, Ministry of Finance.
6. Since 2003, the statistical data relating to the number of enterprises, total sales, domestic sales and export sales have included enterprises in both Taiwan and the Fukien region (including Lienchiang County).

I The Status of SMEs in Taiwan

By and large, the indicators for number of the enterprises, total sales, domestic sales and export sales in the SME sector (which are based on business tax data compiled by the Tax Data Center, Ministry of Finance) displayed continuing growth in 2006. All indicators showed positive growth compared to 2005. Although the SMEs’ share of all enterprises in Taiwan fell slightly due to a pronounced increase in the number of large enterprises, for other indicators—including total sales, domestic sales and export sales—SMEs displayed higher growth rates than large enterprises, and as a result SMEs’ shares of total sales, domestic sales and export sales all rose (Table 2-1-1).

The following sections will examine the changes in the SME sector in 2006—in terms of the number of enterprises, total sales, domestic sales and export sales—and the importance of SMEs within Taiwan’s industrial structure.

1. A Slight Increase in the Number of SMEs, but a Decline in SMEs’ Share of All Enterprises

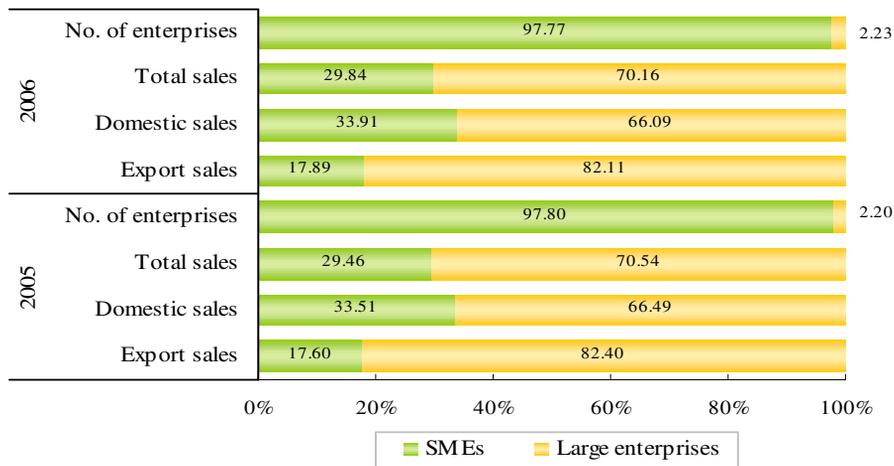
There were just over 1,244,000 SMEs in Taiwan in 2006, representing an increase of 18,000 SMEs (1.47%) compared to 2005. SMEs accounted for 97.77% of the 1,273,000 enterprises in Taiwan, down from 97.80% in 2005; this slight decline was due to the pronounced increase (2.93%) in the number of large enterprises (Table 2-1-1 and Figure 2-1-1).

Table 2-1-1 Enterprise Performance in 2006 – by Size

Units: enterprises; NT\$ millions; %

Indicator \ Enterprise Size	All Enterprises	SMEs	Large Enterprises
No. of enterprises	1,272,508	1,244,099	28,409
Share	100.00	97.77	2.23
Annual growth rate	1.50	1.47	2.93
Total sales value	34,326,070	10,241,215	24,084,855
Share	100.00	29.84	70.16
Annual growth rate	1.13	2.41	0.60
Domestic sales value	25,594,318	8,678,992	16,915,326
Share	100.00	33.91	66.09
Annual growth rate	1.12	2.33	0.51
Export sales value	8,731,753	1,562,224	7,169,529
Share	100.00	17.89	82.11
Annual growth rate	1.17	2.86	0.81

Source: Ministry of Finance, Tax Data Center, VAT data for 2006.

Figure 2-1-1 The Shares of Key Performance Indicators Held by SMEs and Large Enterprises, 2005 – 2006

Source: Ministry of Finance, Tax Data Center, VAT data for 2005 and 2006.

2. An Increase in SMEs' Total Sales and in Their Share of Total Sales for All Enterprises

In 2006, Taiwan's SMEs posted total sales of NT\$10,241.2 billion, accounting for 29.84% of the NT\$34,326.1 billion in sales posted by all Taiwanese enterprises combined. In comparison with 2005, SMEs' total sales rose by NT\$241.0 billion (2.41%). As the total sales growth rate for large enterprises was only 0.60%, SMEs' share of total sales for all enterprises increased from 29.46% in 2005 to 29.84% in 2006.

3. SMEs' Domestic Sales Accounted for 33.91% of Total Domestic Sales for All Enterprises

In 2006, Taiwan's SMEs posted domestic sales of NT\$8,679.0 billion, representing 33.91% of the combined total for all enterprises (NT\$25,594.3 billion). SMEs' domestic sales had increased by NT\$197.6 billion (2.33%) compared to 2005. As the domestic sales growth rate for SMEs was higher than that for large enterprises, SMEs' share of total domestic sales for all enterprises rose from 33.51% in 2005 to 33.91% in 2006.

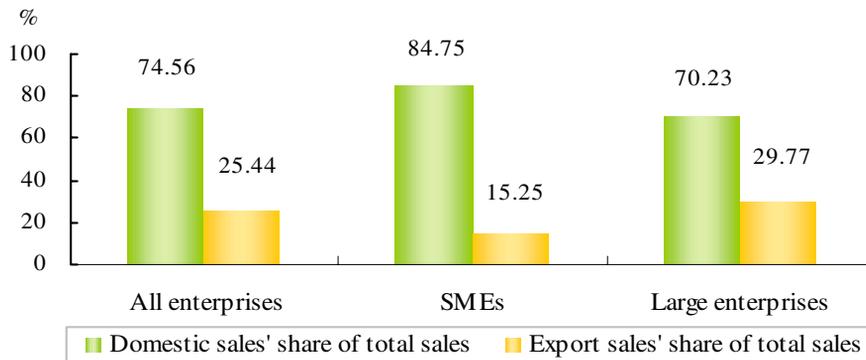
4. SMEs' Export Sales Growth Rate Surpasses That of Large Enterprises

In 2006, Taiwan's SMEs posted export sales of NT\$1,562.2 billion, up NT\$43.4 billion (2.86%) from 2005. SMEs' share of total export sales for all enterprises bottomed out at 16.91% in 2004; since then, both absolute sales value and SMEs' share of total export sales for all enterprises have been climbing steadily. In 2006, SMEs accounted for 17.89% of total export sales for all enterprises. SME export sales growth has outpaced that of large enterprises.

5. Domestic Sales Account for 84.75% of SMEs' Total Sales

Domestic sales accounted for 84.75% of Taiwanese SMEs' total sales in 2006, while the export sales' share was just 15.25%. For large enterprises, the percentages were 70.23% and 29.77%, respectively (Figure 2-1-2). It can thus be seen that Taiwan's SMEs are still very much oriented towards the domestic market.

Figure 2-1-2 Domestic Sales' and Export Sales' Shares of Enterprises Total Sales in 2006 – by Enterprise Size

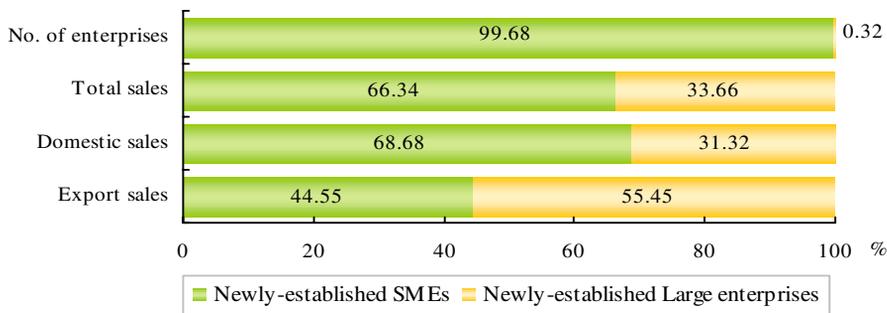


Source: Ministry of Finance, Tax Data Center, VAT data for 2006.

6. SMEs Account for the Vast Majority of Newly-established Enterprises

Just over 108,000 new SMEs were established in Taiwan in 2006, accounting for 99.68% of all newly-established enterprises, 8.51% of all enterprises, and 8.71% of all SMEs. It is significant that, not only do newly-established SMEs account for the vast majority of newly-established enterprises, they also represent nearly a tenth of all enterprises in Taiwan (Figure 2-1-3).

Figure 2-1-3 Newly-established Enterprises' Sales Performance in 2006 – by Enterprise Size



Source: Ministry of Finance, Tax Data Center, VAT data for 2006.

In 2006, Taiwan's newly-established SMEs posted combined sales of NT\$237 billion. Although newly-established SMEs accounted for 8.51% of all enterprises in Taiwan in 2006, their share of total sales for all enterprises was only 0.32%, and their share of total SME sales was just 2.31%. On the other hand, the newly-established SMEs' share of the total sales of all newly-established enterprises was relatively high, at 66.34%.

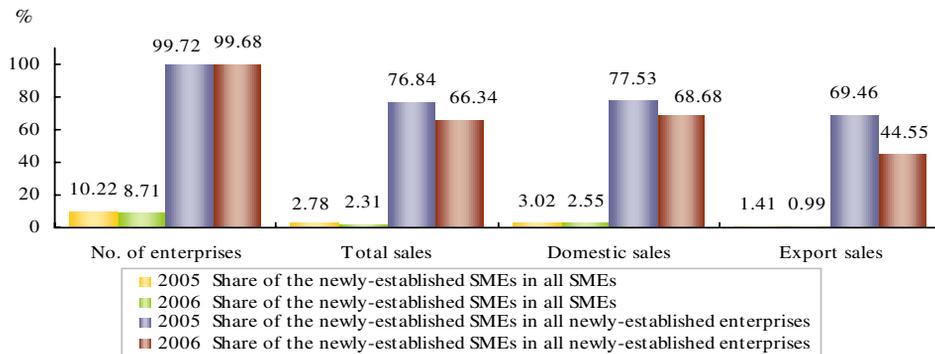
The combined domestic sales of Taiwan's newly-established SMEs in 2006 totaled NT\$221.5 billion. This figure represented 68.68% of the total domestic sales for all newly-established enterprises, and 2.31% of the total domestic sales for all SMEs. Newly-established SMEs had total export sales of NT\$154.8 billion, accounting for 44.55% of the total export sales of all newly-established enterprises, but only 0.99% of the total export sales of all SMEs.

7. A Decline in the Newly-established SMEs' Share of All SMEs

The percentage of all SMEs in Taiwan that are newly-established SMEs fell from 10.22% in 2005 to 8.71% in 2006. At the same time, the newly-established SMEs' share of total SME sales fell from 2.78% to 2.31%, their share of total SME domestic

sales fell from 3.02% to 2.55%, and their share of total SME export sales fell from 1.41% to 0.99% (Figure 2-1-4). It can thus be seen that, while newly-established SMEs continue to account for a significant share of all SMEs in Taiwan, their relative contribution to total SME sales has been falling.

Figure 2-1-4 Newly-established SMEs' Shares of the Number of Enterprises and of Sales

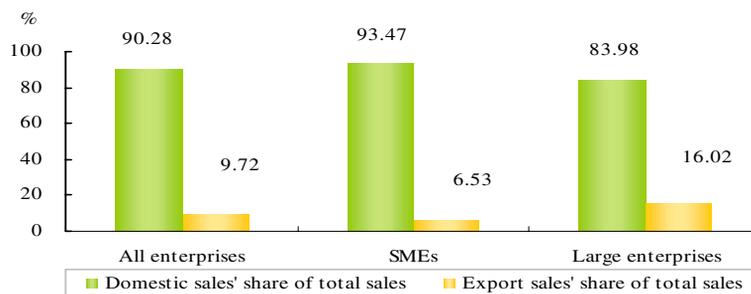


Source: Ministry of Finance, Tax Data Center, VAT data for 2006.

8. Domestic Sales Account for 93.47% of the Total Sales of Newly-established SMEs

In 2006, domestic sales accounted for a 93.47% share of the total sales of newly-established SMEs, while export sales accounted for 6.53%. This is a very pronounced disparity; in comparison, the corresponding percentages for newly-established large enterprises were 83.98% and 16.02%, respectively (Figure 2-1-5). These figures show that newly-established SMEs are more oriented towards the domestic market than are newly-established large enterprises.

Figure 2-1-5 Domestic Sales' and Export Sales' Shares of Newly-established Enterprises' Total Sales in 2006 – by Enterprise Size



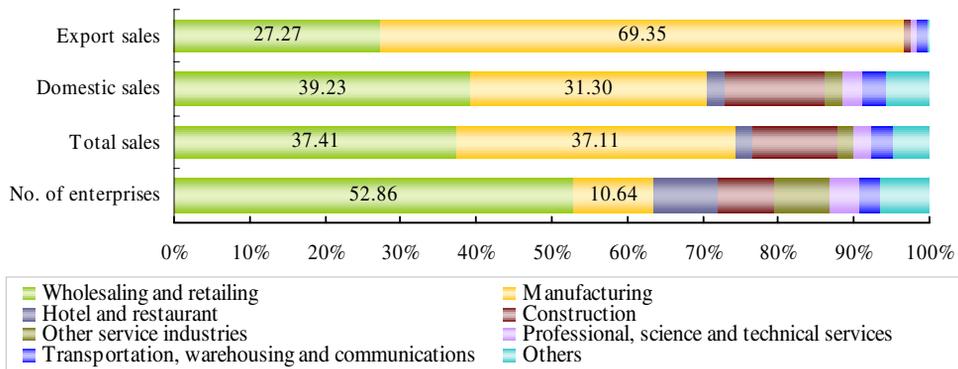
Source: Ministry of Finance, Tax Data Center, VAT data for 2006.

9. The Wholesaling and Retailing Industry Accounts for the Largest Shares of SMEs, SME Sales and SME Domestic Sales; the Manufacturing Sector Accounts for the Largest Share of Export Sales

In 2006, the wholesaling and retailing industry had the largest number of SMEs, at 658,000; these firms accounted for 52.86% of all SMEs in Taiwan. The number of wholesaling and retailing industry SMEs was approximately 6,000 (0.92%) up on 2005. The manufacturing sector had the second largest number of SMEs, at 131,000 (10.64% of all SMEs in Taiwan) (Figure 2-1-6); however, this figure represented a decline of 1,800 (1.35%) compared to 2005. The fall in the number of small and medium-sized manufacturing enterprises is partly due to companies moving their operations overseas, but it also reflects the successful transformation of some SMEs into large enterprises; the number of large manufacturing enterprises in Taiwan grew by 4.28% in 2006.

Wholesaling and retailing industry SMEs posted combined sales of NT\$3,831.2 billion in 2006, accounting for 37.41% of the total sales of all SMEs in Taiwan; this was a larger share than any other industry, and represented an annual growth rate of 0.95%. The total sales of SMEs in the manufacturing sector came to NT\$3,800.3 billion (37.11% of the total sales of all SMEs in Taiwan), representing an annual growth rate of 3.41%, and bringing the total for the manufacturing sector close to that for the wholesaling and retailing industry. For SMEs in the wholesaling and retailing industry, average sales per enterprise came to NT\$5.83 million; for SMEs in the manufacturing sector, average sales per enterprise were around five times as high, at NT\$28.71 million.

Figure 2-1-6 Individual Industries' Shares of Selected SME Indicators in 2006



Source: Ministry of Finance, Tax Data Center, VAT data for 2006.

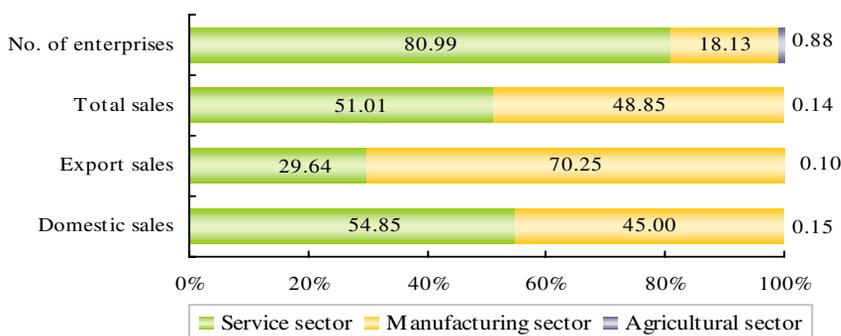
When broken down by industry, SME domestic sales present a similar picture, with the wholesaling and retailing industry accounting for the largest share of SME domestic sales at 39.23%, followed by the manufacturing sector with 31.30%.

The manufacturing sector accounted for 67.67% of all SME export sales in 2006, with total export sales of NT\$1,083.5 billion. Wholesaling and retailing industry SMEs were in second place, with NT\$426.0 billion (27.27% of the total). Between them, these two industry sectors accounted for 96.62% of all SME export sales; no other industry exceeded 1%, with the exception of the transportation, warehousing and communications industry (1.37%).

10. The Service Sector Accounts for the Largest Share of SMEs and the Largest Share of SME Sales; the Manufacturing Sector Accounts for the Largest Share of Export Sales

If Taiwan's SMEs are broken down into the agricultural sector, the manufacturing sector and the service sector, it can be seen that the agricultural sector accounts for the smallest share in terms of the number of SMEs in Taiwan, SMEs' total sales and SME export sales; in each case, the agricultural sector's share is less than 1 percent. In the last few years, the center of gravity of Taiwan's industrial structure has been shifting towards the service sector, and this trend continued into 2006. The service sector accounted for 80.99% of all SMEs in Taiwan in 2006, a share that was much higher than those held by the agricultural and manufacturing sectors. In terms of total sales, the service sector's share was 51.01%; the manufacturing sector was close behind, with 48.85%. The manufacturing sector accounted for the largest share of export sales, at 70.25% (Figure 2-1-7).

Figure 2-1-7 Individual Sectors' Shares of Selected SME Indicators in 2006



Source: Ministry of Finance, Tax Data Center, VAT data for 2006.

SMEs in the service sector had average sales per enterprise of NT\$5.18 million in 2006; for SMEs in the manufacturing sector, the figure was NT\$22.18 million.

11. 8.71% of SMEs Have Been in Existence for Less Than One Year, Compared to 1.24% of Large Enterprises

In 2006, 61.93% of Taiwan's SMEs had been in existence for 5 years or more, 42.05% had been in existence for 10 years or more, and 8.71% had been in existence for less than 1 year. In comparison, 81.54% of large enterprises had been in existence for 5 years or more, 58.66% had been in existence for 10 years or more, and only 1.24% had been in existence for less than 1 year. These figures reflect the fact that SMEs enjoy more flexibility than large enterprises in terms of market entry and exit; even so, more than two-fifths of Taiwan's SMEs have been in existence for 10 years or more (Table 2-1-2).

Table 2-1-2 The Number of Enterprises in 2006 – by Enterprise Age

Units: enterprises; %

Enterprise Size Enterprise Age	All Enterprises		SMEs		Large Enterprises	
	No. of enterprises	Share	No. of enterprises	Share	No. of enterprises	Share
Total	1,272,508	100.00	1,244,099	100.00	28,409	100.00
Less than 1 year	108,673	8.54	108,320	8.71	353	1.24
1~2 years	121,466	9.55	120,530	9.69	936	3.29
2~3 years	92,503	7.27	91,400	7.35	1,103	3.88
3~4 years	84,648	6.65	83,272	6.69	1,376	4.84
4~5 years	71,610	5.63	70,133	5.64	1,477	5.20
5~10 years	253,746	19.94	247,247	19.87	6,499	22.88
10~20 years	299,282	23.52	290,121	23.32	9,161	32.25
20 years or more	240,580	18.91	233,076	18.73	7,504	26.41

Source: Ministry of Finance, Tax Data Center, VAT data for 2006.

Among SMEs that have been in existence for less than 5 years, the number of SMEs in each age cohort tends to fall as its approaches 5 years (the number of SMEs aged 1 – 2 years is relatively large owing to the large number of new SMEs established in 2005). By contrast, among large enterprises the number of enterprises increases as the age cohorts get higher. These data reflect the fact that SMEs tend to be more vulnerable than large enterprises during their first five years of operation, with a lower survival rate.

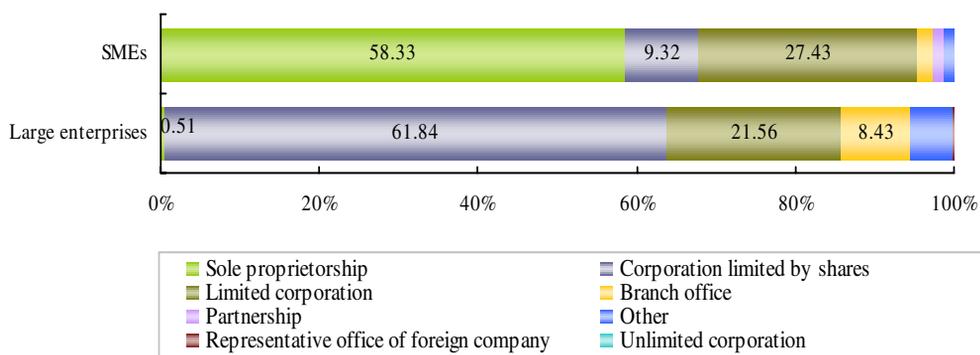
12. 58.33% of SMEs Are Sole Proprietorships

As of 2006, around 730,000 of Taiwan's SMEs were run as sole proprietorships. Sole

proprietorships made up 58.33% of all SMEs in Taiwan, limited corporations accounted for another 27.43%, and corporations limited by shares for 9.32% (Figure 2-1-8). Between them, these three forms of organization account for 95.08% of all SMEs in Taiwan; the shares held by other forms of organization are all relatively low.

For large enterprises, the picture is significantly different. 61.84% of large enterprises are organized as corporations limited by shares, 21.56% are organized as limited corporations, 8.43% are organized as branch offices, and 2.22% are the Taiwan subsidiaries of foreign companies (Figure 2-1-8).

Figure 2-1-8 The Shares of SMEs and Large Enterprises Held by Forms of Organization in 2006



Source: Ministry of Finance, Tax Data Center, VAT data for 2006.

13. 46.25% of Taiwan's SMEs Are Concentrated in Northern Taiwan

In 2006, Northern Taiwan held the highest share of Taiwan's SMEs, at 46.25%. Southern Taiwan had 26.17%, and Central Taiwan had 24.19%. The concentration of enterprises in the north of the country is even more pronounced among large enterprises; 64.98% of Taiwan's large enterprises were located in Northern Taiwan in 2006 (Table 2-1-3).

II The Development of Taiwan's SME Sector

SMEs have been the foundation for Taiwan's economic development. With their ability to adjust flexibly to a changing market environment, they have made an enormous and widely recognized contribution to Taiwan's economic growth. The following sections examine the way in which Taiwan's SME sector has developed over a longer perspective.

Table 2-1-3 Geographical Distribution of SMEs in Taiwan in 2006

Units: enterprises; %

Region	All Enterprises		Large Enterprises		SMEs	
	No. of enterprises	Share	No. of enterprises	Share	No. of enterprises	Share
Total	1,272,508	100.00	28,409	100.00	1,244,099	100.00
Taiwan Region	1,261,551	99.14	28,386	99.14	1,233,165	99.14
Northern Taiwan	593,810	46.66	18,461	64.98	575,349	46.25
Central Taiwan	305,498	24.01	4,544	15.99	300,954	24.19
Southern Taiwan	330,703	25.99	5,177	18.22	325,526	26.17
Eastern Taiwan	31,540	2.48	204	0.72	31,336	2.52
Fukien Province	10,957	0.86	23	0.08	10,934	0.88

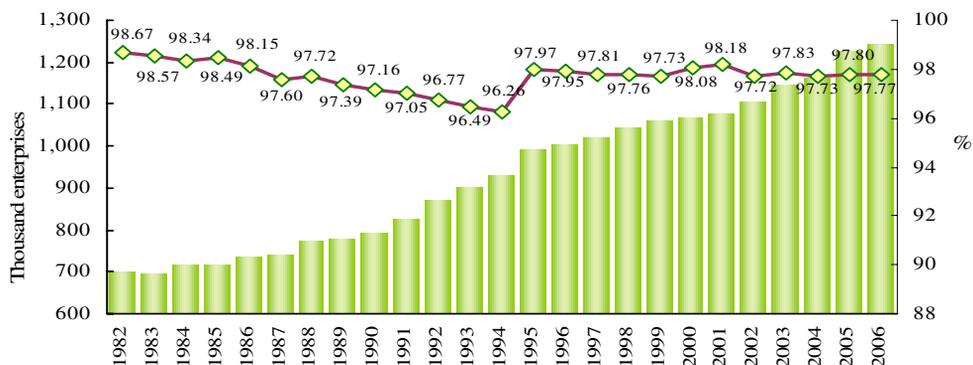
Note: Northern Taiwan includes Taipei City, Taipei County, Keelung City, Ilan County, Taoyuan County, Hsinchu City and Hsinchu County. Central Taiwan includes Taichung City, Taichung County, Miaoli County, Changhua County, Nantou County and Yunlin County. Southern Taiwan includes Chiayi City, Chiayi County, Tainan City, Tainan County, Kaohsiung City, Kaohsiung County, Pingtung County and Penghu County. Eastern Taiwan includes Hualien County and Taitung County. Fukien Province includes Kinmen County and Lienchiang County.

Source: Ministry of Finance, Tax Data Center, VAT data for 2006.

1. The Number of SMEs in Taiwan Has Increased Gradually Over Time

As can be seen from the data presented in Figure 2-2-1, broadly speaking, the number of SMEs in Taiwan grew steadily over the period from 1982 to 2006, rising from 701,839 in 1982 to 1,244,099 in 2006.

Figure 2-2-1 The Number of SMEs in Taiwan, and SMEs' Share of All Enterprises, 1981 – 2006



Source: Small and Medium Enterprise Administration, *White Paper on Small and Medium Enterprises in Taiwan*, consecutive years.

During the period 1982–2006, SMEs' share of the total number of enterprises in Taiwan has fluctuated between 98.67% (1982) and 96.26% (1994). The percentage remained at or above 98% between 1982 and 1986, and during the period 1992–1994 it dipped down to below 97%, but for the rest of the time it has generally remained at

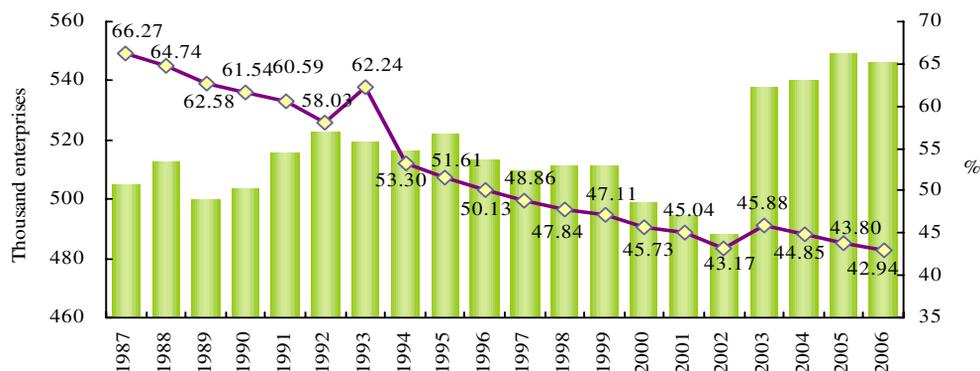
around 97%–98%. SMEs have thus always accounted for the vast majority of business enterprises in Taiwan.

The official definition of the term “SME” was revised in both 1995 and 2000; on both occasions, the alteration of the definition caused the SMEs’ share of all enterprises to rise. In the last few years, however, the number of large enterprises in Taiwan has been growing at a faster rate than the number of SMEs, causing the SMEs’ share of all enterprises to fall slightly.

2. Enterprises with Capitalization of Less Than NT\$100,000 Account for the Largest Share of Enterprises

Despite the tendency for business enterprises in Taiwan to get larger, enterprises with capitalization of less than NT\$100,000 (hereinafter referred to as “very small enterprises”) still account for the largest share of all enterprises. In 1987 there were 505,000 very small enterprises, representing 66.27% of all business enterprises in the country. From 1987 to 1999 the number fluctuated between 505,000 and 522,000; however, the very small enterprises’ share of all enterprises tended to fall gradually (Figure 2-2-2).

Figure 2-2-2 The Number of Enterprises with Capitalization of Less Than NT\$100,000 and Their Share of All Enterprises, 1987 – 2006



Source: Small and Medium Enterprise Administration, *White Paper on Small and Medium Enterprises in Taiwan*, consecutive years.

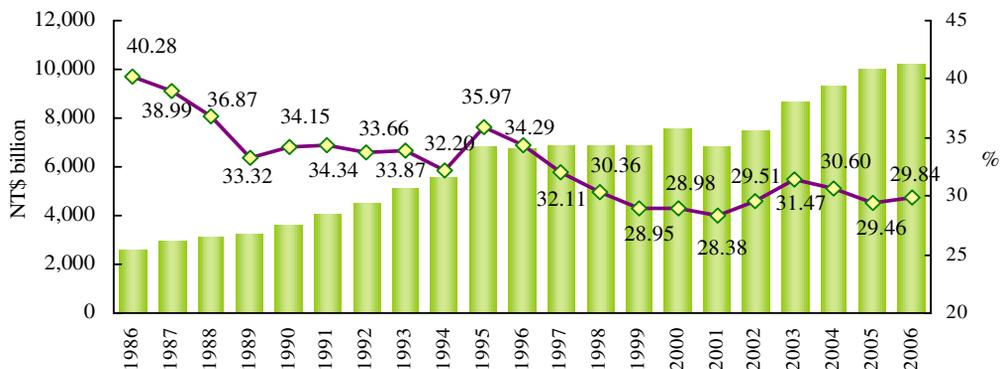
By 2003, the number of very small enterprises had risen to 538,000 (partly because the data for 2003 included enterprises in Lienchiang County). The increase continued, so that by 2006 the number of very small enterprises stood at 546,000. However, over this same period, the very small enterprises’ share of all enterprises has been falling. By 2006, their share had dropped to 42.94%, the lowest level since 1987. This decline

reflects the trend for enterprises in Taiwan to get larger. Nevertheless, very small enterprises continue to account for a large share of business enterprises in Taiwan.

3. SMEs' Sales Have Increased over the Years, but Their Share of Total Sales Has Been Falling Slowly

In absolute terms, the total annual sales of Taiwan's SMEs have increased steadily over the period 1986–2006, rising from NT\$2,620 billion in 1986 to NT\$10,240 billion in 2006. However, the SMEs' share of the total sales of all enterprises in Taiwan peaked in 1986 at 40.28%, and has been falling slowly since then. The relaxation in the definition of SMEs in 1995 caused the SMEs' share of total sales to rise again temporarily, but the further relaxation in 2000 resulted in only a very slight increase. In 2001, Taiwan posted an economic growth rate of -2.17%, and SMEs' annual sales fell by 7.67%, causing the SMEs' share of total sales for all enterprises to fall to a historic low of 28.38% (Figure 2-2-3).

Figure 2-2-3 SMEs' Annual Sales and Their Share of Total Sales for All Enterprises, 1986 – 2006



Source: Small and Medium Enterprise Administration, *White Paper on Small and Medium Enterprises in Taiwan*, consecutive years.

Although SMEs' annual sales have risen steadily in absolute terms since 2001, there has not been a corresponding increase in the SMEs' share of total sales for all enterprises, reflecting the fact that the increase in SMEs' sales has lagged behind the increase in large enterprises' sales.

One point worth noting is that, as the statistics presented above are based on the Ministry of Finance's Tax Data Center VAT data, they do not include those SMEs that are exempted from issuing (or which fail to issue) uniform invoices; actual SME sales revenue will thus be somewhat higher.

4. A Slight Increase in SMEs' Export Sales

The Taiwanese economy has always relied heavily on exports, and it is generally accepted that the strong export performance of Taiwan's SMEs has played an important role in the country's economic development. Prior to 1997, the calculation of SME export sales was based on the export sales of trading companies combined with estimates based on customs export statistics, and the totals were expressed in US dollars. Since 1997, the calculation of SME exports has been based on the Ministry of Finance's Tax Data Center statistics for total sales at the zero VAT rate, with the resulting figures being expressed in NT dollars. It is thus not possible to make a direct comparison between the data for years prior to 1997 and the data for years after that date. The following examination of trends in SME export sales is therefore limited to the period since 1997.

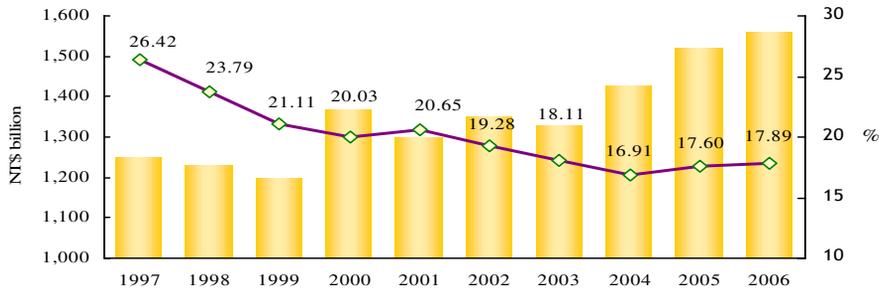
The combined export sales of Taiwan's SMEs rose from NT\$1,250 billion in 1997 to NT\$1,560 billion in 2006. Overall, SMEs' export sales have tended to rise steadily over time.

SMEs' share of export sales for all enterprises declined from 26.42% in 1997 to 16.91% in 2004, before rising again to 17.89% in 2006 (Figure 2-2-4). Large enterprises have thus been the main contributor to Taiwan's exports throughout this period. Many scholars believe that, in the early years of Taiwan's economic take-off, the comparative advantage that Taiwan's SMEs enjoyed because of their labor-intensive production methods helped them to develop export markets, thereby making a major contribution to the growth of the Taiwanese economy. Recently, however, although SMEs' export sales have continued to grow in absolute terms, their share of total export sales for all enterprises has been falling steadily. One possible reason for this trend is increased overseas investment by SMEs. As firms have moved production overseas, their exports from Taiwan have in many cases declined. Whereas in the past SMEs were mainly oriented towards export markets while large enterprises focused on the Taiwanese domestic market, this situation is now changing; the collaborative relationship between large enterprises and SMEs is undergoing a transformation.

5. The Number of SMEs That Have Been Established for Five Years or Less Has Been Falling Gradually

Examination of the trends in the age of SMEs over the period 1995–2006 shows that the

Figure 2-2-4 SMEs' Export Sales and Share of Total Export Sales for All Enterprises, 1997 – 2006



Source: Small and Medium Enterprise Administration, *White Paper on Small and Medium Enterprises in Taiwan*, consecutive years.

share of all SMEs held by newly-established SMEs that had been in existence for less than 1 year bottomed out in 2002 at 8.28%, and then peaked at 10.22% in 2005. In 1995, only 8.84% of SMEs had been in existence for 20 years or more; by 2006 this figure had risen to 18.73%.

Table 2-2-1 Trends in SME Age, 1995 – 2006

Year	Enterprise Age	Less than 1 year	1 – 2 years	2 – 3 years	3 – 4 years	4 – 5 years	5 – 10 years	10 – 20 years	20 years or more
1995		10.15	10.31	8.77	8.40	6.28	20.66	26.58	8.84
1996		9.30	10.02	8.47	7.36	7.24	20.72	27.26	9.63
1997		10.19	8.91	8.09	7.02	6.25	21.62	24.80	13.11
1998		9.94	9.77	7.23	6.83	6.03	21.68	24.31	14.22
1999		9.50	9.61	7.93	6.09	5.92	22.06	23.91	15.00
2000		9.04	9.27	7.86	6.72	5.30	22.57	23.58	15.66
2001		8.79	8.68	7.60	6.69	5.85	21.89	24.17	16.33
2002		8.28	8.51	7.01	6.39	5.78	21.16	25.26	17.61
2003		9.30	9.40	7.41	5.97	5.15	20.57	23.97	18.23
2004		10.17	8.79	7.73	6.32	5.18	19.83	23.71	18.28
2005		10.22	8.81	7.75	6.37	5.19	19.83	23.63	18.20
2006		8.71	9.69	7.35	6.69	5.64	19.87	23.32	18.73

Note: Data of Lienchiang County, a small offshore island, are included in the calculation since 2005.

Source: Ministry of Finance, Tax Data Center, VAT data (consecutive years).

Examination of the changes in the shares held by SMEs of particular ages shows that there has been a gradual decline in the share of all SMEs held by SMEs in the 1–2 year, 2–3 year, 3–4 year and 4–5 year age cohorts. SMEs in the 4–5 year cohort have consistently accounted for the smallest share of all SMEs.

Examination of the data marked with an orange background in the table above shows that, in 1995, 10.15% of SMEs were newly-established enterprises that had been

in existence for less than 1 year. The percentage for the 1–2 year age cohort in 1996 was 10.02%; the percentage for the 2–3 year age cohort in 1997 was 8.09%; the percentage for the 3–4 year cohort in 1998 was 6.83%; and the percentage for the 4–5 year cohort in 1999 was 5.92%. A similar trend can be seen in other years; the failure rate for new SMEs in the first couple of years of their existence is relatively low, but the failure rate then picks up as SMEs enter the third, fourth, and fifth years of their existence. In other words, SMEs experience the most instability during the first 5 years of their existence. A high percentage of new SMEs are able to make it through the first year or two, but by the time they have been in existence for 3–5 years the risk of going out of business is much higher.

6. The Newly-established SMEs' Share of All SMEs Has Gradually Been Falling

SMEs are generally considered to display a high degree of flexibility, making market entry and exit a relatively smooth process. Over the period from 2000 to 2006, newly-established SMEs that had been in existence for less than 1 year generally accounted for around 10% of all SMEs in Taiwan. However, their share of total sales for all SMEs fluctuated between 2.31% and 3.54%, their share of domestic sales for all SMEs varied between 2.55% and 3.68%, and their share of export sales fluctuated between 0.99% and 3.18%. Overall, however, newly-established SMEs' shares tended to fall (Table 2-2-2).

Table 2-2-2 Newly-established SMEs' Shares of All SMEs and of SME Sales, 2000 – 2006

Units: enterprises; NT\$ millions; %

Indicator		Year						
		2000	2001	2002	2003	2004	2005	2006
No. of enterprises	All SMEs	1,070	1,078	1,105	1,147	1,177	1,226	1,244
	Newly-established SMEs	97	95	91	112	110	125	108
	Share	9.04	8.79	8.28	9.73	9.34	10.22	8.71
Total sales	All SMEs	7,567	6,842	7,495	8,709	9,727	10,007	10,2417
	Newly-established SMEs	268	231	247	296	271	278	237
	Share	3.54	3.38	3.30	3.39	2.79	2.78	2.31
Domestic sales	All SMEs	6,197	5,542	6,144	7,381	8,278	8,481	8,679
	Newly-established SMEs	228	190	205	267	242	256	221
	Share	3.68	3.43	3.34	3.61	2.93	3.02	2.55
Export sales	All SMEs	1,370	1,300	1,351	1,328	1,448	1,519	1,562
	Newly-established SMEs	39	41	42	29	29	218	15
	Share	2.88	3.18	3.13	2.16	2.00	1.41	0.99

Note: Data of Lienchiang County, a small offshore island, are included in the calculation since 2003.

Source: Ministry of Finance, Tax Data Center, VAT data (consecutive years).

III Operational Performance of SMEs Owned by Female Entrepreneurs

The statistics presented in this section are based on the Ministry of Finance's Tax Data Center VAT data for 2006. Key indicators—including the number of enterprises, total sales, domestic sales and export sales—are used to examine the current status of SMEs owned or run by female entrepreneurs.

The Tax Data Center's VAT tax statistics do not break enterprises down by the sex of the owner, so this information had to be obtained by examining the ID card numbers given for enterprise owners (making use of the fact that if the first roman numeral in the ID card number is a "1", this indicates a man, and if the first roman numeral is a "2", this indicates a woman). Enterprises where a company or foreigner was listed as the owner were excluded; however, it was not possible to identify and exclude those enterprises where a woman is the nominal owner but is not actually running the company, or holds only a very small share in the company. There is thus some discrepancy between the totals for all enterprises and the sum of the totals for male and female-owned enterprises.

1. Around One-third of Enterprises in Taiwan are Owned by Women

In 2006, there were 974,983 enterprises in Taiwan where it was possible to determine the sex of the business owner. 359,316 of these enterprises (36.85% of the total) were owned by women; 63.15% of the enterprises were owned by men (Table 2-3-1).

Only 17.11% of large enterprises were owned by women, but 37.17% of SMEs were owned by women. SMEs accounted for 99.26% of all female-owned enterprises.

2. Female-owned Enterprises Account for 13.95% of the Total Sales for All Enterprises

In 2006, Taiwan's female-owned enterprises posted combined sales of NT\$2,553.5 billion, representing 13.95% of the total sales for all enterprises. Female-owned enterprises' domestic sales totaled NT\$2,135.8 billion, accounting for 15.44% of the total domestic sales for all enterprises; female-owned enterprises' export sales came to NT\$417.7 billion, representing 9.32% of the total export sales for all enterprises. Male-owned enterprises' shares of total sales, domestic sales and export sales for all enterprises were 86.05%, 84.56% and 90.68%, respectively (Table 2-3-1). There is thus

still a significant disparity between the sales performance of male-owned enterprises and female-owned enterprises.

Table 2-3-1 Number of Enterprises and Sales Performance in 2006 – by Sex of Business Owner

Units: enterprises; NT\$ millions; %

Indicator	Enterprise Size		
	All Enterprises	SMEs	Large Enterprises
No. of enterprises	974,983	959,460	15,523
female-owned enterprises	359,316	356,660	2,656
Male-owned enterprises	615,667	602,800	12,867
Share of female-owned	36.85	37.17	17.11
Total sales	18,309,688	6,256,874	12,052,814
Female-owned enterprises	2,553,462	1,433,504	1,119,958
Male-owned enterprises	15,756,226	4,823,370	10,932,856
Share of female-owned	13.95	22.91	9.29
Domestic sales	13,829,367	5,408,812	8,420,555
Female-owned enterprises	2,135,791	1,301,361	834,430
Male-owned enterprises	11,693,577	4,107,451	7,586,126
Share of female-owned	15.44	24.06	9.91
Export sales	4,480,321	848,063	3,632,258
Female-owned enterprises	417,672	132,144	285,528
Male-owned enterprises	4,062,649	715,919	3,346,730
Share of female-owned	9.32	15.58	7.86

Notes: 1. Whether an enterprise was male-owned or female-owned was determined using the registered identity of the business owner.

2. The totals for all enterprises given in this table do not conform to those given in Table 2-1-1 because some enterprises are registered as being owned by other enterprises or by foreigners; these enterprises were excluded from the data used in this table.

Source: Ministry of Finance, Tax Data Center, VAT data (2006).

Average annual sales per enterprise for female-owned enterprises in 2006 came to NT\$7.11 million; average annual sales per enterprise for male-owned enterprises were 3.6 times as high, at NT\$25.59 million. Overall, female-owned enterprises account for less than 20% of the total sales for all enterprises.

3. Female-owned Enterprises Are More Oriented Towards the Domestic Market

In 2006, domestic sales accounted for 83.64% of the total sales of female-owned enterprises, with export sales accounting for only 16.36%. By contrast, export sales accounted for 25.78% of the total sales of male-owned enterprises, while domestic sales accounted for 74.22%. Female-owned enterprises are thus more oriented towards the domestic market than male-owned enterprises are.

Figure 2-3-1 Domestic Sales' and Export Sales' Shares of Total Sales in 2006 – by Sex of Business Owner



Notes: 1. Whether an enterprise was male-owned or female-owned was determined using the registered identity of the business owner.

2. The totals for all enterprises given in this table do not conform to those given in Table 2-1-1 because some enterprises are registered as being owned by other enterprises or by foreigners; these enterprises were excluded from the data used in this table.

Source: Ministry of Finance, Tax Data Center, VAT data (2006).

4. Female-owned Enterprises Are Heavily Concentrated in the Service Sector

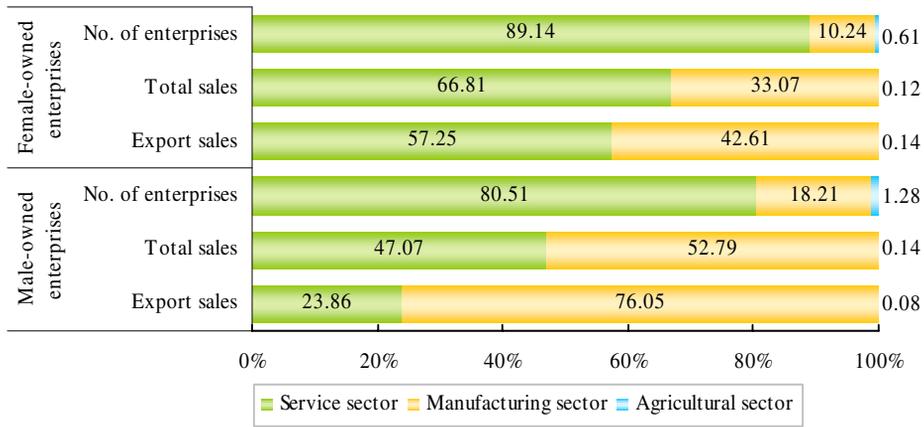
In 2006, female-owned enterprises outnumbered male-owned enterprises in the service sector; this was true for both large enterprises and SMEs (Table 2-3-2). Female-owned SMEs are heavily concentrated in the service sector.

For both male-owned enterprises and female-owned enterprises, the agricultural sector accounts for less than 1% of enterprises, and for less than 1% of total sales and export sales. The service sector accounts for the largest shares of female-owned enterprises, total sales of female-owned enterprises and export sales of female-owned enterprises. In the case of male-owned enterprises, while the service sector's share of all enterprises is very high, at over 80%, the shares of total sales held by the service sector and the manufacturing sector are roughly the same, and the manufacturing sector's share of export sales is higher (Figure 2-3-2).

Within the service sector, female-owned enterprises have average annual sales per enterprise of NT\$5.85 million, while the figure for male-owned enterprises is 2.7 times as high, at NT\$16.05 million. In the manufacturing sector, average annual sales per enterprise come to NT\$18.25 million for female-owned enterprises; for male-owned enterprises, they are 3.79 times as high, at NT\$69.10 million.

5. 19.17% of Female-owned Enterprises Have Been in Existence for 20 Years or More

Figure 2-3-2 Taiwan's Industrial Structure in 2006 – by Sex of Enterprise Owner



Notes: 1. Whether an enterprise was male-owned or female-owned was determined using the registered identity of the business owner.

2. The totals for all enterprises given in this table do not conform to those given in Table 2-1-1 because some enterprises are registered as being owned by other enterprises or by foreigners; these enterprises were excluded from the data used in this table.

Source: Ministry of Finance, Tax Data Center, VAT data (2006).

Enterprise age structure is broadly the same for female-owned enterprises and male-owned enterprises. 40.49% of female-owned enterprises have been in existence for less than 5 years, with 59.51% having been in existence for 5 years or more; 35.80% of male-owned enterprises have been in existence for less than 5 years. 40.11% of female-owned enterprises have been in existence for 10 years or more, compared to 44.57% for male-owned enterprises. It is noticeable that the percentage of female-owned enterprises that have been in existence for 5 years or more is slightly lower than the percentage of male-owned enterprises that have been in existence this long (Table 2-3-2).

6. More Than 70% of Female-owned Enterprises Are Sole Proprietorships

Sole proprietorships were the most common form of organization for female-owned enterprises in 2006, at 73.16% of all female-owned enterprises. Sole proprietorships were also the most common form of organization for male-owned enterprises (61.09%), but the concentration was less pronounced than it was in the case of female-owned enterprises.

Table 2-3-2 Enterprise Age Structure in 2006 – by Sex of Enterprise Owner

Units: enterprises; %

Enterprise Age \ Sex of Owner	All Enterprises		Male-owned Enterprises		Female-owned Enterprises	
	No. of enterprises	Share	No. of enterprises	Share	No. of enterprises	Share
Total	974,983	100.00	359,316	100.00	615,667	100.00
Less than 1 year	97,372	9.99	37,777	10.51	59,595	9.68
1 – 2 years	93,541	9.59	38,478	10.71	55,063	8.94
2 – 3 years	71,575	7.34	28,087	7.82	43,488	7.06
3 – 4 years	58,529	6.00	23,757	6.61	34,772	5.65
4 – 5 years	44,842	4.60	17,374	4.84	27,468	4.46
5 – 10 years	190,604	19.55	69,712	19.40	120,892	19.64
10 – 20 years	217,577	22.32	76,021	21.16	141,556	22.99
20 years or more	200,943	20.61	68,110	18.96	132,833	21.58

Notes: 1. Whether an enterprise was male-owned or female-owned was determined using the registered identity of the business owner.

2. The totals for all enterprises given in this table do not conform to those given in Table 2-1-1 because some enterprises are registered as being owned by other enterprises or by foreigners; these enterprises were excluded from the data used in this table.

Source: Ministry of Finance, Tax Data Center, VAT data (2006).

7. Female-owned Enterprises Account for More than Half of Enterprises, Total Sales and Export Sales in the Wholesaling and Retailing Industries

Viewed in terms of individual industries, in 2006 the wholesaling and retailing industry accounted for the largest share of female-owned enterprises and for the largest shares of female-owned enterprises' total sales and export sales. For male-owned enterprises, the wholesaling and retailing industry accounted for the largest share of enterprises, but manufacturing industry accounted for the largest shares of total sales and export sales (Table 2-3-3).

To summarize the information presented above, in 2006 female-owned enterprises accounted for 36.85% of all enterprises in Taiwan, 13.95% of total sales for all enterprises, 15.44% of domestic sales for all enterprises, and only 9.32% of export sales for all enterprises. Domestic sales accounted for 84% of the total sales of female-owned enterprises, indicating that female-owned enterprises are largely oriented towards the domestic market. 89.14% of female-owned enterprises are in the service sector, with a particularly high concentration in the wholesaling and retailing industry. 73.16% of female-owned enterprises are sole proprietorships. Overall, the contribution made by female-owned enterprises to the total sales of all enterprises in Taiwan is rather limited; on the other hand, the vast majority of female-owned enterprises are in the service sector, where value-added creation is higher than it is in the manufacturing sector.

Table 2-3-3 Individual Industries Shares of the Number of Enterprises, Total Sales and Export Sales in 2006 – by Sex of Enterprise Owner

Units: %

Industry	Enterprise Size	No. of Enterprises		Total Sales		Export Sales	
		Female-owned enterprises	Male-owned enterprises	Female-owned enterprises	Male-owned enterprises	Female-owned enterprises	Male-owned enterprises
Total		100.00	100.00	100.00	100.00	100.00	100.00
Agriculture, forestry and fisheries		0.61	1.26	0.21	0.12	0.10	0.04
Mining and quarrying		0.06	0.12	0.09	0.18	0.00	0.02
Manufacturing		6.10	10.62	18.15	41.40	23.89	72.43
Public utilities		0.03	0.06	0.64	2.40	0.00	0.22
Construction		4.08	7.51	7.50	5.46	0.26	0.14
Wholesaling and retailing		55.69	51.69	51.30	30.19	68.61	21.55
Hotel and restaurant		13.83	8.32	2.86	0.88	0.12	0.01
Transportation, warehousing and communications		1.79	3.38	4.67	4.07	5.94	3.77
Finance and insurance		0.62	1.02	4.85	8.66	0.01	0.02
Real estate and leasing		1.78	2.35	3.97	2.23	0.03	0.17
Professional, scientific and technical services		2.87	3.33	2.17	2.30	0.61	1.51
Educational services		0.03	0.03	0.01	0.02	0.00	0.00
Medical, healthcare, and social services		0.02	0.03	0.01	0.01	0.00	0.00
Cultural, sporting and leisure services		2.39	2.93	1.02	0.87	0.02	0.04
Other service industries		10.09	7.36	2.56	1.21	0.40	0.08

Notes: 1. Whether an enterprise was male-owned or female-owned was determined using the registered identity of the business owner.

2. The totals for all enterprises given in this table do not conform to those given in Table 2-1-1 because some enterprises are registered as being owned by other enterprises or by foreigners; these enterprises were excluded from the data used in this table.

Source: Ministry of Finance, Tax Data Center, VAT data (2006).

IV International Comparison

This section presents an international comparison of key SME indicators, covering 15 countries and regions, including Taiwan, Australia, Canada, Hong Kong, Japan, Malaysia, Mexico, New Zealand, the Philippines, Russia, Singapore, South Korea, Thailand, the UK, and the USA (Table 2-4-1). Different countries define SMEs differently, and in some cases data for the years covered by the comparison are not available; readers should be aware of these limitations when examining the data.

1. Definition of SMEs

Of the 15 countries and regions covered by the comparison, Canada and Mexico have the broadest definition of SMEs; in these two countries, any enterprise with 500 or fewer employees is classed as an SME. The US uses the same definition for enterprises in the manufacturing sector. New Zealand has the most stringent criteria, setting the

Table 2-4-1 The Definition of SMEs Used in Different Countries and Regions

Country/ Region	Industry	No. of Employees		Annual Sales Revenue	Capitalization	Other
Taiwan	Manufacturing, construction, and mining and quarrying	200	or		NT\$80 million	
	Other industries	50	or	NT\$100 million		
Australia		200				
Canada		500				
Hong Kong	Manufacturing sector	100				
	Non-manufacturing sector	50				
Japan	Other sectors	300	or		300 million Yen	Applies to sole proprietorships with 300 or fewer employees.
	Wholesaling sector	100	or		100 million Yen	
	Service sector	100	or		50 million Yen	
	Retail sector	50	or		50 million Yen	
Malaysia	Manufacturing	150	or		25 million Ringgit	
	Services	50	or		5 million Ringgit	
Mexico		500				
New Zealand		19				
The Philippines		200	or		60 million Pesos (total assets)	
Russia						No clear definition
Singapore	Services	200				Fixed assets worth 15 million Singapore Dollars or less
	Manufacturing					
South Korea	Manufacturing	300	or		8 billion Won	
	Mining, construction and transportation	300	or		3 billion Won	
	Large wholesalers, hotels, and information processing companies	300	or		30 billion Won	
	Seedling cultivation, broadcasting, fisheries, and energy	200	or	20 billion Won		
	Wholesaling, telemarketing, leasing, communications equipment sales, and entertainment	100	or	10 billion Won		
	Other			5 billion Won		
Thailand	Manufacturing and services	200	or		200 million Baht	
	Wholesaling	50	or		100 million Baht	
	Retailing	30	or		60 million Baht	
UK		250				
USA	Manufacturing	500				Average annual operating revenue of less than US\$6 million
	Wholesaling	100				
	Retailing					Average annual operating revenue of less than US\$6 million
	Services					
	Construction					Average annual operating revenue of less than US\$28.5 million

Sources: Taiwan: *White Paper on Small and Medium Enterprises in Taiwan*, consecutive years

Australia: Department of Industry, Tourism and Resources, /www.industry.gov.au/

Canada: Department of Industry, /strategis.ic.gc.ca/

Hong Kong: Support and Consultation Centre of SMEs, /www.sme.gcn.gov.hk/

Japan: Small and Medium Enterprise Agency, /www.chusho.meti.go.jp/

Malaysia: Small and Medium Industries Development Corporation, /www.smidec.gov.my/

Mexico: OECD Small and Medium Enterprise Outlook 2002

New Zealand: Statistics New Zealand, /www2.stats.govt.nz/

Philippines: National Statistics Office, /www.census.gov.ph/

Russia: Russian SME Resource Centre, /docs.rcsme.ru/
Singapore: Ministry of Trade and Industry, /www.mti.gov.sg/
South Korea: Small and Medium Business Administration, /www.smba.go.kr/
Thailand: Office of SMEs Promotion
UK: Department of Trade and Industry, www.sbs.gov.uk/
USA: Office of Advocacy, Small Business Administration, /www.sba.gov/advo/

cut-off point for SMEs at 19 employees. In some countries, the definition of SMEs varies depending on the industry to which the enterprise belongs. In Hong Kong, enterprises in the manufacturing sector with 100 or fewer employees are classed as SMEs, while for firms in the non-manufacturing sector the cut-off point is 50 employees. In Japan, the cut-off point is set at 100 employees in the wholesaling and service sectors, 50 employees in the retail sector, and 300 employees in other sectors. In South Korea, for most industries those firms with 300 or fewer employees are classed as SMEs, although a cut-off point of 200 employees applies in seedling transplantation firms and the broadcasting sector, and a cut-off point of 100 applies in some other industries. The situation in Malaysia and Thailand is broadly similar. In Singapore, SME status is determined separately in the service and manufacturing sectors according to the number of employees and the size of the firm's fixed assets. Russia has no clear definition of what constitutes an SME (Table 2-4-1).

Taiwan uses two different standards for determining whether a firm should be classed as an SME or not; one system is based on the number of employed persons working for the firm, while the other is based on annual sales revenue or capitalization. If the number of employed persons is used, then SMEs are defined as enterprises with 200 or fewer employees in the manufacturing, construction and mining and quarrying industries, and as enterprises with 50 or fewer employees in all other industries. If sales revenue or capitalization is used, then SMEs are defined as enterprises with paid-in capital of less than NT\$80 million in the manufacturing, construction, and mining and quarrying industries, and as enterprises with annual turnover of less than NT\$100 million in other industries. For the purposes of this comparison, the data for Taiwan use the definition of SMEs based on annual sales revenue and paid-in capital, except with regard to the number of employed persons.

2. SME Development

(1) Number of Enterprises

In absolute terms, the US has the largest number of SMEs. In 2005, there were 25.82 million SMEs in the US; Russia is in second place with 8.73 million (2003), followed by Japan with 5.64 million (2004). In all of the 15 countries and regions that are

compared in this section, SMEs accounted for a very high percentage of all enterprises. The percentage exceeded 90% in every country except the Philippines, and in 11 cases it exceeded 97%. It can thus be seen that SMEs play a vital role in the economic structure of almost every country. In 2006, Taiwan had 1.22 million SMEs in the non-agricultural sector, accounting for 98.05% of all enterprises; these figures show that, in Taiwan too, SMEs are very important to the economy.

(2) Employment

If SMEs in the agricultural sector are excluded, the US ranks highest in terms of SME employment, with 76.46 million people working in SMEs in 2005. Japan and Russia are in second place, with 41.24 million people (2004) and 39.96 million people (2004), respectively. In every country except Australia and New Zealand, more than 50% of employed persons are working in SMEs; the percentage is particularly high in South Korea (86.50% in 2004). It can thus be seen that, in the vast majority of countries and regions, SMEs provide more than half of all employment. In Taiwan's case, there are 7.75 million people working in SMEs, representing 76.66% of all employed persons in the country; this percentage is exceeded only by Japan and South Korea.

(3) Sales

In Taiwan, in 2006, SMEs accounted for 30.72% of the total sales of all enterprises; this figure was very close to that for the US in 2002 (31%). Apart from Singapore (where SMEs account for 75.68% of sales in an economy that is dominated by the service sector), the countries where SMEs account for the largest share of total sales are Russia, at 53.78% (2003), and Japan, at 48.20% (2002). In only two countries – Singapore and Russia – do SMEs account for more than 50% of total sales; in this respect, the importance of large enterprises significantly exceeds that of SMEs in most countries and regions.

(4) Export Sales

The country where SME export sales account for the largest share of total export sales for all enterprises is Australia, with a figure of 42% in 2004. South Korea is in second place with 39.06% (2004), followed by Canada with 35.06% (2002). In Taiwan, in 2006, SMEs accounted for 18.39% of total export sales value. This figure represented an increase of 0.79 percentage points compared to 2005, but is still lower than the percentages for any of the other countries and regions studied. This may reflect the fact that, whereas in the past Taiwan's SMEs exported finished goods directly themselves,

Table 2-4-2 International Comparison of SMEs

Units: thousand enterprises; million persons; %

Country/ Region	Non-agricultural Sector SMEs				SMEs* Share of Total Sales	SMEs* Share of Export Sales	Newly- established SMEs as % of All SMEs	SMEs that Have Gone Out of Business as % of All SMEs
	No. of SMEs	Share of All Enterprises	No. of Employed Persons	Share of All Employed Persons				
Taiwan ² (2006)	1,244	97.77	7.75	76.66	29.84	17.89	8.71	NA
Australia ³	1,200	95.00	3.30	47.00	NA	42.00 (2004)	NA	NA
Canada (2005)	2,250*	99.70*	6.67	63.75	NA	35.06 (2002)	10.5 (2003)	9.7 (2003)
Hong Kong (2005)	280	98.00	1.18	50.00	NA	NA	2.7 (2002)	3.2 (2002)
Japan ⁵ (2004)	5,640	98.94	41.24	79.56	48.20 (2002)	NA	2.7 (2002)	3.2 (2002)
Malaysia	490	99.20	0.38 (manufacturing) (2003)	32.50 (manufacturing) (2003)	NA	NA	NA	NA
Mexico	4,000	99.00	NA	72.00	NA	21.00 (1996)	NA	NA
New Zealand	320	96.30	0.72	40.48	NA	NA	17.23	14.27
The Philippines* (2004)	680	86.88	3.91	69.23	NA	NA	NA	NA
Russia ⁶ (2003)	*251 persons 500 persons	94.35	32.05	48.81	46.89	NA	NA	NA
Singapore ⁷ (2003)	130	99.67	0.66	69.10	75.68	NA	NA	NA
South Korea (2004)	3,000	99.80	10.42	86.50	NA	39.06	1.75	NA
Thailand ⁸	1,210	99.98	3.05	67.60	47.91 (2003)	NA	NA	NA
UK (2005)	4,180	96.20	21.71	58.70	46.90	NA	4.8 (2002)	4.9 (2002)
USA ⁹ (2005)	25,820	99.70	76.46	50.70	31.00 (2002)	28.60 (2004)	2.60	2.26

Notes: 1. The percentages given represent the figures for SMEs as a percentage of all enterprises.

2. Details of the definitions of SMEs used in Taiwan are given in Appendix 1.

3. Small businesses account for the bulk of Australian SMEs.

4. * indicates that the data include the agricultural sector.

5. In Japan, SMEs are defined as follows: enterprises in the mining, manufacturing, transportation and construction industries with less than 300 employees; enterprises in the wholesaling industry with less than 100 employees; enterprises in the retail industry and service industries with less than 50 employees.

6. Russia has no clear definition of SMEs. For the purpose of international comparison, Russian enterprises are grouped into those with less than 251 employees and those with less than 500.

7. Mainly service sector.

8. As of 2005, Thailand defined SMEs as those enterprises with less than 200 employees.

9. In the USA, SMEs are defined as those enterprises with less than 500 employees.

Sources: Taiwan: *White Paper on Small and Medium Enterprises in Taiwan*, consecutive years.

Australia: Department of Industry, Tourism and Resources, /www.industry.gov.au/

Canada: Department of Industry, /strategis.ic.gc.ca/

Hong Kong: Support and Consultation Centre for SMEs, /www.sme.gcn.gov.hk/

Japan: Statistics Bureau, /www.stat.go.jp/

Malaysia: Small and Medium Industries Development Corporation, /www.smidec.gov.my/

Mexico: OECD Small and Medium Enterprise Outlook 2002

New Zealand: Statistics New Zealand, /www2.stats.govt.nz/

The Philippines: National Statistics Office, /www.census.gov.ph/

Russia: Russian SME Resource Centre, /docs.rcsme.ru/

Singapore: Ministry of Trade and Industry, /www.mti.gov.sg/

South Korea: Small and Medium Business Administration, /www.smba.go.kr/

Thailand: Office of SMEs Promotion

UK: Department of Trade and Industry, /www.sbs.gov.uk/

USA: Office of Advocacy, Small Business Administration, /www.sba.gov/advo/

they are now positioning themselves more as suppliers of components to large enterprises in Taiwan.

(5) New SMEs and SME Failure

The number of new enterprises being established and the number of enterprises going out of business are important indicators of the overall health of an economy. If the number of new enterprises being set up is significantly larger than the number of enterprises going out of business, this indicates that the economy is growing strongly. An examination of the number of newly-established SMEs and the number of SMEs going out of business can also help to indicate how flexibly SMEs are responding to changing economic circumstances.

As can be seen from Table 2-4-2, there are only two countries in which newly-established SMEs' share of all SMEs exceeds 10%: New Zealand (17.23%) and Canada (10.5%). However, New Zealand also has a very high percentage (14.27%) of new SMEs going out of business every year. With a net annual growth rate in the number of SMEs of 3%, New Zealand can be seen to have a strongly entrepreneurial culture. In both the US and the UK, the number of new SMEs established each year is roughly equal to the number of SMEs going out of business, creating a situation of zero growth. Canada experienced some slight growth in the number of SMEs in 2003; newly-established SMEs accounted for 10.5% of all SMEs, while those SMEs going out of business in that year accounted for 9.7% of the total, giving a growth rate of 0.8%. By contrast, in Japan in 2002 the number of SMEs going out of business was higher than the number of new SMEs being established, reflecting the continuing decline in Japan's economic vitality.

In South Korea, newly-established SMEs accounted for 1.75% of all SMEs in 2004, while in Taiwan in 2006 the percentage was 8.71%; unfortunately, comprehensive data on the number of SMEs going out of business are not available for either country, making it difficult to undertake a meaningful comparison.



Chapter 3

Financial Status of SMEs

The overview of the financial status of SMEs presented in the first two sections of this chapter is based on data supplied by the Tax Data Center of the Ministry of Finance. As these data are derived from business income tax returns, there is a one-year time lag as compared to the data presented in the other chapters. In other words, the data in Sections I and II are for the year 2005 rather than 2006. Section III analyzes the sources of funds for the manufacturing sector and the reasons for the difficulty in acquiring funds. Section IV examines the interaction between banks and SMEs based on changes in the statistical data.

Due to the varying sources of data, the definition of SMEs used in different sections of this chapter also varies. In Section I and Section II, which use business income tax data compiled by the Ministry of Finance Tax Data Center, the definition of SMEs used is the revised definition announced by the Ministry of Economic Affairs in May 2000: firms in the mining and quarrying, manufacturing and construction industries that have paid-in capital of NT\$80 million or less, and firms in other industries that have annual sales revenue of NT\$100 million or less. The industry categories used in Section II have been revised according to the ROC Standard Industry Classification Version 7. The data in Section III are taken from the Status Survey Report on the Domestic Investment of Manufacturing Industry published by the Statistics Department, Ministry of Economic Affairs, according to which large enterprises are firms with 200 or more employees, medium enterprises are firms with more than 100 but less than 200 employees, and small enterprises are firms with less than 100 employees. The data in Section IV are taken from the Summary of Financial Statistics published by the Financial Supervisory Commission, Executive Yuan, and from the Central Bank's International Balance of Payments Tables; the definitions of SMEs used are the same as those used in Sections I and II.

More than 600,000 enterprises filed business income tax returns in 2005. After deducting those enterprises that did not provide complete data, where it was unclear as to which industry the enterprise belonged, or where the declared data were inconsistent, we were left with the financial data for 365,685 enterprises, of which 349,494 (95.57%)

were SMEs. 153,521 of the SMEs (43.93% of the total) were in the wholesaling or retailing industry, 89,702 (25.67%) were in manufacturing, and 42,289 (12.10%) were in the construction industry.

Overall, the financial situation of business enterprises in Taiwan in 2005 showed an improvement over 2004, and this was particularly true in the case of SMEs. The percentage of large enterprises that did not make a profit was 20.10%, down from 23.20% in 2004. 245,974 SMEs made a profit in 2005, compared to 200,233 in 2004; the percentage of SMEs that failed to make a profit was 29.62%, down from 35.66% in 2004.

I Overall Financial Status of SMEs

In this section, consolidated balance sheet data (where the figures for each account in the balance sheet are converted into percentages of total assets) are used to examine the fund utilization and funding sources of large enterprises and SMEs; consolidated data are also used to examine enterprise profit/loss status.

1. Analysis of Fund Utilization by SMEs

(1) A Substantial Increase in Funds and Long-term Investments

As can be seen from Table 3-1-1, for large enterprises the share of total assets held by funds and long-term investments rose by 2.70 percentage points in 2005 compared to 2004, while for SMEs, the share rose by 6.67 percentage points. Clearly, the upturn in the global economy in 2005 encouraged business enterprises to adopt a more optimistic attitude towards capital expenditure; for SMEs in particular, the growth of their involvement in the capital markets nearly doubled.

According to data compiled by the Investment Commission, Ministry of Economic Affairs, a total of 1,297 applications by Taiwanese enterprises to invest in China were approved in 2005. This figure represented a decline of 35.28% compared to the 2,004 applications approved in 2004. The combined investment value of these approved projects was US\$6 billion, down by 13.45% compared to 2004. Investment in China accounted for 70.46% of Taiwanese business enterprises' total overseas investment.

According to the 2005 Survey on Overseas Investment by Manufacturing Industry published by the Statistics Department of the Ministry of Economic Affairs, investment in China accounted for 81.82% of outward investment by manufacturing industry; the

Table 3-1-1 Consolidated Financial Data for Taiwanese Enterprises, 2003 – 2005

Unit: %

Item	Size/ Year	Large Enterprises			SMEs		
		2003	2004	2005	2003	2004	2005
Current assets		58.48	66.40	65.03	58.76	60.01	55.96
Cash		26.97	27.78	28.26	15.61	16.15	15.61
Accounts receivable		22.54	29.93	26.64	17.17	16.99	15.84
Inventories		5.92	5.67	7.33	22.59	23.23	21.10
Advance payments		0.54	0.51	0.44	1.60	1.59	1.50
Other current assets		2.50	2.50	2.36	1.80	2.05	1.90
Funds and long-term investments		23.63	16.62	19.32	10.43	9.61	16.28
Fixed assets		13.89	13.08	11.99	27.70	27.39	24.87
Land and buildings		7.40	6.83	5.62	16.91	17.01	15.31
Machinery		5.16	5.13	5.41	8.59	8.42	7.80
Other fixed assets		1.33	1.12	0.96	2.21	1.95	1.76
Intangible and other assets		4.01	3.91	3.66	3.11	2.99	2.90
Total assets = Liabilities + Net worth		100.00	100.00	100.00	100.00	100.00	100.00
Liabilities		78.47	79.76	74.48	66.67	67.41	62.31
Current liabilities		57.14	59.91	56.27	59.37	60.45	55.33
Short-term loans		41.45	42.69	30.34	15.60	15.52	14.39
Accounts payable		8.39	8.79	11.58	16.35	16.70	15.17
Income received in advance		2.39	2.22	6.48	4.87	5.40	5.11
Other current liabilities		4.91	6.21	7.88	22.55	22.83	20.67
Long-term liabilities		14.42	12.86	10.09	4.94	5.10	5.33
Long-term loans repayable		3.84	3.42	3.05	4.54	4.69	4.45
Other long-term liabilities		10.59	9.44	7.04	0.39	0.41	0.88
Other liabilities		6.91	6.99	8.12	2.36	1.85	1.65
Net worth		21.53	20.24	25.52	33.34	32.59	37.69
Stockholders' equity		15.42	14.20	14.16	40.40	38.33	39.37
Reserves and operating surplus		6.11	6.04	11.37	-7.07	-5.74	-1.67

Source: Ministry of Finance, Business income tax return data.

next highest share was held by investment in the US, with 17.04%. Both of these figures had increased slightly compared to 2004.

Regarding the changes in the main sources of raw materials, components and semi-finished products for Taiwanese companies' overseas operations, there has been a significant decline in the share of materials, components and semi-finished products supplied from Taiwan itself, while the shares originating from other locations all rose; the largest increase was in the share held by "sourced locally." Overall, it appears that, as the growth in overseas investment levels off, the trade creation effect resulting from overseas investment is weakening. From the point of view of Taiwanese companies that have invested overseas, it is more efficient to source raw materials, components and semi-finished products from the local supply chain as part of a comprehensive localization strategy.

As regards how Taiwanese companies market the goods produced by their overseas operations, the most common strategy is to have the goods sold directly by the overseas operation itself; this is particularly true in the case of large enterprises. Regardless of enterprise size, sector or industry, there has been a pronounced increase in the quantity of goods sold either in the local market (where the overseas operation is located) or in other overseas markets, while the quantity of goods shipped back to Taiwan has fallen. Clearly, the efforts that Taiwanese companies operating overseas have made to develop their local sales networks are starting to pay off.

It is quite probable that the main reason why the share of SMEs' total assets held by funds and long-term investments remained high in 2004 despite the economic downturn and then rose significantly in 2005 was that Taiwanese enterprises are continuing to invest overseas, attracted by China's huge market and abundant supplies of cheap labor. At the same time, enterprises appear reluctant to increase their spending on machinery. In the current era of low interest rates, the interest that business enterprises receive on bank deposits is very low, so firms have been adjusting their asset allocation to put more emphasis on funds and long-term investments, where higher returns can be achieved.

(2) A Fall in SMEs' Current Assets

As a percentage of total assets, the current assets of Taiwan's large enterprises fell by 1.37 percentage points in 2004. For SMEs, the decline was even more pronounced, at 4.05 percentage points. For the individual items making up current assets, the extent of the decrease varied between 2.13 percentage points and 0.09 percentage points. The fall in current assets was a reflection in the shift in asset allocation towards funds and long-term investments.

(3) A Fall in Fixed Assets for SMEs

For SMEs, the share of total assets held by fixed assets had remained more or less the same for three years. However, in 2005 the percentage fell to 24.87%, down from 27.39% in 2004. A fall was seen in all of the items making up fixed assets. This decline reflects the fact that, although the economy began to pick up again in 2003, SMEs—which tend to be asset-poor—are still reluctant to purchase land, and cautious about spending too heavily on fixed assets in general.

2. Analysis of SME Funding Sources

In 2004, although the Taiwanese economy was starting to pick up again, business enterprises did not experience any significant improvement in earnings performance. However, by 2005 things were looking brighter.

(1) A Slight Increase in Long-term Liabilities and a Fall in Current Liabilities

The Taiwanese economy entered a downturn in the second half of 2000. SMEs' overall debt ratio, which had risen to 55.64% in 1999, rose still further to 65.43% in 2000. The year 2005 saw a slight improvement; the ratio fell from 67.41% in 2004 to 62.31% in 2005. The current liabilities ratio for SMEs in 2005 was 55.33%, representing a decline of 5.12 percentage points compared to 2004; the long-term liabilities ratio rose by 0.23 percentage points over the same period. The large enterprises' current liabilities ratio also fell by approximately 5 percentage points. Examining the source of funding for SMEs and large enterprises can reveal the attitude of lenders—particularly banks—towards enterprises of different sizes. The small size and low earnings of most SMEs—coupled with the fact that many SMEs have moved production offshore—make banks cautious about lending to them, particularly in the case of short-term loans, and have thus lowered the ratio of their current liabilities in 2005.

Interest rates in Taiwan were very low in 2005, thereby encouraging business enterprises to borrow from Taiwanese banks to finance overseas investments. With long-term interest rates expected to fall still further, it makes sense for firms to take on long-term debt to meet their short-term funding needs, hence the increase in SMEs' long-term liabilities and the fall in their short-term liabilities.

(2) Reserves and Surplus Still Negative

There was some improvement in the operational performance of Taiwan's SMEs in 2005. Of the just over 290,000 SMEs for which data were available, 29.62% failed to make a profit, down from 35.66% in 2004. However, with the accumulated loss recorded on the balance sheet still higher than the accumulated surplus, reserves and operating surplus remained negative, although in absolute terms there was an increase compared to the previous year. While confirming that the SMEs' reserves and surplus remained low over the period 2000–2004, the data also showed an improvement in the overall operating environment in 2005.

3. Analysis of SMEs' Profit and Loss

(1) An Increase in the Operating Cost Ratio Compared to 2004

In 2005, SMEs' operating costs amounted to 82.05% of their net operating income (Table 3-1-2), up by 1.03 percentage points from 2004; for large enterprises, the increase was 2.06 percentage points. For both large enterprises and SMEs, the gross profit margin fell dramatically in 2005. The SMEs' gross profit margin declined to 17.95%; large enterprises, which have had to deal with an unfavorable operating environment since 2002, saw their gross profit margin fall by 3.42%. The SMEs' operating profit margin remains significantly higher than that of large enterprises; nevertheless, the rise in operating costs due to the continuing economic downturn in 2005 has eaten away at SMEs' profit margins.

Table 3-1-2 Profit and Loss of Taiwanese Enterprises, 2003 – 2005

Item	Year	Large Enterprises			SMEs			Unit: %
		2003	2004	2005	2003	2004	2005	
Net operating income		100.00	100.00	100.00	100.00	100.00	100.00	
Less: Operating costs		94.45	94.52	96.58	81.03	81.02	82.05	
Gross operating profit		5.55	5.49	3.42	18.97	18.98	17.95	
Less: Operating expenses		4.32	3.96	2.36	18.06	18.17	16.80	
Net operating profit		1.23	1.52	1.06	0.91	0.81	1.15	
Plus: Non-operating profit		0.73	0.67	0.60	1.33	1.31	1.38	
Less: Interest expenses		0.38	0.38	0.21	0.92	0.77	0.75	
Less: Other non-operating expenses		0.31	0.23	0.13	0.87	0.60	0.58	
Profit (loss)		1.26	1.59	1.33	0.45	0.75	1.20	

Source: Ministry of Finance, Business income tax return data.

(2) SMEs' Operating Expenses Ratio Falls, but Remains Higher Than That of Large Enterprises

Operating expenses are expenses arising from operations, including salaries, rentals, advertising, depreciation, insurance, etc. In 2005, the operating expenses ratio of Taiwan's SMEs amounted to 16.80% of net operating income, compared to 18.17% in 2004; even so, the 2005 ratio was still far higher than the corresponding ratio for large enterprises (2.36%). By and large, the business areas in which large enterprises are engaged (such as hi-tech manufacturing, including the provision of OEM and ODM services) are different from those of SMEs. The SMEs' weaker bargaining position (as compared to large enterprises) and their inability to access the information they need, combined with contractual restrictions and inappropriate accounting methods, make it difficult for them to adjust rental expenses, depreciation and wages flexibly in response to changes in the economic climate in the way that large enterprises can. The difficulty

that SMEs have in achieving economies of scale saddles them with operating expenses which, as a percentage of net operating income, are much higher than those of large enterprises.

(3) Erosion of Net Operating Profit by High Operating Expenses

Although SMEs have lower operating costs than large enterprises, their operating expenses tend to be higher. In 2005, operating costs and operating expenses combined accounted for 98.85% of the net operating income of Taiwan's SMEs, giving a net profit margin ratio of just 1.15%. SMEs have (relatively speaking) much higher gross operating profit than large enterprises, but because they lack the bargaining power that large enterprises enjoy and cannot achieve the same economies of scale, their operating expenses as a percentage of net operating income are very high. High gross profit margins are thus eroded by high operating costs, resulting in net profit performance that is inferior to that of large enterprises. While large enterprises' gross operating profit has fallen over the last two years, effective control of operating expenses has enabled large enterprises to achieve a net profit margin ratio of 1.06% on a gross profit margin of 3.42%. The operating expenses ratio of both large enterprises and SMEs fell in 2005, declining from 3.96% in 2004 to 2.36% in 2005 in the case of large enterprises and from 18.17% to 16.80% in the case of SMEs over the same period.

(4) Positive Current Profit/Loss

While the SMEs' gross profit margins fell slightly in 2005, the decline in operating expenses was more pronounced. As a result, SMEs' net profit margins rose from 0.81% in 2004 to 1.15% in 2005. Non-operating income and non-operating expenses (including interest payments) both fell, giving a net profit margin after tax of 1.20%.

4. Analysis of SMEs' Financial Ratios

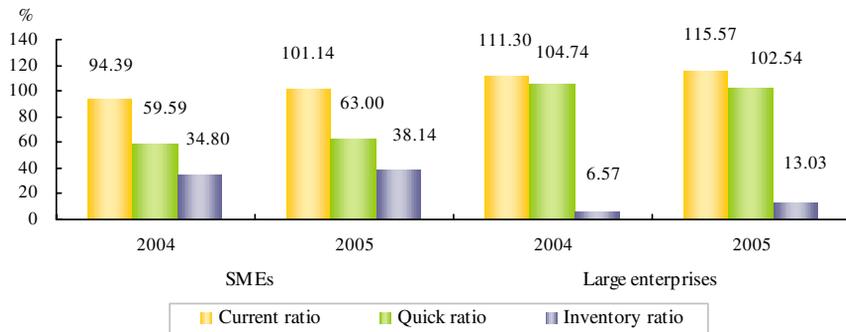
(1) An Increase in the Current Ratio, Quick Ratio and Inventory Ratio

The current ratio of Taiwan's SMEs rose by 6.75 percentage points in 2005 (Figure 3-1-1), while the quick ratio rose by 3.41 percentage points and the inventory ratio rose by 3.34 percentage points. Overall, 2005 saw an improvement in SMEs' short-term repayment ability.

Large enterprises displayed different changes in the quick ratio and inventory ratio, reflecting the different industries that large enterprises are in. In 2005, the large enterprises' current ratio rose by 4.27 percentage points, while their quick ratio fell by

2.20 percentage points. By contrast with Taiwan's SMEs, whose short-term repayment ability improved in 2005 compared to 2004, the short-term repayment ability of large enterprises remained more or less unchanged. The large enterprises' inventory ratio rose significantly, from 6.57% in 2004 to 13.03% in 2005; the increase in inventories was thus nearly double the increase in current assets.

Figure 3-1-1 Short-term Liquidity of Taiwanese Enterprises, 2004 and 2005



- Notes: 1. Current ratio = current assets ÷ current liabilities × 100% (reference value = 200; ideally, the ratio should be higher than the reference value).
 2. Quick ratio = (current assets – inventories) ÷ 100% (reference value = 100; ideally, the ratio should be higher than the reference value).
 3. Inventory ratio = inventories ÷ current liabilities × 100% (reference value = 100; ideally, the ratio should be higher than the reference value).

Source: Ministry of Finance, Business income tax return data.

An increase in the inventory ratio may reflect an increase in the quantity of unsold goods, or it may represent a deliberate delay in delivery on the part of manufacturers with the aim of achieving higher profits in the future when prices start to rise. Given that prices are showing no sign of rising in 2005, the first explanation seems more plausible in the present case. The combination of an increase in unsold goods and rising operating costs has forced enterprises to focus more on the development of new overseas markets.

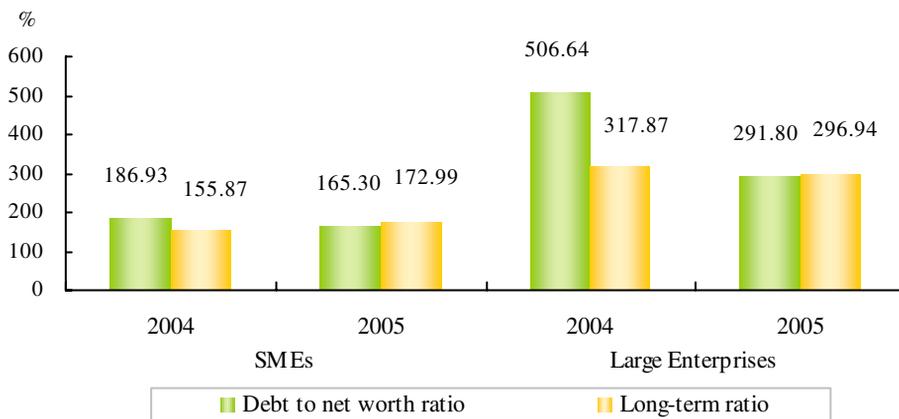
(2) A Fall in the Debt-to-Net Worth Ratio and a Slight Fall in the Long-term Fund Ratio

In 2005, the debt-to-net worth ratio of Taiwan's SMEs was 165.30%, representing a decline of 21.63 percentage points compared to 2004. Large enterprises posted an even more dramatic decline of 214.84 percentage points, from 506.64% down to 291.80%. Large enterprises' superior debt repayment ability enables them to maintain higher debt ratios than SMEs. The fall in the debt-to-net worth ratio may reflect the shift away from

the money markets towards the capital markets in business financing. It could also be due to large-scale debt repayment, although this is unlikely given the rise in the current ratio. A far more likely explanation is that firms' growing reliance on the capital markets for financing has caused equity capital to increase, which in turn has led to a reduction in the debt-to-net worth ratio. The debt-to-net worth ratio is a measure of the long-term solvency of an enterprise; a fall in this ratio indicates an improvement in the enterprise's ability to meet its obligations to creditors.

The SMEs' long-term fund ratio rose slightly to 172.99% in 2005. Although still inferior to the 296.94% posted by large enterprises, this increase was still an encouraging sign (Figure 3-1-2).

Figure 3-1-2 Long-term Stability of Enterprises in 2004 and 2005



Notes: 1. Debt to net worth ratio = $\text{debt} \div \text{net worth} \times 100\%$ (reference value = 100; ideally, the ratio should be below the reference value).

2. Long-term fund ratio = $(\text{equity} + \text{long-term debt}) \div \text{fixed assets} \times 100\%$ (reference value = 100; ideally, the ratio should be higher than the reference value).

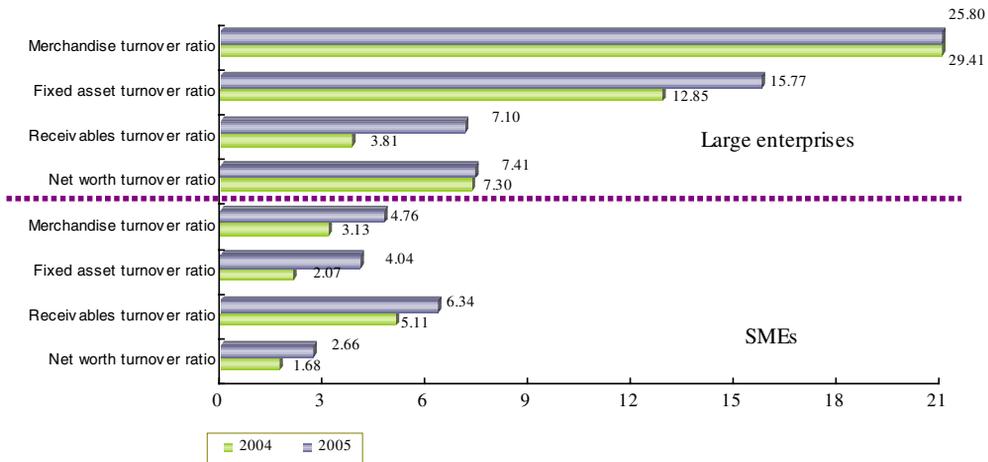
Source: Ministry of Finance, Business income tax return data.

(3) An Across-the-board Rise in Turnover Ratios

The operational performance of an enterprise depends on the effective utilization of its assets. The level of turnover reflects the extent to which assets are being effectively utilized, the company's credit policy and its inventory policy. Receivables turnover can be used to measure the operating capability of an enterprise; a high ratio suggests better operating capability, the efficient collection of receivables and the absence of idle or excess inventory. Looking at the data for 2005, it can be seen that SMEs' receivables turnover rose from 5.11 turns in 2004 to 6.34 turns in 2005; merchandise turnover also

rose, from 3.13 turns to 4.76 turns (Figure 3-1-3). The increase in these two figures reflects an improvement in SMEs' operational capability.

Figure 3-1-3 Operating Capability of Enterprises in 2004 and 2005



- Notes: 1. Merchandise turnover ratio = net sales / inventories.
 2. Fixed asset turnover ratio = net sales / fixed assets.
 3. Receivables turnover ratio = net sales / receivables.
 4. Net worth turnover ratio = net sales / net worth.

Source: Ministry of Finance, Business income tax return data.

The net worth turnover ratio and fixed asset turnover ratio are used to evaluate how efficiently own capital and fixed assets are used; higher ratios mean that the enterprise is able to make more effective use of its own capital and fixed assets. The fixed asset turnover of Taiwan's SMEs rose from 2.07 turns in 2004 to 4.04 turns in 2005, while net worth turnover increased from 1.68 turns to 2.66 turns. The SMEs' ability to make effective use of their fixed assets and own capital has thus remained reasonably strong.

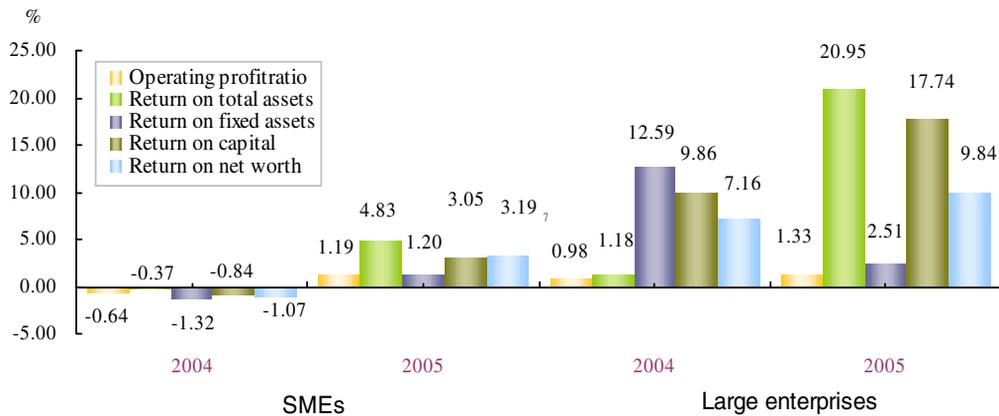
(4) Profitability Indicators All Positive

Profitability can be observed from an enterprise's ability to use its funds and capital to generate profit. Taiwan's economic growth rate in 2005 was significantly higher than in 2004, indicating that Taiwan has more or less recovered from the effects of the SARS epidemic in 2003 and the global economic downturn.

With domestic demand rising again, SMEs had been able to see a profit in 2003 after two consecutive years of loss in 2001 and 2002. SMEs dipped into a year of loss again in 2004, before recovering again in 2005. The profitability indicators for

Taiwan's SMEs in 2005 were as follows: the operating profit ratio was 1.19%; the return on total assets was 4.83%; the return on fixed assets was 1.20%; the return on capital was 3.05%; the return on net worth was 3.19% (Figure 3-1-4).

Figure 3-1-4 Profitability of Enterprises in 2004 and 2005



- Notes: 1. Operating profit ratio = current profit / net operating income.
 2. Return on fixed assets = current profit / fixed assets.
 3. Return on total assets = current profit / total assets.
 4. Return on capital = current profit / profit.
 5. Return on net worth = current profit / net worth.

Source: Ministry of Finance, Business income tax return data.

II Financial Analysis by Industry

The breakdown by industry of the 365,685 enterprises for which comprehensive financial data were available is shown in Table 3-2-1. Of the 349,494 SMEs, 103,520 (29.62%) failed to make a profit. The industries that failed to make a profit that was higher than the overall average of 29.62% included: the educational services industry (60.29%), the hotel and restaurant industry (51.40%), the cultural, sporting and leisure services industry (48.50%), the medical, healthcare and social services industry (46.88%), the finance and insurance industry (46.75%), the professional, scientific and technical services industry (44.39%), the real estate and leasing industry (41.82%), the public utilities industry (36.49%), and the wholesaling and retailing industry (35.99%).

1. Overall Financial Analysis by Industry

The 2005 consolidated balance sheets of SMEs and large enterprises by industry are shown in Table 3-2-2; the 2005 profit and loss structure by industry is shown in Table 3-2-3; and the consolidated financial ratios by industry are presented in Table 3-2-4. As

can be seen from the figures in these tables, considerable disparities exist between the financial structures of different industries; these are summarized below.

Table 3-2-1 Financial Status of Enterprises in 2005 – by Industry

Units: enterprises; %

Industry	Size	SMEs		Large Enterprises	
		No. of Enterprises	% Failing to Make a Profit	No. of Enterprises	% Failing to Make a Profit
Total		349,494 (103,520)	29.62	16,191 (3,255)	20.10
Agriculture, forestry, fisheries and animal husbandry		1,281 (336)	26.23	32 (8)	25.00
Mining and quarrying		385 (49)	12.73	4 (0)	0.00
Manufacturing		89,702 (14,765)	16.46	2,089 (547)	26.18
Water, electricity and gas		148 (54)	36.49	41 (8)	19.51
Construction		42,289 (8,735)	20.66	1,026 (320)	31.19
Wholesaling and retailing		153,521 (55,259)	35.99	9,327 (1,497)	16.05
Hotel and restaurant industry		8,681 (4,462)	51.40	229 (53)	23.14
Transportation, warehousing and communications		9,905 (2,734)	27.60	673 (111)	16.49
Finance and insurance		3,891 (1,819)	46.75	1,098 (327)	29.78
Real estate and leasing		8,195 (3,427)	41.82	690 (203)	29.42
Professional, scientific and technical services		15,237 (6,612)	44.39	479 (85)	17.75
Educational services		209 (126)	60.29	3 (0)	0.00
Medical, healthcare and social services		64 (30)	46.88	-	-
Cultural, sporting and leisure services		4,161 (2,018)	48.50	261 (50)	19.16
Other service industries		11,825 (3,094)	26.16	239 (46)	19.25

Note: Figures in parentheses are the number of enterprises failing to make a profit.

Source: Ministry of Finance, Business income tax return data.

(1) Among SMEs, the Construction Industry Had the Highest Current Asset Ratio, While the Finance and Insurance Industry Had the Lowest

As in 2004, the construction industry had the highest current assets ratio in 2005, at 86.85%. Current assets account for the vast majority of the assets of construction firms, with inventory being a particularly significant item. As shown in Table 3-2-2, inventory accounts for 44.76% of current assets in the construction industry. This may be related to the slump in the construction industry in the last few years, which led to a steady increase in unsold properties that developers could not get off their hands.

Whereas in the past the lowest ratio of current assets to total assets was found in the cultural, sporting and leisure services industry, in 2005 it was found in the finance and insurance industry, where the ratio was 23.00%, much lower than the average for

Table 3-2-2 SMEs' Consolidated Balance Sheet in 2005 – by Industry

Unit: %

Industry \ Item	Agri-culture, forestry, fisheries and animal hus-bandry	Mining and quarry-ing	Manu-facturin	Water, electri-City and gas	Const-ruction	Wholesale and retailing	Hotel and restaur-ant	Transpor-tation, Ware-housing and com-muni-cations	Finance and insur-ance	Real estate and leasing	Profe-ssional, scientific and technical services	Educa-tional services	Medical health-care and social services	Cultural, sporting and leisure services	Other services
Current assets	45.86	53.17	60.78	40.53	86.85	74.05	31.29	54.08	23.00	37.74	57.93	40.37	84.63	28.81	53.17
Cash	12.66	13.75	14.02	19.66	14.88	18.88	10.96	24.35	17.17	8.23	24.89	29.98	45.58	10.39	24.82
Accounts receivable	8.81	21.21	22.12	11.67	22.03	20.67	5.86	20.21	3.88	3.86	18.01	6.50	33.54	7.82	14.46
Inventories	6.47	11.79	22.09	6.37	44.76	30.54	10.06	2.20	0.84	21.79	8.38	1.10	3.91	7.00	7.61
Advance payments	15.02	3.64	1.42	0.99	1.48	1.92	2.66	3.24	0.28	1.25	2.67	0.80	0.27	1.91	3.11
Other current assets	2.90	2.79	1.13	1.85	3.71	2.05	1.75	4.06	0.83	2.61	3.99	2.00	1.33	1.70	3.18
Funds and long-term investments	4.50	0.87	1.40	2.57	0.85	4.62	5.68	4.83	71.97	13.56	14.73	2.30	0.49	4.29	5.31
Fixed assets	47.21	42.11	36.01	55.69	9.44	18.81	56.98	36.21	3.79	42.20	20.55	47.81	11.46	60.40	33.63
Land and buildings	9.83	15.23	19.21	23.85	3.84	11.77	40.05	10.94	3.16	36.25	11.89	36.18	0.72	43.97	19.14
Machinery	29.70	23.79	14.86	21.15	5.10	5.89	10.37	23.27	0.24	2.07	6.69	9.80	8.78	8.03	11.73
Other fixed assets	7.67	3.09	1.94	10.68	0.51	1.15	6.56	2.00	0.38	3.87	1.97	1.84	1.97	8.41	2.76
Intangible and other assets	2.44	3.85	1.81	1.22	2.86	2.52	6.06	4.89	1.24	6.51	6.79	9.53	3.42	6.50	7.89
Total assets = liabilities + net worth	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Liabilities	65.56	57.55	68.51	46.47	75.62	69.57	83.91	40.94	28.15	71.58	63.30	57.46	42.03	88.97	55.90
Current liabilities	56.20	51.71	61.77	43.05	73.09	65.16	68.12	36.16	23.34	55.53	54.12	45.70	41.81	59.74	46.66
Short-term loans repayable	14.85	16.80	18.22	11.59	8.81	13.55	15.54	8.80	9.69	21.41	8.50	18.67	5.10	13.15	7.62
Accounts payable	12.25	16.17	20.72	13.43	16.59	20.47	13.61	11.64	4.40	7.36	15.57	7.11	14.45	11.63	11.47
Income received in advance	1.57	0.40	1.63	2.02	35.46	1.36	0.68	0.62	0.13	3.03	6.64	1.88	0.13	2.27	2.85
Other	27.53	18.34	21.20	16.00	12.23	29.79	38.29	15.09	9.12	23.73	23.42	18.04	22.13	32.70	24.73
Long-term liabilities	7.62	5.52	5.69	2.04	1.68	3.36	13.56	2.84	4.12	11.76	6.46	4.63	0.02	10.95	7.15
Long-term loans repayable	7.61	3.00	5.28	2.04	1.56	3.10	12.29	2.39	0.78	11.58	6.02	4.59	0.00	10.04	4.95
Other long-term liabilities	0.01	2.52	0.41	0.00	0.12	0.27	1.27	0.46	3.35	0.18	0.44	0.03	0.02	0.91	2.21
Other liabilities	1.74	0.32	1.05	1.38	0.85	1.04	2.24	1.94	0.69	4.29	2.73	7.13	0.20	18.29	2.09
Net worth	34.44	42.45	31.49	53.53	24.39	30.43	16.09	59.06	71.85	28.42	36.70	42.54	57.97	11.03	44.10
Stockholders' equity	40.17	34.52	29.06	51.47	27.32	44.72	43.92	71.93	54.44	28.83	64.41	47.17	76.98	40.34	61.48
Reserves and operating surplus	-5.73	7.93	2.43	2.05	-2.94	-14.29	-27.84	-12.87	17.41	-0.41	-27.71	-4.63	-19.02	-29.31	-17.38

Source: Ministry of Finance, business income tax return data.

Table 3-2-3 Large Enterprises' Consolidated Balance Sheet in 2005 – by Industry

Unit: %

Industry	Agriculture, forestry, fisheries and animal husbandry	Mining and quarrying	Manufacturing	Water, electricity and gas	Construction	Wholesaling and retailing	Hotel and restaurant	Transportation, warehousing and communications	Finance and insurance	Real estate and leasing	Professional, scientific and technical services	Educational services	Medical, health-care and social services	Cultural, sporting and leisure services	Other services
Current assets	56.55	43.31	41.38	13.46	80.85	57.87	19.52	25.42	72.74	51.76	56.67	55.95	-	27.39	56.20
Cash	15.54	25.19	11.26	4.71	10.05	11.56	10.43	14.40	35.64	6.81	17.87	22.25	-	10.98	14.31
Accounts payable	8.55	14.36	14.92	5.02	14.31	28.54	4.23	6.94	31.17	6.96	16.84	7.62	-	9.90	25.60
Inventories	9.95	1.64	12.42	2.41	51.78	14.69	2.68	1.12	3.37	33.49	17.04	3.56	-	2.78	5.43
Advance payments	19.72	0.20	1.08	0.43	1.36	1.50	1.46	0.63	0.09	1.29	2.34	20.76	-	1.39	1.37
Other current asset	2.80	1.91	1.71	0.89	3.36	1.59	0.71	2.33	2.46	3.21	2.58	1.76	-	2.34	9.50
Fund and Long-term investment	12.20	36.78	17.22	6.32	4.35	5.90	6.37	15.73	22.42	9.74	27.73	0.00	-	14.64	9.15
Fixed assets	20.32	18.86	38.16	76.16	9.37	32.61	63.64	54.32	1.51	30.12	12.03	31.43	-	50.72	25.44
Land and buildings	11.53	8.08	13.58	11.09	5.63	18.17	49.11	22.09	1.10	17.45	7.27	0.98	-	27.83	15.15
Machinery	6.30	2.77	23.14	61.62	3.31	12.72	5.38	30.15	0.16	1.88	3.51	14.75	-	10.94	9.43
Other fixed assets	2.50	8.01	1.45	3.45	0.43	1.72	9.14	2.08	0.25	10.79	1.26	15.70	-	11.95	0.85
Intangible and other assets	10.94	1.06	3.24	4.06	5.43	3.62	10.47	4.53	3.34	8.37	3.58	12.62	-	7.25	9.21
Total assets = liabilities + net worth	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	-	100.00	100.00
Liabilities	59.08	35.31	45.57	51.23	81.36	67.00	65.95	27.02	82.90	71.86	58.43	86.21	-	58.54	70.51
Current liabilities	48.28	20.46	29.69	19.20	73.88	54.46	42.68	16.74	63.03	51.05	46.60	83.37	-	34.89	49.80
Short-term loans repayable	18.65	11.00	11.82	5.37	10.17	18.29	18.30	3.51	37.92	26.32	5.16	1.90	-	11.64	9.70
Accounts payable	12.53	8.64	12.99	9.06	16.87	26.48	16.16	10.03	9.59	9.05	17.66	28.46	-	12.79	14.14
Income received in advance	6.54	0.61	1.11	1.43	43.03	1.53	1.28	1.02	6.52	5.13	17.73	34.47	-	5.04	20.42
Others	10.56	0.22	3.77	3.34	3.81	8.15	6.94	2.18	8.99	10.54	6.05	18.54	-	5.42	5.53
Long-term liabilities	6.69	0.03	13.30	30.39	4.92	10.67	13.49	6.65	9.54	14.51	8.18	2.15	-	14.89	19.18
Long-term loans repayable	6.37	0.03	8.46	17.12	4.78	8.09	12.87	3.93	0.84	13.48	6.27	2.15	-	13.65	10.83
Other long-term liabilities	0.32	0.00	4.84	13.26	0.15	2.58	0.62	2.72	8.70	1.03	1.91	0.00	-	1.24	8.36
Other liabilities	4.11	14.81	2.58	1.65	2.56	1.87	9.78	3.63	10.33	6.30	3.64	0.68	-	8.77	1.53
Net worth	40.92	64.69	54.43	48.77	18.64	33.00	34.05	72.98	17.10	28.14	41.58	13.79	-	41.46	29.50
Stockholders' equity	27.55	52.00	30.16	35.08	21.15	24.79	35.92	32.69	8.31	18.03	27.00	34.28	-	36.56	21.40
Reserves and operating surplus	13.36	12.70	24.28	13.69	-2.51	8.21	-1.87	40.29	8.79	10.12	14.57	-20.49	-	4.90	8.09

Source: Ministry of Finance, Business income tax return data.

other industries. This situation is related to the nature of the industry in question; as the finance and insurance industry is mainly involved in the provision of services, there is little need for inventory.

(2) The Cultural, Sporting and Leisure Services Industry Posted the Highest Fixed Asset Ratio, While the Finance and Insurance Industry Had the Lowest

With the exception of the finance and insurance industry, for most other industries the situation regarding the fixed asset ratios of Taiwan's SMEs is more or less the mirror image of the pattern seen with the current assets ratio. In 2005, the cultural, sporting and leisure services industry had the highest fixed assets ratio, at 60.40%. The finance and insurance industry had the lowest fixed assets ratio, at 3.79%, followed by the construction industry, with 9.44%.

(3) The Cultural, Sporting and Leisure Services Industry and the Hotel and Restaurant Industry both Had Debt Ratios in Excess of 80%

The debt ratio in most industries has remained at around 50% - 60%. However, in 2005 the cultural, sporting and leisure services industry had a debt ratio of 88.97%, the hotel and restaurant industry had a debt ratio of 83.91%, and the construction industry had a debt ratio of 75.62%. The construction industry had the highest current liabilities ratio, of 73.09%; its ratio of current assets to total assets was also very high, of 86.85%. These figures reflect the nature of the construction industry, which "relies on cash to generate cash." In the construction industry, income received in advance accounts for more than 35% of current liabilities. This is because of the widespread practice in the construction industry of collecting advance payments from the sale of pre-sold housing products and for construction work. Along with the receipt of advance payments, there is usually a contractual requirement that the work be completed on schedule; construction companies thus run the risk of incurring huge penalties if they fail to monitor the progress of their work properly.

After the construction industry, the hotel and restaurant industry had the second highest current liabilities ratio, at 68.12%. This reflects the changes in consumer spending patterns, which have created a situation where enterprises in this industry tend to have inadequate current ratios. With a current assets ratio of 31.29%, the hotel and restaurant industry is clearly suffering from an excessive reliance on short-term borrowing to pay for long-term debt. Companies in this industry need to pay more attention to working capital management to keep credit risk to a minimum.

(4) Apart from the Finance and Insurance Industry, Mining and Quarrying Industry and Manufacturing Industry, All Other Industries Had Negative Reserves and Surpluses

In 2005, 29.62% of Taiwan's SMEs failed to make a profit. With the exception of the finance and insurance industry, mining and quarrying industry, manufacturing industry and public utilities industry, which were able to keep their reserves and surpluses in positive territory, all other industries posted negative reserves and surpluses. Seven industries had losses in excess of 10%: the cultural, sporting and leisure services industry (-29.31%), the hotel and restaurant industry (-27.84%), the professional, scientific and technical services industry (-27.71%), the medical, healthcare and social services industry (-19.02%), "other service industries" (-17.38%), wholesaling and retailing (-14.29%), and the transportation, warehousing and communications industry (-12.87%).

(5) Reasonable Gross Profit Levels, but Poor Cost Control and Disappointing Profits

An examination of the profit and loss structure of Taiwan's SMEs in 2005 (Table 3-2-4) shows that, of the 15 industry categories, there were only five—mining and quarrying, manufacturing, public utilities, construction, and the transportation, warehousing and communications industry—in which SMEs (as a whole) made a profit. SMEs in all other industries posted a loss. Around half of the industries had a gross profit margin of less than 30%; only the educational services industry achieved a gross profit margin in excess of 50%, with 63.41%. Only SMEs in agriculture, forestry and fisheries, manufacturing, and the hotel and restaurant industry had lower gross profit margins than large enterprises in the same industry. SMEs in the other 12 industries all performed better than their large-sized counterparts in terms of their gross profit margin. However, despite their impressive performance in terms of gross profit margins, the SMEs' ability to keep operating expenses and costs under control was far inferior to that of the large enterprises. As a result, there were only 5 industries in which SMEs displayed a positive net operating profit and positive earnings after deducting operating expenses.

In terms of their gross profit margins after deducting costs and expenses, the current profit levels of SMEs lag far behind those of large enterprises. This probably reflects the fact that the SMEs' ability to control costs and non-operating expenses is inferior to that of large enterprises. There may also be some falsification of expenditure reporting by some SMEs in order to reduce their tax liability. Of the 10 industries where SMEs made a loss in 2005, the most severe losses were seen in the educational services industry (-12.74%), the cultural, sporting and leisure services industry

(-6.31%), the real estate and leasing industry (-5.93%) and in the hotel and restaurant industry (-3.58%); in all of the other loss-making industries, the loss was less than -3%. There has thus been a clear improvement in SMEs' profit and loss structure.

Table 3-2-4 Profit and Loss Structure in 2005 – by Industry

Unit: %

Industry \ Item	Agriculture, forestry, fisheries and animal husbandry	Mining and quarrying	Manufacturing	Water, electricity and gas	Construction	Wholesaling and Retailing	Hotel and restaurant	Transportation, warehousing and communications	Finance and insurance	Real estate and leasing	Professional, scientific and technical services	Educational services	Medical, health care and social services	Cultural, sporting and leisure services	Other services
SMEs															
Net operating income	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Less: Operating costs	87.64	78.73	86.01	79.66	86.12	80.39	57.50	66.78	65.82	72.75	52.25	36.59	57.04	60.21	54.11
Gross operating profit	12.36	21.28	13.99	20.34	13.88	19.61	42.50	33.22	34.18	27.25	47.75	63.41	42.96	39.79	45.89
Less: Operating expenses	13.48	15.81	11.57	21.61	11.29	20.29	46.14	32.02	30.90	29.06	51.15	81.41	43.51	46.91	46.49
Net operating profit	-1.11	5.46	2.43	-1.27	2.60	-0.68	-3.64	1.20	3.28	-1.81	-3.40	-18.00	-0.54	-7.12	-0.60
Plus: Non-operating income	4.52	0.63	1.09	3.11	0.49	1.45	2.73	1.82	7.77	7.04	2.25	8.35	1.00	3.90	1.23
Less: Interest expenses	2.53	0.30	0.64	0.09	0.26	0.52	1.92	1.09	7.58	5.86	1.11	1.02	0.32	1.47	0.61
Less: Other non-operating expenses	0.98	0.45	0.50	0.77	0.30	0.42	0.75	0.60	4.16	5.30	0.62	2.07	0.40	1.63	0.48
Current profit (loss)	-0.10	5.34	2.38	0.98	2.52	-0.17	-3.58	1.33	-0.69	-5.93	-2.88	-12.74	-0.26	-6.31	-0.46
Large enterprises															
Net operating income	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	-	100.00	100.00
Less: Operating costs	83.23	83.02	84.51	84.42	95.72	86.76	53.90	74.01	98.90	82.10	72.76	51.54	-	63.92	75.14
Gross operating profit	16.78	16.98	15.49	15.59	4.28	13.24	46.10	25.99	1.10	17.90	27.24	48.46	-	36.08	24.86
Less: Operating expenses	11.53	7.41	6.83	3.23	4.21	10.97	40.97	17.89	0.79	11.03	21.11	49.36	-	28.07	20.33
Net operating profit	5.24	9.57	8.66	12.35	0.07	2.26	5.14	8.10	0.32	6.87	6.13	-0.90	-	8.01	4.53
Plus: Non-operating profit	2.27	1.19	6.23	1.28	1.66	1.26	1.90	3.03	0.14	1.79	1.13	4.41	-	2.50	11.72
Less: Interest expenses	0.56	0.19	1.26	0.89	1.39	0.78	2.90	0.97	0.05	1.35	2.76	0.30	-	1.51	2.39
Less: Other non-operating expenses	0.98	1.16	0.85	3.00	0.73	0.43	2.04	0.49	0.02	2.01	0.54	0.03	-	1.97	1.16
Current profit (loss)	5.97	9.41	12.78	9.75	-0.39	2.31	2.09	9.67	0.39	5.30	3.96	3.18	-	7.04	12.70

Source: Ministry of Finance, Business income tax return data.

As can be seen from Table 3-2-4, the operating cost ratio for SMEs in the educational services industry is 36.59%, compared to 51.54% for large enterprises. However, the operating expenses ratio for SMEs is 81.84%, much higher than the 49.36% ratio for large enterprises. Not only is the educational services industry SMEs' "other non-operating expenses" ratio much higher than that of large enterprises in the same industry, but it is also higher than that of SMEs in any other industry except real estate and leasing. These figures indicate that, although SMEs in the educational services industry are not inferior to large enterprises in the same industry in terms of cost control ability, their excessively high operating expenses have dragged them down into negative operating profit and negative current profit and loss.

2. Financial Ratios by Industry

The indicators used in this section are the same as those in Section I, but they have been recalculated to provide financial ratios for examining the changes in the financial status of enterprises in each industry (Table 3-2-5).

Table 3-2-5 Financial Ratios for Individual Industries in 2005

Unit: %

Industry Item	Agriculture, forestry, fisheries and animal husbandry-dry	Mining and quarrying	Manufacturing	Water, electricity and gas	Construction	Wholesaling and retailing	Hotel and restaurant	Transportation, warehousing and communications	Finance and insurance	Real estate and leasing	Professional, scientific and technical services	Educational services	Medical, health-care and social services	Cultural sporting and leisure services	Other services
SMEs															
Current ratio	81.61	102.81	98.40	94.14	118.82	113.67	45.91	149.57	98.56	67.95	107.04	88.32	202.40	48.23	113.96
Quick ratio	70.11	80.03	62.64	79.35	57.59	66.79	31.15	143.47	94.96	28.72	91.56	85.93	193.05	36.52	97.64
Inventory ratio	11.50	22.79	35.76	14.78	61.24	46.87	14.76	6.10	3.60	39.23	15.48	2.40	9.35	11.71	16.31
Debt-to-net worth ratio	190.34	135.56	217.54	86.82	310.09	228.58	521.63	69.32	39.18	251.89	172.51	135.06	72.52	806.81	126.77
Long-term fund ratio	89.11	113.90	103.26	99.79	275.94	179.69	52.06	170.94	2007.33	95.22	209.93	98.65	505.86	36.39	152.38
Net worth ratio	2.22	3.72	5.15	1.21	4.68	4.57	5.49	1.43	0.08	0.48	2.01	1.02	1.61	4.18	2.19
Receivables turnover	8.68	7.45	7.34	5.57	5.19	6.72	15.09	4.19	1.52	3.54	4.10	6.68	2.78	5.90	6.68
Fixed asset turnover	1.62	3.75	4.51	1.17	12.09	7.39	1.55	2.34	1.56	0.32	3.59	0.91	8.12	0.76	2.87
Merchandise turnover	11.83	13.40	7.35	10.21	2.55	4.55	8.79	38.42	7.04	0.63	8.80	39.62	23.81	6.60	12.69
Operating profit ratio	-0.10	5.34	2.38	0.98	2.52	-0.17	-3.58	1.33	-0.69	-5.93	-2.88	-12.74	-0.26	-6.31	-0.46
Return on total assets	-0.16	20.02	10.74	1.14	30.53	-1.23	-5.55	3.11	-1.08	-1.92	-10.32	-11.56	-2.14	-4.82	-1.33
Return on fixed assets	-0.07	8.43	3.87	0.64	2.88	-0.23	-3.16	1.13	-0.04	-0.81	-2.12	-5.53	-0.25	-2.91	-0.45
Return on capital	-0.18	24.43	13.30	1.23	10.55	-0.52	-7.20	1.56	-0.08	-2.81	-3.29	-11.72	-0.32	-7.22	-0.73
Return on net worth	-0.21	19.86	12.28	1.19	11.82	-0.76	-19.65	1.91	-0.06	-2.85	-5.78	-12.99	-0.42	-26.41	-1.01
Large Enterprises															
Current ratio	117.11	211.62	139.36	70.11	109.43	106.28	45.74	151.90	115.41	101.40	121.59	67.10	-	78.51	113.32
Quick ratio	96.51	203.59	97.54	57.55	39.35	79.31	39.45	145.20	110.05	35.78	85.03	62.84	-	70.55	102.37
Inventory ratio	20.60	8.03	41.82	12.56	70.08	26.97	6.29	6.70	5.35	65.62	36.56	4.26	-	7.96	10.95
Debt-to-net worth ratio	114.40	54.58	83.72	105.06	436.61	203.02	193.68	37.02	484.68	255.33	140.53	625.03	-	141.21	239.04
Long-term fund ratio	234.28	343.22	177.56	103.93	251.39	133.90	74.70	146.62	1764.94	141.60	413.52	50.73	-	111.09	190.56
Net worth turnover	2.24	0.64	1.58	0.82	3.04	5.48	1.98	0.85	13.38	1.51	2.07	7.70	-	1.34	2.57
Receivables turnover	10.71	2.87	5.76	7.92	3.97	6.34	15.95	8.97	7.34	6.10	5.12	13.94	-	5.63	2.95
Fixed asset turnover	4.50	2.18	2.25	0.52	6.05	5.55	1.06	1.15	151.64	1.41	7.16	3.38	-	1.10	2.97
Merchandise turnover	9.20	25.05	6.92	16.48	1.10	12.32	25.16	55.54	67.83	1.27	5.06	29.88	-	20.08	13.90
Operating profit ratio	5.97	9.41	12.78	9.75	-0.39	2.31	2.09	9.67	0.38	5.30	3.96	3.18	-	7.04	12.70
Return on total assets	26.87	20.54	28.79	5.09	-2.36	12.82	2.22	11.09	58.35	7.46	28.38	10.75	-	7.74	37.70
Return on fixed assets	5.46	3.87	10.98	3.88	-0.22	4.18	1.41	6.02	0.88	2.25	3.41	3.38	-	3.92	9.63
Return on capital	19.81	7.45	36.43	11.05	-1.04	16.87	3.93	18.42	10.60	12.47	12.65	9.86	-	10.74	44.99
Return on net worth	13.34	5.99	20.18	7.95	-1.18	12.67	4.15	8.25	5.15	7.99	8.21	24.51	-	9.47	32.65

Source: Ministry of Finance, Business income tax return data.

After shrinking by 2.2% in 2001, Taiwan's economy began to grow again in 2002, with a growth rate of 4.3%. Growth continued into 2003 (3.4%) and 2004 (6.1%), and a growth rate of 4.0% was achieved in 2005, rising to 4.6% in 2006. The financial ratios for Taiwan's SMEs thus continued to improve in 2005. With the upturn in the

Taiwanese economy progressing slowly in 2005, in most industries short-term solvency (debt repayment ability) remained at around the same unsatisfactory levels as in 2004. As can be seen from Table 3-2-5, eight industries had a current ratio below 100% in 2005. Two industries had a quick ratio in excess of 100%: the transportation, warehousing and communications industry (143.47%), and the medical, healthcare and social services industry (193.05%). Three other industries had a quick ratio in excess of 90%: the finance and insurance industry (94.96%), the professional, scientific and technical services industry (91.56%), and “other service industries” (97.64%). Most other industries had a quick ratio of less than 80%, indicating unsatisfactory short-term repayment ability with a relatively limited ability to convert assets into cash to meet repayment obligations.

The short-term solvency of the hotel and restaurant industry and the cultural, sporting and leisure services industry needs to be watched. These two industries ranked the lowest in terms of both their current and quick ratios; the hotel and restaurant industry had a current ratio of 45.91% and a quick ratio of 31.15% in 2005, while the ratios for the cultural, sporting and leisure services industry were 48.23% and 36.52%, respectively.

III Sources of Funding for Manufacturing Industry and Reasons for Experiencing Difficulty in Acquiring Funds

1. Main Sources of Funds for Operations or Investment

Taiwan has robust financial and capital markets that offer a wide variety of funding sources for businesses. Aside from companies' own funds and borrowing from private lenders, bank loans and the issuance of bills and notes, bonds or shares have become important funding sources for Taiwanese enterprises. According to the 2006 Survey of Domestic Investment by Manufacturing Industry, published by the Statistics Department, Ministry of Economic Affairs, more than 75% of Taiwanese manufacturers (both large enterprises and SMEs) make use of loans from domestic banks to provide funding for operations and investments. 33.76% use their retained earnings or capital surplus, and 31.74% make use of cash capital increments (Table 3-3-1).

Table 3-3-1 Sources of Funds for the Operations or Investments of Manufacturers in 2006

Unit: %

Source of Funds	Total	Large Enterprises	Medium-sized Enterprises	Small Enterprises
Borrowing from domestic banks	75.22	74.79	75.47	75.43
Retained earnings or capital surplus	33.76	41.60	34.54	26.57
Cash capital increment	31.74	32.34	31.79	31.21
Issuing commercial paper or depository receipts	11.22	19.68	10.74	4.28
Borrowing from foreign banks	9.49	13.51	7.98	7.01
Issuing corporate bonds	7.00	14.15	5.66	1.73
Borrowing from friends and relatives	4.51	0.96	3.63	8.10
Borrowing from credit cooperatives or farmers' and fishermen's associations	0.92	0.43	0.44	1.64
Revolving credit associations	0.70	0.00	0.73	1.27
Other	9.82	8.40	9.58	11.19

Note: Large enterprises are those with 200 or more employees; medium-sized enterprises are those with 100–199 employees; and small enterprises are those with less than 100 employees.

Source: Statistics Department, Ministry of Economic Affairs, *Survey of Domestic Investment by Manufacturing Industry*, September, 2006.

In 2006, 16.40% of medium-sized enterprises obtained funding from the issuance of commercial paper, depository receipts and corporate bonds, compared to 14.81% in 2005. The direct use of financial tools for financing by medium-sized enterprises has tended to increase in recent years. 4.36% of medium-sized enterprises obtained funding from friends and relatives in 2006, down from 6.18% in 2005. The percentage of small enterprises obtaining funding from friends and relatives fell dramatically, from 35.01% in 2005 down to 9.37% in 2006, while the percentage obtaining funding from the issuance of commercial paper, depository receipts and corporate bonds rose from 2.12% in 2005 to 6.01% in 2006. The growing importance of commercial paper, depository receipts and corporate bonds and the declining importance of loans from friends and relatives reflect an improvement in small enterprises' ability to make effective use of financial leverage.

2. Major Difficulties Encountered by Manufacturers in the Acquisition of Funds

According to the 2006 Survey of Domestic Investment by Manufacturing Industry, medium-sized enterprises were most likely to feel that they were experiencing difficulties in securing funding; 20.61% of medium-sized enterprises reported experiencing difficulty in this regard. The next highest percentage was found among small enterprises, at 19.47% (Table 3-3-2).

Table 3-3-2 Reasons Given by Manufacturers for Experiencing Difficulty in Securing Funding, 2006

Unit: %

Item	Enterprise Size	Total	Large Enterprises	Medium Enterprises	Small Enterprises
Experienced difficulty in acquiring funds?					
No		80.90	82.45	79.39	80.53
Yes		19.10	17.55	20.61	19.47
Reasons given for having difficulty in acquiring funds					
Banks have tightened up lending policy		56.24	52.12	59.15	57.48
Banks have tightened up lending policy due to a downturn in the industry to which the enterprise belongs		47.22	46.67	46.48	48.13
Interest rates on loans too high		42.23	33.33	42.96	48.60
Unable to furnish adequate collateral		35.12	33.33	35.92	35.98
Banks unable to process loan requests fast enough		19.96	19.39	19.01	21.03
Low share prices make it difficult to implement a public or private offering		14.40	26.06	13.38	6.07
Procedures for cash capital increments and bond issuance are too complicated		9.79	22.42	5.63	2.80
Unable to secure venture capital funding		7.49	6.67	7.75	7.94
Other		3.65	4.24	2.82	3.74

Notes: 1. Large enterprises are firms with 200 or more employees; medium-sized enterprises are firms with 100–199 employees; and small enterprises are firms with less than 100 employees.

2. Respondents were allowed to list more than one reason.

Source: Statistics Department, Ministry of Economic Affairs, *Survey of Domestic Investment by Manufacturing Industry*, September, 2006.

Regardless of the size of the enterprise, the top three reasons given by manufacturing enterprises as to why they had been experiencing difficulty in securing funds were first of all the introduction of more rigorous loan application procedures by banks (56.24%), followed by tighter bank lending policy due to a downturn in the industry to which the enterprise belonged (47.22%), and high interest rates (42.23%). The fourth most common reason was an inability to furnish adequate collateral (35.12%). Other reasons given included banks being unable to process loan requests fast enough (19.96%), and low stock prices making it difficult to implement a public or private offering (14.40%). Only 9.79% of manufacturing enterprises reported problems due to the complexity of the procedures for implementing cash capital increments or issuing bonds, and only 7.49% complained about being unable to secure venture capital funding (Table 3-3-2).

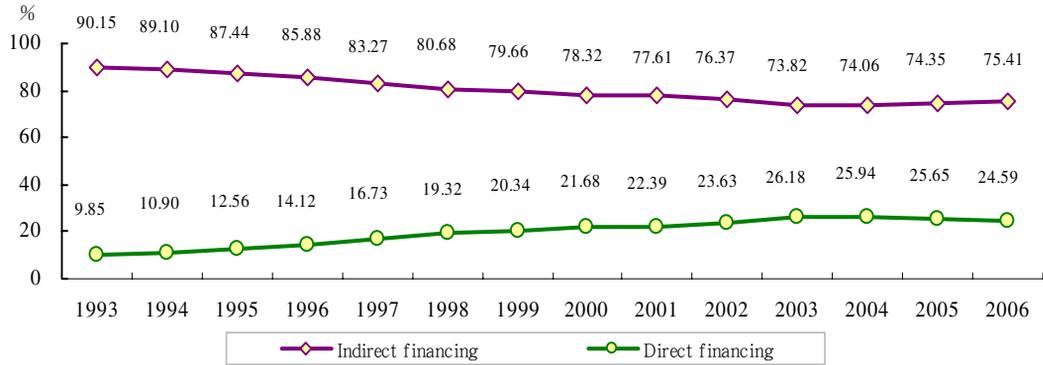
In 2004, the government continued to implement a number of measures to help SMEs to secure working capital. These measures included expanding the services provided by the SME Troubleshooting Center, helping innovative SMEs to acquire working capital, helping SMEs to improve their accounting systems and to secure financing, introducing new low-interest loan programs (as well as continuing to implement existing programs), and strengthening the capabilities of the Small and Medium Enterprise Credit Guarantee Fund. With the economy as a whole having started to recover in the last two years, 2006 saw a pronounced decline in the percentage of enterprises that reported difficulty in securing funding, from 30.16% in 2005 down to 19.10% in 2006. In particular, small and medium-sized enterprises are finding it much easier to secure funding. The percentage of medium-sized enterprises that reported difficulty in securing funding fell from 31.48% in 2005 to 20.61% in 2006, while the percentage of small enterprises that reporting having problems with funding fell from 34.73% to 19.47%.

IV Financial Institutions and SME Financing

Financing is the lifeline of an enterprise, and this is particularly true for SMEs, which tend to have inadequate funds. Ready access to funds and efficient fund management are among the keys to the successful operation of SMEs. For a business enterprise, the sources of funding include internal funds and external financing. Internal funds include primarily the earnings and reserve of the enterprise, with the amount of funds available depending on its operational performance; external financing includes private loans, trade credit, bank loans, and the issuance of securities in the financial markets.

With the rapid development of Taiwan's capital markets, direct financing's share of total financing steadily increased in the past increasing, reaching 26.18% by the end of 2003. The percentage then fell to 25.94% in 2004, to 25.65% in 2005, and to 24.59% in 2006. However, the growth of direct financing has helped to broaden the range of financing channels available to Taiwan's SMEs. The share of total financing held by indirect financing (loans and investments) has risen from 73.82% in 2003 to 75.41% in 2006 (Figure 3-4-1).

Figure 3-4-1 Share of Total Financing Held by Direct and Indirect Financing, 1993 – 2006

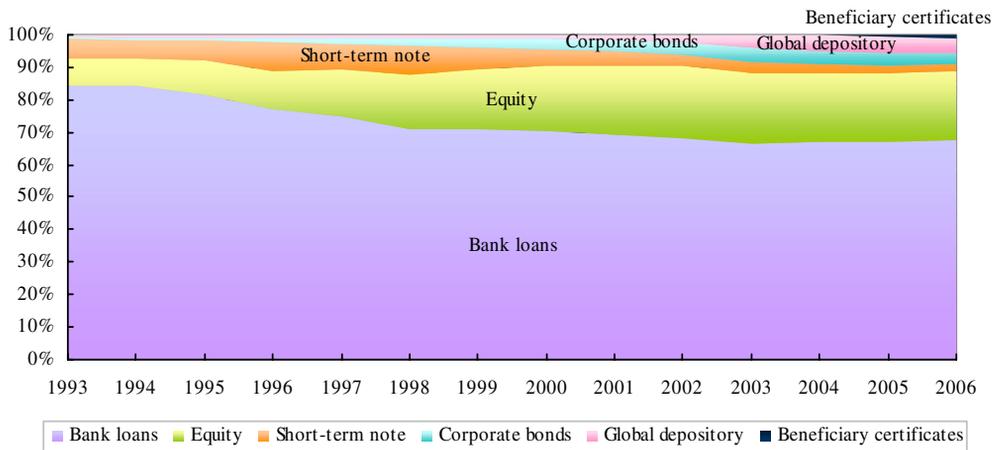


Source: Central Bank, ROC.

The share of business enterprises' total funding provided through bank loans has fallen to 61.26%. The shares held by other forms of financing in 2006 were as follows: Equity–19.11%; Overseas depository receipts–3.98%; Corporate bonds–3.26%; Short-term notes–2.05%; Beneficiary certificates–0.97% (Figure 3-4-2).

Given the limited range of financing channels available to SMEs, bank loans remain the most important source of funding. The following sections examine the changes in the structure of the relationship between banks and SMEs in Taiwan.

Figure 3-4-2 Business Financing Channels, 1993 – 2006



Source: Central Bank, ROC.

1. Eight Leading Banks Provided a Particularly Large Amount of Financing to SMEs

Taiwan Cooperative Bank has consistently been the single largest lender in the SME loan market (for the purposes of this section, “loans outstanding” includes overdue loans), indicating that the major source of SME loans has been the commercial banks. As of the end of 2006, Taiwan Cooperative Bank’s outstanding loans to SMEs totaled NT\$304.3 billion, representing an increase of NT\$90.2 billion compared to 2005, and bringing the bank’s market share in the SME segment to 10.75%. First Commercial Bank was in second place, with outstanding loans to SMEs that totaled NT\$303.7 billion, giving it a market share of 10.73% (Table 3-4-1).

In addition, most of the banks increased their outstanding loans to SMEs in 2006. If the banks are ranked according to the size of the increase in outstanding loans to SMEs compared to 2005, the order for the first ten banks is as follows: Taiwan Cooperative Bank (an increase of NT\$90.2 billion), Mega International Commercial Bank (an increase of NT\$72.8 billion), First Commercial Bank (NT\$45.4 billion), Bank SinoPac (NT\$45.1 billion), Chang Hwa Commercial Bank (NT\$39.9 billion), Hua Nan Commercial Bank (NT\$32.0 billion), E.Sun Commercial Bank (NT\$23.0 billion), Land Bank of Taiwan (NT\$20.7 billion), Bank of Taiwan (NT\$17.9 billion), and Taipei Fubon Bank (NT\$13.6 billion). As of the end of 2006, the total amount of loans to SMEs by commercial banks was NT\$2,830.6 billion, an increase of NT\$272.3 billion over 2005. Overall, the trend in 2006 was for bank lending to SMEs to increase.

Table 3-4-1 Top 10 Banks by Amount of Loans to SMEs, End of 2006

Bank	Loans Outstanding	Market Share	Units: NT\$ million; %
			Loans to SMEs as a % of Total Loans
Total	1,902,059	67.19	20.25
Taiwan Cooperative Bank	304,274	10.75	17.82
First Commercial Bank	303,692	10.73	34.99
Hua Nan Commercial Bank	255,850	9.04	26.30
Taiwan Business Bank	237,496	8.39	32.41
Chang Hwa Commercial Bank	198,678	7.02	24.95
Mega International Commercial Bank	158,071	5.58	17.85
Land Bank of Taiwan	151,284	5.34	11.26
Bank of Taiwan	135,851	4.80	9.68
King’s Town Bank	79,822	2.82	56.00
Bank SinoPac	77,041	2.72	14.26

Source: Financial Supervisory Commission, Executive Yuan, *Statistics of Banking Business*, December 2006.

2. Smaller Banks Had a Higher Percentage of Loans Extended to SMEs

Of the banks with the highest percentage of loans going to SMEs, the top two are Hualien Business Bank and King's Town Bank, both being small banks (Table 3-4-2). In accordance with the policy objectives that lay behind their establishment, loans to SMEs have always accounted for a high percentage of the loans granted by Taiwan's specialized "SME banks." While Taiwan Business Bank is relatively large, Hualien Business Bank is a much smaller operation than most commercial banks, so although loans to SMEs account for a high percentage of its total outstanding loans, in absolute terms the amount of funding that Hualien Business Bank is able to provide to SMEs is very limited.

Table 3-4-2 Top 10 Banks by the Percentage of Total Loans to SMEs in 2005 and 2006

Units: NT\$ million; %

Bank	2006		2005	
	Loans to SMEs as a % of Total Loans	Loans Outstanding	Loans to SMEs as % of Total Loans	Loans Outstanding
Hualien Business Bank*	60.21	4,946	64.86	7,758
King's Town Bank	56.00	79,822	66.32	74,502
First Commercial Bank	34.99	303,692	32.08	258,246
Taiwan Business Bank*	32.41	237,496	32.82	235,206
Bowa Bank	30.35	33,247	28.83	34,091
EnTie Commercial Bank	29.96	68,463	28.03	58,646
Shanghai Commercial and Savings Bank	28.63	62,704	30.95	60,091
Taichung Commercial Bank	27.56	51,565	22.10	39,985
Hua Nan Commercial Bank	26.30	255,850	24.74	223,840
Chang Hwa Commercial Bank	24.95	198,678	20.37	158,752

Note: * denotes a specialized SME bank.

Source: Bureau of Monetary Affairs, *Statistics of Banking Business*, December 2006.

3. High Market Concentration in the Provision of Loans to SMEs by Regular Banks

As of the end of 2006, there were 41 domestic banks (including 38 regular domestic banks and 3 specialized SME banks) and 32 foreign banks operating in Taiwan. Outstanding loans to SMEs totaled NT\$2.83 trillion, representing an increase of NT\$272.3 billion over 2005. The top 10 banks in terms of outstanding loans to SMEs (including the 7 banks referred to above) had a combined market share of 67.19%, indicating a high level of market concentration. Foreign banks' outstanding loans to

SMEs totaled NT\$336.6 billion, giving them a combined market share of just 7.49%, which was roughly the same as in the previous year.

4. An Increase in Outstanding Loans to SMEs by Banking Subsidiaries of Financial Holding Companies

In response to the development of the financial markets, the diversification of the demand for financial services, and the government's desire to expand the scale of the financial sector, improve its operational performance and enhance the international competitiveness of the industry as a whole, the Financial Holding Company Law was approved by the Legislative Yuan and signed into law by the President on July 9, 2001, taking effect on November 1, 2001. So far, a total of 14 financial holding companies have been established. Following a series of mergers, as of the end of 2006, 12 banking subsidiaries of financial holding companies, plus the China Development Industrial Bank, had a combined total of NT\$1,166.4 billion in loans outstanding to SMEs (accounting for 17.21% of all loans outstanding to SMEs), representing an increase of NT\$179.6 billion (18.20%) compared to 2005 (Table 3-4-3). It can thus be seen that the banking subsidiaries of financial holding companies continue to provide financing for SMEs.

5. Total Bank Loans to SMEs Fell Compared to the End of 2005

In order to conform to the requirements of the government's "2-5-8 Financial Reform Program," which required banks to reduce their non-performing loan ratios to 5%, banks have been working vigorously to clean up their NPL portfolios by being more aggressive in payment collection, selling off non-performing assets and writing off bad debts. According to statistics compiled by the Bureau of Monetary Affairs, Financial Supervisory Commission, domestic banks wrote off a total of NT\$215.4 billion in bad debt in 2006, up from 2005 (the figures for 2003 and 2004 were NT\$236.8 billion and NT\$162.2 billion, respectively). As of the end of 2006, the total outstanding loans of Taiwan's regular domestic banks were up 3.55% year-on-year (Figure 3-4-3), but outstanding loans to SMEs were up only by 0.27%, from NT\$2.56 trillion to NT\$2.83 trillion. SMEs' share of total outstanding bank loans rose by 1.10 percentage points, from 16.06% in 2005 to 17.16% in 2006.

Whole-year economic performance in 2006 benefited from the continuing upturn in the global economy. Imports and export sales both rose to record levels, encouraging business enterprises to invest in new equipment; as a result, private-sector spending

Table 3-4-3 Outstanding Loans to SMEs by the Banking Subsidiaries of Financial Holding Companies in 2005 and 2006

Unit: NT\$ million; %

Bank	2005		2006			
	Outstanding Loans to SMEs	Loans to SMEs as % of Total Loans	Outstanding Loans to SMEs	Loans to SMEs as % of Total Loans	Increase in Loans to SMEs	Annual Growth Rate
Total	986,806	20.79	1,166,407	17.21	179,601	18.20
First Commercial Bank	258,246	32.08	303,692	34.99	45,446	17.60
Hua Nan Commercial Bank	223,840	24.74	255,850	26.30	32,010	14.30
Mega International Commercial Bank	91,016	19.06	158,071	17.85	67,055	73.67
Bank SinoPac	74,157	18.51	77,041	14.26	2,884	3.89
E.Sun Commercial Bank	56,782	7.37	72,533	17.45	15,751	2.77
Taipei Fubon Commercial Bank	58,655	10.94	72,237	12.68	13,582	23.16
Cathay United Bank	61,680	10.36	63,504	10.09	1,824	2.96
Chinatrust Commercial Bank	49,506	14.24	62,150	8.88	12,644	25.54
Fuhwa Commercial Bank	23,674	12.55	33,374	15.26	9,700	40.97
Shin Kong Commercial Bank	33,838	6.32	22,490	9.71	-11,348	-33.54
Jih Sun Commercial Bank	29,946	13.71	21,510	12.04	-8,436	-28.17
Taishin International Bank	22,659	11.00	20,283	4.04	-2,376	-10.49
China Development Industrial Bank	2,807	4.99	3,672	5.64	865	30.82

Source: Bureau of Monetary Affairs, *Statistics of Banking Business*, December 2006.

rose significantly. Strong job creation, greater willingness to grant loans on the part of financial institutions, and an upturn in the real estate market, all helped to boost domestic demand in Taiwan.

Banks have traditionally been less willing to extend loans to SMEs due to their occasionally questionable financial health. However, with the economic climate improving and with the government having injected more funds into the SME Credit Guarantee Fund in the last few years to help SMEs overcome the difficulties that they experience as a result of their inability to provide sufficient collateral, banks have now become more willing to lend money to SMEs. As of the end of December 2006, regular banks' total outstanding loans to SMEs stood at NT\$2,830,635 million, of which NT\$581,060 million were covered by credit guarantees granted by the SME Credit Guarantee Fund, giving a "credit guarantee utilization rate" (i.e., financing to SMEs through the provision of credit guarantees as a percentage of total loans outstanding to SMEs) of 20.53%.

Figure 3-4-3 Changes in Bank Loans to SMEs by Regular Banks



Note: "Total loans outstanding" was calculated using the following formula: regular banks' outstanding loans to SMEs (including overdue loans) divided by loans to SMEs as a percentage of total loans.

Source: Bureau of Monetary Affairs, Financial Supervisory Commission, Executive Yuan, *Statistics of Banking Business*, consecutive years.

One point worth noting is that the definition of "loans outstanding" used in this section includes overdue receivables, but not guarantees or acceptances. Inclusion of these items would make a significant difference to both the amount of loans outstanding to SMEs and the share of all outstanding loans held by these loans. In addition, while the data presented above are based on direct loans to SMEs, many SME owners also secure personal loans that are used for business purposes in their own name. These personal loans are not classed as loans to SMEs, but in reality they do constitute a form of SME financing.

6. Banks' Outstanding Loans to SMEs Have Risen, Both in Absolute Terms and as a Percentage of Total Bank Loans

In 2006, banks' outstanding loans to SMEs totaled NT\$2.83 trillion; loans to SMEs accounted for 17.16% of banks' total outstanding loans. Both of these figures represented an increase compared to 2005. This growth may be related to the Financial Supervisory Commission's Plan for Increasing Loans to SMEs by Domestic Banks, the implementation of which began in July 2005. The Plan's objective was to achieve an increase of at least NT\$200 billion in outstanding bank loans to SMEs over the period from the end of June 2005 to the end of June 2006. The Financial Supervisory Commission continued to implement the second year plan (July 2006 to June 2007),

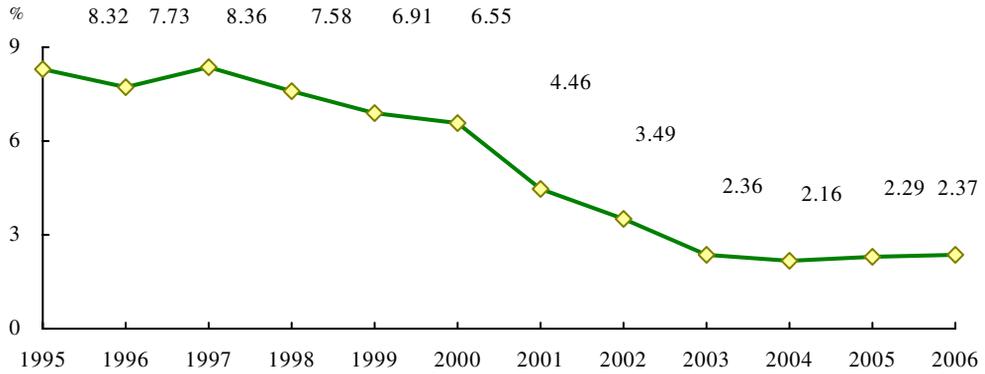
with the objective of achieving achieve an increase of another NT\$200 billion in outstanding bank loans to SMEs over the period. Following the introduction of a new definition of “overdue loans” by the Financial Supervisory Commission in July 2005, the NPL ratio fell to 2.34% by the end of 2006 (the NPL ratio had stood at 2.19% in late 2005, and in the first quarter of 2002 had reached an all-time high of 11.74%). With the total amount of non-performing loans falling to NT\$393.6 billion (down from NT\$1,676.5 billion in the first quarter of 2002), it was clear that the overall health of Taiwan’s banking system was gradually improving, putting banks in a better position to meet SMEs’ funding needs.

7. A Slight Rise in the Cost of Financing in 2006

The Central Bank has maintained an easy monetary policy since the end of 2000, and had cut the discount rate 15 times by the end of 2006 to bring market rates down and help cut the cost of funding for business enterprises. The Central Bank has also urged banks to implement the new prime rate system for loans to facilitate downward adjustments in interest rates. In a letter to domestic banks in June 2003, the Central Bank asked the banks to step up their SME loan business and to take on more SME credit guarantee business, and indicated that it would be monitoring the banks’ operations in this area on a monthly basis. As of the end of 2006, loans extended to SMEs by domestic banks through the SME Credit Guarantee Fund amounted to NT\$401.2 billion, representing a year-on-year increase of 7.67% compared to the NT\$372.6 billion in loans outstanding to SMEs as of the end of 2005.

Central Bank data show that the average interest rate on new loans extended by the Bank of Taiwan, Taiwan Cooperative Bank and the three leading commercial banks had fallen steadily from 8.32% in 1995 to 2.16% in 2004, before rising again to 2.37% in 2006 (Figure 3-4-4). Although the Central Bank data were not broken down by enterprise size, it is clear from Figure 3-4-3 that, for Taiwan’s SMEs, the cost of bank loans had been falling until 2004, but then began to increase slightly after the Central Bank starting raising the discount rate in late 2004. As of the end of 2006, the Central Bank had raised the discount rate nine times, for a cumulative increase of one percentage point. There has thus been a slight rise in funding costs.

Figure 3-4-4 Average Interest Rates on New Loans Extended by Five Leading Banks, 1995 – 2006



Note: The interest rates shown in the table are a weighted average of the interest rates in each month of the year.
Source: Central Bank of ROC.

Chapter 4

The Current Status of SMEs' Labor Utilization

Strong export performance provided a boost to the Taiwanese economy in 2006. However, the fallout from the excessively high levels of credit card debt that Taiwan had seen in the previous few years caused consumer spending to fall to a level significantly below that of 2004 and 2005. Fortunately, new jobs continued to be created, and the unemployment rate fell to its lowest level since 2001. This chapter will examine the current status of labor utilization among Taiwan's SMEs, focusing on manpower resources, working conditions, the impact of the government's labor policies, and SMEs' own manpower cultivation efforts.

In this chapter, enterprise size is defined according to the number of employees. Enterprises in the mining and quarrying industry, manufacturing industry and the construction industry with less than 200 employees, and enterprises in other industries with less than 50 employees, are classed as SMEs. However, in some cases limited availability of data makes it impossible to use this classification system; in such cases, SMEs are defined as enterprises with less than 100 employees. This is pointed out in the text where appropriate.

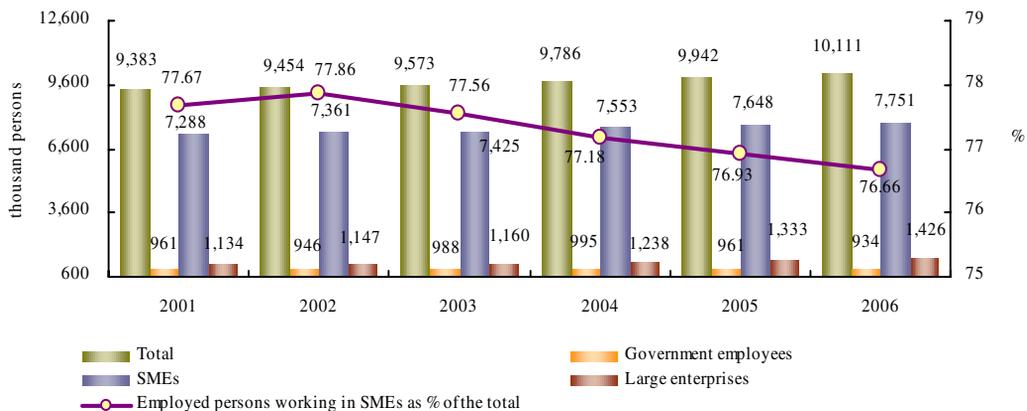
I Labor Usage in SMEs

In 2006, Taiwan's total available workforce amounted to 10,520,000 persons, of which 411,000 were unemployed. The labor force participation rate was 57.92%, and the average unemployment rate was 3.91%. Both the available workforce and the number of people in work rose in 2006 compared to 2005, while the number of people unemployed fell by 17,000. The labor market was thus in a healthier state in 2006 than it had been in 2005. The following sections examine labor utilization in Taiwan's SMEs in 2006.

1. An Increase of Nearly 103,000 in the Number of People Working in SMEs

In 2006, the number of employed persons working in SMEs in Taiwan stood at 7,751,000, representing an increase of 103,000 compared to 2005 (Figure 4-1-1). However, as a percentage of all those in work, the number of people working in SMEs fell to 76.66%, because the number of people working in large enterprises rose by 6.98%, while the number of people working in SMEs increased by only 1.35%.

Figure 4-1-1 The Number of Employed Persons in Taiwan, 2001 – 2006



Source: Directorate General of Budget, Accounting and Statistics (DGBAS), Executive Yuan, *Monthly Bulletin of Manpower Statistics*, 2001–2006.

The number of employed persons working in SMEs in the manufacturing sector in 2006 stood at 2,105,000, accounting for 27.15% of all employed persons working in SMEs. This figure represented an increase of 6,000 persons (0.29%) compared to 2005. The wholesaling and retailing industry had the second largest number of employed persons working in SMEs, at 1,648,000 (21.26% of all employed persons working in SMEs), followed by the construction industry, with 808,000 (10.42%) (Table 4-1-1). This breakdown is significantly different from that seen in the large enterprise segment; the industries with the largest number of employed persons working in large enterprises are manufacturing (44.78% of the total), finance and insurance (11.70%), and medical, healthcare and social services (8.60%) (Appendix 7, Table 5). While the public utilities industry posted the largest increase in the number of employed persons, the real estate and leasing industry and the construction industry also saw significant growth in the number of employed persons, possibly reflecting an upturn in the building industry.

The age structure, sex structure and educational structure of employed persons working in SMEs were largely unchanged in 2006 compared to 2005. The number of

Table 4-1-1 The Number of Persons Working in SMEs in Individual Industries in 2005 and 2006

Units: thousand persons; %

Industry \ Year	2005 (A)	2006 (B)			
			% of Total	(B)-(A)	Annual Growth Rate
Total	7,648	7,751	100.00	103	1.35
Agriculture, forestry, fisheries and animal husbandry	584	548	7.07	-36	-6.16
Mining and quarrying	5	5	0.06	0	0.00
Manufacturing	2,099	2,105	27.16	6	0.29
Public utilities	2	3	0.04	1	50.00
Construction	771	808	10.42	37	4.80
Wholesaling and retailing	1,618	1,648	21.26	30	1.85
Hotel and restaurant	604	631	8.14	27	4.47
Transportation, warehousing and communications	316	318	4.10	2	0.63
Finance and insurance	211	219	2.83	8	3.79
Real estate and leasing	72	77	0.99	5	6.94
Professional, scientific and technical services	263	268	3.46	5	1.90
Educational services	178	184	2.37	6	3.37
Medical, healthcare and social welfare services	146	146	1.88	0	0.00
Cultural, sporting and leisure services	132	130	1.68	-2	-1.52
Other service industries	646	662	8.54	16	2.48

Source: DGBAS, *Monthly Bulletin of Manpower Statistics*, 2005 and 2006.

employed persons working in SMEs who graduated from junior college now exceed the number who were educated only to primary school level, although those educated to senior vocational school level or junior high school level are still the largest groups (Table 4-1-2).

2. A 2.75% Increase in the Number of Paid Employees Working for SMEs

The total number of paid employees (including government employees) in Taiwan in 2006 was 7,545,000, representing an increase of 209,000 (2.77%) compared to 2005. The number of paid employees working for SMEs in 2006 was 5,186,000. The percentage of all paid employees who were working for SMEs as opposed to working for large enterprises or the government fell slightly, from 68.80% in 2005 to 68.76% in 2006. In absolute terms, however, the number of paid employees working for SMEs rose by 139,000 (2.68%) (Figure 4-1-2).

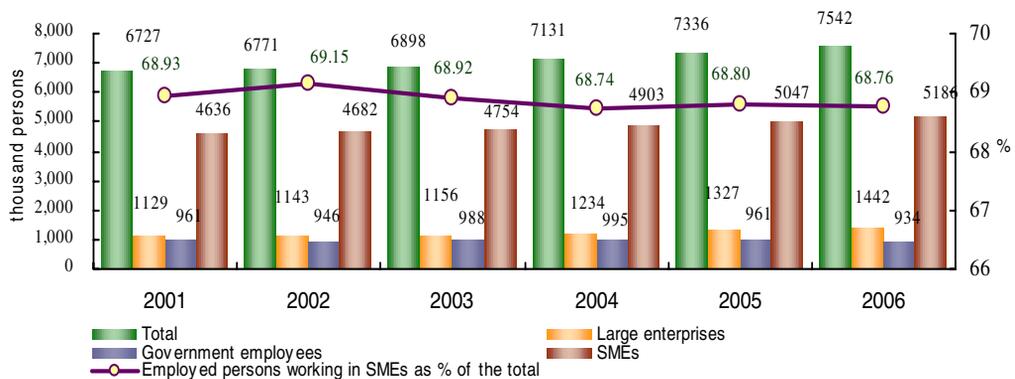
Table 4-1-2 Characteristics of Employed Persons in Taiwan in 2005 and 2006

Units: thousand persons; %

Item	2005			2006		
	SMEs	Large Enterprises	Government Employees	SMEs	Large Enterprises	Government Employees
Total No. of Persons (Share of total)	7,648 (76.92)	1,333 (13.41)	961 (9.67)	7,751 (76.66)	1,426 (14.11)	934 (9.24)
Age	100.00	100.00	100.00	100.00	100.00	100.00
15~24	10.02	10.32	4.16	9.39	9.62	3.95
25~40	45.23	59.64	43.27	44.86	59.54	42.77
41~55	36.20	27.25	46.06	36.93	27.61	46.29
56~65	6.95	2.61	6.26	7.09	3.07	6.70
65 or over	1.60	0.18	0.25	1.73	0.16	0.28
Sex	100.00	100.00	100.00	100.00	100.00	100.00
Male	59.10	53.66	53.80	58.62	53.80	53.43
Female	40.90	46.34	46.20	41.38	46.20	46.57
Education	100.00	100.00	100.00	100.00	100.00	100.00
Illiterate	0.75	0.06	0.05	0.64	0.04	0.02
Self-taught	0.22	0.01	0.06	0.15	0.01	0.03
Primary school	15.07	2.74	3.59	13.95	2.35	3.11
Junior high school	19.20	5.44	4.13	18.70	5.30	4.23
Senior high school	9.40	6.48	6.99	9.21	6.36	6.39
Senior vocational school	29.53	23.81	16.27	29.57	22.90	15.76
Junior college	14.97	26.07	24.08	15.18	25.13	24.01
University	9.60	25.77	34.12	11.00	27.33	33.61
Master's	1.19	8.16	8.61	1.51	9.01	10.48
Ph.D.	0.08	1.44	2.10	0.09	1.57	2.36

Source: DGBAS, *Monthly Bulletin of Manpower Statistics*, 2005 and 2006.

Figure 4-1-2 The Number of Paid Employees in Taiwan, 2001 – 2006

Source: DGBAS, *Monthly Bulletin of Manpower Statistics*, 2001–2006.

The manufacturing sector accounted for the largest number of paid employees working for SMEs in 2006, with 1,826,000 (35.21% of the total). The wholesaling and retailing industry was in second place with 859,000 (16.56%), followed by the construction industry with 671,000 (12.93%) (Table 4-1-3). The characteristics of paid employees working for SMEs are very similar to those of employed persons working in SMEs (Table 4-1-4).

Table 4-1-3 The Number of Paid Employees Working for SMEs in Individual Industries in 2005 and 2006

Units: thousand persons; %

Industry	Year	2005 (A)	2006 (B)			
				% of Total	(B)-(A)	Annual Growth Rate
Total		5,047	5,186	100.00	139	2.75
Agriculture, forestry, fisheries and animal husbandry		68	66	1.27	-2	-2.94
Mining and quarrying		5	5	0.10	-	-
Manufacturing		1,818	1,826	35.21	8	0.44
Public utilities		2	3	0.06	1	50.00
Construction		642	671	12.94	29	4.52
Wholesaling and retailing		824	859	16.56	35	4.25
Hotel and restaurant		288	313	6.04	25	8.68
Transportation, warehousing and communications		202	204	3.93	2	0.99
Finance and insurance		208	217	4.18	9	4.33
Real estate and leasing		54	56	1.08	2	3.70
Professional, scientific and technical services		182	186	3.59	4	2.20
Educational services		149	156	3.01	7	4.70
Medical, healthcare and social welfare services		107	109	2.10	2	1.87
Cultural, sporting and leisure services		97	97	1.87	0	0.00
Other service industries		400	419	8.08	19	4.75

Source: DGBAS, *Monthly Bulletin of Manpower Statistics*, 2005 and 2006.

3. The Member of SME Employers Increased in 2006

The number of SME employers in Taiwan rose by more than 14,000 in 2006, climbing from 498,000 in 2005 to 513,000 in 2006. SME employers are concentrated in the 25 – 55 age group; employers aged between 41 and 55 account for more than half of the total, and this percentage rose still further in 2006. By contrast, owners of large enterprises are concentrated in the 41–65 age group. On average, SME owners tend to be younger than the owners of large enterprises, but they also tend to be educated to a lower level.

Table 4-1-4 Characteristics of Employed Persons in Taiwan in 2005 and 2006

Units: thousand persons; %

Item	2005			2006		
	SMEs	Large Enterprises	Government Employees	SMEs	Large Enterprises	Government Employees
Total No. of Persons (Share of total)	5,047 (68.80)	1,327 (18.10)	961 (13.10)	5,186 (68.77)	1,421 (18.85)	934 (12.38)
Age	100.00	100.00	100.00	100.00	100.00	100.00
15~24	13.90	10.34	4.16	12.90	9.65	3.95
25~40	52.73	59.85	43.27	52.41	59.72	42.77
41~55	29.76	27.12	46.06	30.84	27.50	46.29
56~65	3.35	2.53	6.26	3.55	2.99	6.70
65 or over	0.26	0.16	0.25	0.30	0.14	0.28
Sex	100.00	100.00	100.00	100.00	100.00	100.00
Male	56.38	53.55	53.80	56.11	53.71	53.43
Female	43.62	46.45	46.20	43.89	46.29	46.57
Education	100.00	100.00	100.00	100.00	100.00	100.00
Illiterate	0.25	0.06	0.05	0.22	0.04	0.02
Self-taught	0.08	0.01	0.06	0.05	0.01	0.03
Primary school	10.19	2.74	3.59	9.17	2.35	3.11
Junior high school	18.10	5.44	4.13	17.56	5.29	4.23
Senior high school	9.09	6.46	6.99	9.03	6.35	6.39
Senior vocational school	31.43	23.81	16.27	31.04	22.92	15.76
Junior college	17.60	26.09	24.08	17.55	25.15	24.01
University	11.71	25.79	34.12	13.41	27.29	33.61
Master's	1.46	8.16	8.61	1.86	9.03	10.48
Ph.D.	0.08	1.44	2.10	0.11	1.56	2.36

Source: DGBAS, *Monthly Bulletin of Manpower Statistics*, 2005 and 2006.

The percentage of SME employers who are women rose slightly compared to 2005, climbing to 18.2%. The women's share of SME employers has been rising steadily for some years now, reflecting a gradual increase in enthusiasm for entrepreneurial activity among women (Table 4-1-5); nevertheless, there are still far more male SME employers than female SME employers. Overall, the number of large enterprise owners fell by around 230 in 2006 compared to 2005, but the women's share of the total rose by nearly 2.36 percentage points. Clearly, women are coming to play an increasingly important role in business, not only in the SME sector, but in large enterprises as well.

4. The Share of Self-employed Women Continues to Rise

The self-employed either work alone or as part of a partnership; they may be assisted by persons who are working without pay, but they do not have any paid employees. Self-employed persons can thus all be classed as SMEs. The number of self-employed persons in Taiwan peaked in 1991–1992 at around 1,572,000; since then, it has tended

Table 4-1-5 Characteristics of Employers in 2005 and 2006

Unit: thousand persons; %

Item	2005		2006	
	SMEs	Large Enterprises	SMEs	Large Enterprises
Total No. of Persons (Share of total)	498.32 (99.11)	4.45 (0.89)	512.86 (99.18)	4.22 (0.82)
Age	100.00	100.00	100.00	100.00
15~24	0.38	—	0.53	—
25~40	31.92	4.19	30.36	4.77
41~55	55.97	64.66	56.73	58.99
56~65	10.13	25.98	10.65	29.03
65 or over	1.60	5.17	1.74	7.22
Sex	100.00	100.00	100.00	100.00
Male	82.58	90.17	81.80	87.81
Female	17.42	9.83	18.20	12.19
Education	100.00	100.00	100.00	100.00
Illiterate	0.08	—	0.07	—
Self-taught	0.06	—	0.06	—
Primary school	10.04	3.53	9.23	1.41
Junior high school	15.77	7.05	15.98	8.04
Senior high school	11.30	12.44	10.31	7.76
Senior vocational school	28.35	17.85	28.62	15.86
Junior college	17.92	23.35	18.34	18.56
University	14.03	24.80	14.79	40.84
Master's	2.15	8.87	2.37	4.32
Ph.D.	0.29	2.11	0.22	3.22

Source: DGBAS, *Monthly Bulletin of Manpower Statistics*, 2005 and 2006.

to fall, dropping to 1,405,850 in 2006; this figure represented a decline of around 32,000 compared to 2005. As the nuclear family has become the norm in Taiwan, unpaid labor by family members has become increasingly uncommon. This has forced many business owners to hire paid staff, hence the decline in the number of self-employed and the increase in the number of SME employers (Table 4-1-6).

As with SME employers, the percentage of self-employed persons who are women has been rising steadily in the past few years, reflecting an increase in entrepreneurial activity among women. The number of female self-employed has risen in absolute terms too, whereas the number of male self-employed fell by around 40,000 in 2005 (Table 4-1-7). There is considerable potential for further growth in self-employment among women.

Table 4-1-6 The Number of Employers and Self-employed in 2005 and 2006 – by Industry

Units: thousand persons; %

Industry	2005			2006		
	SMEs	Large Enterprises	Self-employed	SMEs	Large Enterprises	Self-employed
Total No. of Persons	498.32	4.45	1437.84	512.86	4.21	1405.85
Percentage of all Employers	25.68	0.23	74.09	26.67	0.22	73.11
All Industries	100.00	100.00	100.00	100.00	100.00	100.00
Agriculture, forestry, fisheries and animal husbandry	1.45	1.44	24.98	1.41	1.88	24.14
Mining and quarrying	0.06	-	-	0.04	-	0.01
Manufacturing	25.38	25.30	5.30	24.99	19.76	5.09
Public utilities	0.02	-	-	0.02	-	0.01
Construction	11.95	-	3.60	12.32	2.06	3.80
Wholesaling and retailing	25.06	16.40	30.92	25.57	19.38	31.25
Hotel and restaurant	9.23	8.20	10.84	9.66	9.98	11.14
Transportation, warehousing and communications	2.14	9.18	6.81	2.28	11.97	6.84
Finance and insurance	0.20	4.42	0.09	0.20	3.14	0.09
Real estate and leasing	0.97	0.89	0.74	1.10	1.36	0.80
Professional, scientific and technical services	5.95	4.79	2.73	5.72	12.37	2.81
Educational services	2.78	1.94	0.77	2.82	4.62	0.71
Medical, healthcare and social welfare services	3.44	0.93	0.98	3.18	2.40	0.94
Cultural, sporting and leisure services	2.00	10.40	1.29	1.93	4.50	1.20
Other service industries	9.36	16.12	10.95	8.75	6.60	11.19

Source: DGBAS, *Monthly Bulletin of Manpower Statistics*, 2005 and 2006.

5. The Number of People Employed in SMEs in Important New Emerging Industries Rose by Over 20,000 in 2006

In 2006, a total of 1.19 million people were employed in the “important new emerging industries” (Table 4-1-8). This figure represented an increase of over 68,000 compared to 2005. The number of people working in SMEs in these industries rose by approximately 20,000, although the SMEs’ share of all persons working in important new emerging industries fell by 1.74 percentage points. The number of people working in large enterprises in important new emerging industries increased by nearly 47,000. On the basis of the data for the last few years, it appears that large enterprises are gradually expanding their presence in the important new emerging industries, while SMEs are lagging behind. The characteristics of those employed persons working in important new emerging industries showed little change, although there was a slight decline in the women’s share of employment within this sector, both in SMEs and in large enterprises.

Table 4-1-7 Characteristics of Self-employed Persons in 2005 and 2006

Units: thousand persons; %

Item \ Year	2005	2006
Total No. of Persons	1,438	1,406
Age	100.00	100.00
15~24	1.09	0.93
25~40	26.67	25.48
41~55	49.66	49.86
56~65	16.93	17.47
65 or over	5.65	6.26
Sex	100.00	100.00
Male	76.54	75.39
Female	23.46	24.61
Education	100.00	100.00
Illiterate	1.84	1.65
Self-taught	0.66	0.44
Primary school	29.89	29.18
Junior high school	23.72	23.43
Senior high school	9.81	9.59
Senior vocational school	22.66	23.24
Junior college	7.69	8.18
University	3.33	3.79
Master's	0.39	0.48
Ph.D.	0.02	0.01

Source: DGBAS, *Monthly Bulletin of Manpower Statistics*, 2005 and 2006.

6. The Number of Unemployed Persons Who Previously Worked in SMEs Continues to Fall

Compared to 2005, both the unemployment rate and the absolute number of unemployed persons in Taiwan fell in 2006. The number of unemployed who had previously worked in SMEs declined from 286,000 in 2005 to 272,000 in 2006, while the number of unemployed who had previously worked in large enterprises increased from 35,000 to 39,000 (Table 4-1-9). These changes may be related to the evolution of the government's labor policy in the last few years, and to changes in the job market.

7. A Decline in the Number of SME Employees Changing Jobs

The number of SME employees changing jobs fell by 10,000 in 2006 compared to the previous year. The number of SME employees going to work for other SMEs fell by 27,000, and the share of all SME employees changing jobs who went to work for another SME also fell slightly. By contrast, the number of employees of large enterprises who changed jobs in 2006 was the highest annual total since 2001, while the

Table 4-1-8 Characteristics of Employed Persons Working in Important New Emerging Industries in 2005 and 2006

Units: thousand persons; %

Item	2005			2006		
	SMEs	Large Enterprises	Government Employees	SMEs	Large Enterprises	Government Employees
Total No. of Persons (Share of total)	673.47 (60.01)	440.42 (39.25)	8.29 (0.74)	694.04 (58.27)	487.31 (40.91)	9.74 (0.82)
Age	100.00	100.00	100.00	100.00	100.00	100.00
15~24	13.36	13.46	3.50	11.63	11.91	1.55
25~40	58.26	65.94	21.86	59.09	67.92	22.95
41~55	25.84	19.72	68.72	26.58	18.92	67.31
56~65	2.29	0.83	5.92	2.49	1.20	8.19
65 or over	0.24	0.05	—	0.22	0.05	—
Sex	100.00	100.00	100.00	100.00	100.00	100.00
Male	55.73	57.72	83.84	55.76	58.07	84.86
Female	44.27	42.28	16.16	44.24	41.93	15.14
Education	100.00	100.00	100.00	100.00	100.00	100.00
Illiterate	0.09	0.01	—	0.05	0.01	—
Self-taught	—	—	—	0.04	—	—
Primary school	6.37	1.95	1.81	5.55	1.65	0.89
Junior high school	12.70	5.66	5.07	12.13	5.19	3.49
Senior high school	8.57	6.80	7.00	8.54	6.80	4.53
Senior vocational school	30.95	29.53	30.04	29.91	28.47	27.41
Junior college	22.40	24.74	22.32	22.42	24.05	27.96
University	15.64	22.06	26.06	16.89	23.32	24.19
Master's	3.03	8.70	6.76	4.12	10.00	11.54
Ph.D.	0.25	0.57	0.97	0.33	0.51	—

Note: The "important new emerging industries" include: chemical materials manufacturing; chemical products manufacturing; the manufacturing, repair and distribution of electrical machinery and electronics products; transportation vehicle manufacturing; and the manufacturing, repair and distribution of precision machinery.

Source: DGBAS, *Monthly Bulletin of Manpower Statistics*, 2005 and 2006.

percentage of persons changing jobs who had previously worked in a large enterprise rose to its highest level since 1998; at the same time, the number of persons changing jobs and becoming government employees increased compared to 2005 (Table 4-1-10).

8. A Slight Increase in the Number of Foreign Laborers Employed by SMEs

The main reasons why a country imports foreign laborers include solving a labor shortage, helping business enterprises maintain stable production, improving productivity, reducing labor costs, and boosting overall national competitiveness. However, importing foreign laborers can also impede industrial upgrading (in terms of the adoption of new technology and the automation of production) and can reduce the number of jobs available to domestic manual workers.

Table 4-1-9 Characteristics of the Unemployed in 2005 and 2006

Units: thousand persons; %

Item \ Year/Enterprise size	2005			2006		
	SMEs	Large Enterprises	Government Employees	SMEs	Large Enterprises	Government Employees
Total No. of Persons	286.11 (66.82)	34.73 (8.11)	107.33 (25.07)	272.31 (66.26)	38.95 (9.48)	99.73 (24.27)
Age	100.00	100.00	100.00	100.00	100.00	100.00
15~24	17.14	17.78	52.63	16.10	16.25	53.59
25~40	49.87	53.11	32.48	52.63	60.15	37.76
41~55	29.12	26.98	11.88	27.55	21.07	6.20
56~65	3.75	2.13	3.01	3.63	2.54	2.40
65 or over	0.12	–	0.01	0.10	–	0.05
Sex	100.00	100.00	100.00	100.00	100.00	100.00
Male	63.51	52.93	55.11	61.77	52.33	56.82
Female	36.49	47.07	44.89	38.23	47.67	43.18
Education	100.00	100.00	100.00	100.00	100.00	100.00
Illiterate	0.20	–	0.13	0.13	0.04	0.10
Self-taught	0.10	–	0.04	0.07	0.01	–
Primary school	10.15	3.89	4.41	8.75	2.47	3.07
Junior high school	22.32	9.28	8.64	19.61	8.62	6.53
Senior high school	9.60	9.70	9.08	10.03	7.63	6.98
Senior vocational school	33.15	27.21	24.60	34.86	32.05	20.94
Junior college	14.59	24.02	16.50	14.67	24.04	15.52
University	9.19	22.83	33.08	11.03	22.06	40.12
Master's	0.72	3.08	3.28	0.83	2.72	6.74
Ph.D.	–	–	0.25	0.02	0.35	0.01

Note: The enterprise types given in the table are those in which the unemployed worked before becoming unemployed.

Source: DGBAS, *Monthly Bulletin of Manpower Statistics*, 2005 and 2006.

Table 4-1-10 Choice of New Employer by Former SME Employees

Unit: thousand persons; %

Year	Total	Going to Work for Another SME		Going to Work for a Large Enterprise		Going to Work for the Government	
		No. of Persons	Share of Total	No. of Persons	Share of Total	No. of Persons	Share of Total
1998	485	426	87.99	46	9.94	13	2.07
1999	504	448	88.85	44	8.75	12	2.40
2000	490	427	87.14	53	10.82	10	2.04
2001	485	429	88.45	39	8.04	17	3.51
2002	441	394	89.34	32	7.26	15	3.40
2003	455	405	89.01	36	7.91	14	3.08
2004	501	433	86.32	43	8.62	25	5.05
2005	438	394	89.95	36	8.22	8	1.83
2006	428	367	85.79	48	11.27	13	2.95

Source: DGBAS, *Monthly Bulletin of Manpower Statistics*, 1998–2006.

In Taiwan, the government's policy with respect to the importation of foreign laborers has consistently emphasized the need to prevent foreign laborers from playing more than a supplementary role in the economy. To reduce competition for jobs between foreign laborers and domestic workers, in 2001 the Council of Labor Affairs began to tighten the restrictions on the importation of foreign laborers and reduce the quotas; as a result, the number of foreign laborers working in Taiwan has been falling steadily. However, because of complaints about labor shortages in industry, in 2006 the government implemented a slight relaxation of the restrictions. The quota for the importation of foreign laborers was increased by 9,102 compared to 2005, and the number of foreign laborers actually working in Taiwan rose by 1,144. There has been a significant change in the distribution of foreign laborers between enterprise types. The foreign laborer quota for SMEs rose by 9,893 in 2006, while the quota for large enterprises fell by 791; at the same time, the number of foreign laborers actually working in Taiwan in SMEs rose by 2,969, while the number working in large enterprises fell by 1,825. As a result, there was a slight increase in the percentage of all foreign laborers working in SMEs (Table 4-1-11).

Table 4-1-11 Number of Foreign Laborers Employed by Large Enterprises and SMEs, 2003 – 2006

Units: persons; %

Year	Foreign Laborers	Foreign Laborer Approvals		No. of Foreign Laborers Actually in Taiwan	
		SMEs	Large Enterprises	SMEs	Large Enterprises
2002		85,965 (42.30)	117,270 (57.70)	76,846 (42.68)	103,192 (57.32)
2003		83,322 (42.37)	113,316 (57.63)	75,824 (43.04)	100,332 (56.96)
2004		81,996 (41.13)	117,350 (58.87)	75,224 (41.82)	104,654 (58.18)
2005		83,614 (42.38)	113,669 (57.62)	76,419 (42.25)	104,085 (57.75)
2006		93,507 (45.31)	112,878 (54.69)	79,388 (43.70)	102,260 (56.30)

Notes: 1. Figures include only foreign laborers employed by manufacturing and construction firms.

2. SMEs are defined as firms with less than 200 employees.

3. Figures in parentheses are percentages of the total.

Source: Bureau of Employment and Vocational Training, Council of Labor Affairs, Executive Yuan.

II Labor Conditions in SMEs

1. In the Real Estate and Leasing Industry, SMEs Have Higher Salary Levels Than Large Enterprises

In most industries, average salaries in SMEs did not increase significantly in 2006; in the public utilities industry, medical, healthcare and social welfare services industry and “other service industries,” average monthly salaries for employees of SMEs actually fell in 2006. However, average monthly salaries in the real estate and leasing industry rose by 11.79% in 2006, possibly reflecting the upturn in the real estate market. In the large enterprise segment, the highest increases in average monthly salaries were posted by the hotel and restaurant industry (28.97%) and the construction industry (23.22%); in both of these industries, salaries rose much faster in large enterprises than in SMEs (Table 4-2-1).

Table 4-2-1 Average Monthly Salary in 2005 and 2006 – by Industry

Unit: NT\$ thousands

Industry	Enterprise Size	SMEs		Large Enterprises		Government Employees	
		2005	2006	2005	2006	2005	2006
Agriculture, forestry, fisheries and animal husbandry		19.13	20.09	29.51	26.36	35.23	37.81
Mining and quarrying		33.43	34.87	–	–	41.82	53.21
Manufacturing		32.65	32.75	37.37	37.27	51.29	49.46
Public utilities		33.11	32.03	52.48	37.71	54.24	53.75
Construction		35.46	35.53	42.33	52.16	47.29	52.18
Wholesaling and retailing		34.34	34.78	36.92	39.89	40.61	41.75
Hotel and restaurant		29.89	30.57	27.65	35.66	25.50	45.58
Transportation, warehousing and communications		35.32	36.41	45.75	46.79	51.70	43.27
Finance and insurance		39.45	39.92	45.04	49.54	51.84	55.94
Real estate and leasing		34.26	38.30	36.06	34.82	35.16	40.14
Professional, scientific and technical services		39.05	39.71	47.72	51.66	44.35	52.10
Educational services		29.65	30.07	51.39	51.90	47.13	46.24
Medical, healthcare and social welfare services		44.82	42.79	46.95	45.89	48.69	45.51
Cultural, sporting and leisure services		31.55	32.42	40.59	45.07	38.35	35.38
Other service industries		29.35	28.85	30.94	30.44	33.70	32.35

Source: DGBAS, Taiwan Region Manpower and Employment Survey, 2005 and 2006.

2. SMEs Have Higher Share of Personnel Cost Than Large Enterprises

Personnel costs are an important component of business enterprises' operating expenses. In the SME sector, the share of total operating expenses accounted for by personnel costs has for many years been the highest in the medical, healthcare and social welfare

services industry; in 2005, the percentage stood at 58.89% in this industry (Table 4-2-2). The personnel costs' share of total operating expenses was lowest in the mining and quarrying industry in 2005, at just 15.10%. In most industries, personnel costs account for around 40% of total operating expenses for SMEs, and the share is slightly higher than that for large enterprises.

Table 4-2-2 Personnel Costs as a Percentage of Operating Costs and Operating Expenses in 2005

Industry	Enterprise Size		Unit: %	
			Personnel Costs as a Percentage of Operating Costs	
	Personnel Costs as a Percentage of Operating Expenses		SMEs	Large Enterprises
Agriculture, forestry, fisheries and animal husbandry	33.71	46.38	4.49	5.64
Mining and quarrying	15.10	54.08	2.53	4.43
Manufacturing	34.76	29.29	4.12	2.19
Public utilities	42.21	42.87	9.01	1.58
Construction	45.64	45.00	5.29	1.90
Wholesaling and retailing	46.18	34.74	9.31	3.90
Hotel and restaurant	42.05	37.59	18.72	16.23
Transportation, warehousing and communications	42.25	42.36	13.69	8.25
Finance and insurance	42.82	38.82	13.68	0.31
Real estate and leasing	36.93	20.80	10.54	2.46
Professional, scientific and technical services	47.70	45.94	23.59	10.33
Educational services	44.72	45.92	30.85	22.46
Medical, healthcare and social welfare services	58.89	-	25.48	-
Cultural, sporting and leisure services	42.61	33.69	18.66	10.28
Other service industries	50.40	50.59	23.29	10.77
Total	41.79	36.40	7.10	0.87

Note: Operating costs include both business costs and operating expenses.
Source: Ministry of Finance Tax Data Center, Business income tax data for 2005.

If business costs are added to operating expenses, then the share of personnel costs in total operating costs becomes significantly lower. For SMEs in 2005, the industry in which personnel costs accounted for the largest share of operating costs was educational services in both SMEs and large enterprises.

3. For All Industries, 2006 Saw Little Change in the Number of Hours Worked Per Week

In the SME sector, the hotel and restaurant industry has for many years had the longest working hours (in terms of hours worked per week). In 2006, SME employees in the hotel and restaurant industry worked an average of 49.40 hours per week; the

wholesaling and retailing industry was in second place with 48.48 hours (Table 4-2-3). In most industries, working hours in large enterprises are slightly shorter than they are in SMEs, although working hours in large enterprises in the agriculture, forestry, fisheries and animal husbandry, the manufacturing sector, the construction industry and the real estate and leasing industry are longer; clearly, it is not necessarily the case that employees working in large enterprises enjoy higher salaries and shorter working hours than those working in SMEs.

Table 4-2-3 Working Hours per Week in 2005 and 2006 – by Industry

Unit: hours per week

Enterprise Type Industry	SMEs		Large Enterprises		Government Employees	
	2005	2006	2005	2006	2005	2006
Agriculture, forestry, fisheries and animal husbandry	41.08	41.07	43.16	44.46	40.86	40.76
Mining and quarrying	44.92	43.69	–	40.00	40.51	40.66
Manufacturing	44.21	44.30	43.70	44.48	40.72	41.16
Public utilities	44.03	43.93	42.28	43.54	40.60	40.69
Construction	41.53	42.15	42.45	43.08	40.17	41.63
Wholesaling and retailing	48.07	48.48	45.54	44.18	42.51	41.61
Hotel and restaurant	50.50	49.40	47.36	46.70	45.30	45.90
Transportation, warehousing and communications	47.15	46.53	43.93	42.75	40.75	40.78
Finance and insurance	44.50	43.97	42.96	43.47	40.23	41.18
Real estate and leasing	47.65	46.92	46.74	47.84	40.25	40.15
Professional, scientific and technical services	42.98	43.60	44.42	43.34	41.05	40.19
Educational services	40.02	40.88	37.90	38.03	36.64	36.17
Medical, healthcare and social welfare services	46.54	46.90	44.76	45.18	41.83	41.53
Cultural, sporting and leisure services	46.83	46.34	44.91	46.17	40.96	42.43
Other service industries	47.99	47.75	46.84	46.05	41.50	41.95
Public administration	43.17	42.50	40.00	41.33	41.63	42.13

Source: DGBAS, *Monthly Bulletin of Manpower Statistics*, 2005 and 2006.

Among workers in the private sector, average working hours decline with age (Table 4-2-4). Women's average working hours are shorter than those of men. In 2006, the average working hours of female employed persons working in SMEs rose while those of male employed persons fell, almost eliminating the gap between men and women in this sector. However, in the large enterprise sector, women's average working hours fell while men's rose, causing the disparity in this sector to widen still further. In the SME sector, those educated to vocational high school level had the longest working hours; although this figure fell slightly in 2006, it was still close to 45 hours per week. In large enterprises, the correlation between a higher educational level

and shorter working hours is particularly pronounced.

Table 4-2-4 Weekly Working Hours for Employees in the Private Sector in 2005 and 2006

Unit: hours per week

Item	Enterprise Size		Large Enterprises	
	SMEs		2005	2006
	2005	2006	2005	2006
Average working hours per week	43.61	43.6	43.99	44.02
Age				
15~24	44.48	43.65	42.67	43.16
25~40	44.42	44.68	44.25	44.00
41~55	43.84	43.76	44.45	44.44
56~65	41.94	42.37	43.79	44.03
65 or over	41.76	41.63	42.09	42.40
Sex				
Male	44.29	43.81	44.55	45.00
Female	42.93	43.39	43.38	42.98
Education				
Illiterate	40.64	41.12	46.86	44.23
Self-taught	37.88	40.69	44.00	45.33
Primary school	43.30	42.88	45.58	44.90
Junior high school	44.68	44.52	45.45	45.82
Senior high school	44.93	44.64	44.43	44.63
Senior vocational school	44.92	44.70	43.93	45.07
Junior college	43.85	43.92	43.90	43.69
University	42.96	42.90	43.38	42.98
Master's	41.00	41.71	41.58	41.57
Ph.D.	40.35	41.61	41.21	40.02

Source: DGBAS, *Monthly Bulletin of Manpower Statistics*, 2005 and 2006.

4. A Reduction in the Number of SME Employees Involved in Labor Disputes

The introduction of the new labor insurance pension system on July 1, 2005 led to many disputes regarding the question of how existing company pension funds should be dealt with. In both the large enterprise and SME sectors, 2005 saw a dramatic increase in both the number of labor disputes and the number of workers involved in such disputes compared to 2004. In 2006, there was a further increase in the number of labor disputes reported to the government, although the number of disputes reported to arbitration organizations fell. Both government statistics and those of the arbitration organizations showed a decrease in the number of persons involved in labor disputes in both the SME and large enterprise sectors. As pension disputes have in the past been one of the main causes of labor disputes in Taiwan, it can be anticipated that the introduction of the new labor insurance pension system will eventually help to reduce

the number of labor disputes (Table 4-2-5).

Table 4-2-5 The Number of Labor Disputes and the Number of Persons Involved, 1999 – 2006

Units: disputes; persons; %

Year	Disputes Reported to the Government			Disputes Reported to Private Arbitration Organizations		
	Total	Large Enterprises	SMEs	Total	Large Enterprises	SMEs
No. of Labor Disputes						
1999	5,806	1,087 (18.72)	4,719 (81.28)	54	4 (7.41)	50 (92.59)
2000	6,579	1,242 (18.88)	5,337 (81.12)	1,447	211 (14.58)	1,236 (85.42)
2001	7,405	1,238 (16.72)	6,167 (83.28)	3,550	532 (14.99)	3,018 (85.01)
2002	7,768	1,428 (18.38)	6,340 (81.62)	4,625	683 (14.77)	3,942 (85.23)
2003	4,546	724 (15.93)	3,822 (84.07)	5,323	740 (13.90)	4,583 (86.10)
2004	4,327	844 (19.51)	3,483 (80.49)	4,784	741 (15.49)	4,043 (84.51)
2005	8,173	1,680 (20.56)	6,493 (79.44)	6,083	910 (14.96)	5,173 (85.04)
2006	8,903	1,777 (19.96)	7,126 (80.04)	5,359	856 (15.97)	4,503 (84.03)
No. of Persons Involved						
1999	30,363	20,780 (68.44)	9,583 (31.56)	77	6 (7.79)	71 (92.21)
2000	53,790	41,931 (77.95)	11,859 (22.05)	2,753	877 (31.86)	1,876 (68.14)
2001	51,961	37,272 (71.73)	14,689 (28.27)	4,975	1,707 (25.55)	4,975 (74.45)
2002	89,242	74,813 (83.83)	14,429 (16.17)	8,278	2,879 (34.78)	5,399 (65.22)
2003	17,012	8,385 (49.29)	8,627 (50.71)	8,019	1,865 (23.26)	6,154 (76.74)
2004	21,038	13,541 (64.37)	7,497 (35.64)	6,271	1,234 (19.68)	5,037 (80.32)
2005	77,642	63,390 (81.64)	14,252 (18.36)	7,902	1,151 (14.57)	6,751 (85.43)
2006	73,316	60,259 (82.19)	13,057 (17.81)	6,828	988 (14.47)	5,840 (85.53)

Notes: 1. Firms with under 100 employees are classified as SMEs; all other firms are classified as large enterprises.

2. Figures in parentheses are percentages of the total number of disputes or persons.

Source: Statistics Department, Council of Labor Affairs, Executive Yuan.

III Manpower Cultivation in SMEs

1. Integration of Training and Placement to Provide the Manpower that Enterprises Need

In the second half of 2001, the government began to implement the Plan for Promoting the Integration of Training and Placement for the Unemployed. The aim of this plan was to match jobseekers with enterprises' manpower needs by getting the private sector more actively involved in vocational training. Agreements are signed with the companies participating in the program whereby they agree to hire those trainees whose performance during training is satisfactory. It is anticipated that the implementation of this plan will help to cultivate the types of manpower that enterprises need, help firms to maintain a steady supply of new employees, and help the unemployed to find work.

In 2006, 60 enterprises participated in the Plan for Promoting the Integration of Training and Placement for the Unemployed, and a total of 3,853 people received training. Mainly because of the wider range of recruitment channels that is now available to business enterprises, the number of firms participating in the plan in 2006 was lower than in the past, and the number of trainees was also more than 2,000 lower than in 2005. However, the percentage of trainees who were hired on completion of their training remained high, at over 98%(Table 4-3-1).

Table 4-3-1 The Results of the Plan for Integration of Training and Placement for the Unemployed, 2001 – 2006

Units: enterprises; persons; %

Year	Item	No. of Enterprises Participating	No. of Trainees Hired After the Completion of Training	Percentage of Trainees Hired After the Completion of Training
2001		18	1,508	95.99
2002		85	12,253	99.58
2003		64	11,548	99.59
2004		77	3,841	99.05
2005		69	6,005	98.20
2006		60	3,853	98.21

Note: Implementation of this project began in the second half of 2001.

Source: Bureau of Employment and Vocational Training, Council of Labor Affairs, Executive Yuan.

2. A Decline in the Number of SME Employees Participating in Professional Training in 2005

Since 2002, the number of persons participating in professional training programs has risen steadily, climbing to a record 1,090,745 in 2005. There were impressive increases among both public and private enterprises with 200 or more employees. However, the number of employees of public and private enterprises with less than 200 employees that participated in professional training programs fell by around 11,000 (Table 4-3-2).

3. SME's Spending on Professional Training as a Percentage of Total Operating Expenses Increased Slightly

As a rule, wages account for a higher share of SMEs' total operating expenses and operating costs than they do for large enterprises. However, when it comes to expenditure on training, there is no direct correlation between training expenses as a percentage of total operating costs or operating expenses and the size of the enterprise. For SMEs in the agriculture, forestry, fisheries and animal husbandry industry, the manufacturing sector, the wholesaling and retailing industry, the hotel and restaurant industry, and the transportation, warehousing and communications industry, on average,

Table 4-3-2 The Number of Employees Participating in Professional Training, 1998 – 2005

Unit: instances of training

Item Year	Total Instances of Participation in Professional Training	Employees of Public or Private Companies/Agencies with Less than 200 Employees ¹	Employees of Public or Private Companies/Agencies with 200 or More Employees ²	Other Organizations ³
1998	623,495	139,376	392,753	91,366
1999	669,561	113,038	429,880	126,643
2000	757,670	155,153	464,555	137,962
2001	759,142	163,698	442,490	152,954
2002	738,580	160,498	399,128	178,954
2003	859,308	145,503	499,079	214,726
2004	883,921	175,682	541,872	166,367
2005	1,090,745	164,146	718,483	208,116

Notes: 1. This category includes training organized by public and private companies and agencies with less than 200 employees and also training provided by training facilities attached to universities, foundations, public training institutions, etc.

2. This category includes training organized by public and private companies and agencies.

3. This category includes training provided by government training institutions and by training facilities attached to universities, foundations, public training institutions, etc.

Source: Bureau of Employment and Vocational Training, Council of Labor Affairs.

training expenses' share of total operating costs is lower than it is among large enterprises in these industries. However, for SMEs in other sectors, the share of total operating costs is higher than it is among large enterprises. On the other hand, if one considers training expenses as a percentage of operating expenses rather than operating costs, then the percentage is lower for SMEs than for large enterprises in almost all industries. However, the share of training costs in both operating costs and operating expenses increased slightly in the last 3 years for SMEs (Table 4-3-3).

4. Enterprises' Motivation for Professional Training Is to Upgrade the Capabilities of Their Employees

According to the results of a survey implemented by the Central Taiwan SME Training Center (2006), the three main reasons given by SMEs for implementing professional training were: to upgrade employees' capabilities, to satisfy organizational development needs, and to improve working efficiency (Table 4-3-4). Other reasons given included, in order of the frequency with which they were reported: to cultivate managerial talent, to meet employees' individual needs, and to stimulate increased demand for training.

Table 4-3-3 Expenditure on Training as a Percentage of Operating Costs and Operating Expenses in 2005

Unit: %

Enterprise Size Industry	SMEs						Large Enterprises					
	Expenditure on Training as a Percentage of Operating Costs			Expenditure on Training as a Percentage of Operating Expenses			Expenditure on Training as a Percentage of Operating Costs			Expenditure on Training as a Percentage of Operating Expenses		
	2003	2004	2005	2003	2004	2005	2003	2004	2005	2003	2004	2005
Agriculture, forestry, fisheries and animal husbandry	0.09	0.14	0.15	0.71	1.15	1.10	0.17	0.04	0.17	1.12	0.45	1.40
Mining and quarrying	0.02	0.04	0.04	0.09	0.23	0.26	0.00	0.00	0.00	0.00	0.00	0.00
Manufacturing	0.33	0.16	0.13	2.84	1.15	1.13	0.17	0.15	0.20	1.90	1.84	2.63
Public utilities	0.37	0.31	0.76	1.26	1.16	3.57	0.06	0.04	0.06	1.22	1.07	1.50
Construction	0.12	0.12	0.13	0.93	1.05	1.11	0.09	0.09	0.08	1.91	2.03	1.84
Wholesaling and retailing	0.14	0.17	0.19	0.69	0.84	0.96	0.21	0.26	0.20	1.73	1.96	1.77
Hotel and restaurant	0.22	0.25	0.27	0.55	0.57	0.61	0.30	0.46	0.74	0.83	1.14	1.72
Transportation, warehousing and communications	0.29	0.37	0.37	0.95	1.16	1.14	0.26	0.29	2.15	1.57	1.94	11.03
Finance and insurance	1.02	1.76	2.17	3.79	6.32	6.80	0.04	0.04	0.02	2.54	3.02	2.98
Real estate and leasing	0.26	0.21	0.31	0.90	0.73	1.10	0.18	0.13	0.16	1.73	1.18	1.39
Professional, scientific and technical services	1.23	1.28	1.16	2.44	2.60	2.34	0.10	1.21	1.04	4.01	4.98	4.60
Educational services	1.46	1.41	1.04	2.57	2.16	1.51	0.98	0.39	0.77	4.22	0.66	1.57
Medical, healthcare and social welfare services	0.44	0.96	0.17	1.03	2.19	0.40	0.39	0.29	0.00	6.74	0.65	0.00
Cultural, sporting and leisure services	0.19	0.29	0.46	0.43	0.65	1.05	0.57	0.66	0.41	1.62	2.04	1.36
Other service industries	0.47	0.42	0.78	1.09	0.93	1.69	0.84	0.92	0.71	3.15	3.86	3.34

Source: Ministry of Finance Tax Data Center, Business income tax data for 2005.

5. Strengthening Employees' Specialist Skills Is the Main Training Activity

A survey of business enterprises' professional training needs during the previous three years conducted by the Northern Taiwan SME Training Center (2006) showed that the desire to strengthen employees' specialist skills was viewed as being by far the most important area to focus on when implementing professional training activities. In each of the three years covered by the survey (2004, 2005 and 2006), around 42% of enterprises reported that their professional training activities focused mainly on improving employees' specialist skills. Other important training areas included the cultivation of self-management abilities, the strengthening of employees'

communication skills, and promoting teamwork, although the exact ranking of these areas varied from year to year (Table 4-3-5).

Table 4-3-4 SMEs' Motivation for Implementing Professional Training in 2006

Ranking	Motivation	No. of Enterprises Reporting this Motivation	Percentage of Enterprises Reporting this Motivation (%)
1	To upgrade employee capabilities	40	23.95
2	To satisfy organizational development needs	30	17.96
3	To improve working efficiency	30	17.96
4	To cultivate managerial talent	18	10.78
5	To meet employees' individual needs	15	8.98
6	To stimulate increased demand for training	13	7.78
7	To meet senior management's requirements	6	3.59
8	Because the firm's competitors are investing in professional training	5	2.99
9	To boost employee morale	4	2.40
10	Because the firm's IT/MIS manager recommended that training be implemented	3	1.80
11	Other motivation	3	1.80
Total		167	100.0

Source: Central Taiwan SME Training Center, November 2006.

Table 4-3-5 The Professional Training Items That Business Enterprises Viewed as Being Most Important, 2004 – 2006

Training Item	2004		2005		2006	
	Percentage	Ranking	Percentage	Ranking	Percentage	Ranking
Specialist skills	42.9	1	42.0	1	41.9	1
Leadership ability	3.0	6	4.3	7	5.3	6
Self-management	4.5	5	6.6	5	9.4	5
Teamwork	7.4	3	8.3	3	11.2	4
Communication skills	7.0	4	7.5	4	12.8	3
Other	2.1	8	6.2	6	4.5	7
No training items needed	30.2	2	23.8	2	15.5	2
Refused to answer / Don't know	3.0	6	1.4	8	1.3	8
Total	100.0		100.0		100.0	

Source: Northern Taiwan SME Training Center (National Chengchi University Business School), December 2006.

As regards future manpower needs, in all three years (2004, 2005 and 2006), the type of manpower that enterprises expected to experience the most demand for in the future was “specialist technical/service talent”. “Marketing and sales talent”, a new category that was only added to the survey in 2006, ranked second in 2006; the gap

between “marketing and sales talent” and other types of human talent was significant, suggesting that this is an area on which business enterprises are coming to focus more and more heavily (Table 4-3-6).

Table 4-3-6 Types of Human Talent for Which Business Enterprises Anticipate a Significant Demand in the Future

Talent Category	2004		2005		2006	
	Percentage	Ranking	Percentage	Ranking	Percentage	Ranking
Specialist technical/service talent	55.1	1	52.7	1	38.2	1
Managerial talent	20.2	2	18.7	2	17.1	3
Administrative talent	4.1	6	4.6	5	1.7	6
E-commerce talent	7.7	3	5.9	4	3.7	5
Marketing and sales talent	0.0		0.0		31.8	2
No categories needed	7.5	4	11.3	3	6.0	4
Other	0.6	7	2.2	7	0.0	
All categories	0.0		3.3	6	0.0	
Refused to answer / Don't know	4.9	5	1.4	8	1.4	7
Total	100.0		100.0		100.0	

Source: Northern Taiwan SME Training Center (National Chengchi University Business School), December 2006.

6. Employees Show Little Enthusiasm for Participating in Professional Training

When a business enterprise implements professional training, besides the cost of the training itself, the enterprise also has to consider the extent to which taking part in the training activity will disrupt employees' regular working activities. As a result, it is usually only those enterprises that have a strong commitment to investing in human resources that are willing to implement aggressive professional training initiatives. By and large, employees in Taiwan are unenthusiastic about participating in professional training activities. Only 24.5% of employees expressed a high level of willingness to participate in company-run professional training schemes. Most employees were lukewarm about participating, with 23.5% being very unenthusiastic about participating. It may be that firms' training programs are not sufficiently oriented towards employees' real needs; alternatively, employees' awareness of the importance of lifelong learning may not be sufficiently high (Table 4-3-7).

Table 4-3-7 Employees' Willingness to Participate in Professional Training Activities

Willingness to Participate in Professional Training	All Sectors		Manufacturing		Services	
	No. of Employees	Share of Total (%)	No. of Employees	Share of Total (%)	No. of Employees	Share of Total (%)
High	296	24.5	140	23.1	156	25.9
Moderate	481	39.8	238	39.2	243	40.4
Low	284	23.5	164	27.0	120	19.9
No desire to participate / Feel no need for training	97	8.0	41	6.8	56	9.3
Refused to answer / Don't know	51	4.2	24	4.0	27	4.5
Total	1,209	100.0	607	100.0	602	100.0

Source: Northern Taiwan SME Training Center (National Chengchi University Business School), December 2006.

7. A Very High Percentage of SMEs Have No Dedicated Budget for Professional Training Activities

Less than 50% of SMEs reported having a dedicated budget for professional training activities. 17.78% of SMEs allocated less than NT\$100,000 a year for professional training; however, 5.44% of SMEs allocated more than NT\$10 million a year for training activities. Clearly, most SMEs feel that the responsibility for professional training lies with the individual employee, and not with the enterprise (Table 4-3-8).

Table 4-3-8 Budgets Allocated by Business Enterprises for Professional Training Activities

Budget Size	All Sectors		Manufacturing		Services	
	No. of Enterprises	Share of Total (%)	No. of Enterprises	Share of Total (%)	No. of Enterprises	Share of Total (%)
Under NT\$50,000	48	10.04	23	4.81	25	5.23
NT\$50,000 – 99,999	37	7.74	21	4.39	16	3.35
NT\$100,000 – 149,999	12	2.51	6	1.26	6	1.26
NT\$150,000 – 199,999	14	2.93	6	1.26	8	1.67
NT\$200,000 – 299,999	7	1.46	4	0.84	3	0.63
NT\$300,000 – 499,999	17	3.56	11	2.30	6	1.26
NT\$500,000 – 999,999	22	4.60	16	3.35	6	1.26
NT\$1,000,000 or over	26	5.44	10	2.09	16	3.35
No dedicated budget	112	23.43	56	11.72	56	11.72
Varies	39	8.16	20	4.18	19	3.97
Refused to answer / Don't know	144	30.13	72	15.06	72	15.06
Total	478	100.00	245	51.26	233	48.74

Source: Northern Taiwan SME Training Center (National Chengchi University Business School), December 2006.

Chapter 5

The Current State of SME Trade and Overseas Investment Activity

Today, SMEs in Taiwan are faced with the impact of globalization, regional integration and the changes in the cross-Strait trading environment. Although SMEs are handicapped to some extent by their limited financial resources and limited manpower, the emergence of the Internet and the development of new marketing techniques have helped SMEs to strengthen their marketing capabilities, thereby facilitating expansion into overseas markets. The year 2005 saw a gradual strengthening of cross-Strait economic and trade links between Taiwan and China. On July 21, 2005, the Chinese government announced that the Yuan would be revalued by 2% against the US dollar, and that in future it would be pegged to a basket of currencies rather than just the dollar; it was anticipated that this decision would have a significant impact on investment in China by Taiwanese companies.

With the growth in cross-Strait trade and investment between Taiwan and China, both government agencies and private-sector research institutes have been stepping up their research and analysis of cross-Strait links. The results obtained by the Investment Commission, Ministry of Economic Affairs, in its Survey of Investment in China showed that there was a tendency for Taiwanese enterprises in different industries to form industry clusters in various parts of China, and that this clustering effect had improved the profitability of Taiwanese firms' China operations. In accordance with the needs of globalization and internationalization, the localization implemented by the overseas subsidiaries of Taiwanese companies has emphasized the optimization of production strategies.

According to the results of the Survey on Overseas Investment by Manufacturing Industry in Taiwan conducted by the Ministry of Economic Affairs, in 2005 large enterprises displayed more enthusiasm for overseas investment than did SMEs. Among the key factors motivating Taiwanese enterprises to invest overseas, the availability of abundant cheap labor was no longer as important as it had been two years previously, with the development potential of the local market having become the most important motivating factor. Most Taiwanese investment

overseas continued to take the form of wholly-owned subsidiaries, while joint ventures with foreign companies had become more common than joint ventures with other Taiwanese companies. Those Taiwanese enterprises that were making a profit in their overseas operations generally attributed their performance to growing demand in the local market, while those that were making a loss mostly blamed intense competition within the industry. Overall, the reasons given for making a profit or loss were more or less the same as in previous years.

Besides examining the salient features of Taiwanese investment in China and the business environment in the China market, the National Federation of Industries' *Survey of Taiwanese Investment in China in 2006* also explored Taiwanese businesspeople's views on the recent revaluation of the Yuan, the macroeconomic adjustment measures implemented by the Chinese government to prevent the economy from overheating, and the changes in Chinese government policy.

To gain a clearer picture of SMEs' overseas investment and trading activities, the first four sections of this chapter examine the recent trends in trade and investment, including both investment in China and in other overseas markets, and identify areas in which more effort is needed. The fifth section analyzes the current state of R&D activity, which is closely related to SME investment and foreign trade.

I Overview of Taiwan's Imports and Exports

The import and export statistics presented in this section are based on Ministry of Finance customs data. The original customs data were not broken down by enterprise size, so export sales figures from Ministry of Finance business income tax data have been used to supplement them.

1. Imports and Exports

According to Ministry of Finance statistics, in 2006 Taiwan's imports and exports totaled NT\$13.28 trillion, representing an increase of 8.42% compared to 2005. Exports totaled NT\$7.28 trillion (54.80% of the total), while imports came to NT\$6.00 trillion (45.20%). The annual rates of increase for exports and imports were 14.19% and 2.16%, respectively. Manufactured products have consistently accounted for 99% or more of Taiwan's total exports; in 2006, the products of heavy industry and of the chemical

industry together accounted for 81.9% of total exports. Raw materials for agriculture and industry in turn accounted for the bulk of Taiwan's imports. Raw materials' share of total imports stood at 75.4% in 2006, with capital goods holding a 17.0% share and consumer goods a 7.6% share. China (including Hong Kong) was Taiwan's most important export market in 2006, taking 39.81% of all Taiwanese exports, followed by the US with 14.45%. The main source of imports was Japan (22.83% of total imports), followed by China and Hong Kong (13.15%) and the US (11.18%) (Table 1-4-3).

2. SME Export Sales

As there are no official data on export sales based on enterprise size, for the purposes of this chapter the export sales figures from the Ministry of Finance Tax Data Center's business income tax collection data have been used to gain some idea of what percentage of Taiwan's SMEs are accounted for by SMEs. According to these data, Taiwanese enterprises' export sales totaled NT\$7.5 trillion in 2006, with large enterprises accounting for NT\$6.1 trillion of this (81.61% of the total), while the SMEs' share stood at NT\$1.4 trillion (18.39% of the total). While total export sales for all enterprises grew by 15.81% in 2004, in 2005 they grew by only 1.62%, and in 2006 they fell by 12.70%. For large enterprises, export sales grew by 17.29% in 2004, 0.95% in 2005, and -13.53% in 2006. For SMEs, export sales grew by 9.11% in 2004, 4.85% in 2005, and -8.27% in 2006 (Table 5-1-1).

Table 5-1-1 Taiwanese Enterprises' Export Sales, 2003 – 2006

Units: NT\$ millions; %

Year	Total Exports	Exports by Large Enterprises	Exports by SMEs
Export sales (NT\$ millions)			
2003	7,332,745(100)	6,004,906 (81.89)	1,327,839 (18.11)
2004	8,491,702 (100)	7,042,909 (82.94)	1,448,794 (17.06)
2005	8,629,131 (100)	7,110,068 (82.40)	1,519,063 (17.60)
2006	7,533,027 (100)	6,148,046 (81.61)	1,384,981 (18.39)
Annual growth rate (%)			
2004	15.81	17.29	9.11
2005	1.62	0.95	4.85
2006	-12.70	-13.53	-8.27

Note: The figures in parentheses are the shares of total exports.

Source: Ministry of Finance, Tax Data Center business income tax collection data.

II Trends in Overseas Investment by SMEs

1. Overview of Overseas Investment

In the mid-1980s, the investment environment in Taiwan began to change rapidly due to rising wages, the rise in the value of the NT Dollar against the US Dollar, and increasingly severe labor shortages. Taiwanese industry was forced to begin moving production overseas in order to keep production costs down. As the process of economic globalization continued, enterprises found that overseas investment was a vital prerequisite for maintaining growth and profitability. As of the end of March 2006, the cumulative total of Taiwanese enterprises' overseas direct investment had risen to US\$94.2 billion. It is estimated that around half of Taiwanese overseas investment is routed through third countries, so in reality the cumulative total of Taiwanese overseas investment is closer to US\$200 billion.

In the last 10 years, Taiwan's overseas investment has been heavily concentrated in the Asia region, particularly China. North, Central and South America have received the next largest amount of investment; Taiwanese investment in Europe has been very limited.

(1) Approved Overseas Investment

According to the statistics on approved overseas investment compiled by the Investment Commission, Ministry of Economic Affairs, the annual total of approved overseas investment (not including investment in China) peaked in 2000 at US\$5,077.06 million, after which it began to fall. However, in 2006 approved overseas investment rose again, to US\$4,315.43 million, representing an increase of US\$1,867.98 million (76.32%) compared to 2005. There was negative growth in investment in Japan, Indonesia, the Philippines and Australia, but positive growth in investment in Hong Kong, Singapore, and Thailand (Table 5-2-1).

(2) Approved Investment in China

Statistics on investment in China compiled by the Investment Commission, Ministry of Economic Affairs, show that approved Taiwanese investment in China peaked in 2003 at US\$7,698.78 million, before falling in 2004 and 2005. However, in 2006 investment in China increased by 27.22%, rising to US\$7,642.34 million. Three industries – the computer, communications and audiovisual electronics product manufacturing industry,

Table 5-2-1 Approved Overseas Investment by Region, 2002 – 2006

Units: US\$ million; %

Year	Total	USA	Japan	Hong Kong	Singapore	Thailand	Malaysia	Indonesia	Philippines	Vietnam	Europe	Australia	Other Regions
2001	4391.65	1092.75	169.03	94.90	378.30	16.29	45.52	6.12	46.20	30.91	45.59	62.84	2403.20
2002	3370.05	577.78	23.55	167.06	25.76	5.96	31.96	9.16	82.83	55.19	123.42	192.64	2074.72
2003	3968.59	466.64	100.37	641.29	26.40	48.99	50.22	12.75	2.37	157.37	77.44	63.25	2321.51
2004	3382.02	557.04	149.33	139.70	822.23	8.66	35.48	2.45	2.39	95.13	62.10	142.63	1364.89
2005	2447.45	314.64	42.55	107.56	97.70	20.27	28.20	9.12	14.94	93.93	299.42	85.60	1333.53
2006	4315.43	484.62	19.26	272.02	806.30	81.67	31.24	8.80	13.48	123.74	463.80	32.93	1985.90
Annual growth Rate (2006)	76.32	54.03	-74.32	152.90	725.28	303.02	10.79	-3.48	-9.73	31.73	56.90	-61.53	48.92

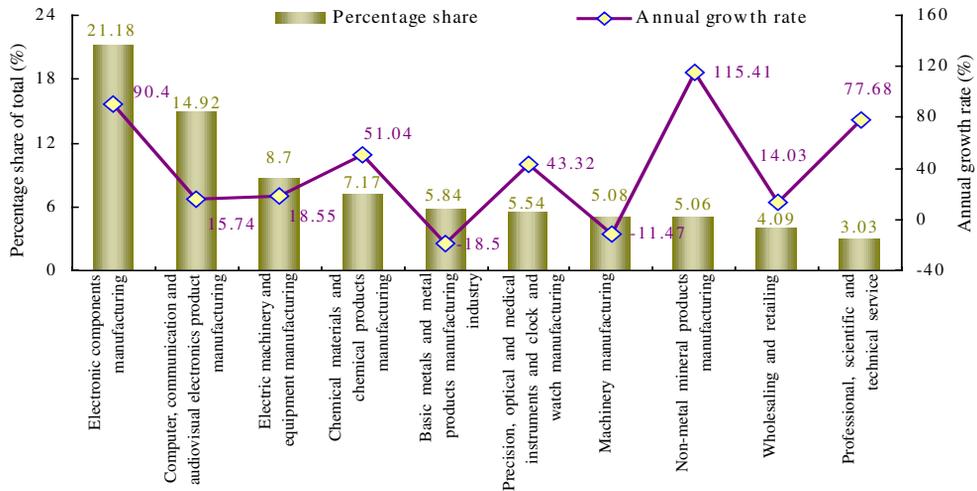
Source: Investment Commission, Ministry of Economic Affairs, *Approved Overseas Investment Statistics*.

the electronic components manufacturing industry, and the electrical machinery and equipment manufacturing and repair industry – have consistently accounted for the largest share of Taiwanese investment in China (44.80% in 2006). Industries where investment in China grew in 2006 included: the electronic components manufacturing industry; the computer, communications and audiovisual electronics product manufacturing industry; the electrical machinery and equipment manufacturing and repair industry; the chemical materials and chemical products manufacturing industry; the precision, optical and medical instruments and clock and watch manufacturing industry; the non-metal mineral products manufacturing industry; the wholesaling and retailing industry; and the professional, scientific and technical services industry. The basic metals and metal products manufacturing industry and the machinery manufacturing and repair industry both experienced negative growth (Figure 5-2-1).

2. Overseas Investment by Manufacturing Firms

The best source of data for examining overseas investment in terms of enterprise size is still the Survey on Overseas Investment by Manufacturing Industry published by the Ministry of Economic Affairs. However, this data source is based on the previous year's investment activities, i.e., the 2006 survey results are based on 2005 data. The following sections will examine the changes in overseas investment by Taiwanese manufacturing industry over the last three years in terms of regional distribution, enterprise size (based on the size of the parent company in Taiwan), business areas invested in, motivation for investment, and profitability.

Figure 5-2-1 Approved Investment in China in 2006 – by Industry



Notes: 1. The percentage shares given in the table are the shares of all approved investment in China accounted for by that industry.

2. The annual growth rates are for 2006 as compared to 2005.

Source: Investment Commission, Ministry of Economic Affairs, *Approved Investment in China Statistics*.

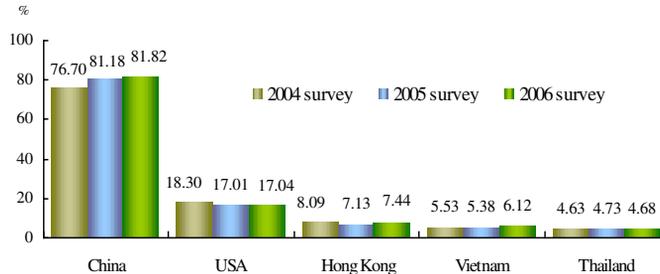
(1) Regional Distribution

As regards the regions in which Taiwanese enterprises invest, China's huge domestic market and enormous business opportunities have made it the most popular target for Taiwanese investment. Over the last three years, the percentage of Taiwanese manufacturing enterprises investing in China has risen from 76.70% to 81.82%. The USA is the second most popular investment target; the share of manufacturing enterprises investing there has risen from 17.01% to 18.30% over the same period. No other region has exceeded 10% at any point in the last three years (Figure 5-2-2).

(2) Enterprise Size

The percentage of small enterprises investing in China rose from 75.73% in 2004 to 81.63% in 2006. For large enterprises, the percentage increased from 78.10% in 2004 to 83.56% in 2006. As regards investment in other regions, the US is still an important target for investment by large Taiwanese enterprises, although the percentage of large enterprises investing there has fallen slightly in the last three years, from 27.16% in 2004 down to 26.58% in 2006. The percentage of small enterprises investing in the US has also fallen over the last three years (Figure 5-2-3).

Figure 5-2-2 Percentage of Taiwanese Manufacturing Enterprises Investing in Individual Regions (Top Five)



Note: The figure shows the five countries that Taiwanese enterprises are most likely to invest in (respondents were allowed to list more than one country).

Source: Ministry of Economic Affairs, *Survey on Overseas Investment by Manufacturing Industry in Taiwan, 2004–2006*.

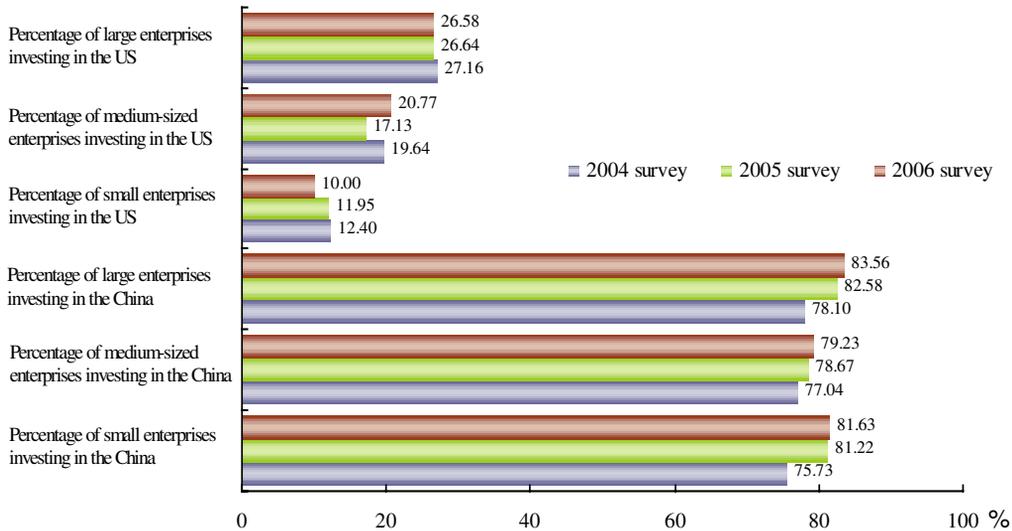
(3) Business Areas Invested In

Most Taiwanese manufacturing enterprises that invest overseas do so in the same industry; where companies do invest in industries different from that of the parent company in Taiwan, the industry in question is usually a related one. The industries in which Taiwanese companies have been most likely to invest in the last three years are the electronics and electromechanical engineering industry, the metals and metal products industry, and the plastics industry. In 2006, the percentages of companies in these industries investing overseas were 40.25%, 9.60%, and 7.56%, respectively. The most rapid growth in overseas investment was found in the wholesaling and retailing industry, in fourth place; the percentage of enterprises investing in this industry overseas increased from 2.11% in 2003 to 7.26% in 2006. Overseas investment by large enterprises in the last three years has mainly been in the electronics and electromechanical engineering industry. Industries in which medium-sized enterprises have been investing more aggressively than small or large enterprises include the chemical products manufacturing industry and chemical materials manufacturing industry; industries where small enterprises have been investing more aggressively include the metals and metal products industry, the plastics industry, the machinery manufacturing industry, and the textile industry (Table 5-2-2).

(4) Motivation for Overseas Investment

According to the 2006 survey results, “local market has high development potential” was the main motivation for manufacturing firms to invest overseas, with 61.25% of enterprises reporting this as a motivating factor. This was the main motivation for large,

Figure 5-2-3 Percentage of Taiwanese Enterprises Investing in the US and China – by Size



Source: Ministry of Economic Affairs, *Survey on Overseas Investment by Manufacturing Industry in Taiwan, 2004–2006*.

Table 5-2-2 The Top Ten Business Areas in Which Taiwanese Enterprises Invested Overseas in 2006 – by Enterprise Size

Enterprise Size	Unit: %									
	Electronics and electro-mechanical	Metals and metal products	Plastics	Wholesale and retailing	Machinery manufacturing	Chemical products manufacturing	Textiles	Transportation vehicle manufacturing	Food and beverage manufacturing	Chemical materials manufacturing
Total	40.25	9.60	7.56	7.26	6.12	5.16	3.78	3.30	2.64	2.58
Small enterprises	36.05	12.44	9.19	5.58	7.09	5.70	4.07	1.98	1.74	2.79
Medium-sized enterprises	41.90	7.04	5.63	8.45	5.28	6.34	3.17	4.23	3.52	3.17
Large enterprises	46.27	6.31	5.93	9.37	4.97	3.63	3.63	4.97	3.63	1.91

Note: The electronics and electromechanical industry includes the computer, communications and audiovisual electronics industry, the electronic components industry, and the electric power machinery industry.

Source: Ministry of Economic Affairs, *Survey on Overseas Investment by Manufacturing Industry, 2006*.

medium and small enterprises, although it was a particularly important factor for large enterprises. “Access to an abundant supply of cheap labor” was the second most important factor (53.75% of enterprises), although this was clearly a less important issue for small and medium-sized enterprises than it had been in the past (Figure 5-2-3). 2006 saw a significant increase in the percentage of enterprises reporting

“falling profit margins in the industry to which the enterprise belongs” as a motivating factor; this factor, which had previously been outside the top ten, shot up into sixth place in 2006. 15.96% of enterprises gave this as a motivating factor; for small enterprises, the percentage was 21.74%.

Table 5-2-3 Percentage of Enterprises Reporting Particular Factors Motivating Overseas Investment in 2006

Unit: %

Item	All Enterprises	By Size of Taiwanese Parent Company		
		Small Enterprises	Medium Enterprises	Large Enterprises
Development potential of local market	61.25	53.14	67.96	70.94
Abundant cheap labor	53.75	52.56	51.76	56.79
Pressure from overseas customers	35.75	35.70	36.27	35.56
Following the lead of major Taiwanese customer	29.09	31.28	24.30	28.11
Easy access to cheap raw materials	17.10	18.02	15.85	16.25
Falling profit margins in the industry to which the enterprise belongs	15.96	21.74	13.03	8.03
Ready availability of land	13.92	14.53	12.68	13.58
Incentives offered by the local government to encourage foreign investment	9.06	8.14	8.80	10.71
Opportunity to make effective use of the enterprise's capital and technology	8.64	6.86	9.86	10.90
Opportunity to exploit most-favored nation status and preferential tariff rates	7.38	7.44	6.34	7.84
Access to local natural resources	6.96	7.91	3.17	7.46
Desire to strengthen strategic alliance with overseas company	5.10	4.07	6.69	5.93
Easy access to technology and skills	3.54	4.30	2.46	2.87
Opportunity to reduce exchange rate fluctuation risk	1.14	1.16	0.70	1.34

Source: Ministry of Economic Affairs, *Survey on Overseas Investment by Manufacturing Industry, 2006*.

The major changes in motivation for investing overseas that were seen in 2006 (as compared to 2005) were as follows. The percentage of large enterprises that had invested overseas in response to requests from an overseas customer fell from 38.93% in 2005 to 35.56% in 2006, while the percentage of large enterprises investing overseas because they were following the lead of an important Taiwanese customer rose from 25.00% to 28.11%. Among medium-sized enterprises, the share of enterprises that had invested overseas because they were following the lead of a Taiwanese customer fell from 29.37% to 24.30%, while the percentage with the development potential of the local market being an important factor rose from 63.64% to 67.96%. For small enterprises, the percentage for which access to an abundant supply of cheap labor was important had fallen from 66.23% in 2003 to 52.56% in 2006, while the percentage that had invested overseas because an

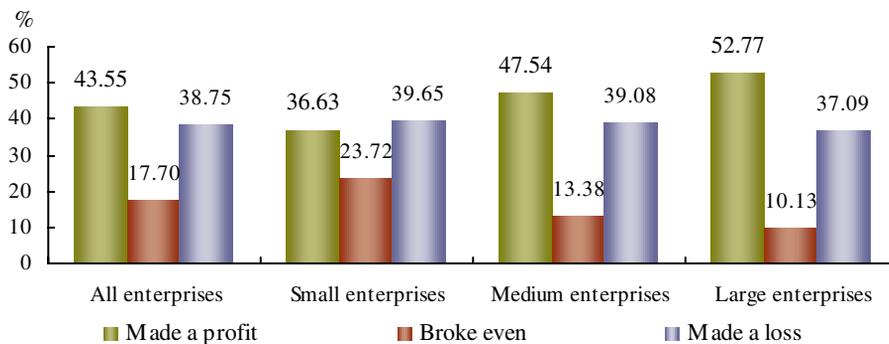
important Taiwanese customer had done so rose from 27.64% to 31.28%. The percentage of small enterprises for which the ready availability of land (for factory construction, etc.) was a key issue fell from 18.02% to 14.53%.

(5) Profitability of Overseas Operations

41.81% of manufacturing enterprises' overseas operations made a profit in 2005; 19.26% broke even, and 38.93% made a loss. If the analysis is limited to the major overseas operation of each enterprise, the figures are 43.55%, 17.70% and 38.75%, respectively.

Further analysis of the situation with regard to the major overseas operations of Taiwanese manufacturing enterprises shows that, whereas in 2004 57.17% of the major overseas operations of Taiwanese manufacturing enterprises made a profit, by 2006 this percentage had fallen to 52.77%. By contrast, among medium-sized enterprises, the percentage making a profit rose from 44.06% in 2004 to 47.54% in 2006. As for small enterprises, in 2002 roughly one third of the major overseas operations of small manufacturing enterprises made a profit, one third broke even and one third made a loss. In 2003, the percentage making a profit rose to 47.60%; in 2004, 37% made a profit, 25.40% broke even, and 37% made a loss. In 2005, more of the major overseas operations of small manufacturing enterprises made a loss (39.65%) than made a profit (36.63%), while the percentage breaking even remained around the same as in 2004 (Figure 5-2-4).

Figure 5-2-4 Profitability of Enterprises' Most Important Overseas Operations in 2005



Source: Ministry of Economic Affairs, *Survey on Overseas Investment by Manufacturing Industry, 2006*.

III SME Investment in China

81.82% of overseas investment by Taiwanese manufacturing enterprises is concentrated in China. This section uses original data from the Ministry of Economic Affairs' *Survey on Overseas Investment by Manufacturing Industry* to examine the current state of Taiwanese investment in China in terms of enterprise size, profitability, etc. These data are supplemented by the National Federation of Industries' *Survey of Taiwanese Investment in China in 2006*. Although the data presented in this survey are not broken down by enterprise size, they still constitutes a useful reference regarding Taiwanese enterprises' views.

1. Characteristics of Manufacturing Firms Investing in China

According to the original data from the 2006 *Survey on Overseas Investment by Manufacturing Industry*, out of a sample of 1,364 Taiwanese manufacturing enterprises whose main overseas operation was located in China, 927 (67.96% of the total) were classed as SMEs (having less than 200 employees in Taiwan); and there were 437 large enterprises (32.04% of the total). A total of 855 enterprises (62.68%) either made a profit or broke even in 2005, with 509 (37.32%) making a loss. Of the 350 enterprises where the Taiwan parent company was an SME and which made a loss, 76.00% had 99 or fewer employees in Taiwan, and 24.00% had between 100 and 199 employees in Taiwan. Of the enterprises where the Taiwan parent company was an SME enterprise and which made a profit or broke even, 75.55% had 99 or fewer employees, and 24.45% had between 100 and 199 employees.

The National Federation of Industries' *Survey of Taiwanese Investment in China in 2006* targeted a random sample of the 20,000 Taiwanese-invested enterprises registered with the Investment Commission, Ministry of Economic Affairs. A total of 2,000 questionnaires were sent out, of which 304 were returned. A 95% confidence level was used in the statistics.

(1) Year in Which Investment in China Commenced

Out of 1,364 Taiwanese enterprises whose main overseas operation was in China in 2005, 33.21% began to invest there in 2001 or after; 67.96% of these enterprises were SMEs, and 32.04% were large enterprises. 62.68% of these enterprises made a profit or broke even in 2005, while 37.32% made a loss. On average, among those enterprises that began to invest in China during the period 1995 – 1997 or 1998 – 2000, the share

of all enterprises making a profit or breaking even was around 5 percentage points and 7 percentage points (respectively) higher than the share that made a loss; among those that began to invest in China in 2001 or after, the share of all enterprises that was making a loss was 2.57 percentage points higher than the share that was making a profit (Table 5-3-1).

Table 5-3-1 Profit or Loss of Main Overseas Operation in China in 2005 – by the Year in Which Investment in China Began

Units: enterprises; %

Year in Which Investment in China Began	All Enterprises			Made a Loss			Made a Profit or Broke Even		
	Subtotal	SMEs	Large Enterprises	Subtotal	SMEs	Large Enterprises	Subtotal	SMEs	Large Enterprises
Sample Size (enterprises)	1,364	927	437	855	577	278	509	350	159
Total	100	67.96	32.04	62.68	42.3	20.38	37.32	25.66	11.66
1986 or earlier	1.83	0.73	1.1	1.54	-	-	0.29	-	-
1987 – 1991	8.94	5.57	3.37	6.74	-	-	2.2	-	-
1992 – 1994	14.15	10.19	3.96	9.9	-	-	4.25	-	-
1995 – 1997	18.04	11.51	6.53	11.07	-	-	6.97	-	-
1998 – 2000	23.83	16.72	7.11	15.55	-	-	8.28	-	-
2001 or after	33.21	23.24	9.97	17.89	-	-	15.32	-	-

Source: Ministry of Economic Affairs, *Survey on Overseas Investment by Manufacturing Industry in Taiwan, 2006*.

Of the respondents in the 2006 *Survey of Taiwanese Investment in China in 2006*, 17.1% had started to invest in China in 1993 or earlier, 47.3% had started to invest there between 1994 and 2000, and 35.6% had begun to invest in China in 2001 or later. These figures reflect the magnetic attraction that China's economic reform and rapid economic growth have had for Taiwanese enterprises in the last ten years.

(2) Main Business Areas of the Taiwan Parent Company

Of the Taiwanese manufacturing enterprises whose main overseas operation was located in China in 2005, 61.73% were involved in processing operations that fell under the category of heavy industry, while 23.68% were involved in light industry processing operations. Of those whose China operation was making a profit or breaking even, 60.47% were involved in heavy industry processing operations, suggesting that other business areas may offer slightly higher earnings potential. Of those enterprises whose China operation was making a loss, 63.85% were involved in heavy industry processing operations (Table 5-3-2).

Table 5-3-2 Profit or Loss of Main Overseas Operation in China in 2005 – by Main Business Area in Taiwan

Units: enterprises; %

Main Business Area	Total	Processing heavy industry	Processing light industry	Materials heavy industry	Materials light industry
Total	100	61.73	23.68	7.26	7.33
Made a profit or broke even	100	60.47	25.76	7.84	5.93
Made a loss	100	63.85	20.83	6.29	9.03

Note: Business areas are ranked in order of the percentage of all enterprises that they account for.

Source: Ministry of Economic Affairs, *Survey on Overseas Investment by Manufacturing Industry, 2006*.

(3) Main Business Areas in China

Of those Taiwanese enterprises whose main overseas operation was in China in 2005, 41.35% were in the electronics industry, 25.29% were in the metals and machinery industry, 17.96% were in the chemical industry, and 15.40% were in the consumer goods manufacturing industry (Table 5-3-3). The three industries that accounted for the largest share of the China operations of Taiwanese companies were electronics components (26.39%), metal products (9.02%), and plastics (6.23%).

Table 5-3-3 Profit or Loss of Main Overseas Operation in China in 2005 – by Main Business Area in China

Units: enterprises; %

Industry	Top Four Industries Combined	IT and Electronics Components	Metals and Machinery	Chemical Industry	Consumer Goods
Total	100	41.35	25.29	17.96	15.40
Made a profit or broke even	100	38.83	26.67	18.71	15.79
Made a loss	100	45.57	22.98	16.70	14.75

Note: Business areas are ranked in order of the percentage of all enterprises that they account for.

Source: Ministry of Economic Affairs, *Survey on Overseas Investment by Manufacturing Industry, 2006*.

2. Business Strategy in the China Operation

(1) Form of Organization

In 2005, 66.77% of the China operations of Taiwanese enterprises whose main overseas operation was in China took the form of wholly-owned subsidiaries. 9.54% were joint ventures with foreign companies, and 8.94% were collaborative ventures with other Taiwanese firms.

Of the 293 respondents in the 2006 *Survey of Taiwanese Investment in China in 2006*, 79.2% were wholly-owned subsidiaries (up from 52.8% in 2005), 14.7% were joint ventures (compared to 36.9% in 2005), and 6.1% were collaborative ventures (compared to 10.3% in 2005). It can thus be seen that the percentage of

China operations of Taiwanese enterprises that take the form of wholly-owned subsidiaries has risen significantly, with a move away from joint ventures and collaborative ventures.

(2) Scale of Operations

The survey results indicated that 16.2% of Taiwanese enterprises investing in China had invested over US\$20 million (up from 4.7% in 2005). 9.8% had invested between US\$10 million and US\$20 million (compared to 9.7% in 2005), 12.5% had invested between US\$5 million and US\$10 million (compared to 20.8% in 2005), 35.0% had invested between US\$1 million and US\$5 million (compared to 36.0% in 2005), and 26.6% had invested less than US\$1 million (compared to 28.8% in 2005). There is thus a tendency for the scale of Taiwanese enterprises' investment in China to increase.

(3) Business Type

In 2005, 60.47% of the China operations of Taiwanese enterprises whose main overseas operation was in China were mainly engaged in the manufacturing and sale of own-brand products; this was the main business area both for those China operations that were making a profit or breaking even, and for those that were making a loss. Some 37.25% were mainly involved in Original Equipment Manufacturing (OEM) production, and 12.66% were mainly engaged in Original Design Manufacturing (ODM) production.

(4) Technology Sources

For 84.76% of the China operations of Taiwanese enterprises whose main overseas operation was in China in 2005, the Taiwan parent company was the main source of technology. The Taiwan parent company was the main technology source both for loss-making China operations and those that were making a profit or breaking even. Among large enterprises, the percentage was even higher, at 88.91%. In 20.82% of China operations, the China operation undertook its own R&D activities; in 11.94% of cases, technology was supplied by a partner company.

(5) Marketing Methods

Of those Taiwanese companies whose main overseas operation was in China in 2005, 63.71% had the China operation handle at least part of its own marketing, while in 51.83% the Taiwan parent company had at least partial responsibility for the China operation's marketing activities. These were the most common marketing strategies

both for loss-making enterprises and those that were making a profit or breaking even, and for both large enterprises and SMEs. The strategy of having a local (Chinese) company handle marketing was used by 15.54% of enterprises.

A total of 61.50% of the respondents in the 2006 *Survey of Taiwanese Investment in China in 2006* reported that their goods were sold in the Chinese market (up from 56.66% in 2005), 31.07% reported that their goods were exported to other countries (down from 32.07% in 2005), and only 7.43% reported that their goods were shipped back to Taiwan (compared to 5.37% in 2005). It can be seen that Taiwanese-invested enterprises in China are mostly producing for the local (Chinese) market; developing the Chinese domestic market and dealing with the intense competition in this market is thus a key issue for most of these enterprises.

3. Problems Experienced When Investing in China, and Areas Where Assistance is Needed

(1) Reasons Why Companies Make a Loss in Their China Operations

In 2005, among those Taiwanese companies whose main overseas operation was in China and which were making a loss in that operation, the main reason given for making a loss was “fierce competition in the local market” (57.96% of enterprises), followed by “the rising cost of raw materials” (41.45%), and “the cost of investing in China is very high, or are currently engaged in constructing a production facility” (27.90%).

Of the enterprises whose China operations were making a loss, in 31.24% of cases the Taiwan parent company was a large enterprise, with 68.76% being SMEs. For large enterprises, besides intense competition from other companies in China, the high cost of investing in China and/or the fact that they were still building a factory was also a major factor. For SMEs, the rising cost of raw materials was the biggest single factor (Table 5-3-4).

(2) Difficulties Encountered by the China Operations of Taiwanese Enterprises

Among those Taiwanese SMEs whose main operation was in China in 2005 and that were making a loss in their China operation, 58.80% reported that fierce market competition was one of the main problems that they were experiencing in China. The next most commonly reported difficulty was rising local labor costs (35.06%), followed

Table 5-3-4 Reasons for Failing to Make a Profit Reported by Taiwanese Enterprises Whose Main Overseas Operation Was in China in 2005

Unit: enterprises; %

Item	Total	Taiwan Parent Company is a Large Enterprise	Taiwan Parent Company is an SME	
			99 or fewer employees	100 – 199 employees
Sample size (enterprises)	509	159	266	84
Fierce competition in the local market	57.96	56.60	60.15	53.57
Rising cost of raw materials	41.45	25.16	53.01	35.71
High cost of investing in China / currently building a factory	27.90	32.70	24.44	29.76
Inadequate marketing network	17.09	16.98	16.92	17.86
Depressed state of the local economy	11.59	9.43	13.91	8.33

Note: Respondents were permitted to give more than one reason.

Source: Ministry of Economic Affairs, *Survey on Overseas Investment by Manufacturing Industry, 2006*.

by cash flow problems (32.69%). Intense market competition was the most widely reported problem in all major industries; the percentage of enterprises reporting this problem was 54.20% in the metals and machinery industry, 59.91% in the IT and electronics industry, 66.94% in the chemical industry, and 58.10% in the consumer goods manufacturing industry.

(3) Types of Assistance and Guidance that SMEs Would Like to See the Government Provide

Among those Taiwanese SMEs whose main overseas operation was in China and where that China operation was making a loss, the types of government assistance that SMEs most wished to be provided were for the government to arrange investment protection and dual taxation prevention agreements (52.62% of SMEs), and for the government to provide consulting services with regard to investment-related laws and regulations (50.96%). Among SMEs where the Taiwan parent company was in the metals and machinery industry, IT and electronics industry, chemical industry or consumer goods manufacturing industry, the types of assistance desired were more or less the same as for SMEs as a whole.

According to the results obtained in the 2006 *Survey of Taiwanese Investment in China in 2006*, the main types of assistance that Taiwanese enterprises investing in China hoped for from the government were, in order: assistance in securing bank loans (58.6%), assistance with trade dispute resolution (42.1%), legal and tax consulting services (35.8%), the provision of information regarding China-related economic and trade affairs (33.4%), measures to strengthen links between Taiwanese-invested enterprises in China (27.2%), assistance in solving issues

relating to factory management in China (24.8%), and the provision of training programs for managers who will be assigned to China (21.9%). This need for a wide range of systemic assistance reflects the fact that market mechanisms in China are not yet fully mature.

4. Difficulties and Challenges Experienced by Taiwanese Enterprises Investing in China

(1) Revaluation of the Yuan

Since mid-2005, the Yuan has been appreciating steadily against the US Dollar. Rather than being pegged solely to the US dollar, the Yuan is now pegged to a basket of currencies. Given China's immense foreign currency reserves (over US\$1 trillion), there is still considerable potential for further rises in the value of the Yuan. 45.2% of Taiwanese enterprises investing in China felt that the revaluation of the Yuan would enable them to purchase raw materials more cheaply; 30.9% felt that it would have no significant impact on raw material costs. 38.3% felt that the appreciation of the Yuan would make it easier for them to develop the Chinese domestic market, against 49.2% who did not expect it to make a difference. 34.9% of Taiwanese enterprises investing in China anticipated that the revaluation of the Yuan would facilitate future investment in China, while 45.8% believed that it would not make any difference. 33% felt that the revaluation of the Yuan would make it more difficult for them to develop export markets, as against 30% who thought it would help.

More than half of Taiwanese enterprises investing in China anticipate that the Yuan will continue to rise in value against the US dollar; a similar percentage believe that this revaluation will not have a serious negative impact on their operations. However, those Taiwanese-invested enterprises in China that are producing mainly for export to other markets will need to keep a close eye on the exchange rates and adopt suitable risk prevention strategies.

(2) The Macroeconomic Adjustment Policies Adopted by the Chinese Government

As part of its efforts to prevent the economy from overheating, the Chinese government has been seeking to control investment, credit, and fixed asset growth. These measures, coupled with the Chinese government's new land policy, have led to a significant increase in the operating costs of Taiwanese enterprises operating in China. The survey results showed that more than 60% of respondents expected the Chinese government's

macroeconomic adjustment measures to have a negative impact on the cost of fuel, the cost of raw materials, cash flow, and land acquisition and development. Around 50% of respondents anticipated that these measures would have a negative impact on factory expansion, the development of export markets, the development of the Chinese domestic market, and the outlook for future investment in China. Overall, Taiwanese enterprises investing in China felt negatively about the Chinese government's macroeconomic adjustment policies.

(3) Rising Manufacturing Costs

In the last few years, as a result of China's accession to the WTO and the steady influx of foreign investment, the price of fuel and raw materials in China has been rising steadily. This has had a significant negative impact on the manufacturing costs of Taiwanese enterprises operating in China. In the survey, 85.5% of respondents reported that rising fuel prices had had a negative impact on their operations in China; the figures for raw materials, electric power and labor costs were 87.0%, 90.1% and 88.5%, respectively. The combination of steadily rising costs and steadily intensifying competitive pressure has caused severe problems for many SMEs, which suffer from both limited capital and limited access to information.

(4) Issues Relating to the Investment Environment and Dispute Resolution

The 12 main investment environment problems reported by Taiwanese enterprises operating in China were, in order: complex and time-consuming customs procedures (46.6% of enterprises), high entertainment and other miscellaneous expenses (45.0%), Chinese enterprises' refusal to honor contracts (40.7%), difficulty in securing repayment of loans (36.1%), difficulty in securing bank loans, inadequate electric power, communications and transportation infrastructure (29.5%), rising materials inventory costs (27.5%), difficulty in developing the Chinese domestic market (24.5%), interference by local government authorities (19.5%), labor disputes (16.9%), Taiwanese personnel assigned to China operations having difficulty adjusting to life in China (16.2%), and difficulty in remitting profits out of China (9.9%). These problems reflect the fact that market mechanisms in China are not yet fully mature; besides issues relating to operational performance, Taiwanese enterprises investing in China also have to deal with complex legal, regulatory and social issues.

(5) Taxation

Article 39 of China's new Property Law, which was enacted on March 16, 2006,

stipulates that property owners shall enjoy the rights to occupy, use, benefit from and dispose of all moveable and immovable property that they may own. This means that, in future, it will be possible for Taiwanese and other foreign investors to own land and factory buildings in China. It remains to be seen what impact the changes resulting from this new law will have on investment in China.

(6) The Substitution Effect between Taiwan and China

The results obtained in the *Survey on Overseas Investment by Manufacturing Industry* suggest that Taiwanese enterprises' investment in China is already having a significant impact on their domestic operations. In particular, the cash flow problems experienced by companies in the IT and electronics industry as a result of their investments in China have discouraged them from expanding their production operations in Taiwan and from expanding their product lines, while companies in the consumer goods manufacturing industry have also found it difficult to expand their scale of production in Taiwan. The Ministry of Economic Affairs notes that there is not necessarily a positive correlation between overseas investment and the upgrading of technology or product quality, and that this is especially true in the consumer goods manufacturing industry.

As Taiwanese enterprises investing in China localize their operations, the percentage of enterprises sourcing components and semi-finished products locally from other Taiwanese-invested companies in China has risen to nearly 40%, with another 30% sourcing components and semi-finished products from local companies that are not Taiwanese-invested. Overall, the substitution effect between China and Taiwan has become very pronounced. Increasingly, China and Taiwan are producing the same types of products, so that the relationship between them is becoming more competitive and less complementary. The importance of Taiwan-based Taiwanese companies within the supply chain is decreasing, and so is the trade stimulation effect resulting from overseas investment. Companies investing in (or considering investing in) China need to take these warning signs into account, and to consider how they can solve the problems that may result.

IV Areas That SMEs Need to Focus on in Their Overseas Investment Activities

Currently, three main trends are apparent in the global economy. Firstly, the process of economic globalization is continuing at a rapid pace, with a substantial increase in both

trade and direct investment all over the world. Markets are being opened up, and competition is intensifying. Secondly, there is the rise of the emerging economies. By 2005, the combined GDP of the emerging economies exceeded that of the developed nations. Finally, there is regional economic integration. Besides the European Union and NAFTA, which have both been existence for many years, in the Asia region there is the potential for the integration of the Chinese, Japanese and Korean economies with ASEAN, which would create the world's largest free trade area.

In his book, *The Emerging Markets Century: How a New Breed of World-Class Companies is Overtaking the World*, published in 2007, Antoine van Agtmael suggests that the emergence of multinational corporations based in emerging economies constitutes the greatest transformation to have taken place in the global economy since the industrial revolution in the 18th century. He points out that the center of gravity of the global economy is shifting back to the regions where it was located prior to the industrial revolution.

As a result of economic globalization, it is relatively easy for companies from other parts of the world to enter emerging markets. Multinationals based in emerging economies usually enjoy significant advantages in terms of cost structure, enabling them to offer cheap products and services that threaten established companies in the same industries. A process similar to the migration of Taiwanese contract manufacturing to China is now being played out in other countries.

These new developments are putting Taiwanese SMEs under intense competitive pressure, but at the same time they are also creating new opportunities. Globalization and regional economic integration have helped Taiwan's large enterprises to overcome the limitations imposed by the small size of the Taiwanese domestic market and insufficient resources. While SMEs cannot hope to build the same level of economies of scale that large enterprises can create, they can still exploit their flexibility and cost advantages to obtain cheap raw materials and cheap labor, and they can leverage the experience that Taiwanese companies have acquired in investing in different parts of the world to enter and develop emerging markets. In particular, familiarity with Asian markets should help many Taiwanese SMEs to turn crisis into opportunity.

The areas in which SMEs enjoy a competitive advantage include the ability to develop unique products, low prices, first-rate after-sales service, and rapid delivery. However, for the most part Taiwanese SMEs lack the capabilities needed to

internationalize their operations. What efforts they have made to expand overseas have mainly been motivated by the desire to reduce costs, and are largely confined to China and Southeast Asia. SMEs suffer from shortages of talent and funding, and have inadequate brand development and marketing capabilities. As a result, it is difficult for Taiwanese SMEs to create synergy from their overseas investment activities. The following sections suggest some areas that SMEs might be advised to focus on in order to build competitive advantage in the new environment that globalization has created.

(1) Building Innovation Capabilities

In the future, innovation and the transfer of knowledge will occupy a more important place in the process of value added creation than the manufacturing and transportation of physical goods. SMEs need to focus on innovation – in design, production processes, logistics, and in products–in order to differentiate their products from those of competitors, thereby enhancing value added creation. Constant innovation can help SMEs to compensate for the economies of scale that they lack but which their larger rivals possess.

In the knowledge economy of today, SMEs should be working actively to access, absorb and make effective use of new information. The Internet and networking technology have a vital role to play here. By leveraging the power of the Internet, business owners can obtain the information they need more rapidly; the Internet can also help enterprises to deliver products and innovative services to the consumer more quickly. The Internet can in addition help firms to upgrade the efficiency of production and sales, and to achieve smoother communication. From the point of view of SMEs, which do not have the same range of marketing and information channels available to them that large enterprises do, the Internet has become an important supplementary tool for supporting innovation and process improvements.

(2) Recruiting and Integrating Human Talent with Global Vision

In their 2006 paper, *The Localization of Taiwanese Enterprises' Overseas Operations*, Meng-Chun Liu and Yuh-Jiun Lin point out that, for both hi-tech and traditional industries, the overseas investment activity of Taiwanese firms has largely been confined to China, and that the main reason for this situation is the fact that firms lack the capabilities and human talent needed to effectively integrate global resources. Clearly, more efforts needs to be put into the cultivation of human resources, including

both government and private-sector initiatives, long-term and short-term cultivation projects, and the recruitment of overseas talent. The planning for this activity must be tailored to the real need of industry and to the manpower structures of Taiwanese enterprises. SMEs often suffer from limited knowledge of financial and legal affairs, and from an insufficient understanding of the investment environment in other parts of the world. The recruitment and cultivation of first-class human talent can make a significant contribution towards successful overseas investment and the development of overseas marketing channels by SMEs.

(3) Globalized Management

The development of globalized resource allocation strategies by SMEs should not be limited to human capital. Rather than focusing exclusively on cost-down, SMEs should be thinking carefully about how they allocate their resources, aiming to create an environment conducive to innovation and to the creation and sharing of knowledge.

To maximize their opportunities for profitable overseas investment, SMEs need to familiarize themselves with local laws and regulations, and with the relevant WTO rules and provisions. Combining this knowledge with an awareness of resource integration concepts can help to ensure successful operations.

During the Conference on Managing Investment Risk in China organized by the Taiwan Electrical and Electronic Manufacturers' Association, it was pointed out that Taiwanese enterprises need to be on the lookout for "substitute markets" to reduce their excessive dependence on China. Developing new markets can help Taiwanese firms to reduce their investment risk and to maintain flexibility. Enterprises should be formulating global strategies that avoid concentrating investment in a single area, thereby keeping operational risk to a minimum. Having a sound financial structure is also very important. Firms can use the services of specialist consulting firms to fine-tune their financial planning. By familiarizing themselves with local tax laws and implementing effective risk management, enterprises can minimize investment and operational risk.

(4) Building Core Competencies

Besides strong innovation and R&D capabilities, first-class human resources and good strategic management capabilities, SMEs that are seeking to develop overseas markets also need to establish core competencies that will make them stand out from their competitors. Core competency is an agglomeration of knowledge and skills, with an

emphasis on resource integration, uniqueness and sustainable development.

Core competencies and competitiveness can be built through technology, management and corporate culture innovation. Technology innovation can be the foundation for core competency building, helping firms to improve their earnings performance and achieve economies of scale; the adoption of new technology can help an enterprise to grow and to strengthen its overall competitiveness. With management innovation, the enterprise should be focusing on its management philosophy, organizational structure, process management and human resources management; the firm must be ready to make adjustments in line with its changing needs and the special characteristics of the markets that it is seeking to develop. Finally, there is corporate culture innovation. Internally, this means effective integration of human resources; externally, it means careful selection and utilization of external resources. The overall goal here is to create a corporate culture that emphasizes collaboration, learning and flexibility.

(5) Brand Building

Joanna Seddon, Executive Vice President of Millward Brown Optimor, has pointed out that in the “flat” world being created by globalization, the advantages resulting from innovation cannot be maintained and extended for as long as they could in the past. It is becoming increasingly difficult for enterprises to develop advantages that will protect them from intense competition. Given this increasing homogeneity among enterprises and their products, branding is now the only way for an enterprise to differentiate itself from its competitors.

If Taiwanese SMEs can succeed in establishing their own global brands, this will go a long way towards helping to boost their sales and operating revenue, and will enable them to gradually increase their market share. More importantly, the accumulation of brand value over time will strengthen the firm’s reputation, making it easier to secure new customers, and to secure financing through more advantageous channels.

Besides helping an enterprise to raise its operating revenue and profit margins, a strong brand can also enable a firm to implement a more efficient allocation of its financial resources, thereby helping it to build competitive advantage. A firm that has built up significant brand value is often able to focus on achieving its long-term objectives, since its energies are not all being absorbed by the day-to-day struggle

for survival in a low-profit-margin environment (cutting prices and raising production to improve short-term earnings performance). In reality, the long-term development of brand value is far more important than short-term operational performance.

Hal Sirkin, Senior Vice President at the Boston Consulting Group, has pointed out that we are now seeing the emergence of a second Toyota in China, and a second Samsung in India. If Taiwan's SMEs are to succeed in building world-class brands, besides the "visible" aspects of the brand (including innovation and fashion), they will also need to adopt a new business philosophy based on long-term objectives. Enterprises need to focus on building their brand image over the long term; this will involve ongoing product development, developing long-term relationships with customers, and ensuring a constant flow of innovation. SMEs must make their strategic thinking deeper and more intensive if they are to grow strong and become the "star" enterprises of tomorrow. As the process of economic globalization proceeds, having a strong global brand is the key to building competitive advantage, and a prerequisite for growth and profitability.

Chapter 6

Technology Utilization, R&D and Innovation in the SME Sector

The key factors that underpin enterprise growth are labor, land, capital, entrepreneurial spirit and innovation. In particular, it was innovation and entrepreneurial drive that provided the motivating power for Taiwan's economic miracle. Today, new business development continues to depend on the flexibility and vigor of Taiwan's SMEs.

In more concrete terms, innovation can take one of five forms: the development of new products or the improvement of existing products, the introduction of new methods of production, the development of new markets, the identification of new sources of raw materials or semi-finished products, and the establishment of new forms of industrial organization.

SMEs' R&D activity is important because, in the knowledge economy, technology innovation can be a major source of competitive advantage for SMEs. The results of R&D are not always reflected in the invention or adoption of new technology; they may take the form of new ways of utilizing products or resources, new production processes, enhanced service quality or improved production efficiency.

Today, Taiwan's SMEs are faced with a competitive environment that is much more severe than in the past. Taiwan's SMEs need to focus on technology innovation and R&D if they are to succeed in developing new markets in the face of this increased competitive pressure. In this new era, in which the integration of knowledge is so important, R&D and innovation will become an enterprise's most fundamental core resources; this is the area on which SMEs will need to concentrate in the future.

I R&D Inputs

1. R&D Expenditure

R&D expenditure is the most commonly used measure of R&D activity. The following sections examine total national R&D spending, private-sector R&D expenditure and R&D spending in the manufacturing sector in Taiwan.

(1) National R&D Expenditure

According to data compiled by the National Science Council, R&D spending in Taiwan in 2005 totaled NT\$280,980 million. Of this, NT\$187,853 million (66.9% of the total) was funded by the private sector, and NT\$88,633 million (31.5%) from the state sector. Other sectors—including higher education institutions, non-profit organizations and the Taiwan operations of foreign companies and organizations—accounted for only NT\$4,495 million (1.6%). As regards the implementation of R&D, the private sector expenditure accounted for NT\$188,390 million (67.0%), while the state sector accounted for NT\$59,143 million (21.0%), higher education institutions for NT\$32,092 million (11.4%), and non-profit organizations for NT\$1,355 million (0.5%). It can thus be seen that the corporate sector accounts for the largest share of both R&D funding and R&D expenditure—more than 60% in both cases—with the state sector holding the next largest share. Between them, the corporate and state sectors account for around 90% of both R&D funding and R&D expenditure.

(2) Private Sector R&D Expenditure

The last few years have seen a significant increase in private sector R&D spending. Total private sector R&D expenditure rose from NT\$130,296 million in 2001 to NT\$188,390 million in 2005, representing an average annual growth rate of 9.7%. At the same time, the private sector's share of total the national R&D funding provision rose from 62.2% in 2002 to 67.0% in 2005. The private sector is the only sector in which spending on R&D has been growing. Overall, R&D expenditure in Taiwan is heavily concentrated in the private sector, and this concentration is steadily becoming more pronounced (Table 6-1-1).

Table 6-1-1 Private Sector R&D Expenditure by Enterprise Size, 2003 – 2005

Item	Unit: NT\$ millions		
	2003	2004	2005
Total	152,614	170,293	188,390
SME sub-total	30,365	29,251	29,143
0-99 employees	16,109	15,024	16,048
100-199 employees	14,256	14,497	13,095
Large enterprises sub-total	122,249	140,772	159,247
200-499 employees	21,230	24,768	24,017
500 or more employees	101,019	116,004	135,230

Source: National Science Council, Executive Yuan, 2007.

R&D spending by SMEs (defined as enterprises with less than 200 employees) has

failed to grow during the last three years; in fact, it has fallen slightly. By contrast, the R&D expenditure of large enterprises has continued to increase, with an average annual growth rate of 14.13% over the period 2003 – 2005.

(3) Manufacturing Sector R&D Expenditure

Over the years, the manufacturing sector has consistently accounted for the largest share of private-sector R&D spending in Taiwan, with the service sector in second place, followed by the public utilities, the construction industry, mining and quarrying, and agriculture, forestry and fisheries. R&D expenditure in the manufacturing sector has been growing in absolute terms, and its share of overall private sector R&D spending has remained consistently over 90% for the last five years (climbing from 92.0% in 2001 to 92.3% in 2005). Data on R&D spending in the manufacturing sector can thus be used to provide a reasonably accurate picture of overall R&D activity in Taiwan.

Among Taiwanese enterprises investing overseas, spending on R&D in 2005 averaged NT\$94 million per enterprise, of which NT\$11 million (11.27% of the total) was spent on R&D activity overseas. Average overseas R&D expenditure for medium-sized and small enterprises was NT\$4 million (13.23% of total R&D expenditure) and NT\$1 million (16.74%), respectively. Spending on R&D operations in Taiwan by small enterprises has been very low, a situation that makes it difficult for small enterprises to transform and upgrade themselves or to cultivate R&D talent.

Of the four main industry sectors, overseas R&D spending's share of total R&D expenditure is relatively low in the IT and electronics industry (9.90%) and in the consumer goods manufacturing industry (6.22%), and highest in the chemical industry (25.30%) (Table 6-1-2).

2. Manpower Inputs

R&D manpower allocation is also of key significance for technology development. R&D manpower is usually measured either in terms of the number of R&D personnel, or the number of R&D personnel equivalents (after allowing for the percentage of total working time that different personnel actually spend working on R&D).

The following sections examine Taiwan's corporate sector R&D manpower, as well as the number of people working in the hi-tech and knowledge-intensive industries and the cultural and creative industries (which are dominated by SMEs).

Table 6-1-2 Taiwanese Enterprises' Total and Overseas R&D Expenditure in 2005

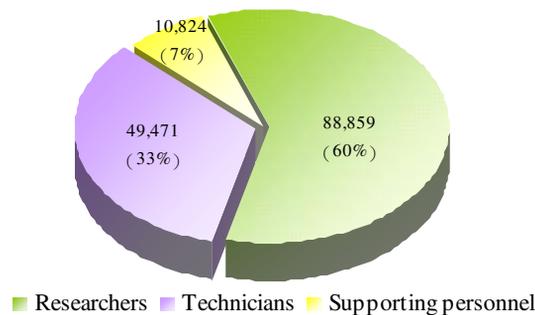
Unit: NT\$ millions; %

Item	Total R&D Spending	Overseas R&D Spending	Overseas R&D Spending's Share of Total R&D Spending (%)
All enterprises	93,961	10,589	11.27
By enterprise size			
Small enterprises	8,770	1,468	16.74
Medium enterprises	33,522	4,435	13.23
Large enterprises	266,865	28,929	10.84
By industry sector			
Metals and machinery	26,139	3,127	11.97
IT and electronics	178,449	17,671	9.90
Chemical industry	47,829	12,101	25.30
Consumer goods	23,089	1,437	6.22

Source: Ministry of Economic Affairs, Survey on Overseas Investment by Manufacturing Industry, 2006.

(1) National R&D Manpower

In 2005, Taiwan's R&D manpower (measured in R&D personnel equivalents) totaled 149,154 persons. As can be seen from Figure 6-1-1, 88,859 of these individuals were researchers, accounting for 59.6% of all R&D personnel. The next largest group was technicians, at 49,471 persons (33.2% of the total). There were 10,824 supporting personnel, accounting for 7.3% of the total.

Figure 6-1-1 Taiwan's R&D Manpower in 2005 – by Manpower Category

Source: National Science Council, Executive Yuan, *Yearbook of Science and Technology* (2006).

Over the period 2001–2005, the number of researchers grew from 59,656 to 88,859, the number of technicians rose from 39,296 to 49,471, and the number of supporting personnel increased from 8,805 to 10,824.

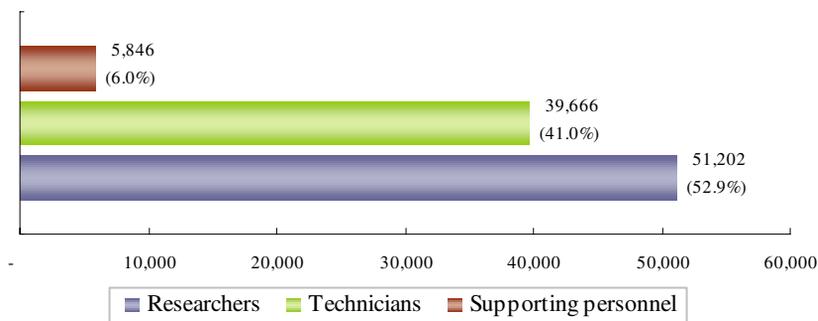
(2) Corporate Sector R&D Manpower

a. Corporate Sector R&D Manpower Accounted for 65% of the National Total

R&D manpower totaled 96,714 in the corporate sector in 2005, which accounts for 65% of the national total. With 51,202 man-years, researchers accounted for 52.9% of total corporate sector R&D manpower in Taiwan in 2005. Technicians were the next largest group, with 39,666 man-years (41.0%), followed by supporting personnel with 5,846 (6.0%) (Figure 6-2-2).

Over the period 2001–2005, corporate sector R&D manpower increased from 35,298 man-years to 51,202 man-years.

Figure 6-1-2 Corporate Sector R&D Manpower in 2005 – by Manpower Category



Source: National Science Council, Executive Yuan, *Yearbook of Science and Technology* (2006).

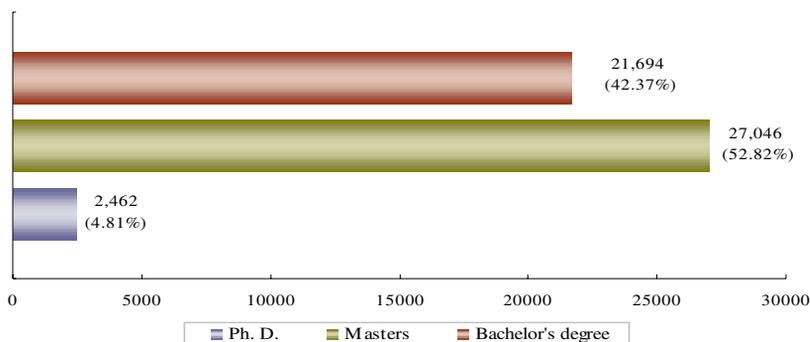
b. Most Researchers Are Educated to Masters Degree Level

As of 2005, researchers educated to Masters degree level accounted for the largest share of corporate sector R&D manpower in Taiwan, with 27,046 man-years (52.82% of the total). Researchers with only a bachelor's degree were the next largest group, with 21,694 man-years (42.37%); researchers with a Ph.D. were the smallest group, with 2,462 man-years (4.81%) (Figure 6-2-3).

c. Most Researchers in the Corporate Sector Are Aged 25 – 34

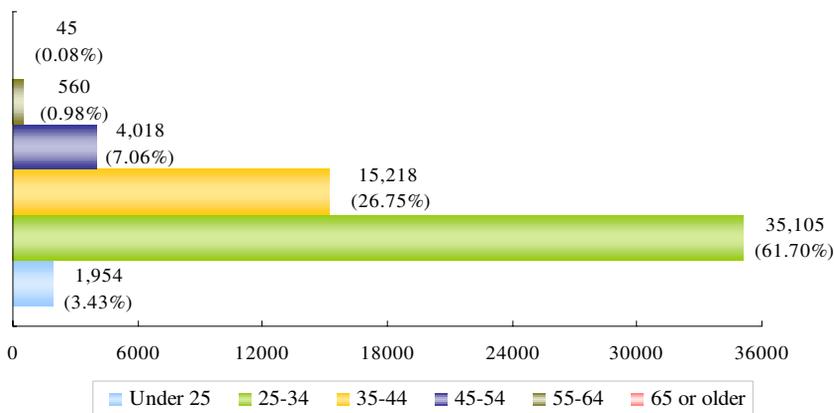
When comparing the age structure of R&D manpower in different countries, the OECD uses R&D personnel rather than man-years; the number of R&D personnel has therefore been used for this purpose in this section. As can be seen from Figure 6-2-3, within the corporate sector, researchers aged 25 – 34 account for the largest share of researchers, with 35,105 individuals. Researchers aged 35 – 44 are the next largest group, with 15,218 individuals, followed by those aged 45 – 54 and those aged under 25. Researchers in other age groups account for less than 1%.

Figure 6-1-3 Corporate Sector R&D Manpower in 2005 – by Level of Education



Source: National Science Council, Executive Yuan, *Yearbook of Science and Technology* (2006).

Figure 6-1-4 Corporate Sector R&D Manpower in 2005 – by Age



Source: National Science Council, Executive Yuan, *Yearbook of Science and Technology* (2006).

(3) Around Half of Those Working in Hi-tech and Knowledge-intensive Industries are Aged 40 or Younger

The OECD defines hi-tech and knowledge-intensive industries as including the following industries: chemical materials manufacturing; chemical products manufacturing; the manufacturing, repair and distribution of machinery; the manufacturing of computer, communications and audiovisual products; the manufacturing, repair and distribution of transportation vehicles; the manufacturing of precision, optical and medical instruments and of clocks and watches; postal and express delivery services; telecommunications; the banking industry and supporting industries; the securities and futures industry; the insurance industry; the legal and accounting services industry; the architectural and engineering services industry; the specialist design services industry; the computer system design services industry; the

data processing and data provision services industry; the consulting services industry; the R&D services industry; the advertising industry; other professional, scientific and technical service industries; the educational services industry; the medical and healthcare services industry.

The data for 2006 indicate that over 2.51 million people in Taiwan were working in the hi-tech and knowledge-intensive industries as defined above, representing an increase of nearly 62,000 compared to 2005. The number of people working in these industries has been rising steadily for several years now, reflecting the rapid growth of the industries in question. 1.41 million people were working in SMEs in these industries in 2006, representing an increase of more than 28,000 compared to 2005. There was also a substantial increase in the number of people working in large enterprises in the hi-tech and knowledge-intensive industries in 2006, although the number of government employees working in these sectors fell (Table 6-1-3).

Table 6-1-3 Characteristics of Employed Persons Working in the Hi-tech and Knowledge-intensive Industries in 2005 and 2006

Units: thousand persons; %

Item	2005			2006		
	SMEs	Large Enterprises	Government Employees	SMEs	Large Enterprises	Government Employees
Total No. of Persons (Share of total)	1,387.01 (56.45)	623.85 (25.39)	446.33 (18.16)	1415.26 (56.19)	674.95 (26.80)	428.47 (17.01)
Age	100.00	100.00	100.00	100.00	100.00	100.00
15~24	11.77	8.81	5.96	10.24	8.40	5.51
25~40	56.63	61.39	47.70	57.05	59.86	48.61
41~55	27.98	27.11	41.81	28.93	28.60	40.87
56~65	3.23	2.52	4.38	3.38	2.93	4.79
65 or over	0.39	0.17	0.14	0.40	0.21	0.22
Sex	100.00	100.00	100.00	100.00	100.00	100.00
Male	52.70	48.22	40.41	51.68	48.97	39.27
Female	47.30	51.78	59.59	48.32	51.03	60.73
Education	100.00	100.00	100.00	100.00	100.00	100.00
Illiterate	0.07	0.01	0.01	0.04	0.03	0.01
Self-taught	0.01	0.01	0.06	0.02	—	—
Primary school	3.97	1.27	1.72	3.54	1.29	1.40
Junior high school	8.31	3.06	2.30	7.53	2.92	2.13
Senior high school	6.95	4.45	3.85	6.81	4.62	3.64
Senior vocational school	27.27	18.07	9.06	26.08	16.67	8.46
Junior college	26.37	28.30	17.49	25.76	26.78	16.61
University	23.08	30.69	49.60	25.43	32.46	48.07
Master's	3.68	11.46	12.15	4.47	12.20	15.35
Ph.D.	0.29	2.68	3.75	0.31	3.03	4.33

Source: DGBAS, Monthly Bulletin of Manpower Statistics, 2005 and 2006.

The number of people working in SMEs in the hi-tech and knowledge-intensive

industries rose by only 2.04%, compared to 8.19% in the case of large enterprises. The expansion of SMEs in this sector of the economy is thus lagging behind that of large enterprises. The percentage of people working in the hi-tech and knowledge-intensive industries who are aged between 25 and 40 is much higher than the corresponding percentage for all industries combined, as is the percentage of people working in these industries who are female; in large enterprises in the hi-tech and knowledge-intensive industries, female employed persons outnumber male employed persons (Table 6-1-3).

(4) SMEs Dominate the Cultural and Creative Industries

The scope of the “cultural and creative industries,” as defined in the government’s Challenge 2008 National Development Plan, includes 13 individual industries. Due to the limitations of the available data, the analysis in this section is confined to 8 industries: the artistic and sporting services industry; the film industry; the broadcasting industry; the publishing industry; the advertising industry; the design services industry; the building and construction services industry; the leisure services industry.

The number of people working in the cultural and creative industries rose from 292,000 in 2005 to 297,000 in 2006. The number of people working in large enterprises in the cultural and creative industries increased by around 6,000, while the number of people working in SMEs in these industries remained more or less unchanged, and the number of government employees working in these industries fell slightly. It can thus be seen that the cultural and creative industries are not growing as fast as the hi-tech and knowledge-intensive industries or the important new emerging industries. Besides the difficulty of nurturing creative talent, another problem that has slowed the development of the cultural and creative industries is the inadequate protection of intellectual property rights compared to the hi-tech sector (Table 6-1-4).

II Government Promotion of R&D and Innovation in the SME Sector

On the basis of the data for R&D expenditure and R&D manpower, it appears that the last few years have not seen any significant increase in R&D inputs in the SME sector. The government has introduced a number of initiatives to promote R&D and innovation in the SME sector; these are outlined below.

Table 6-1-4 Characteristics of Employed Persons Working in the Cultural and Creative Industries in 2005 and 2006

Units: thousand persons; %

Item	2005			2006		
	SMEs	Large Enterprises	Government Employees	SMEs	Large Enterprises	Government Employees
Total No. of Persons (Share of total)	225.72 (77.32)	59.81 (20.49)	6.39 (2.19)	225.75 (75.97)	65.35 (21.99)	6.04 (2.03)
Industry	100.00	100.00	100.00	100.00	100.00	100.00
Artistic and sporting services	12.08	10.61	32.82	13.06	9.38	33.69
Film industry	1.65	1.63	—	1.55	0.95	—
Broadcasting	4.71	32.26	11.73	4.37	33.48	11.84
Publishing	10.54	27.76	2.43	11.42	28.55	—
Advertising	19.72	2.60	1.30	20.95	3.00	—
Design services	10.75	7.36	—	10.71	8.53	—
Building and construction services	11.36	8.53	6.60	11.31	7.68	5.72
Leisure services	29.19	9.25	45.12	26.63	8.42	48.75
Sex	100.00	100.00	100.00	100.00	100.00	100.00
Male	52.59	53.79	56.64	51.29	55.24	50.68
Female	47.41	46.21	43.36	48.71	44.76	49.32
Education	100.00	100.00	100.00	100.00	100.00	100.00
Illiterate	0.08	0.09	—	0.09	0.07	—
Self-taught	0.02	—	1.07	—	—	0.88
Primary school	4.86	2.30	6.02	4.34	1.88	5.33
Junior high school	11.29	4.34	8.47	10.02	3.96	9.42
Senior high school	9.26	7.09	8.99	8.47	5.14	8.71
Senior vocational school	30.11	18.33	20.64	30.10	17.33	26.81
Junior college	21.33	25.49	23.72	19.57	26.54	19.83
University	19.07	32.27	19.78	23.18	33.77	19.44
Master's	3.83	9.36	9.96	4.05	10.83	9.58
Ph.D.	0.15	0.73	1.35	0.18	0.48	—

Source: DGBAS, Monthly Bulletin of Manpower Statistics, 2005 and 2006.

1. Small Business Innovation Research (SBIR)

To encourage SMEs to develop new technology, in February 1999 the Department of Industrial Technology, Ministry of Economic Affairs initiated the Small Business Innovation and Research (SBIR) plan. As of the end of February 2007, SMEs in Taiwan had submitted a total 3,419 applications for R&D funding under the SBIR plan. 2,031 of these applications have been approved, and the government has provided funding support totaling NT\$4.31 billion, which has stimulated additional SME investment in R&D totaling approximately NT\$8.95 billion. Research by the Department of Industrial Technology indicates that more than 20,000 SME personnel have been involved in these R&D projects, which have made a significant contribution to the cultivation of R&D talent and the development of R&D capabilities by SMEs. SBIR has helped to raise the overall level of technology of Taiwan's SMEs, to enhance

the competitiveness of Taiwanese industry, and to further the process of industrial upgrading. It has also established a paradigm for Taiwan's development as a leading global R&D center.

In March 2007, a total of 20 SME R&D projects had their applications for SBIR funding approved; the provision of funding support led these SMEs to invest an additional NT\$49 million in R&D themselves in the development of new technology. Overall, SBIR funding support has had a pronounced effect in terms of boosting the R&D capabilities of SMEs in Taiwan's electronics, IT, machinery, consumer goods, biotech, pharmaceuticals, and innovative services industries. The implementation of the SBIR program by the Ministry of Economic Affairs has helped Taiwan's SMEs to make more effective use of knowledge, and has encouraged them to undertake R&D and innovation activity. The R&D results that have been achieved have in turn contributed to the evolution of comprehensive industry supply chains, helping to lay the foundations for ongoing economic development in Taiwan in the future.

2. The Service Sector R&D Guidance Plan – Enterprise Innovation and R&D Projects

In response to the transformation of the industrial development environment in Taiwan and the growing importance of R&D in the commercial sector, on October 7, 2005 the Commerce Department, Ministry of Economic Affairs promulgated the *Measures for Promoting R&D Activity in the Commercial Sector*. It was anticipated that the provision of subsidies in accordance with these Measures would help to stimulate R&D and innovation, encouraging business enterprises in the commercial sector to take a more proactive attitude towards R&D. The government also hoped that, by promoting innovation in the commercial sector, it could stimulate the emergence of new industries and new business models, thereby helping to strengthen the core competitiveness of Taiwan's commercial sector.

In accordance with the provisions of the *Measures for Promoting R&D Activity in the Commercial Sector*, to promote the proactive initiation of innovation and R&D activity by enterprises in the wholesaling, retailing, logistics, restaurant, management consulting, international trade, e-commerce, conference and convention, advertising, commercial design, franchise and other industries, subsidies would be provided for R&D projects to encourage the development of new products and services, new business models, new marketing models and new technology applications. Subsidies would be capped at NT\$2.5 million for one-year funding, and NT\$5 million for

two-year funding. In 2006, a total of 378 applications were received for R&D project funding under the *Service Sector R&D Guidance Plan*; of these, 121 were approved. The enterprises concerned invested a combined total of NT\$280 million in these projects, which it was anticipated would boost sales revenue by approximately NT\$1.5 billion. It is anticipated that the total amount of subsidies granted under this scheme in 2007 will be NT\$210 million.

III Case Studies of Successful R&D and Innovation

Many enterprises have achieved impressive results in R&D even without government funding support. Those SMEs that have been willing to innovate and that have acquired the flexibility needed to cope with a rapidly changing global environment have been able to achieve first-class operational performance and profitability. A number of examples are presented below, to give some idea as to what an SME needs to do to be successful.

Example 1: Sheico started out as a raingear manufacturer. It was able to leverage its knowledge of rubber materials in R&D and innovation activity, transforming itself into a manufacturer of diving clothing and lycra wear. Positioning itself as an ODM provider, Sheico provides its customers with high-quality, reasonably priced products that have proved very popular with consumers.

Example 2: recognizing the growing importance of economies of scale and centralized purchasing in today's business environment, Lacquer Craft has developed automated storage systems that help companies to save on transportation costs; Lacquer Craft's products have proved especially popular among contract manufacturers. Lacquer Craft has implemented a series of acquisitions, buying furniture brands such as Legacy Classic, Universal Furniture and Craft Master to achieve vertical integration. Offering high-quality products at low prices, Lacquer Craft's own-brand products have been very successful in the US market. By combining branded manufacturing with contract manufacturing, Lacquer Craft has been able to grow steadily; the company is now planning to develop the European market.

Example 3: the well-known Sushi Express chain of revolving sushi restaurants grew out of Jin Chiu's garment-exporting business; today, Sushi Express is part of a large food and restaurant business group. By constantly experimenting and establishing an innovative new business model, Sushi Express has built up a chain of more than 100

revolving sushi restaurants. While continuing to innovate, Sushi Express has also achieved impressive results in terms of process streamlining and cost control. It can be anticipated that Sushi Express' boldness and willingness to innovate will enable the company to maintain its steady growth in the future.

Example 4: UC.molecular owes its success to the innovative peel-off nail polish developed by the company's CEO, Wang Ch'iung-hui. Wang has made effective use of cross-industry alliances, collaborating with leading international corporations such as helped UC.molecular to increase its brand recognition, while at the same time the company has been gaining exposure on the Internet and on TV shopping channels. With this effective combination of virtual and bricks-and-mortar marketing channels and the ongoing development of new peripheral products, the outlook for UC.molecular looks bright, both in the Taiwanese domestic market and overseas.

Example 5: Renoir Puzzle has been able to carve out a niche for itself in an intensely competitive market by producing innovative, high-quality jigsaw puzzles. Responding to a changing market environment, Renoir Puzzle has transformed itself from an importer into an own-brand puzzle vendor, creating puzzles that Taiwanese consumers can identify with.

Example 6: Frientea cafés can be found in busy urban areas throughout Taiwan. The chain was established by former film director Cheng K'ai-lung, who is currently serving as chairman of Frientea. Over the years, Cheng has remained committed to quality and innovation, developing new products to differentiate Frientea from its competitors. Frientea has consistently paid great attention to customer retention, and has been very careful in the siting of new cafés. Its strategy has been successful in creating additional value-added, while also building brand image and customer loyalty. Today, there are 70 Frientea cafés in Taiwan, and more than 300 overseas.

Example 7: 85°C, another retail beverage business, has also positioned itself as a vendor of high-quality, reasonably priced products, using the slogans "Enjoy five-star quality at reasonable prices" and "Coffee tastes best at 85°C." 85°C has been very successful in developing the beverage and snack market, and the chain is opening new outlets all the time.

What these examples of successful SME operation have in common is that all of the enterprises are providing differentiated products at moderate prices. This in turn is the fruit of constant innovation and improvement in terms of products, processes and

management techniques, along with a readiness to undertake large-scale transformation of the enterprise when necessary. A commitment to R&D is clearly a vital prerequisite for any SME seeking to enhance its competitiveness and achieve steady growth.

IV Strategies for Strengthening Innovation and R&D

Innovation and R&D value can be created from financial, manpower, structural or relationship capital. This section offers a few recommendations with respect to the different categories of SME asset accumulation.

1. **Financial Capital:** By and large, SMEs suffer from a shortage of capital and inadequate financial management skills. The SME Credit Guarantee Fund can help SMEs to secure the funding they need for R&D activity; at the same time, SMEs themselves need to implement effective R&D input control and to undertake careful appraisal of the amount of funding needed for R&D projects, as well as the anticipated benefits. If this can be achieved, the financial risk can be kept to a minimum, and external investors will be more willing to get involved in the project.
2. **Human Capital:** The vast majority of SMEs are not in a position to undertake R&D manpower cultivation in-house. At the same time, the market as a whole has little understanding of the types of manpower that individual SMEs need, and SMEs suffer from high personnel turnover rates because of unsatisfactory internal systems and low job security. Collaboration with universities and colleges can help SMEs to develop more systematic measures for recruiting and retaining high-quality R&D talent.
3. **Structural Capital:** SMEs generally suffer from a low level of e-enablement, inefficient managerial systems, failure to develop expertise that other firms cannot replicate easily, inability to maintain specialist expertise over the long term, and other structural problems. SMEs need to make more effective use of the Internet to expand their distribution networks and ensure the smooth flow of information. They should also be working to establish efficient warehouse management, database and dispatch systems. These improvements would enable SMEs to make substantial savings in terms of both time and manpower costs.

As regards specialist expertise, one strategy is for SMEs to collaborate with universities or with other business enterprises, joining forces to develop

cutting-edge technology that will have significant value in the marketplace. For this strategy to succeed, SME business owners will need to possess in-depth knowledge of market demand; they should then be able to develop products that provide superior quality at a reasonable price. SMEs can protect their know-how by applying for patents or other forms of intellectual property right protection.

4. Relationship Capital: The small size of SMEs makes it difficult for them to collaborate directly or communicate effectively with industry organizations, government agencies and the university sector. SME owners often have close personal ties with the owners or managers of their suppliers and customers, which makes it difficult for them to switch suppliers and puts them in a weaker bargaining position. SMEs need to be able to access more comprehensive data regarding upstream suppliers and downstream customers; they also need to make more effort to develop channels for communication with industry organizations, government agencies and universities. Besides joining industry associations, SMEs should also consider participating more actively in conferences, presentations and other activities related to their industry.

Chapter 7

SMEs in the M-shaped Society

As noted in Chapter 1, the concept of the M-shaped society has recently been attracting a great deal of attention. The term “M-shaped society” was originally developed by business strategist and trend-spotter Kenichi Ohmae to describe the situation that has developed in Japan, where a trend towards smaller families and an aging population have been accompanied by the decline of the middle class, creating a society of unprecedented inequality. As people who formerly belonged to the middle class find themselves sinking into the lower-middle or working class, the disparity between rich and poor becomes more pronounced and society’s overall consumption capability falls; this kind of society is not conducive to the development and growth of SMEs.

The scenario that Ohmae describes is not confined to Japan; similar trends can be seen throughout the world. As noted in Chapter 1, Taiwan’s SME sector performed reasonably well in 2006, but how will SMEs adapt to the emergence of the M-shaped society? Careful analysis of the situation that Ohmae is describing can help us to identify strategies that business enterprises can adopt in response; if approached from the right angle, the M-shaped society may represent opportunities rather than dangers. The key issue is: what can we learn from Ohmae’s analysis?

The process of economic globalization and the emergence of the knowledge economy are generally considered to have contributed to the emergence of the M-shaped society. Most observers hold that these two processes have had a negative impact on both the SME sector and disadvantaged groups within society. However, in their book *Revolutionary Wealth*, leading futurologists Alvin and Heidi Toffler take a more optimistic view regarding the way in which wealth will be distributed in the future. On the basis of their analysis of temporal, spatial and knowledge-related factors, and their emphasis on the inseparability of production and consumption, they anticipate a wealth revolution in which the increasingly knowledge-centered nature of the economy will re-integrate the economy into the wider net of social systems, thereby helping to put cultural identification, religion and ethics back at center stage.

Cultural, religious and ethical issues interact closely with the economy; they are not subordinate to it. As the Tofflers see it, “revolutionary wealth” will be more than

just “hi-tech wealth”; it will involve a comprehensive transformation of human civilization. Many other experts have expressed similar views in their own analyses of the impact of globalization and the knowledge economy. The rapid growth of the cultural and creative industries is one of the fruits of this process; with the deepening of knowledge and the ability of the Internet to overcome geographical constraints, micro-enterprises and SOHO entrepreneurs have been set free. Will these trends create similar possibilities for the growth of SMEs? If so, what should SMEs be doing to take advantage of them? There is a clear need for more in-depth research to provide SME business owners and managers with studies that they can use as a reference when planning their business strategy. Another key issue is global warming; the uncontrolled exploitation of natural resources has created a situation where it has become necessary to impose new limits on growth. To achieve sustainable development over the long term, humanity will need to adopt new measures in response to these changes. How to respond to the changes is a question of the utmost importance for SMEs; they will need to take appropriate action now so as to be ready for the transformations that will start to affect them in the near future.

This chapter will explore the development of the M-shaped society and how SMEs should respond to its emergence. The chapter is divided into four sections. The first section examines the gradual emergence of the M-shaped society; the second section discusses the shortening of the time taken to reach the limits of growth; the third section analyzes the evolution of the “Third Wave” knowledge economy. Finally, the fourth section of the chapter considers the challenges and opportunities that these developments will bring for SMEs.

I The Gradual Emergence of the M-Shaped Society in Taiwan

In terms of economic development, Taiwan could be said to have been chasing Japan in the same way that Japan has been chasing the US. However, the time lag has been much shorter in Taiwan’s case. With the dramatic impact of globalization from the 1990s onwards, the rise to prominence of China and the other emerging economies, and the flooding of the global market with cheap goods produced in low-income countries, Taiwan’s economy has experienced a severe shock. Add to this the impact of smaller families and an aging population, the process of transformation into an M-shaped society is already underway in Taiwan.

Professor Yuan-Yuan Lu of the Department of Business Administration, National Sun Yat-sen University, points out that average salaries in Taiwan have been falling, and yet sales of luxury goods—such as top-class sirloin steak costing NT\$3,000, abalone costing NT\$10,000 per diner, or luxury apartments costing NT\$600,000 per *ping* (one *ping* equals approximately 3.3 square meters)—have remained strong. Products designed for high-income consumers flood the marketplace, and yet average disposable income for lower-middle class and working-class households has fallen to below 1990 levels.

The middle class are oppressed by a whole slew of problems, including the fall in the value of university degrees, rising prices, negative growth in real interest rates, negative growth in salaries, and the widening disparity between rich and poor. Individuals who could once have expected to move up into the middle class now find themselves growing steadily poorer. As opportunities become more restricted and the concentration of wealth more pronounced, Taiwan is gradually turning into an M-shaped society.

Tzong-Shian Yu, an Academician at the Academia Sinica, describes the transformation in the following terms: Twenty years ago, the annual salary of a company's CEO would have been at most 10 times as high as the salary of the ordinary workers. Today, the chairman of a financial holding company may be earning as much as NT\$20–30 million a year. Recognizing that these figures may not carry much significance for the ordinary citizen, Dr. Yu gives a more concrete example. In Taipei City, a luxury apartment costs around NT\$1 million per *ping*. The head of a large corporation would only need to spend the equivalent of 3–4 years' salary to purchase a 100-*ping* luxury residence. By contrast, if you are a member of the middle class, how many years' salary would you need to buy even a 40-*ping* luxury apartment? Assuming that you are a senior professor earning NT\$110,000 per month, with annual bonuses worth another month's salary, then your total annual income is NT\$1.43 million. Even if you spent nothing on food or other necessities, it would still take you 28 years to pay for a 40-*ping* luxury residence. An individual who managed to get their doctorate at the age of 28 and who produced world-class research might hope to become a senior professor at the age of 35; by the time they retired at 65, this individual would have earned less than NT\$40 million in total.

Dr. Yu notes that a university professor is a reasonable proxy for the middle class. For someone on a lower salary, being able to buy a luxury apartment would be even more of a pipedream.

As Dr. Yu sees it, the process of economic globalization is causing the gap between rich and poor to increase all over the world. As a result of this process, goods are increasingly becoming divided into two categories: luxury products for the rich, and ordinary products for the masses. The palatial hotels that are being built in places like Dubai and Abu Dhabi in the Middle East are so expensive that only very wealthy people can afford to stay there. Similar hotels are being built to meet the needs of the nouveaux riches in newly-industrializing countries all over the world. Everything in these hotels, from the food to the décor, is staggeringly opulent, and yet there is no shortage of people rich enough to afford to stay in them.

The vast majority of people continue to fall into the non-wealthy category. Their incomes increase little, if at all, all the more so since most enterprises no longer base promotions and pay rises on seniority. As enterprises come to make more use of temporary workers and outsourcing, company pensions are increasingly becoming a thing of the past. This situation is not confined to the developed nations; it can also be seen in the newly-industrializing countries. A particularly worrying sign in Taiwan is the fact that some of Taiwan's financial holding companies are paying university graduates by the hour, so that the employees receive no pay for weekends and holidays, and have no annual bonus, much less a pension.

The free movement of labor is another significant factor. Talented individuals can find work all over the world, and can expect to see their income rise rapidly. For ordinary workers, the opportunities are far more limited, and the prospect of an improvement in their circumstances is far less likely.

In today's globalized world, money flows freely. Talented individuals can leverage other people's money to make money for themselves, for example through venture capital activity. In the past, getting your own business off the ground took a long time. Growing a small business into a large corporation took many years and a great deal of luck. To secure bank loans, entrepreneurs often had to put up their own personal property – fixed assets, bonds or securities – as collateral. Today, the situation is different. Talented individuals can secure syndicated loans just on the strength of an exciting business plan, giving them as much as several billion NT dollars, or even several tens of billions, in financing to develop a profitable enterprise. In Taiwan, the government's policy of encouraging investment means that entrepreneurs can also benefit from special tax breaks. Entrepreneurs can often become very rich within the space of just of a few years. By contrast, if you are a small trader in Taiwan getting a

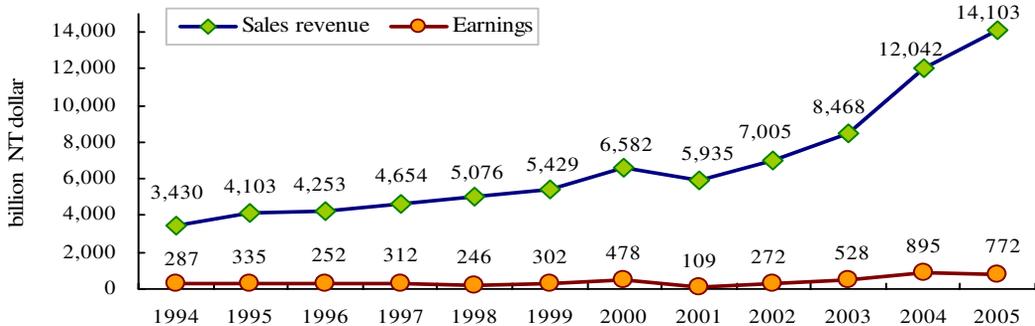
loan from the bank is almost impossible, so you end up borrowing from an underground loan shark. So, far from enjoying tax breaks, you are saddled with exorbitant interest rates that make it very difficult to stay in business.

Accompanying the global trend towards the polarization of society and the tendency for an ever larger share of the population to become concentrated in the low-income segment, in the last few years Taiwan has experienced a phenomenon whereby sales revenue increases but profits remain flat. *Commonwealth* magazine summarized data from ten years of surveys of the thousand largest manufacturing firms in Taiwan, the five hundred largest service sector enterprises and the hundred largest financial institutions to produce the figures shown below (Figures 7-1-1, 7-1-2 and 7-1-3). As can be seen from these figures, sales revenue has grown steadily over the last ten years in all three sectors. However, profits have hardly grown at all over this period. Almost all of the increase in revenue has been eaten up by increased costs, so profit margins have remained slim. The low profit margins that SMEs have long had to endure have now spread to the large enterprise sector as well. *Commonwealth's* data suggest that most of the increase in production costs stems not from an increase in the salaries of ordinary workers, but rather from an increase in the compensation paid to senior managers, hence the gradual emergence of an M-shaped social structure.

II The Impact of the “Limits to Growth” is Being Felt More Rapidly

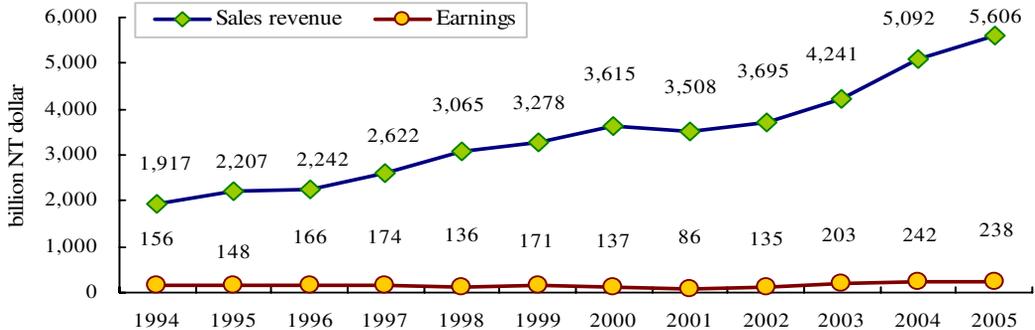
In their book *The Limits to Growth* – which caused a worldwide sensation when it was first published in the spring of 1972 – Donella Meadows, Jorgen Randers, Dennis Meadows and William Behrens predicted that, by the middle of the 21st century, the restrictions imposed by the global environment (in particular, those restrictions relating to resource utilization and waste emissions) would start to have a major impact on global development. The book warned that humanity might need to mobilize immense financial and manpower resources to overcome these limitations, and that, at some point in the 21st century, the average quality of life would begin to fall. The book did not specify exactly what kinds of resource shortages or waste emissions would cause economic growth to stall; given the Earth's huge population and the enormous complexity of its economic and environmental systems, the use of scientific methods to achieve precise forecasts of this kind would in any case have been an impossibility.

Figure 7-1-1 The Annual Sales Revenue and Earnings of the Thousand Largest Manufacturing Enterprises in Taiwan, 1994 – 2005



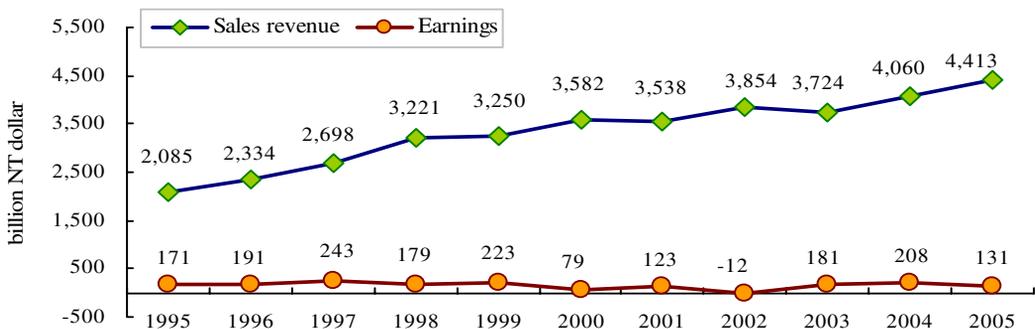
Source: *Commonwealth* magazine.

Figure 7-1-2 The Annual Sales Revenue and Earnings of the Five Hundred Largest Service Sector Enterprises in Taiwan, 1994 – 2005



Source: *Commonwealth* magazine.

Figure 7-1-3 The Annual Sales Revenue and Earnings of the Hundred Largest Financial Institutions in Taiwan, 1994 – 2005



Source: *Commonwealth* magazine.

At that time, all the authors of the book could do was appeal to humanity to make technological, cultural and systemic changes, and to strive for the fundamental social reforms that would be needed to prevent humanity's ecological footprint from growing too large for the Earth to cope with. While pointing out the severity of the challenges facing the planet, *The Limits to Growth* maintained the optimistic view that, provided that we acted soon enough, the damage to the global eco-system resulting from human action could still be kept within manageable limits.

The Limits to Growth presented 12 scenarios that explained the interaction between population growth and natural resource utilization on the one hand and the various limits to growth on the other.

When the authors of *The Limits to Growth* undertook their research, they did not anticipate limits to growth that appeared suddenly, almost without warning. They assumed that population growth and increases in resource utilization would occur gradually, forcing humanity to spend increasing amounts on coping with the problems that resulted; eventually, the costs would be so high that further increases in industrial output would become impossible. Once manufacturing industry started to go downhill, human society would find it difficult to maintain growth in other areas (such as grain production, the service sector, etc.). The cessation of growth in these areas would then bring a halt to population growth.

When *The Limits to Growth* was first published, the authors predicted that the limits to growth would start to take effect in 50 years' time. They hoped that, after giving the issues careful consideration, humanity would be able to adopt suitable measures to reduce the risk of economic collapse.

In *Beyond the Limits*, published in 1992, Donella Meadows, Jorgen Randers and Dennis Meadows claimed that humanity's actions had already gone beyond the limits of what the Earth could cope with. Even so, they remained optimistic, offering suggestions as to how wise global governance, technological change, systemic reform, clear policy objectives and the enthusiasm of individual citizens could mitigate the negative effects of excessive growth.

However, *The Limits to Growth: The 30-year Update*, which was published in 2004, was far more pessimistic than the original (1972) version of the work had been. It pointed out that the last 30 years had been wasted in pointless debate, and that although people were now aware of the need to tackle ecological problems, there had been little in

the way of concrete action.

When *The Limits to Growth* was first published, the ideas that it contained attracted vitriolic criticism from economists, industrialists, politicians and Third World leaders. However, developments since 1972 have shown that there was nothing ridiculous about the idea that the global environment could impose limits on economic growth. It is all too clear that natural resources are not growing fast enough to keep pace with humanity's demands on them, and that these limitations have a major impact on the success or failure of the policies that are adopted to achieve growth objectives. History suggests that human society is incapable of dealing with the impact of limits on growth in a manner that displays wisdom, foresight and altruism, but that will also have a short-term negative impact on some important participants in the economy.

III The “Third Wave” and the Evolution of the Knowledge Economy

Knowledge has always been one of the most important elements in the creation of wealth. However, in the agricultural, industrial or even information societies of the past, and more specifically in the wealth system, knowledge has never had the same importance that it does today. Data, information and knowledge have already had a dramatic impact on capitalist society. With the growth of the non-monetary economy and unpaid “prosumer” activity, the emphasis on physical, scarce resources that are a focus of competition that characterized capitalist societies of the past has come to be questioned. Given the revolution that has taken place in knowledge and in the wealth system, it might have seemed reasonable to suppose that capitalism as we know it may be on its way out. However, the emergence of the prosumer, the transformation of products into services, the growing importance of product image, and the incorporation of intangible elements in human capital, have now given capitalism a new lease of life, creating unlimited business opportunities in the process.

The rapid economic growth achieved by China and India in the last few years has led many futurologists who had previously been pessimistic about the future to begin to think that the problem of poverty can perhaps be solved after all. The Tofflers praise China's “dual-track” economic development strategy, whereby China has combined the selling of its cheap labor with the aggressive building up of a knowledge economy. According to a report in the *Economist*, this strategy has succeeded in lifting 270 million Chinese out of poverty. Unlike the “Second Wave” with its emphasis on

mechanization and the adoption of capital-intensive business strategies in both the agricultural and manufacturing sectors, the new technologies that the knowledge economy has given birth to have helped to boost the incomes of the people who actually till the soil (rather than big agricultural enterprises), thereby helping to reduce disparities in wealth. However, the Tofflers believe that the real key to eliminating poverty lies in the conversion of knowledge. Farmers need to abandon their traditional, blinkered outlook that sees the future as being merely a replication of the past. Rural communities will need support from the government and from society as a whole, with a new rural education movement, whereby young people who have received education will in turn teach their parents. In this way, rural communities will be able to overcome the non-technological obstacles to growth, creating a real opportunity to eliminate poverty. This concept is very similar to the micro-finance concept for which Muhammad Yunus won the Nobel Prize in 2006.

The clash between old and new forms of knowledge, social structure, culture, values and ideologies reflects the incredibly rapid changes that are taking place in the global wealth system. The Tofflers offer several different scenarios as to how the global power structure – which includes China, Japan, the European Union, the US, other nation states and the non-governmental systems (the “invisible chess game” that embraces multinational corporations, NGOs, religious organizations and energy providers) – might develop in the future. For example, in the “Three Chinas” section of the book, the Tofflers suggest how the rapid promotion of the knowledge economy in China might give rise to a “middle way” economic development strategy different from what we see today in China’s rapidly growing coastal cities and its poor inland rural communities.

To summarize, on the basis of their analysis of temporal, spatial and knowledge-related factors, and their emphasis on the importance of the prosumer concept, the Tofflers adopt an optimistic stance with regard to the growth of wealth in the future. They are convinced that the “Wealth Revolution of the Third Wave” will be successful, because the growing emphasis on knowledge is reintegrating economics into other human systems, so that the importance of cultural identification, religion and ethics is being recognized once again.

These other issues interact with the economy on a basis of parity; they are not subordinate to it. While it may appear, on the surface, as though “Third Wave” wealth will simply be “hi-tech wealth,” in reality what is taking place is a wholesale

transformation of human civilization. The Tofflers take the optimistic view that, although the process may occasionally be held up by stock market fluctuations or other crises, the wealth revolution will continue to spread throughout the world. They also believe that the economy and society of tomorrow are already starting to take shape, and that, whether we like it or not, all of us are already riding on an express train heading towards the future.

The key element in the Tofflers' argument is the idea of a transformation of human civilization that embraces cultural, ethical and moral aspects. Many other scholars have made similar points in their discussion of globalization and the knowledge economy. The rapidly growing cultural and creative industries are one of the fruits of this transformation. At the same time, with the deepening of knowledge and the ability of the Internet to overcome distance, micro-enterprises and SOHO entrepreneurs are no longer limited by spatial and temporal constraints. Will the transformation process also create new opportunities for growth in the SME sector?

IV SMEs' Response to the New Trends – Dangers and Opportunities

1. Marketing Strategies in the Era of the M-shaped Society

The process of change never stops. Towards the end of the twentieth century, the world felt the explosive impact of the knowledge economy. Despite the incredible advances that have been made in technology, the revolution has in fact been led by the intangible innovation and creativity stimulated by the increase in knowledge. In the midst of these unpredictable changes, it can be very difficult to determine the real significance of new events. Thanks to globalization, the world is now "flat." The emergence of the knowledge economy has been accompanied by global warming, exhaustion of natural resources, and possibly even a crashing up against the "limits to growth." The frequency of man-made and natural disasters is rising, and the disparities between north and south and between wealthy and underdeveloped nations are growing more pronounced. As families get smaller and populations age, low-income individuals come to account for an increasingly large share of the population, creating the "M-shaped society." The first and second sections of this chapter summarized these developments in what may have seemed a rather alarmist manner, while the third section presented a more optimistic view of the prospects for the knowledge economy in the "Third Wave."

In reality, regardless of whether the future brings crises or opportunities, humanity will need to find ways to adapt. An ongoing process of self-examination and correction of errors should make it possible to create a bright future. Given the disadvantageous circumstances in which they find themselves, it is even more important for SMEs to make the efforts needed to adjust to the changes that the future will bring.

Firstly, we need to recognize that we have only one Earth, and that we need to exercise caution in our exploitation of its resources. SMEs will be forced to make production processes more energy-efficient and to make their products more environmentally friendly. Those companies that are reluctant to make the necessary changes will in the end be forced to do so by the external market and regulatory environment. Rather than waiting and being forced to make changes in a rush and possibly at greater cost, manufacturers would be better advised to take the lead themselves; by doing so, they will be able to secure business opportunities that will be denied to their slower-moving competitors.

SMEs will also need to respond flexibly to the changes in the overall social environment. Most countries around the world are already beginning to experience the effects of smaller families, aging populations and the emergence of the M-shaped society. Taiwanese enterprises would be well advised to study the business strategies that Kenichi Ohmae proposes in the second chapter of his book *The M-shaped Society*. Ohmae points out that the polarization of the social hierarchy resulting from the collapse of the middle class will have major repercussions in the marketplace. In the future, it is the lower-middle class and working class that will constitute the center of gravity of consumer demand; business enterprises will need to adjust their strategies accordingly.

To achieve sales growth, enterprises will need to focus on the preferences of the lower-middle class and working class consumers that make up the largest segment within the market. Companies will need to provide consumers with products and services that are inexpensive, but which at the same time have a high-class, luxury “feel” to them.

The key principles that Ohmae suggests business enterprises should follow are to achieve maximum efficiency in their production processes, shorten the product lifecycles of consumer durables, build a cost structure that combines a high-class “feel” with low prices, and provide new types of luxury products. For each of these principles, he gives examples of companies that have followed them successfully.

Ohmae also offers marketing strategies for the M-shaped society. In responding to the polarization of society, enterprises need to decide whether to cater to both ends of the “M,” or whether to focus on just one. If an enterprise has decided to concentrate on the high-income segment, then it must ask itself whether it really has the capabilities needed to provide high-value products or services. If, on the other hand, the enterprise is going to focus on the low-income segment, then it will need to develop an appropriate revenue structure.

Either way, the enterprise will find it very difficult to make a profit unless it can eliminate unnecessary waste in both the production and distribution processes. Without appropriate branding, revenue structure and pricing strategies, companies will find it hard to survive in the new era of the M-shaped society.

2. Marketing Strategies for the Low-income Segment of the Market

The marketing strategies that Kenichi Ohmae proposes for the low-income segment are as follows:

- (1) **Grow value-added while keeping prices low:** Offering consumers cheap goods is not enough. Manufacturers will also need to provide added value if they are to meet the needs of low-income consumers. Taking the chain Natural Kitchen as an example, although the products that this store sells are all very cheap, the company’s commitment to using natural materials provides added value to consumers through the idea that they are buying “natural” products, which in turn helps to create the feeling of a luxury lifestyle.
- (2) **Practicality rather than durability:** By adding an extra touch of utility and functionality to consumer durables, manufacturers can create products that will have more appeal for lower-income consumers. It is not enough for products to be cheap; they must also provide a reasonable level of quality. The best example of the successful use of this strategy can be found in the car-making industry, where sales of luxury compact cars have been booming.
- (3) **Expanding the range of channels through which products are available to clear inventory and boost sales:** By making products that have a long product lifecycle more widely available to consumers, manufacturers can give consumers more choice while also expanding the opportunities for consumers to purchase their own products. Iris Ohyama’s sofas and replaceable sofa covers offer a perfect

example of this strategy. They are cheap enough to be affordable by low-income consumers, who can also replace the covers whenever they want; this strategy helps the company to shift inventory and maximize sales. The introduction of replaceable sofa covers has provided a major boost to Iris Ohyama's sales revenue.

- (4) Making effective use of information technology: e-Enablement can help companies to improve the efficiency of their sales operations; it enables them to reduce the amount of money they spend on the operation of bricks-and-mortar sales outlets, and makes it possible for them to provide high-quality service at low cost. This strategy is applicable even to the furniture and home furnishings industries. For example, My Room–Boudoir is a very unusual company. Originally, the company was a publisher, responsible for publishing the magazine *My Room* that was spun off from *Fukuso*. It subsequently began to undertake mail-order sales of some of the products that were featured in the magazine, and eventually transformed itself into a distributor; My Room – Boudoir now carries Cadre Sezon products in addition to its own My Room products, and has also expanded into e-commerce. Its sales performance has been very impressive.

A third point for SMEs to consider is that, as noted in chapter eight of *The Limits to Growth*, all people (including business enterprises) need to examine their own behavior and habits. At the very least, companies and individuals should be aiming to recover their humanity, display more concern for others, and try to use resources more efficiently. If this can be achieved, then the world can bring growth rates back within the limits of what is sustainable, thereby saving human society from collapse. In the future, SMEs should be working to develop products that are “frugal” and environmentally friendly.

Fourthly, SME owners and managers need to be ready to adapt flexibly and rapidly to changing circumstances. As the Chinese saying puts it: Flowers do not stay in bloom forever, and good times never last. Even the most successful enterprises are bound to encounter crises eventually, and this will be even more true in the 21st century, when scientific and technological innovation will have such a dramatic impact on human society, the economy, politics, the law, national defense, education, the population structure, culture, etc. The changing environment will present human beings with many challenges that must be overcome. From the point of view of business enterprises, these challenges will bring both problems and opportunities. All enterprises – whether large

corporations or SMEs, companies operating in a single country or multinationals, sole proprietorships or publicly traded companies, exporters or firms oriented towards the domestic market – will need to take these challenges seriously and make the necessary adjustments.

A fifth point is that SME owners and managers will need to display the same qualities that they did in the past: dedication, trustworthiness, hardihood, diligence, and flexibility. Whatever changes may take place in the wider world, and even if we are entering a new era in which national boundaries lose much of their significance, SMEs will maintain their status as the bedrock of society; they will continue to account for the largest share of enterprises and the largest share of employment. In the long term, nobody – from individuals to the industrial structure as a whole – will be able to escape the constraints of the law of comparative advantage. Whatever external forces are acting on them, ultimately it is business owners and managers who are the key actors. As they play their role amidst the changes taking place all around them, they must remember that “the Lord helps those who help themselves.” Outside forces may be able to provide support, but in the end each SME must rely on itself. During Taiwan’s “economic miracle,” from the late 1960s to the mid-1980s, SMEs were the most important single pillar holding up the Taiwanese economy. Taiwan’s SMEs won renown for their flexibility, their never-say-die attitude, and their trustworthiness. Although their division of labor with leading international trading companies gave them only slim profit margins, they were still able to grow and develop.

The process of economic reform that began in China in the 1980s enabled Taiwanese SMEs to continue with their existing business model. SMEs made little effort to build up their R&D capabilities or to transform themselves. At the same time, the bubble economy that developed in Taiwan during the period from 1985 to 1990 led to an erosion of many of Taiwanese SMEs’ original virtues; both the strong work ethic and the trustworthiness began to weaken. Today, China is no longer so welcoming to Taiwanese SMEs; labor costs in China are rising, and SMEs also have to face increased competition from local Chinese enterprises. Taiwan’s SMEs are finding it increasingly difficult to stay in business. Some have moved their operations to western China or to the emerging economies of Southeast Asia, where they hope to continue with their old business model; others have withdrawn from China back to Taiwan and are seeking to upgrade and transform themselves, a strategy that seems to offer more chance of success in the long term, given the changes that are resulting from the operation of the

law of comparative advantage. Whatever course SMEs choose to take, they will need to recover the qualities that served them so well in the past. There is much to learn from the micro-finance initiative of Muhammad Yunus (who won the Nobel Peace Prize in 2006), which has helped simple, honest, poor people to stand on their own two feet, escape from poverty, and recover their dignity as human beings. The situation that the recipients of micro-finance loans find themselves in is very similar to the circumstances experienced by Taiwanese SMEs in the early days as they struggled to survive in the underground economy.

The sixth and final point is that SME owners and managers need to “go slow, be cautious” if they are to achieve stable growth over the long term. What is meant here by the phrase “go slow, be cautious” is not the usual reference to the government’s policy with respect to investment in mainland China, but rather the attitude that business owners should adopt with respect to their own operations. In reality, the idea that caution is needed to achieve long-term success is applicable to everyone, but it is especially important for business enterprises, where the impact of failure can be catastrophic. SMEs should keep this maxim in mind all the time, and should ensure that it is embodied in concrete, practical action. Nobody knows what the future will bring; as the old saying puts it: “The weather is unpredictable, and human life is full of ups and downs.” Ordinary people need to “put something aside for a rainy day,” and this is even more true for businesspeople, who have to face much greater levels of risk. SMEs cannot afford to act rashly; they must think carefully and rationally about every step they take. Generally speaking, it is those enterprises that exercise caution that will survive and grow. In today’s world, full of deceit and trickery, it is more important than ever to look before you leap.

Chapter 8

The Brand Management Models Adopted by Taiwan's SMEs

Globalization has had a dramatic impact on the structure of the world economy with the result that Taiwan's status as the world's leading provider of ODM /OEM services is under threat from new rivals. In particular, low production costs in China and the developing economies of Southeast Asia have given these countries some of the competitive advantage that Taiwan formerly enjoyed, threatening Taiwan's ability to compete effectively in the ODM/OEM market. In the past, a high percentage of Taiwanese manufacturers were engaged in ODM/OEM contract manufacturing. The marketing channels were largely under the control of the leading international vendors to which they sold their products; the added value from design and branding also accrued to the vendors and their distributors, leaving the Taiwanese manufacturers with very small profit margins. Very few of them have succeeded in establishing their own brands, and most lack the experience, resources and capabilities needed for effective marketing. With the developing nations rapidly closing the gap on Taiwan, as well as the impact of World Trade Organization (WTO) accession, the profit margins that Taiwan's SMEs are able to secure have grown increasingly thin.

The challenge for Taiwan now is to move away from contract manufacturing and adopt a new mindset. One way for Taiwan's SMEs to upgrade themselves and create more value is to build up their own brands; for many enterprises, successful brand establishment has been the key to achieving sustainable operations. More and more Taiwanese companies are seeking to develop their own brands, expanding the scope of their operations to include not only manufacturing but also marketing, and reorienting themselves from the regional (Asian) market to focus on the global market as a whole. However, building up a strong brand takes time, and is a complex, demanding process. To create and maintain a brand, a firm needs strong brand management capabilities. SMEs are often discouraged from trying to develop their own brand because of the high cost of marketing and increased uncertainty involved, hence the reluctance of many SMEs to allocate resources to this area.

This chapter will make use of case studies to explore the models that Taiwan's

SMEs have adopted when developing their own brands, and to identify their special needs in this respect. A number of policy recommendations are put forward; it is hoped that these may help to increase the percentage of SMEs that succeed in developing their own brand, thereby helping Taiwan's SMEs to make their mark in international markets.

I Definitions of Branding and Its Significance

A brand represents the adding of value to a product, and also combines physical and psychological elements. The physical aspect constitutes the linkage between the brand name and the enterprise or its products, differentiating them from other enterprises or products; the psychological aspect constitutes the maintenance of uniformity in terms of communications, guarantees and behavior, as well as consistency and conformity to particular requirements. The most commonly used definition of a "brand" is that developed by the American Marketing Association (AMA) in 1960, which defines a brand as a name, term, sign, symbol, design or combination of the above, the purpose of which is to ensure that the products or services of a vendor or groups of vendors can be distinguished from those of competitors.

Why do companies need to develop a brand? One major reason is that a brand name and trademark can provide legal protection for a product, preventing the company's competitors from copying it. Branding also facilitates market segmentation; a brand can help a company to cultivate customer loyalty, thereby maintaining stable sales volume and ensuring long-term profitability. Onkvisit and Shaw (1989) examined the advantages and disadvantages of having a brand from the point of view of a manufacturing firm (see Table 8-1-1). They found that brand development contributed to easier product identification and made products better known; it also created opportunities for differentiation, and could provide benefits from brand loyalty and in terms of the price premium. However, a company with its own brand also has to bear higher production costs (e.g., from having to maintain higher inventory levels) and marketing costs, and will be have to bear legal responsibility for any product defects, etc.

Within the process of product sale, the brand has a protective function, helping to protect the interests of the consumer, the producer and their intermediaries; branding is thus of great importance to all of these players. Branding helps consumers to spot the products they want, and reduces the amount of time they need to spend making their

Table 8-1-1 The Advantages and Disadvantages of Branding

	Advantages	Disadvantages
No brand	<ol style="list-style-type: none"> 1. Lower production costs 2. Lower marketing costs 3. Lower legal costs 4. Flexible quality and production volume control 	<ol style="list-style-type: none"> 1. Intense price competition 2. Product less likely to win market approval
Branded	<ol style="list-style-type: none"> 1. Product becomes better known 2. Greater opportunities for differentiation 3. Opportunity to build brand loyalty 4. Price premium 	<ol style="list-style-type: none"> 1. Higher production costs (including high inventory costs) 2. Higher marketing costs 3. Higher legal costs (including credit risk)

Source: Onkvisit, S. and J. J. Shaw (1989), "The International Dimension of Branding: Strategic Consideration and Decisions," *International Marketing Review*, 6, 3, 22-34.

selection. From the point of view of the retailer, branding is an important tool in price competition, and can also help to boost sales volume and profits. Branding is also an important competitive tool for the producer. Possession of a brand gives the producer higher value added, and increases the likelihood that the producer will be able to maintain high earnings performance over the long term; producers can also use their brand as a medium for communication with the consumer.

From the point of view of SMEs, brand value lies in the way that an SME's innovation ability and speed can create product differentiation, thereby making the SME's products stand out in the marketplace, which in turn leads to increased value added and higher profits. SMEs should take advantage of their closer proximity to the market (as compared with large enterprises), their greater familiarity with the customer and their flexibility, employing innovative methods to deliver differentiated products and services and build their own brand. Many of the strongest brands belong to SMEs, not large enterprises, and the important thing is to make your products stand out. If an SME can succeed in differentiating its product or service from other brands, then even a very small firm can achieve impressive results.

II Case Studies of Brand Development by Taiwanese SMEs

In 2006, the brand value consulting firm Interbrand published a list of the ten most valuable Taiwanese brands. The brands on the list were, in order of brand value: Trend Micro, ASUS, Acer, Master Kong, BenQ, Maxxis, ZyXEL, Giant, Johnson, and D-Link (Table 8-2-1). The success of these companies reflects a growing trend in Taiwan for companies to make the effort to establish their own brand, leveraging brand value to

achieve superior operational performance.

While many Taiwanese SMEs have been working to develop their own brand, the small size and limited resources of SMEs makes this a difficult task. As it is not possible to compile a “top ten” list of the strongest SME brands in Taiwan, this chapter will present a number of case studies to examine the brand management models adopted by SMEs in Taiwan.

Table 8-2-1 Taiwan’s Ten Strongest Brands in 2006

2006	2005	2004	Company	Value(US\$ millions)	Value (NT\$ millions)	Annual Growth Rate (%)
1	1	1	Trend Micro	11.32	367.90	4
2	2	2	ASUS	10.86	352.93	22
3	3	3	ACER	8.74	284.05	14
4	5	4	MASTERKONG	4.14	134.43	30
5	4	6	BENQ	4.11	133.68	16
6	6	5	MAXXIS	2.71	88.07	2
7	9	8	ZyXEL	2.62	85.26	10
8	7	7	GIANT	2.56	83.29	0
9	—	—	JOHNSON	2.56	83.06	—
10	10	9	D-Link	2.54	82.59	12

Source: *Commercial Times*, STPI, October 2006 (US\$1 = NT\$32.5).

1. Topower

Topower Computer Industrial Co., Ltd. was founded by the current chairman, Kent Chou, in 1986 with a capitalization of NT\$250,000. Its main products are high-end power supply units (accounting for 96% of annual sales) and PC accessories (4%); the company currently has 52 employees. A lecture that Michael Porter gave in 1999 was the stimulus for a complete change in Topower’s business strategy and product design philosophy. Originally, Topower had positioned itself as a contract manufacturer. The company’s profit margins were constantly being squeezed due to intense price competition, and the risk of customer non-payment was a constant worry. Topower therefore decided to reposition itself as a vendor of high-margin products; the company would no longer manufacturer any product on which the gross profit margin would be lower than 25%. Topower leveraged its patents effectively to build core competitiveness, and developed high-quality products that enabled it to establish a strong position in the power supply market; by developing own-brand products, Topower was able to break into the retail segment of the power supply market.

Topower's products are now marketed all over the world under four different brands: Be-quiet, Tagan, Topower, and E-Power. The Be-quiet and Tagan brands are used in Europe; the Topower brand is used all over the world, but has been particularly successful in Japan; and the E-Power brand is used mainly in the US market. Topower has also begun to develop the ZUMAX brand for the US market. One reason for having several different brands is that distributors are often reluctant to stock a brand that rival distributors already carry.

Topower has consistently made customer needs the starting point for its brand development activities, creating different products and different brands for individual markets. Each brand has its own unique character, and each carries with it its own associations for consumers.

Product quality lies at the heart of Topower's branding strategy. This is integrated with experiential marketing and cultural innovation. By challenging people's preconceptions as to what a power supply unit should be, Topower has been able to create additional value added. Effective utilization of Topower's network of partnership relationships has contributed to successful brand development; profit-sharing mechanisms reduce the potential for conflict with suppliers, creating a win-win situation. At the same time, Topower has made effective use of patents to strengthen its competitive advantage. The company currently holds 140 Taiwanese and international patents; some are held individually by one of the four brands, while others are held jointly. Building up its intellectual property has helped Topower to differentiate its products from those of competitors, while creating entry barriers that reduce the risk of new rivals coming along to challenge the company. In the future, Topower may be able to use patent licensing to secure royalty income (which would also help to boost brand recognition).

Each of Topower's four brands has its own unique character. The brands have their own individual websites, brand story, brand slogan and advertising. All four brands have succeeded in building a loyal customer base, while maintaining effective market segmentation.

Besides making effective use of both online and conventional distribution channels, the marketing for each brand also employs certification, product reviews in the media, transmission of the brand slogan by opinion leaders, and online communities. The underlying goal is to strengthen consumer understanding of the brand and maximize brand exposure. Topower has actively cultivated experts who pass on the latest

Topower and industry news on the Web or through other media. Their recommendations provide further brand exposure, and help to build consumer trust with respect to the four Topower brands.

2. Cheerful Fashion Goods

Cheerful Fashion Goods Co., Ltd. was established in 1981. Besides branded manufacturing, the company is also involved in ODM and OEM contract manufacturing. OEM products include fashionable stationery, office products and corporate gifts. Cheerful also undertakes ODM production of stationery and gifts for leading international stationery and gift retailers. In the last few years, Cheerful has been working actively to develop branded manufacturing using two brands: “C.LAVIE” and “Ji-Jipin.” The high quality and attractive appearance of Cheerful’s products have enabled the company to establish a niche for itself within the creative/fashion industry. Customers include leading retail chains, banks, etc. in Europe, Japan and Taiwan. The conflicts between vendors and ODM providers that tend to occur in the hi-tech sector are less of a problem in the luxury goods market because of the clearer demarcation of roles; as a result, brand management in this industry is significantly different from the strategies employed in other industries such as the 3C (Computer, Communications and Consumer electronics) industries.

In Cheerful’s “C.LAVIE” brand, the brand name stands for the French phrase “C’est la vie,” symbolizing the integration of creativity and daily life. The other brand, “Ji-Jipin” stands for an ultra-modern Chinese visual aesthetic, carrying with it connotations of quality, good fortune and excellence, along with hi-fashion concepts. “Ji-Jipin” is rendered as “C.LAVIE.G” in English. Cheerful’s underlying brand philosophy is “Innovation enriched by exquisite quality and a sense of fun; hi-fashion, hi-tech goods with an Eastern flavor.” This philosophy embodies Cheerful’s goal of creating a brand image that emphasizes its Chinese, Eastern, elegant and fashionable aspects.

Cheerful’s marketing strategy comprises three main elements: participation in stationery and gift exhibitions to build a reputation by word of mouth, event marketing, and active promotion of the company’s brands within the Taiwanese domestic market as well as overseas. This strategy has proved very successful in strengthening brand recognition.

3. Shuter Co., Ltd.

Shuter Co., Ltd. was established by Mr. Wu Ching-lin in 1979 in Taichung County. Initially, Shuter was mainly involved in the production of plastic toys. In responding to changes in the market environment, the company gradually transformed itself from a manufacturer of extruded plastic products into an electronics components maker, and then into a manufacturer of traditional steel cabinets. By the 1990s, Shuter was Taiwan's largest plastic and steel cabinet manufacturer. A fire in January 2001 destroyed most of the assets that Shuter had accumulated over a period of two decades, but also provided the catalyst for Shuter to begin building up its own brand.

The industrial and office storage product design and manufacturing capabilities that Shuter had built up over a period of more than 20 years provided a solid foundation for the development of fashionable storage products. Shuter adopted a multi-brand strategy, developing different brands for different target markets. It became the first Taiwanese storage product manufacturer to simultaneously possess office storage, industrial storage and fashionable storage product brands. What all of these brands have in common is an emphasis on professional expertise, high quality, and innovation.

Shuter Co., Ltd. currently has three separate brands: "Shu-teh Shuter" (with "Shu-teh" being written in Chinese characters) provides office storage products for the Taiwanese domestic market; "Shuter" supplies Taiwanese factories with plastic and steel storage cabinets and work tables; "Livinbox" is the company's new fashionable storage product brand. The slogan used for the "Shu-teh Shuter" and "Shuter" brands is "Let's get a simple life"; the goal of these brands is to provide business enterprises with better storage cabinets that will help them to save space, enhance the working environment and improve working efficiency; products in these ranges are designed to be as easy to use as possible. The "Livinbox" brand offers creative storage ideas for consumers who demand a high quality of life. Its "Life is beautiful" slogan implies that, rather than merely providing storage functions, these products can help to enrich consumers' lives.

Shuter makes use of participation in international hardware exhibitions to boost the international brand recognition of its "Shu-teh Shuter" and "Shuter" brands. Particular emphasis is placed on providing first-class service to corporate customers in line with the company's management philosophy: "Establishing Trust and Acting Virtuously." "Livinbox" products are marketed through high-end furniture channels. Shuter launched the brand in the US and Australia first, before leveraging the strong brand image that it had established there to introduce the Livinbox brand into the Taiwanese

domestic market. Livinbox is now starting to make a name for itself among Taiwanese consumers.

4. Lin's Ceramic Studio

Mr. Jung-kuo Lin, the founder of Lin's Ceramic Studio, trained as a ceramic artist. His dedication to the promotion of tea-drinking culture led him to become involved in the design and creation of ceramic vessels for practical use. Focusing initially on tea-ware, Mr. Lin designed a range of teapots, teacups, etc. that were suited to contemporary needs. Lin's Ceramic Studio handles every stage in the value chain itself, from design and development through to production, marketing and distribution. In 2000, Mr. Lin established the "Lin's Ceramic Studio" brand for marketing his products both in Taiwan and overseas. Today, Lin's Ceramic Studio is one of Taiwan's leading tea-ware brands, with export sales to over a dozen countries, including the US and Canada.

Mr. Lin's original goal in founding the Lin's Ceramic Studio brand was to improve the quality of life of ordinary people by focusing on the production of ceramics products (bowls, jars, plates, etc.) that people would actually use in their daily lives. Lin's Ceramic Studio thus seeks to bring together technology, art and marketing, leveraging the brand to promote the firm's product concepts and provide customers with elegant works of art that also have practical usefulness. The firm's positioning is that of a "creator of specialized, artistic, elegant, and tasteful products and leading brand within the cultural and creative industries."

Lin's Ceramic Studio has taken "culture, expertise, innovation and attention to detail" as its brand slogan. The original positioning as "tea-ware specialists" has been replaced by a new positioning that has "culture as the core, tea as the medium". The Lin's Ceramic Studio brand also embodies the firm's corporate culture, with its emphasis on "integrity, rectitude, diligence and simplicity" and a product design philosophy that stresses "integrating artistic commitment, professional expertise and practical utility in every single piece."

Lin's Ceramic Studio attaches great importance to the need to design modern tea-ware that is based on modern ideas and attitudes. The Studio's pieces thus combine elements of traditional ceramic art with innovation. The production process employs "kitchen-style management" in which semi-finished products are kept in storage until orders are received, at which point the glaze is added and the final processing completed. This system provides enhanced flexibility and keeps production costs down.

Lin's Ceramic Studio has first-rate R&D capabilities, and holds a large number of patents; some of the innovative new products that the company has patented include the "concentric teacup," "easy-brew teapot," "dual water boiler tea-set," and "second generation tea-ware."

Within the Taiwanese domestic market, Lin's Ceramic Studio operates its own distribution network to bring its brand value to consumers. Establishing outlets within department stores, where large numbers of consumers will see the products, has helped to boost brand recognition. The Lin's Ceramic Studio store in Yingko also exposes the brand to more potential customers. In its development of overseas markets, Lin's Ceramic Studio works mainly through distributors, but also participates in competitions and exhibitions, implements aggressive advertising campaigns, organizes lectures, and holds launch activities for new products. Special birthday discounts are offered, and the company makes a concerted effort to provide consumers with the information they need about its products, as part of its strategy for building a long-term relationship with its customers.

5. Lucoral & Lupearl Corp.

Mr. and Mrs. Ch'ing-shui Lu established Lucoral & Lupearl Corp. in 1963 in Penghu County. Initially, the firm was engaged mainly in the polishing of seashells and the processing of small ornaments and handicraft products on a consignment basis; it subsequently expanded into the collection of coral for sale to Japanese companies. In 1965, the Lu family moved to the main island of Taiwan, although they retained a seashell processing plant in the Penghu Islands. In 1970, Lucoral and Lupearl Corp. established its headquarters in Taipei. The opening of the company's first overseas office in 1973 symbolized the adoption of a more ambitious vision; since then, a number of other overseas branches have been set up. The establishment of a processing plant in Nanhsin has been followed by the creation of Lupearl Pearl Farms on Hainan Island. The company has gradually expanded its pearl cultivation operations, and Lucoral & Lupearl Corp. now markets its pearls directly in international markets.

The company's Chinese name ("Great East Mountain") symbolizes the goal of marketing the firm's products not only in Taiwan, but also throughout the world. To make Lucoral & Lupearl a truly world-class enterprise, a "common language" was needed. Today, the "Lucoral" brand is used for coral products, while the "Lupearl" brand was established for the company's pearl business, focusing on pearl jewelry design. With both brands, the aim is to develop products with the same quality

standards as European luxury goods, and similarly high prices. All Lucoral & Lupearl products are sold with a written guarantee of quality, and the company provides comprehensive after-sales service.

Lucoral & Lupearl's brand marketing activities are based on the principle of "gentle marketing based on integrity and trustworthiness." Lucoral & Lupearl works closely with schools and community organizations in the areas where its factories are located, and also participates actively in cultural activities organized by the local government authorities. The coral museum that Lucoral & Lupearl established in the Penghu Islands receives many distinguished foreign visitors, and has played an important role in strengthening ties between Taiwan and other countries. Lucoral & Lupearl's sincerity and warmth has won the hearts of the general public; the trust that has been engendered has naturally led to the creation of significant brand value.

6. Sunflower Organic Farm

Sunflower Organic Farm was established by Mr. Ch'en Ch'ing-hui in 1998, with an investment of NT\$1 million. Using land that he had inherited from his father and additional land that he rented for NT\$10,000 per hectare, he began growing organic vegetables using the net-house cultivation method. Mr. Ch'en registered the trademark "Sunflower Organic Farm" with the Ministry of Economic Affairs. Having started with less than 1 hectare of land, by 2006 the farm had expanded to 4 hectares.

Having received guidance and certification from the Tse-Xin Organic Agriculture Foundation, an organic agricultural products certification body licensed by the Council of Agriculture, Executive Yuan, Sunflower Organic Farm provides consumers with safe, healthy farm products. Production takes place in an environment in which pollution is minimized, and in which as little damage as possible is caused to the natural environment. Tse-Xin Organic Agriculture Foundation personnel visit the farm every year to check the soil and water quality. Sunflower Organic Farm has focused mainly on the cultivation of organic cauliflowers. This is a very difficult vegetable to grow under organic conditions in Taiwan; Mr. Ch'en's cultivation techniques have won him the Shen Nung Award for outstanding farmers.

The brand name "Sunflower" was chosen because Mr. Ch'en hoped that his farm would be like a sunflower—always facing the light, and exuding vigor and energy. The emphasis in the farm's vision and core values is on "providing healthy, high-quality vegetables and fruit that are also reasonably priced."

The basic strategy underlying Sunflower Organic Farm's brand development efforts is to absorb specialist knowledge so as to maintain high quality standards. The farm has accepted the expense of renting neighboring farmers' land surrounding Sunflower Organic Farm to ensure that infestations and pesticides do not spread from this land onto the farm itself. Sunflower Organic Farm is also active in R&D; it has developed new net-house cultivation techniques that reduce damage from insects and typhoons. By using the farm as a laboratory, a number of new vegetable varieties have been developed.

Currently, around one-third of Sunflower Organic Farm's produce is marketed through the Homemaker's Union. In most cases, the Homemaker's Union's brand is used for these sales; only the organic cauliflower is sold under the Sunflower brand. The remaining two-thirds of the farm's produce is sold through Li-Ruhn Co., Ltd., an affiliate of the Tse-Xin Organic Agriculture Foundation, using the Sunflower brand. In 2006, the Sunflower Organic Farm applied for Taiwan Agriculture and Food Traceability certification; by providing more information about how its produce is grown, Sunflower Organic Farm hopes to ensure that consumers can enjoy its high-quality, safe organic food products with maximum peace of mind.

7. Your Choice Fasteners & Tools Co., Ltd.

Your Choice Fasteners & Tools Co., Ltd. traces its origins back to You Chi Industries Ltd., founded by Mr. Ming-fu Cheng (the current chairman of Your Choice) and five friends in 1992 to manufacture a wide range of different screws. In 1995, the company was renamed as "Your Choice Fasteners & Tools." Your Choice produces a comprehensive range of screw products and related services, including magnetic screw holders, screwdrivers, screw jaws, and various types of hand-tools and power-tools. Development of the "Your Choice" brand began in 2001; the brand is now marketed in over 20 countries, including the US, Australia and Singapore. All of Your Choice's output is exported.

When the company was operating under the name "You Chi," it was mainly engaged in contract manufacturing. Owing to the lack of recognized product quality standards in Taiwan at that time, the market was flooded with poor-quality products, and price competition was intense. Your Choice therefore began to focus more on developing overseas markets. Initially, Your Choice worked through trading companies to export its products; however, the profit margins were too low, and the orders received were mostly for low-end products. To achieve its long-term development goals

and build up its R&D capabilities, Your Choice decided to establish its own brand. Your Choice had to move cautiously because of the power that the trading companies exercised in the export market, but once it had acquired the necessary technology, equipment and manufacturing capabilities, it was able to establish a modus vivendi with the trading companies and begin to expand into overseas markets. In 2004, Your Choice established an overseas business department to handle the tasks that had previously been undertaken by trading companies; the company was now able to offer its customers a comprehensive range of services.

The brand name “Your Choice” is derived from the company chairman’s business philosophy, which stresses that, to achieve excellence, a company must put the customer first. Your Choice prides itself on manufacturing high-quality products, and has been able to leverage its R&D capabilities and intellectual property to build brand value. The brand logo is one of Your Choice’s hexagonal head screws, with both the thread and point of the screw being depicted.

Screw quality is of great importance to Your Choice’s customers. With good screws, jobs can be completed more quickly, and workplace safety is improved. To be able to provide its customers with high-quality products, Your Choice maintains a policy of “three not’s”: not producing defective products, not accepting defective materials, and not allowing defective goods to leave the factory gates. As a result, Your Choice has been able to maintain a product fail rate of less than 0.05%. Strict quality control has enabled the company to maintain its core brand values.

In its efforts to strengthen brand value in overseas markets, Your Choice regularly attends major international tool exhibitions such as those in Cologne and Moscow. As a result of these activities, Your Choice tapping screws have become a leading global brand; the quality of the products and of the service that Your Choice provides are a byword among subcontractors. Magazine and newspaper advertisements have also helped to provide additional exposure for the brand. The distribution centers that Your Choice has established overseas help the company to provide timely service close at hand, and enable Your Choice to maintain a close relationship with local manufacturers. Within the Taiwanese domestic market, Your Choice has built up a network of relationships. Attendance at trade shows helps to boost name recognition, and contributes indirectly to reduced costs. The company also participates actively in the various competitions and awards schemes organized by government agencies, including the Rising Star Award, the Innovation Research Award, and the Young Entrepreneur

Award.

8. DragonSoft Security Associates, Inc.

DragonSoft Security Associates, Inc. was founded in January 2003 by Mr. Ming-chi Ts'ai (the current company chairman), with information security software as its main business area. In 2003, DragonSoft launched the DragonSoft Web Protector, a Chinese-language web server protection system. This is the first product of its kind from a Taiwanese company to be awarded Common Vulnerability and Exposure (CVE) certification. Currently, DragonSoft's main product is the DragonSoft Secure Scanner (DSS). This software, which was designed entirely by Taiwanese researchers, is the world's first bilingual (Chinese-English) security vulnerability database. DragonSoft's other products include vulnerability appraisal, vulnerability management, system security management and server protection software; these reasonably priced products can make a significant contribution towards helping enterprises to control IT-related risk. DragonSoft Security Associates markets its products worldwide under the "DragonSoft" brand. Europe, Japan and the Asia region are currently the company's most important markets, with government agencies and large enterprises constituting the main target customers.

The specialist knowledge and innovation capability of DragonSoft's R&D personnel are the company's most important source of competitive advantage. Web security systems constitute DragonSoft's core technology area. By leveraging its R&D capabilities effectively, DragonSoft has been able to differentiate its security products from those of its competitors; DragonSoft's goal is to establish itself as a world-class security solutions provider. Information security products require a high level of innovation and specialist knowledge to create; the entry barriers in this market are thus very high. The fact that DragonSoft combines product sales with first-rate after-sales services provides a further boost to its competitive advantage.

Right from the start, the DragonSoft brand was targeted at international markets, hence the choice of an English name ("DragonSoft") rather than a Chinese name for the brand name. The emphasis in the brand identification system was on simplicity and directness, to ensure that consumers seeing the company's logo would automatically associate it with DragonSoft.

In formulating its brand development strategy, DragonSoft took into consideration the financial issues that Taiwanese SMEs often face when trying to develop their own

brand, hence the decision to focus on the European market initially. DragonSoft anticipated that, after building up a reasonable level of brand recognition in the European market, it would then be able to gradually expand into other regional markets. If DragonSoft were to be able to establish a high reputation among Japanese and German consumers in particular, this would represent a very important intangible “endorsement” of the company’s products. Recognizing its own limitations in terms of capital, manpower and marketing management experience, DragonSoft decided to work mainly through distributors and agents when developing overseas markets. As a result, product pricing, the number of different distributors used, and the exact details of the services provided all vary from market to market. DragonSoft organizes conferences to spread awareness of the importance of information security and of intangible assets; these conferences help to reinforce DragonSoft’s image as a highly professional company, and facilitate the development of new customers.

III Policies and Measures Adopted by the Government to Promote Brand Development in Taiwan

To create the business environment needed for the successful development of branded manufacturing, starting in 1988 the government began to implement a series of special measures, including a five-year plan to improve product quality (1988–1993), a five-year plan to strengthen the industrial design capability of Taiwanese firms (1989–1994), and a three-stage plan to enhance the image of Taiwan-made products (1990–2005) by leveraging the special characteristics of Taiwanese products to create an image of “Innovalue.” The purpose of these activities was to transform Taiwan from a manufacturing center into a product innovation and service center, while at the same time promoting environmental protection and internationalization to make Taiwan a “green island of culture and technology.”

To encourage Taiwanese business enterprises to develop their own brands, in 1990 the Ministry of Economic Affairs joined forces with the Ministry of Finance to formulate the Guidelines for Brand Establishment Loans, and to establish the Brand Establishment Loan Credit Guarantee Account system to provide credit guarantees for firms that wished to apply to Taiwanese financial institutions for loans to develop their own brand. Management of this system was entrusted to the SME Credit Guarantee Fund. Over the period 1990–2006, a total of 69 brand establishment loan credit guarantees were provided; the total amount of loans granted was NT\$2.6 billion.

The “Branding Taiwan” project is being implemented over the period 2006–2012. The purpose of this initiative is to integrate the resources of the Ministry of Economic Affairs’ various departments and agencies to create an environment conducive to the establishment of a wide range of different types of brands, thereby encouraging more Taiwanese enterprises to develop their own brands. Branding Taiwan includes six key elements: a brand development venture capital fund operation, the creation of a business environment conducive to brand development, the implementation of brand valuation surveys, expanding the supply of the human talent needed for successful brand development, the establishment of a brand development guidance platform, and upgrading the international image of Taiwanese products and Taiwanese brands. The government will thus be working to provide Taiwanese firms with the funding sources, human talent and guidance that they need to successfully develop their own brands, and to create the right sort of business environment for them to do so. At the same time, the government will be undertaking promotional work for Taiwanese industry overseas, and helping to strengthen the image of “Made in Taiwan” products. The most important measures, and the results achieved, are outlined below:

1. Establishment of a Brand Development Guidance Platform

The government is establishing a brand development guidance platform to provide legal affairs, financial and managerial consulting services and project funding assistance for brand management, brand acquisition and distribution channel development with respect to brands that have significant development potential or that are distinctively Taiwanese. Some of the key work items include the establishment of a dedicated brand development website, the implementation of brand surveys, the analysis of the brand development policies adopted by governments in other countries, and the integration of brand development guidance resources, etc. The platform will offer online learning and guidance services, as well as provide providing information on brand development trends worldwide, thereby helping to stimulate the exchange of experience and ideas.

As of April 2007, the Industrial Development Bureau, Ministry of Economic Affairs, had already implemented 42 individual brand development strategy and brand design projects, the Commerce Department had undertaken 7 internationalization guidance projects, and the Bureau of Foreign Trade had completed 2 brand management system guidance projects, and provided business enterprise brand consulting services to 22 enterprises. The “Branding Taiwan” website had been brought online, and a number of conferences and forums had been organized. The establishment

of an international brand marketing strategy knowledge-sharing platform will facilitate the collation and dissemination of relevant information, supporting the creation of the strategies and knowledge needed to strengthen the international competitiveness of Taiwanese brands.

The Small and Medium Enterprise Administration, Ministry of Economic Affairs is helping to provide the guidance that Taiwan's SMEs need to develop their own brands. In 2006, the Administration began to implement the Plan for the Provision of Brand Establishment and Marketing Management Guidance to SMEs.

2. Brand Development Venture Capital Fund Operation

To help Taiwanese enterprises to develop international brands, the government has promoted the establishment of the world's first brand development venture capital fund (with private-sector investors holding a majority share). As of 2006, the fund had already raised NT\$2 billion for investment in firms with significant brand development potential in the digital technology, leisure and lifestyle, hi-tech agriculture and cultural industries. By April 2007, the fund had identified over 200 potential targets for investment; it was anticipated that, over the course of 2007, the fund would invest around NT\$500 million in 6–9 individual projects. The fund will be providing consulting services and guidance to the invested firms to help them achieve maximum profits from the development of international markets using their own brands.

3. Creating a Business Environment Conducive to Brand Development

To make it easier for business enterprises to secure the funding they need, the Guidelines for Own-brand Overseas Market Development Loans were formulated. The Own-brand Overseas Market Development Loans project is being overseen by the Bureau of Foreign Trade. The ceiling on credit guarantees has been removed, and the processing fee for the first year of credit guarantees is being waived. As of April 2007, three applications for Own-brand Overseas Market Development Loans had been received, of which one had been approved, with a total loan amount of approximately NT\$80 million. With regard to the use of R&D and innovation to support the core competitiveness of branded manufacturers, beginning in 2006 funding for this purpose has been provided from the Department of Industrial Technology's Innovative Service Industry Technology Development Projects scheme, with funding assistance of up to NT\$30 million per year. In 2006, a total of NT\$64.5 million in funding support was

provided for three separate projects. The Industrial Development Bureau has approved 91 applications for funding assistance under its Digital Content Industry and Cultural and Creative Industries Preferential Loans project, with the total amount of funding assistance being approximately NT\$2 billion.

4. Brand Value Surveys

To help Taiwanese enterprises appraise the value of their brands and implement comparisons with other countries (thereby providing a basis for measuring both brand value growth and the gap between Taiwan and other economies in this respect), in 2003 the Ministry of Economic Affairs began to collaborate with leading international consulting firm Interbrand on the implementation of annual surveys to gauge the value of Taiwan's international brands. In 2006, the combined value of Taiwan's ten most valuable international brands was US\$5,192 million, compared to US\$3,564 million in 2003. Clearly, the efforts being made in Taiwan to promote development have already helped to boost the value of Taiwan's international brands.

5. Strengthening the International Image of Taiwanese Products and Taiwanese Brands

Targeting those industries in which Taiwan already enjoys a competitive advantage and which have significant potential for future growth, the government has adopted integrated marketing methods to strengthen the international image of Taiwanese industry. PR campaigns have been implemented in several overseas markets, focusing on Taiwan's ten most valuable international brands, and on brands that have been recipients of the Taiwan Superior Brands award or the Symbol of Excellence awards. 194 firms entered a total of 492 products in the 15th Annual Symbol of Excellence awards held in 2006. To support the awards activity, the government arranged for Swedish, German and Australian delegations to visit Taiwan Semiconductor Manufacturing Corporation and five of the winning companies from the Symbol of Excellence awards; in addition, the government arranged visits by 10 reports from 8 media organs to visit the premises of three Taiwan Superior Brands firms in the Kaohsiung area. Effective use was made of the opportunity presented by the Cross-strait Mechanical and Electronic Products Fair to promote Symbol of Excellence products. The government arranged for advertisements aimed at boosting the image of Taiwanese industry to be posted in major international airports in the UK, Germany and the US. Branding experts Kevin Keller and Philip Kotler were invited to serve as spokespersons for Taiwan, along with Dr. F.C. Kohli (the "father of the Indian software

industry”). Promotional films were made to strengthen the image of Taiwanese industry and Taiwanese products, and 47 international journalists (from countries that included Japan, South Korea, the UK, Hungary, Romania, Italy, France, the US, and Brazil) were invited to visit Taiwan. Overall, the efforts made to strengthen the brand image of Taiwanese companies are starting to show results.

6. Boosting the Supply of Brand Development Talent

The government has established a “virtual brand management academy” to undertake ongoing, long-term cultivation of world-class brand management talent. The CEOs of major international brands, researchers from the International Institute for Management Development (IMD) in Lausanne, and leading international brand management experts have been invited to Taiwan to share their experience in brand management; in addition, branding guru Kevin Keller and marketing guru Philip Kotler were invited to give a forum in Taiwan, which was attended by around 6,000 people. Many other exchange activities have been organized with international brand management experts such as Anthony Lau, Asia Pacific region marketing director for HSBC, Hyundai Group Vice President Young-il Kim, and Interbrand Vice Chairman Tom Blackett. These activities have helped to build channels for communications between Taiwan and leading international brands.

IV Difficulties Encountered by SMEs When Developing Their Own Brand

The main problems encountered by SMEs when trying to develop their own brand can be summarized as follows:

1. Business Environment Issues

- (1) The need to strengthen Taiwan’s international image: The global reputation of Taiwanese products is still inferior to that of other countries such as Japan or France. In the past, South Korea had the same problem. However, the Korean government provided financial support to help leading Korean corporations improve their brand image; as a result, the position that Korean companies occupy in the “top 100” international brand rankings has improved significantly. Although it would be very difficult for any Taiwanese SME to establish itself in the top 100 global brands, efforts by the government to strengthen Taiwan’s

international image should still pay dividends in terms of helping Taiwanese SMEs to build up their brands.

- (2) Support for brand development should be provided equitably for all industries: In the past, the government's industrial policy has been characterized by an excessive emphasis on promoting innovation and R&D in the hi-tech sector; as a result, only limited resources have been made available for providing guidance to other industries. The importance of brand development is not necessarily correlated with the size of the enterprise or the industry that it belongs to; a company does not have to be in the hi-tech sector to develop a strong brand and make its presence felt in international markets. The government should avoid undue partiality to any particular industry when formulating its brand development policy.
- (3) Failure to provide timely assistance: A brand is an intangible asset. When SMEs become embroiled in legal disputes because their products have been pirated or their patents infringed on, they often experience difficulties because of the limited resources available to them. In particular, SMEs that are accused of violating local laws when developing overseas markets suffer severely because of the lack of support. Timely assistance from the government can make a major difference to SMEs in cases like these. Another issue is the failure to give SMEs sufficient access to government purchasing opportunities, which makes it difficult for SMEs to develop their own brand.

2. Enterprise-related Issues

- (1) Insufficient collaboration between enterprises: For the most part, Taiwan's SMEs are fighting a lonely battle, facing the intense competition from leading international corporations without collaborating effectively with other firms. The absence of mechanisms for developing joint brands has made it difficult for SMEs to achieve successful brand development.
- (2) Limited marketing resources: From an SME's point of view, brand development carries with it a high degree of risk, and a considerable financial burden. A strong brand cannot be built overnight; it requires the ongoing allocation of funds and constant scrutiny. For many SMEs, just staying in business is a challenge. If an enterprise finds itself making a loss over an extended period, it may give up its

attempts to develop its own brand and go back to relying on contract manufacturing.

- (3) Shortage of specialist marketing talent: While an individual entrepreneur may be able to get a brand started, brands change over time in response to new developments in the market, creating a need for specialist marketing talent to create the right brand image and help the company move away from competing on price towards competing on value.
- (4) Ignoring the importance of having a good website: A brand is of no use if consumers are not aware of its existence; an international brand has to ensure that consumers all over the world enjoy rapid access to information about its products. Besides establishing bricks-and-mortar outlets, the limited resources available to SMEs mean that websites also have a particularly important role to play. The website can make a major contribution towards building the “personality” of the brand, and can also help the SME to overcome the barriers imposed by distance. A properly functioning website can link together consumers in every part of the world and build brand loyalty. However, Taiwanese SMEs often ignore the benefits that can be obtained from this important brand development tool.

V Recommendations

The case studies presented in this chapter reflect the fact that most Taiwanese SMEs that possess their own brand started out as contract manufacturing firms, and only embarked on the process of brand development after they had already been in existence for some time; the case studies also show how innovation, R&D and after-sales service can underpin brand development. While enterprises adopting a particular brand development model will usually adopt a similar decision-making process and strategy formulation framework, there will inevitably be considerable variation depending on the industry to which the enterprise belongs and the particular circumstances in which it finds itself. In particular, the creation of core value and the brand message is unique to each individual enterprise. The creation of a brand with its own unique personality and the implementation of the brand development strategy are dependent on the management philosophy of the owner or managers and the firm’s vision for sustainable development.

Globally speaking, Taiwan’s SMEs have a much stronger reputation for contract

manufacturing than they do for branded manufacturing. Nevertheless, Taiwanese ODM providers can leverage their design skills to create their own brands; Taiwanese SMEs still enjoy significant potential for own brand development in specific areas and niches. The following recommendations are put forward for helping SMEs to develop their own brands.

1. Leveraging Design to Build Brand Recognition

There is a synergistic relationship between brand development and design capability. The government has for several years now been working to help Taiwanese enterprises develop their own brands; so far, however, only limited results have been achieved. It would appear that there is only so much that can be done in terms of providing direct assistance with brand development. It may be that the government would do better to focus on helping SMEs enhance their design capabilities, thereby ensuring that their products meet customers' and consumers' needs, and facilitating the process of brand-based marketing.

2. Helping SMEs to Develop Environmentally Friendly Products

Given the upsurge in environmental consciousness throughout the world, the government should be helping SMEs to develop the core technologies needed to establish themselves within the "green" supply chain, to establish environmentally friendly production systems (covering R&D, design and production), and to make effective use of recycling. In particular, there is a need for certification and verification systems that conform to international standards; the adoption of international environmental standards would help Taiwanese SMEs to develop international markets, and facilitate the building of Taiwanese brands in the "green" industries.

3. Integrated Marketing for SMEs

To increase awareness of Taiwanese brands among consumers throughout the world, the government should develop an integrated marketing plan that targets those SMEs (with their own brands) that have won any of the various awards presented by government agencies. By helping outstanding Taiwanese brands to market their products through participation in international trade shows, exhibitions and conferences, the government would be making a significant contribution towards strengthening the brand recognition of Taiwanese SMEs.

4. Encouraging Incubator Centers to Collaborate with Local Industries on Brand Development

In 1989, the Ministry of Economic Affairs initiated a program to support the development of special local industries. The period of nearly two decades that has elapsed since then has also seen the creation of a number of mechanisms to support new business start-up, including the establishment of incubator centers. A first-class environment for the cultivation of new SMEs has been created, with a total of 95 incubator centers providing services to SMEs throughout Taiwan. Effective integration of these incubator centers with the development of Taiwan's special local industries would help local industries to strengthen their core competitiveness, create more value added, and build strong brands.

5. Providing Subsidies and Tax Breaks to Help SMEs Attend International Trade Shows and Exhibitions

Attending international exhibitions and trade shows is one of the most direct means whereby an SME can strengthen its brand recognition. The government should provide subsidies or tax breaks to encourage SME participation in trade shows, competitions and other activities of this sort, so as to help SMEs to enhance their brand image.

6. Compilation of an “International Brand Map”

It is suggested that the government could collect data on the world's leading brands and their brand development strategy to compile an “international brand map” for the reference of SMEs.

7. Supporting the Establishment of SME Brand Development Consulting Firms

Under the SME Brand Development Marketing Management Guidance Plan that the government is currently implementing, SMEs can receive free consulting, guidance and diagnostic services, and SMEs that display particularly strong potential can be selected to receive special guidance and the opportunity for participation in joint marketing programs. However, the government has not been able to provide innovative, market-oriented recommendations to assist SMEs with brand design, the provision of information to consumers, development of marketing channels and marketing activity planning. There is thus a clear need for the establishment of private sector SME brand development consulting firms.

Chapter 9

Strategies for the Development of Emerging Markets by SMEs

SMEs have to a very large extent underpinned Taiwan's economic development. The fact that Taiwan was able to achieve a world-renowned "economic miracle" was due in no small part to the activities of Taiwan's export-oriented SMEs. In the last few years, the world's emerging economies have been growing rapidly, and have become a major focus of international attention. The BRIC (Brazil, Russia, India and China) fever is far from over, Vietnam appears to offer almost unlimited business opportunities, and the Persian Gulf region is developing rapidly. Faced with the growing importance of these emerging economies, the need to diversify risk makes it important for Taiwan's SMEs to expand into overseas markets. The question of how Taiwanese SMEs will adapt to the changing international business environment, and whether they will be able to formulate appropriate business strategies for developing the emerging markets, is a matter that warrants the attention not only of industry but also of Taiwan's government and the university sector.

The four key themes addressed in this chapter are as follows: (1) Which emerging markets should Taiwanese SMEs be focusing on? (2) What opportunities do emerging markets offer SMEs, and what challenges will SMEs face in these markets? (3) What strategies can SMEs adopt when developing emerging markets? (4) How can the government help SMEs to develop emerging markets?

I Which Emerging Markets Should Taiwanese SMEs Focus On?

A rapidly changing global economic environment and the decline of Taiwan's manufacturing sector have had a severe negative impact on the growth prospects of Taiwan's SMEs. Both land and labor costs in Taiwan are high, and environmental awareness has been rising. In response, many SMEs have chosen to invest in China; over the last ten years, China has been the main focus of overseas expansion by Taiwanese SMEs.

In the last few years, the Chinese government has implemented a series of macroeconomic adjustment measures that have helped to cool China's overheating economy. At the same time, intensive development in the coastal regions of southeast China has caused land and labor costs to rise, and the overall cost of investing in China has gradually increased. Following China's accession to the WTO, the WTO's non-discrimination and national treatment requirements have caused China to gradually abolish the preferential treatment that was previously granted to Taiwanese enterprises in many areas. As a result, it has become more difficult for Taiwanese-invested enterprises in China to build competitive advantage, and the level of risk that Taiwanese firms investing in China must bear has risen. There is now a clear need for Taiwanese SMEs to focus more on developing emerging markets other than China, so as to reduce the risk that comes from being too dependent on one market.

However, given the limited resources available to most SMEs and the disparities in market conditions between the many different emerging markets, SMEs need to think carefully when choosing where to invest. This chapter focuses on the emerging markets designated by the Taiwanese government as key development targets, the national markets that SMEs in Asia in 2007 have felt have the most development potential, the emerging markets that Taiwanese SMEs themselves believe offer the most potential, and the emerging markets that have attracted the most attention from Japanese and Korean enterprises, with the aim of identifying emerging markets that Taiwan's SMEs might want to consider investing in.

1. The Key Markets to Which the Taiwanese Government Has Been Promoting Exports in the Past Few Years

Over the years, the Ministry of Economic Affairs has been constantly monitoring the changes taking place in the global economy to identify economies that offer significant potential as markets for Taiwanese exports, and has encouraged Taiwanese industry to step up exportation to these key markets so as to help Taiwan maintain its enviable foreign trade performance. As defined by the Bureau of Foreign Trade in 2007, the key markets included the major trading partners of Japan and South Korea, as well as several other important emerging markets; the list of economies included India, Vietnam, Saudi Arabia, the UAE, Russia, Brazil, South Africa, Malaysia, Turkey, and Spain. The government attaches particular importance to developing exports to India, Vietnam, and the six members of the Gulf Cooperation Council (with respect to which the Taiwanese government developed the Plan for Promoting Economic and Trade

Collaboration with the Gulf Region).

The members of the Gulf Cooperation Council (GCC) include Saudi Arabia, the United Arab Emirates (UAE), Kuwait, Bahrain, Qatar and Oman; these countries are also known as the “Gulf States.” Within the GCC, the two countries with which Taiwan has the closest economic ties are Saudi Arabia and the UAE; these are also the two largest economies within the GCC grouping.

2. The Emerging Markets That Taiwanese Business Enterprises Believe to Offer the Most Development Potential

According to a survey conducted by the Chinese National Association of Industry and Commerce (Taiwan) in 2006, the emerging markets that Taiwanese business enterprises felt to have the most development potential were, in order: China (38%), India (26%), Vietnam (13%), Russia (10%), Brazil (7%), the GCC member nations (3%), Turkey (2%), and Mexico (1%). It can thus be seen that the emerging markets that Taiwanese firms believe to offer the most potential are the BRICs nations, Vietnam, and the GCC.

3. The Emerging Markets to Which Japanese and Korean Enterprises Attach the Most Importance

Geographically, Japan and South Korea are both in close proximity to Taiwan; as such, their views as to which emerging markets have the most development potential should constitute a useful reference for Taiwanese firms. According to the *2006 JETRO White Paper on International Trade and Foreign Direct Investment*, both Japanese and Korean enterprises appear to feel that emerging markets within the Asia region constitute the best targets for investment. While actively investing in China, Korean enterprises have also been stepping up their investment in Vietnam and India. Investment in emerging markets by Japanese companies has been heavily concentrated in the BRIC economies and in Vietnam. The Japanese government's *2006 Trade and Economic Development White Paper* cited a survey conducted by the Japan Bank for International Cooperation, which gave the emerging markets that Japanese enterprises were most interested in investing in over the next 10 years as being, in order: China, India, and Vietnam. It can thus be seen that both Japanese and Korean business enterprises view the Chinese, Indian and Vietnamese markets as having particularly high potential.

On the basis of the information summarized above, it would appear that, leaving

China out of the picture, the emerging markets that should be of most interest to Taiwanese SMEs are Vietnam, India, and the GCC member nations.

II The Development of Emerging Markets by Taiwanese SMEs – Opportunities and Challenges

This section will focus on the factors that motivate Taiwanese SMEs to invest in emerging markets, and on the problems that they face. Taking Vietnam, India and the GCC as case studies, it will explore the opportunities that these markets present for Taiwanese SMEs, and also the challenges.

1. Overseas Investment – Motivation and Difficulties

(1) Motivation for Investing Overseas

The data presented in the Ministry of Economic Affairs' *2006 Survey on Overseas Investment by Manufacturing Industry* showed a high degree of consistency in the motivation for overseas investment by Taiwanese SMEs. The three main factors leading SMEs to invest overseas were: strong potential for market development, the availability of abundant supplies of cheap labor, and pressure from overseas customers (Table 9-2-1).

Table 9-2-1 The Ten Main Factors Motivating Overseas Investment in 2006

Unit: %

Motivating Factor	All Enterprises	Enterprise Size		
		Small Enterprises	Medium-sized Enterprises	Large Enterprises
Development potential of local market	61.25	53.14	67.96	70.94
Abundant cheap labor	53.75	52.56	51.76	56.79
Pressure from overseas customers	35.75	35.70	36.26	35.56
Following the lead of a major Taiwanese customer	29.09	31.28	24.30	28.11
Ready supply of cheap raw materials	17.10	18.02	15.85	16.25
Falling profit margins in the industry to which the enterprise belongs	15.96	21.74	13.03	8.03
Ready availability of land	13.92	14.53	12.68	13.58
Incentives offered by the government of the country in question to stimulate foreign investment	9.06	8.14	8.80	10.71
Opportunity to make effective use of the enterprise's resources and technology	8.64	6.86	9.86	10.90
Opportunity to benefit from most-favored nation status and preferential tariffs	7.38	7.44	6.34	7.84

Note: The percentages given in the table are the percentage of enterprises reporting the factor in question as a motivating factor; respondents were permitted to give more than one motivating factor.

Source: Ministry of Economic Affairs, *Survey on Overseas Investment by Manufacturing Industry in 2006*.

An examination of the changes in motivation for overseas investment by medium-sized and small enterprises over the last three years shows that, in the case of medium-sized enterprises, the percentage of enterprises giving “following the lead of a major Taiwanese customer” as a motivating factor has risen from 22.88% in 2003 to 24.30% in 2006, while the percentage giving “incentives offered by the government of the country in question to stimulate foreign investment” as a motivating factor fell from 11.76% in 2003 to 8.80% in 2006. For small enterprises, the percentage of firms giving the availability of an abundant supply of cheap labor as a reason for investing overseas fell from 66.23% in 2003 to 52.56% in 2006; by contrast, the percentage of enterprises giving “following the lead of a major Taiwanese customer” as a reason rose from 27.64% in 2003 to 31.28% in 2006. The percentage of small enterprises giving “ready availability of land” as a reason for investing overseas fell from 18.02% in 2003 to 14.53% in 2006.

(2) Difficulties Encountered When Investing Overseas

Taiwanese SMEs generally lack the capabilities needed for comprehensive internationalization. Their main motivation for investing overseas is the desire to reduce costs, and their overseas investment tends to be excessively concentrated in China; for the most part, SMEs are unfamiliar with other overseas markets. Given their limited funding and manpower resources, their lack of internationalization capabilities, and their inadequate branding and marketing capabilities, it is difficult for SMEs to create any real synergy in their overseas investment activities. SMEs often find the process of developing emerging markets a challenging one.

The survey results presented in the Ministry of Economic Affairs' *2006 Survey on Overseas Investment by Manufacturing Industry* showed that the biggest problem experienced by SMEs when developing emerging markets (as reported by the SMEs themselves) was “intense competition,” followed by “rising labor costs.” The smaller the enterprise, the more likely it was that “rising labor costs” would be reported as a problem. Clearly, the general trend in emerging markets is for labor costs to rise. The third most widely reported problem was “cash-flow problems and difficulty in securing working capital”; the percentage of enterprises reporting this as a source of difficulty has risen steadily over the last three years.

Rising labor costs, cash-flow problems and difficulty in securing working capital, and “excessively high entertainment and other miscellaneous expenses” were more

likely to be reported as problems by smaller enterprises than by large enterprises (Table 9-2-2).

Emerging markets tend to display the following characteristics: a large population, with significant untapped market potential; ongoing liberalization and deregulation that create the potential for high economic growth rates; cost advantages that create the potential for dramatic growth in terms of industrial development and technology innovation, as well as some remaining structural problems with significant operational and exchange risk. Emerging markets are thus characterized by both high risk and the potential for high value-added creation; both the business opportunities and the challenges are enormous. The following sections will examine the opportunities and challenges that face Taiwanese SMEs seeking to develop the Vietnamese, Indian and GCC markets.

Table 9-2-2 The Ten Most Commonly Reported Problems Experienced by Taiwanese Enterprises Investing Overseas in 2006

Unit: %

Item	All Enterprises	Enterprise Size		
		Small Enterprises	Medium-sized Enterprises	Large Enterprises
Intense competition	58.91	58.20	60.50	59.00
Rising labor costs	30.65	33.84	31.34	25.05
Cash-flow problems and difficulty in securing working capital	28.25	31.05	28.17	23.71
Governmental inefficiency	23.16	22.56	19.72	26.00
Restrictions on sale of products in the local market	16.60	19.79	14.79	15.68
Unstable political or economic conditions	16.20	16.63	15.49	15.87
Excessively high entertainment and other miscellaneous expenses	14.94	18.72	13.38	9.56
Different social customs and ways of doing business	14.76	13.49	13.38	17.59
Difficulty in obtaining information	11.64	10.58	11.62	13.38
Difficulty in obtaining raw materials or production equipment	9.66	10.70	9.15	8.22

Source: Ministry of Economic Affairs, *Survey on Overseas Investment by Manufacturing Industry in 2006*.

2. Investment in Vietnam, India and GCC

(1) Vietnam Following Accession to the WTO

a. Business Opportunities

(a) After Joining the WTO, Vietnam Has Cut Tariffs and Opened Up Its Markets

According to data published by the Vietnamese government, Vietnam's WTO

pre-accession commitments included an agreement to reduce import duty on over 10,600 individual items over a period of 5 – 7 years, with a reduction in the average tariff rate from 17.4% to 13.4%. From the point of view of Taiwanese SMEs investing in Vietnam, these tariff reductions will facilitate direct exportation.

As regards market opening, since joining the WTO Vietnam has already opened up its service sector to a significant extent. The key sectors and sub-sectors where Vietnam agreed in its schedule of commitments to implement market opening included 11 key areas within the service sector (including construction, finance, telecommunications, travel, health and education), with a total of around 110 individual industries. Vietnam has also agreed to give foreign individuals and enterprises the right to trade freely, and to relax the quota restrictions applying to garment and textile exports. Vietnam has agreed to sign the WTO's Information Technology Agreement, to participate in tariff adjustment initiatives with respect to certain chemical products, and to abandon its farm product export subsidies. It would appear that, from the point of view of Taiwan's SMEs, the Vietnam market offers significant development potential.

(b) A Gradual Increase in the Incentives Offered to Taiwanese Investors

In the last few years, the Vietnamese government has adopted a number of concrete measures to encourage Taiwanese investment in Vietnam. These have included allowing Taiwanese companies to establish factories in special economic zones in coastal regions, allowing Taiwanese goods shipped through Vietnam to other parts of Southeast Asia to enjoy the same treatment as Vietnamese goods, and special incentives for establishing factories in the interior of Vietnam to manufacture goods for export to other ASEAN member nations. These policies constitute a significant incentive for Taiwanese SMEs to upgrade themselves and expand overseas.

(c) Investing in Vietnam Can Serve as a Springboard for Developing the ASEAN Market, and Will Enable Taiwanese Firms to Benefit from Preferential Tariff Rates When Exporting to the US and European Markets

Vietnam joined ASEAN in July 1995, and forms part of the ASEAN Free Trade Area. It has signed trade cooperation agreements with APEC and with the European Union, and has also signed a trade agreement with the US. Taiwanese SMEs that set up factories in Vietnam will be able to benefit from the special tariff rates that imports from Vietnam enjoy under the terms of these agreements. Vietnam could thus come to

constitute an important production location for Taiwanese companies seeking to develop the ASEAN market, or even the European or US market.

b. Challenges

(a) Following Vietnam's Accession to the WTO, Taiwanese Firms Have to Face More Intense Competition in the Vietnamese Market

The negotiations to secure Vietnam's accession to the WTO dragged on for 12 years. During this period, business enterprises from many different countries were already starting to invest in Vietnam, and since accession the scale of foreign investment has increased still further. As Vietnam has opened up its markets and achieved a higher level of transparency in terms of market operation and regulatory matters, while at the same time providing a level playing field for firms from different countries, the competition that Taiwanese SMEs seeking to develop the Vietnamese market have to deal with has grown steadily more intense. At the same time, it can be anticipated that the Chinese government will continue to put pressure on Vietnam to place restrictions on Taiwanese investment, which could have a severe negative impact on the efforts by Taiwanese enterprises to grow their market share in the Vietnamese domestic market.

(b) Labor Shortages Are Starting to Develop, Particularly with Regard to Technical Personnel

Besides creating more intense competition, the dramatic increase in foreign investment in Vietnam following the country's accession to the WTO has also made it more difficult for Taiwanese SMEs operating in Vietnam to recruit the labor they need. In particular, because the Vietnamese electronics industry is only just getting off the ground, hi-tech manpower is in especially short supply. Faced with these problems, some Taiwanese firms investing in Vietnam have been collaborating with Vietnamese colleges and universities. While this strategy can provide a steady supply of labor for some firms, in the economy as a whole the problem of labor shortages is unlikely to be solved in the near future.

(c) Anti-dumping Measures by the US

Recently, the US government has established a special monitoring mechanism with respect to garment imports from Vietnam. Under the new system, even if no US company has requested an anti-dumping investigation, if the US Commerce Department

suspects that Vietnamese garment exporters are engaging in dumping in the US market, they can begin an investigation on their own initiative. These new measures will affect Taiwanese garment makers that have established factories in Vietnam.

(2) India—A Leading Provider of IT Outsourcing Services with a Huge Domestic Market

a. Business Opportunities

(a) Enormous Domestic Demand

The combination of a huge population and steadily rising per capita GDP has created substantial domestic demand in India. Today, India is the fourth largest consumer market in the world; it is estimated that more than 300 million Indians fall into the middle class, with significant consumption capability, and that the market for Fast Moving Consumer Goods (FMCG) includes nearly 400 million people.

(b) Deregulation, and a Gradual Lowering of Taxation Rates

The last few years have seen the enactment of several important new pieces of legislation that have made it easier for foreign companies to establish themselves in the Indian market; these include the Special Economic Zones Law and the Foreign Investment Promotion Law. The new measures adopted by the Indian government to stimulate foreign direct investment have been very effective. According to a report published by management consulting firm A.T. Kearney in 2007, India is now the most attractive destination in the world for service sector investment, a status that reflects the dramatic improvement in the Indian investment environment.

The Indian government has been actively working to cut tariffs, commodity tax and corporation tax; personal income tax rates have also fallen dramatically. According to the draft economic and trade policy objectives for 2007 – 2008, India is aiming to reduce the peak customs duty on non-agricultural products from 12.5% to 10%, closer to the average level for the ASEAN member economies (8%).

The combination of deregulation and tax reductions has brought about a significant improvement in the investment environment in India; this should be of great interest to Taiwanese SMEs.

(c) An Abundant Supply of Cheap Labor

The widespread availability of cheap labor is one of the biggest draws attracting foreign enterprises to invest in India. According to data compiled by India's Bureau of Statistics in 2007, as of 2006 India's workforce totaled 413.5 million people. With 63% of India's population falling into the 15 – 64 age group, India has a population structure that will facilitate economic development, and that will provide a stable supply of labor for employers. A survey conducted by the Economist Intelligence Unit in 2006 showed that, over the period 2001 – 2009, labor costs in India's manufacturing sector were very low by international standards. Taiwanese SMEs that in the past have relied on China for cheap labor now have the option of investing in India instead.

(d) A Wealth of High-quality, Low Cost English-speaking Hi-tech Talent

India has an abundant, stable supply of hi-tech manpower. It has more English-speaking scientific and technical talent than any other country in the world except the United States. India attaches great importance to science and IT education. The country has 272 universities and nearly 14,000 colleges; the Indian Institute of Science and the Indian Institute of Technology have played a particularly important role in cultivating the hi-tech talent that the Indian economy needs. According to statistics compiled by India's NASSCOM association, as of fiscal year 2006 there were approximately 1.3 million IT specialists in India, of which 30.8% were working in information services and 32.0% in business process outsourcing; in 2007, the total was expected to rise to over 1.6 million.

In India, the cost of high quality, hi-tech manpower is much lower than it is in Europe or the United States. NASSCOM survey results showed that, in 2004 – 2005, the average annual salary for an Indian IT engineer with two years' experience was around US\$10,000, only one quarter of the figure for an IT engineer in Europe or the United States. With its wealth of English-speaking hi-tech talent, India could be the solution to the manpower shortages experienced by many Taiwanese SMEs in the hi-tech sector.

b. Challenges

(a) Linguistic, Cultural and Geographical Obstacles

For commercial purposes, English is the most widely spoken language in India. However, as a result of the numerous invasions that India has suffered, the country has

a complex ethnic make-up, including the aboriginal Dravidians and the descendants of Aryans, Mongols and Turks. The invading peoples brought their own languages with them, and today more than 1,600 languages and dialects are spoken in India, of which 15 are designated as official languages. Taiwanese SMEs may thus experience some language problems when doing business in India.

India's caste system and the related division of labor have created a situation where low-level employees are often reluctant to take on greater responsibilities. This could cause managerial difficulties for Taiwanese companies investing in India. Geographically speaking, India is a considerable distance from Taiwan, so it takes some time to transport goods and resources between the two countries. These linguistic, cultural and geographical factors may present significant obstacles for Taiwanese SMEs seeking to develop the Indian market.

(b) India's Infrastructure Is in Need of Improvement

The biggest problem facing a small or medium-sized Taiwanese manufacturing firm intending to invest in India would be the question of infrastructure – whether the roads, harbor facilities and electric power supply that the enterprise needs are in place. Currently, the infrastructure that India needs to support continued economic development – including telecommunications networks, power supply, water supply, and transport links, etc. – is far from satisfactory. Transport and power supply issues in particular could create major obstacles for Taiwanese SMEs trying to develop manufacturing operations in India.

(c) Complex Legal, Regulatory and Tax Systems

India has around 25,000–30,000 individual laws and regulations, a figure that continues to rise. Many of these laws and regulations have outlived their usefulness, and are no longer suited to present conditions. Taxation varies considerably from state to state within India. Even Indians can become confused by the country's legal, regulatory and tax systems, so Taiwanese SMEs will find them even more difficult to come to grips with.

(d) Onerous Restrictions on Foreign Exchange Transactions and Difficulty in Obtaining Comprehensive, and Accurate Financial Information

India has complex, rigorous foreign exchange controls. While there are no restrictions

on remitting foreign exchange into the country, outward remittances are strictly controlled. The opening of bank accounts by foreigners is subject to government scrutiny, and applications must be made to the Central Bank in order to effect outward remittances. India lacks comprehensive, national-scale personal and corporate credit information systems, making it necessary to have individual creditworthiness surveys implemented by banks or credit rating companies. Generally speaking, even relatively basic business information is difficult to obtain.

(3) The Oil-rich GCC Member Nations – Seeking to Diversify Their Economies

Since the US invasion of Iraq in May 2003, oil prices have risen steadily. The six member nations of the Gulf Cooperation Council (GCC) have benefited greatly from this increase in oil prices, and have become a force to be reckoned with in the global economy. In the last few years, the GCC member nations have been trying to diversify beyond oil production into other industries, so as to reduce their dependence on petroleum. To exploit the business opportunities created by this “oil boom,” Taiwanese SMEs need to have a clear understanding of both the opportunities and the challenges that the GCC economies present.

a. Business Opportunities

(a) High Domestic Demand, an Abundant Labor Supply, and Immense Wealth

Oil revenue has helped to raise per capita income in the GCC member economies, creating substantial domestic demand. In the last few years, the populations of the GCC nations have grown rapidly, while at the same time large numbers of foreign laborers have been recruited to work there, ensuring an abundant labor supply. The framework provided by the GCC has made the Gulf States into what is effectively a single large market, and one that presents significant opportunities for Taiwanese SMEs.

(b) Light Industry Is Under-developed, the GCC Economies Are Heavily Reliant on Imports, and the Level of Demand in the Service Sector Is High

While the GCC region has highly developed oil production and petrochemical industries, light industry is under-developed. The GCC member nations are heavily dependent on imports of industrial machinery and equipment, agricultural machinery, and electromechanical equipment. Most consumer products – including textiles, food

products and other agricultural products, etc. – have to be imported too. Areas that offer particularly strong development potential for Taiwanese SMEs include textiles, building materials, iron and steel, and IT and communications products.

Demand in the service sector in the GCC nations is also very strong, with agriculture, fisheries and tourism all offering significant potential for Taiwanese SMEs.

(c) Preferential Tariffs, Efficient Customs Clearance Procedures, and No Discrimination against Taiwanese Companies

The GCC operates as a customs union; goods imported into the GCC area need pay import duty (at 5%) in only the first GCC member nation that they are imported into; goods can thus be transshipped within the GCC area without needing to pay import duty again. Tariffs on imported raw materials are lower than those on finished products, helping to keep production costs down for manufacturing firms. Customs clearance procedures at Dubai are very efficient; the whole process from the arrival of the container to entry into the warehouse takes less than one day to complete. Furthermore, there is no discrimination against Taiwanese goods. These factors will all facilitate development of the GCC market by Taiwanese SMEs.

b. Challenges

(a) High Transportation and Insurance Costs Due to the Frequent Conflicts in the Region

The Middle East is the scene of frequent wars and widespread terrorist activity, including suicide bombings; Taiwanese SMEs considering investing in the region therefore need to take security issues into consideration. Both the Iraqi invasion of Kuwait and the US invasion of Iraq caused severe disruption to trade in the countries concerned; in many cases, companies were unable to secure payment for goods that had been exported to the region. Overall, the level of risk is very high.

Taiwanese SMEs doing business in the region will face high transportation and insurance costs due to the risk of armed conflict and terrorism. After the US invaded Iraq on March 20, 2003, the IRA (which sets shipping charges for the Middle East region) decided that, as of April 1, 2003, the charge for shipment of 20-foot containers to the Middle East would be increased to US\$150 per container, while the charge for 40-foot containers would be raised to US\$300; in addition, a fuel surcharge of US\$20 for 20-foot containers and US\$40 for 40-foot containers would be payable on all

containers shipped to the region.

(b) Religious and Cultural Factors Affect Business Transactions in the GCC Area

Religious beliefs and the overall way of life in the Middle East are significantly different from Taiwan. When doing business in the Middle East, religious taboos must be respected; for example, there are certain periods of the year in which business may not be done. For example, many businesspeople and politicians in Saudi Arabia go abroad during Ramadan, making this an unsuitable time to try to do business in Saudi Arabia.

(c) Competition from Low-priced Chinese Goods

Individual Chinese provinces have been setting up trade offices in Dubai – the main entrepôt for imports into the GCC area – to promote Chinese exports to the region. The competition from low-priced Chinese goods is making life difficult for businesspeople from other countries; for example, many Indian traders who have been operating in the GCC market for many years are starting to withdraw from the market. Taiwanese SMEs trying to develop the GCC market will experience the same intense competition from Chinese goods.

(d) Entry Restrictions and Minimum Investment Requirements

Taiwan does not have formal diplomatic relations with any of the GCC member nations, which complicates the settlement of trade disputes. Taiwan does not have a representative office in the UAE, and Taiwanese businesspeople wishing to visit the UAE need to apply to the UAE consulate in Hong Kong to obtain visas. All of this tends to increase the cost of doing business in the region. In addition, Saudi Arabia imposes a minimum investment requirement; obtaining import/export permits and visas for Saudi Arabia can also be a complicated business.

III Strategies for Developing Emerging Markets

The term “emerging markets” covers a wide range of different markets. Taiwanese SMEs need to adjust their strategies according to the conditions that exist in each individual market. For example, Central and South America, Southeast Asia, Central Asia, South Asia and Eastern Europe all offer an abundant supply of labor, and thus

have the potential to serve as manufacturing bases for Taiwanese SMEs in their development of a global supply chain. The BRIC economies – Brazil, Russia, India and China – all have huge domestic markets with significant development potential; for Taiwanese SMEs, these economies could represent important export markets.

The following section presents concrete strategies that Taiwanese SMEs could employ when developing emerging markets such as India, Vietnam, and the GCC member nations.

1. Southeast Asia – Vietnam

(1) Getting a Clear Grasp of Vietnamese Law and Relevant International Agreements before Engaging in Collaborative Ventures

July 2006 saw the enactment of a new Enterprise Law and Investment Law in Vietnam, followed by accession to the WTO in early 2007. The business environment in Vietnam is changing rapidly; to successfully develop the business opportunities that this market offers, enterprises need to keep up-to-date with new developments, and familiarize themselves with the changes in both Vietnamese law and relevant international agreements. For Taiwanese SMEs seeking to develop the Vietnamese market, knowledge of Vietnamese law and WTO rules must be accompanied by strict adherence to all of these requirements when trading with or investing in Vietnam; only then will firms have any possibility of recourse in the event of a dispute.

(2) Keeping R&D in Taiwan While Using Vietnam as a Base for Manufacturing Goods for Export to Other Markets

Faced with the impact of both globalization and regional economic integration, while taking advantage of the opportunities created by market opening in Vietnam, Taiwanese SMEs will also need to make effective use of the free trade agreements that have been signed between Vietnam and the EU and US, as well as the ASEAN Free Trade Agreement. While keeping R&D and the formulation of business strategy in Taiwan, Taiwanese SMEs can use Vietnam as a manufacturing base to produce goods for export to other parts of the Asia-Pacific region, and even to Europe or the US. Taiwanese SMEs have so far made little effort to invest in the huge European market, partly because of cultural and linguistic obstacles. Collaborating with British companies offers one way to overcome these obstacles; some Taiwanese SMEs are already using technology supplied by firms in the UK to produce goods in Vietnam for export to the European market.

(3) Collaborating with Local Partners

With the gradual improvement in the business environment in Vietnam, there are now many areas in which Taiwanese SMEs could collaborate with companies already operating in Vietnam to develop the Vietnamese market. Initially, such collaboration would take the form of a partnership arrangement based on an appropriate division of labor; arrangements of this kind would help to reduce the level of risk borne by Taiwanese SMEs investing in Vietnam. Partnerships could be created through strategic alliances, joint ventures or technology collaboration. Potential partners would include large Taiwanese enterprises that are already operating in Vietnam, as well as Japanese and Korean companies, and even European or US firms. Some small and medium-sized Taiwanese car and motorcycle part makers have already formed alliances with other companies operating in Vietnam to develop the local market; in some cases, Taiwanese SMEs have invested in Vietnam at the request of their customers or of major international carmakers. Partnerships of this kind represent an effective strategy for developing the Vietnamese market.

(4) Development of Industry Clusters in Vietnam by Manufacturing Enterprises

Successful participation in industry cluster formation by Taiwanese SMEs requires careful analysis before investing. SMEs need to have a clear understanding of the segment of the value chain in which they will be investing. If implemented correctly, such investment can result in the successful creation of the vertically and horizontally integrated industry clusters that are such an important feature of Taiwan's industrial structure. The formation of industry clusters helps to avoid the problems of duplicated investment and excessive concentration on one particular link in the value chain. Industries that offer significant potential for industry cluster formation in Vietnam include the IT sector, textiles, and car-making and car part manufacturing. Taking the IT sector as an example, the number of IT peripheral manufacturers operating in Vietnam is currently very limited. Of those peripheral makers that do have a presence in Vietnam, most have formed collaborative arrangements with other manufacturers. It can be anticipated that investment by Taiwanese SMEs in Vietnam will gradually expand to form comprehensive industry clusters that integrate up-, mid- and downstream production.

2. The BRIC Economies – India

(1) The Importance of Information Gathering, Visits and Appraisal, and the Establishment of Useful Contacts

Economic ties between Taiwan and India had been very limited for many years. India is a huge country of immense ethnic, linguistic and cultural diversity, and with pronounced disparities of wealth, which is very different from Taiwan in many respects. Taiwanese enterprises seeking to develop the Indian market need to do so in a gradual, stage-by-stage process. They should start by collecting as much information as possible about the area in which they plan to invest, making visits to the area if necessary, and should try to establish channels of communication both with the local government authorities and with other enterprises operating in the region; these are vital preparatory tasks for any Taiwanese SME thinking of investing in India. Once an SME has a clear picture of the conditions and consumer behavior patterns in the area in question, it can then go on to consider the feasibility of establishing a factory or distribution warehouse there.

(2) Collaborating with Carefully Selected Local Distributors to Develop the Market

Conditions in the Indian market vary considerably from state to state and from city to city. Indian distributors have a clear understanding of local culture and the local business environment; they generally also have good relations with the local government authorities. Almost all foreign companies seeking to develop the Indian market have relied on local distributors to market their products. Taiwanese SMEs generally do not possess the financial and other resources to undertake market development activities on their own, so collaborating with an Indian distributor makes sense for them, too. Collaboration of this type may involve setting up a representative office, repair center or sales office, and then working with local distributors to access sales channels. Of course, SMEs need to exercise caution when deciding which distributor to work with if they are to avoid being taken for a ride.

(3) Working with Indian or Japanese Corporations to Develop the Indian Market

The investment environment in India still presents many obstacles to foreign companies. One way round these obstacles is for Taiwanese SMEs to form joint ventures with Indian corporations, so that they can leverage the Indian partner company's sales and marketing channels and its network of connections. A joint venture of this type can

make the process of developing the Indian market much smoother.

Another strategy available to Taiwanese SMEs is to collaborate with Japanese manufacturers operating in India. India has recently signed free trade agreements with several leading economies, including Japan. Many Taiwanese SMEs have been collaborating with Japanese companies for years, for example when developing the China market. India offers further opportunities for collaboration of this sort between Japanese and Taiwanese enterprises. Taiwanese SMEs could form strategic alliances with Japanese corporations to collaborate on marketing, or leverage existing partnerships between Japanese and Taiwanese firms. Joint ventures with Japanese companies would constitute another effective means of developing the Indian market.

(4) Establishing Manufacturing Facilities in Thailand to Produce Goods for Export to India

In the last few years, India has established a number of regional and bilateral trade agreements with neighboring countries, including a free trade agreement with Thailand. Japanese enterprises are already making effective use of this agreement by setting up manufacturing facilities in Thailand and then exporting the goods that they produce to India. Some Japanese consumer electronics manufacturers have abandoned the idea of having production facilities in India, deciding to ship their products from Thailand to India instead.

(5) Exploiting the Opportunities Created by the Growth of the Information Services Industry in India

India's software industry has been very successful. The low cost of labor in India has encouraged many leading international corporations to outsource many of their business processes to Indian firms; India's customer service centers and software firms have made the country the "back-office service center to the world." By outsourcing non-core operations to India, Taiwanese SMEs can enhance their competitiveness and differentiate themselves from their competitors.

(6) Working with Leading Taiwanese Branded Vendors

The last few years have seen a significant increase in brand awareness and demand for branded goods in the Indian market. While some Indian distributors have achieved a high level of name recognition, few Indian manufacturers have a strong brand. Distribution in India is dominated by a handful of leading distributors; this situation,

coupled with India's large size, makes the process of logistics management and after-sales service provision an unusually complex one. For Taiwanese SMEs seeking to develop the Indian market, an alternative to working with local Indian distributors would be to work with a leading Taiwanese branded vendor such as Giant or Acer; licensing or brand extension could then be leveraged to strengthen brand recognition for the SME in question.

(7) Leveraging Government Support to Recruit Indian Software Talent

India has an abundant supply of software talent, and wage levels in India are significantly lower than in Europe or the US. The recruitment of Indian software talent can help Taiwanese SMEs to develop new technology and achieve higher quality standards, while helping to ease the difficulty in recruiting skilled technical personnel that affects many SMEs. Even so, recruiting overseas talent can still be an expensive business, so SMEs will need support from the government in the form of subsidies. With this support, SMEs will be able to recruit Indian software talent, thereby overcoming their manpower shortages and enhancing the overall quality of R&D operations in Taiwanese industry.

3. The GCC Member Nations

(1) Acquiring an In-depth Understanding of Local Business Practices, Collecting Information, Undertaking Visits and Implementing Comprehensive Appraisal before Investing

There are significant differences between Taiwan and the six member nations of the GCC in terms of language, religion, culture and lifestyles. Generally speaking, people in Taiwan are unfamiliar with the economic and social structure of Islamic nations. Before attempting to develop the GCC market, Taiwanese SMEs will need to acquire an in-depth understanding of local customs, and business practices, etc.

Taiwanese SMEs thinking about investing in the Gulf region should visit the area first and collect as much information as possible; they could also make use of the services provided by TAITRA to attend or participate in relevant exhibitions, trade shows and trade promotion activities organized by the Taiwanese government or by GCC member nations. By actually visiting the Gulf region, SME managers will be able to get a much clearer picture of the state of market demand in these economies.

(2) Buyer Credit Checks Are Important to Minimize Credit Risk

Business practices in the Muslim nations of the Middle East differ significantly from those in the advanced nations where the rule of law is well established. It is common practice for buyers to delay making payment; the question of whether the buyer will actually pay for the goods in accordance with the terms of the contract is an important issue for SMEs exporting to the Gulf region.

Before agreeing to do business with a company based in the GCC region, Taiwanese SMEs should commission a credit-checking firm to undertake a buyer credit check on their behalf. Once the credit-checking firm has provided the SME with comprehensive information – including the financial status of the buyer, their past payment performance, whether the buyer is involved in any litigation, the current state of the industry to which the buyer belongs, and the credit-checking firm’s overall assessment of the buyer – a decision can then be made as to whether to go ahead with the transaction. For this purpose, SMEs can seek the assistance of the Export-Import Bank of the Republic of China, which has signed collaborative agreements with a number of leading international credit-checking companies; exporters can ask the Bank to have a credit check performed for them. SMEs that are worried about business risk might also want to consider taking out exporter insurance.

(3) Exercising Caution When Choosing a Local Distributor, and Utilizing Authorized Dealer Arrangements

In the UAE, once a foreign company has signed an agency agreement with a local distributor and has had the agency relationship registered with the Ministry of Economy and Commerce, the foreign company must obtain the agreement of the distributor before it can appoint a new distributor in the UAE. Agency relationships with distributors are thus “permanent.”

SMEs should seek the advice of a local law firm before signing a distributorship agreement in the UAE, so as to ensure that their own interests are protected. Rather than appointing a sole agent, SMEs should make use of authorized dealer arrangements.

(4) Using Dubai as a Base for Transshipment to Other Parts of the GCC Region

Establishing a subsidiary or transshipment facility in a free trade zone eliminates the need to appoint a local distributor or find a local partner, along with the attendant problems and risks. The best-known free trade zone in the GCC region is the Jebel Ali Free Zone in Dubai, the biggest port in the Middle East. Setting up a representative

office, logistics center or transshipment center in Dubai can help SMEs to keep operating costs down.

Individually, none of the GCC economies are very large. Within each economy, the consumer market can be divided into three main segments: the citizens of the GCC member nations, white-collar workers from other countries who are working in the GCC region, and goods sold to neighboring low-income countries in Africa. Besides setting up a central base in Dubai, SMEs seeking to develop the GCC market also need to decide which individual countries and market segments to focus on.

(5) Collaborating with Taiwanese or International Construction Companies

The business opportunities in the construction industry in the Middle East are attracting worldwide attention. Increasingly, the contracts awarded for construction projects in Gulf region countries cover not only the actual construction work itself but also planning, design, project management, and financing, etc. Both Taiwanese and other international construction companies are actively investigating the opportunities in this region. Some construction companies based in the advanced nations have been exploring the possibility of collaborating with Taiwanese firms to develop the Middle East market; for example, a leading German construction firm recently expressed interest in working with Taiwanese companies in the Gulf.

Taiwanese SMEs do not have the capabilities needed to take on a large-scale construction project on their own, but they can collaborate with larger Taiwanese construction companies or with German or other international corporations, supplying hardware, bathroom fittings, lighting equipment, home appliances, building materials or providing water or electricity supply repair services.

(6) Using Dubai as a Base for Marketing Activities, and Developing Joint Brands

Dubai functions as the main transshipment center for the Middle East region as a whole. Besides its own citizens, Dubai also attracts visitors from other parts of the Gulf region who come to shop there. Most international corporations operating in the GCC region use Dubai as their main base for marketing activities, and Taiwanese SMEs seeking to develop the GCC market could consider following their lead. Working with other Taiwanese SMEs to develop joint brands would help SMEs to avoid having to compete solely on price; the GCC region offers significant potential for brand-based marketing.

More specifically, Taiwanese SMEs could advertise in the media in Dubai and attend trade shows in the city, while implementing joint marketing activities to build brand recognition among local consumers. SMEs may also need to station technical personnel in Dubai to provide after-sales service to end users.

IV Policy Recommendations for Helping SMEs to Develop Emerging Markets

With the rapid pace of change in the international business environment, the ongoing trend towards regional economic integration and the growing importance of emerging markets, Taiwan's SMEs find themselves facing unprecedented new challenges. The Taiwanese government should be working to create a business environment conducive to SME growth, helping to overcome obstacles to trade, and providing guidance and assistance to help SMEs deal with the problems that they encounter when seeking to develop emerging markets. In the following sections, policy recommendations are put forward for assisting SMEs to develop the Vietnamese, Indian and GCC markets.

1. Vietnam

(1) Establishment of a Vietnam Business Information Website to Provide a Comprehensive Range of Information about Investing in Vietnam

To help Taiwanese business enterprises obtain the information that they need about doing business with Vietnam following its accession to the WTO, in early 2007 the Taiwanese government established a dedicated Vietnam Business Information Website. At present, however, the content of the website is limited to eight specific areas, and it fails to provide the kind of in-depth information that Taiwanese SMEs need if they are to develop the Vietnamese market successfully.

It is suggested that the government should try to increase both the depth and breadth of this website's content. The information provided should include details of the business environment in Vietnam, the current state of technology development in the country, hints on doing business in Vietnam, and legal and regulatory issues, etc. The provision of practical information regarding legal and regulatory concerns following Vietnam's accession to the WTO is of particular importance. The website should aim to provide SMEs with comprehensive, accurate, and up-to-date information that meets SMEs' real needs.

(2) Schooling and Healthcare Provision for Taiwanese Businesspeople Investing in Vietnam

Currently, Taiwanese SME owners investing in Vietnam are experiencing serious problems with regard to arranging schooling for their children and healthcare provision for themselves and their families. Medical personnel in Vietnam usually speak only Vietnamese (and in some cases French), creating a serious language problem. Industry associations have been lobbying the Taiwanese government to arrange better medical treatment provision for Taiwanese businesspeople in Vietnam; one solution would be to ask a Taiwanese hospital to establish a branch facility in Ho Chi Minh City.

As regards the issue of schooling for the children of Taiwanese businesspeople, the Taiwanese school in Ho Chi Minh City needs to be expanded, and additional schools may need to be established in Hanoi and other Vietnamese cities.

(3) Pushing for a Free Trade Agreement between Taiwan and Vietnam

Taiwan has had close economic and trade ties with Vietnam for many years now. Taiwan is Vietnam's main source of foreign investment, and Vietnam runs a larger import surplus with Taiwan than with any other country. Vietnam's accession to the WTO has made it an even more attractive target for foreign investment, and the formation of free trade agreements with ASEAN and with China is having a similar impact. Faced with the trend towards increased regional economic integration, the need for Taiwan to establish a free trade agreement with Vietnam has become more urgent than ever. If a free trade agreement can be signed, Taiwanese SMEs operating in Vietnam will have more scope for expanding their global operations; besides helping them to develop the Vietnamese market itself, such an agreement would also make it easier for SMEs to export products from Vietnam to other ASEAN member economies or to Europe and the US.

By studying the process whereby the US, Japan and Korea arrange free trade agreements, the Taiwanese government could develop the skills needed for successful trade negotiations, and then use these skills to bring about the creation of a free trade agreement between Taiwan and Vietnam. This in turn would put Taiwan in a stronger position when seeking to achieve greater participation in regional economic groupings such as ASEAN.

2. India

(1) Systematic Provision of Investment and Marketing Information

In 2006, the Taiwanese government asked the Taiwan External Trade Development Council (TAITRA) to establish an India Business Information Website that would integrate information on doing business with India. In addition, the Industrial Development and Investment Center's website includes a special section devoted to investing in India for the reference of Taiwanese business enterprises.

The content of these two websites could be enriched to make them more useful for SMEs; for example, the sites could provide more information regarding business opportunities for SMEs in India, the problems that SMEs can expect to encounter in the Indian market, and advice on marketing one's products in India.

(2) Establishment of More Information Centers and Provision of a Wider Range of Consulting Services

The Ministry of Economic Affairs has invited the Indian government to establish an investment office in Taiwan to help Taiwanese companies interested in investing in India to deal with the problems that they may encounter. It is suggested that the Taiwanese government could establish additional information centers in those areas of India that have high concentrations of Taiwanese-owned firms, while also expanding the range of consulting and information services provided by these centers. For example, the centers could help Taiwanese enterprises to identify potential customers, arrange credit-checking services, help Taiwanese firms to set up distribution warehouses and logistics centers in India, provide assistance in the establishment of comprehensive service networks, and help firms to obtain legal advice when necessary.

(3) Promoting Collaboration and Exchange between Industry Associations and Other Business Organizations

The government should help Taiwanese enterprises to overcome the obstacles to investment in India, by promoting regular exchange activities at the governmental level (including visits to India by Taiwanese government officials and vice versa) and between industry associations and civic organizations.

Exchange activities at the governmental level could include the promotion of conferences to discuss bilateral economic collaboration, as well as arranging visits by representatives of relevant ministries (including the agencies responsible for SME affairs), and the organizing of trade shows and exhibitions. In this way, the government would be helping Taiwanese SMEs to identify opportunities for collaboration with

Indian companies on trade and on technology development, thereby facilitating the development of closer economic collaboration.

As regards exchange between industry associations and civic organizations, the government should be working to create channels for communication between these groups, so as to facilitate the sharing of information and the joint provision of services to Taiwanese SMEs. The government should also seek to develop contacts with Indian business associations such as the Federation of Indian Chambers of Commerce and Industry (FICCI) and the Automotive Component Manufacturers Association of India (ACMA), to provide a foundation for concrete, effective business matching.

(4) Helping SMEs to Recruit Indian Talent

The government could help Taiwanese SMEs to recruit Indian talent in the following ways. Firstly, the government could expand the scope of operation of Taiwan's overseas talent recruitment missions, thereby establishing new channels for the recruitment of Indian talent (especially hi-tech, engineering and software development talent). Secondly, the government could organize conferences for Indian residents in Taiwan, and promote the holding of recruitment fairs targeting students at India's science and technology universities. If a recruitment fair of this kind were to be held on a regular basis (annually, for example), it would gradually build up a reputation. Thirdly, the government should strengthen and develop the functions of the Ministry of Economic Affairs' HiRecruit overseas talent recruitment website, which serves as a platform for matching overseas talent with Taiwanese enterprises seeking to recruit overseas talent. HiRecruit could organize more activities relating to the recruitment of Indian talent, or even establish a dedicated Indian talent recruitment zone within the website. An international talent database mechanism would also be useful to SMEs. Fourthly, the government could provide more in the way of funding support. Because of their limited resources – including inadequate manpower – SMEs often find it difficult to undertake large-scale innovation and R&D activity. Funding support from the government would help to alleviate this problem.

(5) Helping SMEs to Outsource Business Processes to India

The Taiwanese and Indian governments could collaborate on the establishment of a trans-national service outsourcing information platform that would help to match Taiwanese companies seeking to outsource some of their business processes with Indian companies offering outsourcing services. A website similar to the J-Case

outsourcing information site could be established, incorporating a list of Taiwanese companies that are interested in outsourcing business processes to India, together with the size and business areas of Indian outsourcing firms and the specialist certification that they hold. The site could also be used to publicize examples of successful outsourcing, thereby encouraging more Taiwanese SMEs to make use of Indian outsourcing services. The government might want to consider setting up a dedicated agency to help SMEs to outsource R&D, design or customer service activities to India by simplifying the process and reducing the level of risk entailed.

(6) Negotiating a Free Trade Agreement with India, and Leveraging Economic and Trade Dialog Mechanisms to Strengthen Collaboration

Currently, the development of economic and trade ties between Taiwan and India is still very much in its early stages. Besides an investment protection agreement, the Taiwanese government is currently working to bring about the signing of agreements to avoid dual taxation and to provide transient customs clearance with India. The government should be engaging in both bilateral and multilateral (i.e., working through the WTO) negotiations to bring about the signing of a free trade agreement, while leveraging the various mechanisms available for economic and trade dialog to strengthen collaboration with India. If this can be achieved, it will significantly reduce the obstacles to trade and investment, enhance the ability of the two economies to complement one another, and further the development of a healthy bilateral economic and trading relationship.

(7) Helping SMEs to Develop Joint Brands

The government should be promoting the development of joint brands in key industries through the creation of a comprehensive support system that would include the provision of managerial expertise, information platforms, low-interest loans, and business matching services, etc. This would encourage Taiwanese SMEs to establish joint brands for developing the Indian market; the personnel of Taiwan's representative offices in India could help SMEs to forge strategic alliances for this purpose.

3. The GCC Region

(1) Providing a Comprehensive Range of Business Information and Consulting Services

The differences between Taiwan and the countries of the Arab world – in terms of

language, culture and values – are very pronounced, and most Taiwanese SMEs have little knowledge or understanding of the GCC member nations. This situation creates significant potential for misunderstandings and disputes that could hinder Taiwanese firms' exploration and development of the GCC market.

Besides organizing conferences, presentations and seminars to provide SMEs in Taiwan with the information they need regarding the GCC member economies, the government should also consider establishing a GCC Business Information Website to help SMEs identify and exploit business opportunities in the GCC region, understand the business environment in the region and become aware of the key issues to consider when investing there. A GCC Consulting Service Window should also be established to meet the needs of SMEs by providing useful consulting services. Service centers could be set up within the GCC member nations to help Taiwanese firms develop business opportunities in these markets.

(2) Arranging Agreements to Cover Mutual Administrative Assistance in Customs Affairs and the Elimination of Dual Taxation and Prevention of Tax Avoidance, Thereby Minimizing Obstacles to Trade

To reduce the obstacles to trade between Taiwan and the GCC region, the Taiwanese government should be working to sign agreements with the GCC member nations that would cover mutual administrative assistance in customs and tariff-related affairs, and the elimination of dual taxation and the prevention of tax avoidance. Priority should be given to establishing customs affairs agreements with Saudi Arabia and the UAE, taking the customs agreement between Taiwan and the US as a model. As regards the elimination of dual taxation and the prevention of tax avoidance, the Ministry of Foreign Affairs should be asked to obtain up-to-date information on the tax systems of the GCC member nations for analysis by the central government authorities responsible for financial affairs, so as to lay the foundation for the signing of an Agreement for the Elimination of Dual Taxation and Prevention of Tax Avoidance that would facilitate trade between Taiwan and the GCC region.

(3) Coordinating Collaboration between Taiwanese Companies to Secure Tenders

Billions of dollars worth of construction contracts are being awarded in the Middle East, creating enormous business opportunities. Taiwanese companies have a great deal of experience in undertaking construction projects in the Gulf region. The Taiwanese

government can help to coordinate the activities of Taiwanese firms, making it easier for them to secure tenders, and thereby boost exports of construction materials to the GCC economies by Taiwanese SMEs. The government will need to monitor developments in the construction sector in the Middle East, help Taiwanese firms to identify the areas where there is significant demand, and provide assistance to enable Taiwanese companies to secure tenders through horizontal or vertical integration. A Middle East construction sector tender information platform will also need to be established.

(4) Organizing Trade Delegations, Helping SMEs to Attend Trade Shows, and Providing Business Matching Services

The most effective methods whereby the government can help Taiwanese SMEs to grow their exports to the GCC region and secure business opportunities there are the organizing of trade delegations and the provision of assistance to help SMEs attend trade shows and exhibitions. In addition, it is suggested that the government should step up its efforts to organize sales promotion delegations, overseas visits to explore opportunities for strategic alliance formation, and high-level trade and investment delegations, while providing additional funding support to help SMEs attend major trade shows in the GCC region (such as the GITEX exhibition in Dubai). The government should also be encouraging companies and organizations in GCC member economies to attend international exhibitions held in Taiwan, thereby increasing the opportunities for successful business matching.

(5) Providing SMEs with Credit Checking Services and Assisting Them with Payment Prompting

There are significant differences between business practices in the GCC member nations and those applying in the advanced nations where the rule of law is well established. For Taiwanese SMEs exporting to the GCC region, the question of whether the buyer will make payment in accordance with the terms of the contract is often a major worry.

One means of mitigating this problem would be for the government to increase the number of Taiwan representative offices in the GCC region, and their manpower. A list of approved trading companies and distributors could be prepared for the reference of SMEs, and the government could also help SMEs exporting to the region to implement credit checks and payment prompting. With regard to credit checks, the government

could ask the Taiwan representative offices in the region to provide details of past transactions involving the companies concerned; with respect to payment prompting, the government could ask the GCC region representative offices of the Ministry of Economic Affairs and TAITRA to work with local chambers of commerce on this issue.

(6) Focusing on Key Industries, and Promoting the Establishment of Joint Brands by SMEs

The government could be working to promote the establishment of joint brands among SMEs in key industries where Taiwan enjoys a significant competitive advantage (such as car and motorcycle components, 3C product peripherals, functional textiles, machinery, medical devices, and construction) to help develop the GCC market. More specifically, the government could provide assistance in the areas of brand design, branding strategy formulation, marketing channel development, advertising, and participation in trade shows, etc.

Chapter 10

The Government's SME Policies and Measures

There are approximately 1.22 million SMEs in Taiwan, accounting for over 98% of all business enterprises in the country. SMEs are the foundation of the Taiwanese economy; however, given the ongoing process of internationalization and globalization, Taiwan's SMEs will need to change their business models if they are to survive and achieve sustainable development. While finding ways to overcome the limitations imposed by their lack of economies of scale, SMEs must also focus on R&D and design, brand development and marketing. They must work tirelessly to upgrade themselves so that Taiwan can retain its edge over the emerging economies and identify new markets and new business opportunities.

To build Taiwan into an environment conducive to SME growth and development, in accordance with the provisions of the *SME Development Statute*, the Small and Medium Enterprise Administration (SMEA) of the Ministry of Economic Affairs has been focusing on five key areas in its policy formulation: creating a first-rate environment for SME development, building up SME start-up and incubation platforms, improving SMEs' IT capabilities, strengthening the overall SME management guidance function, and integrating SME finance and financing mechanisms. In all of these areas, the SMEA is formulating the necessary ancillary measures to enhance SMEs' competitiveness.

This chapter will discuss the SME guidance policies and measures adopted by the government in 2006, examining each of the five areas listed above in turn.

I Creating a First-rate Environment for SME Development

To ensure that SMEs understand the laws and regulations that affect them, to make sure that their legal rights are protected, and to enhance SMEs' ability to adapt to changes in the regulatory environment, the SMEA has been working actively to build up a sound legal and regulatory environment conducive to innovation and growth.

1. Strengthening the Legal and Regulatory Environment

As a reflection of its commitment to SME development, in 1991 the government promulgated the *SME Development Statute*. To prevent a situation where SMEs were forced to compete in a disadvantageous legal and regulatory environment, in 2000 an additional clause (Article 12-1) was added to the *Statute*, stipulating that, whenever government agencies at any level are engaged in drawing up or revising laws or regulations that would affect SMEs, they should take into consideration the special characteristics of SMEs (in terms of size, etc.). In 2006, the SMEA has continued to promote the establishment of mechanisms for analyzing SME adjustment to new laws and regulations, and to press for the holding of regular meetings of the Legislative Yuan's SME Development Promotion Committee. The projects implemented in 2006 and the results achieved are outlined in the following sections.

(1) Implementation of Plans to Facilitate SME Compliance with Laws and Regulations

The business environment in which SMEs exist is constantly changing. To ensure that Taiwan's SMEs can operate in an environment characterized by fair competition and to strengthen SMEs' competitiveness, in 2006 the SMEA devoted considerable effort to the drawing up, printing and dissemination of standard contracts and to research on current legal and regulatory issues. Some of the key work items and results achieved are given below:

- a. Formulation of standard contracts for major SME business activities, including Chinese-language and English-language versions of suppliership and contracted design/R&D contracts;
- b. The holding of standard contracts presentations in Northern, Central and Southern Taiwan;
- c. Implementation of two research and analysis projects focusing on current legal and regulatory issues.

(2) Implementation of Plans for the Drafting of Legislation to Further SME Development

In line with the government's plans for the restructuring of the Executive Yuan, and with the need to re-examine SMEs' needs in the new business environment of today, the SMEA has been planning the creation of a suitable legal and regulatory

environment. The key work items in this area, and the results achieved in 2006, are outlined below:

- a. Submission of draft SME policy recommendations, and of suggestions as to how the *SME Development Statute* should evolve in the future;
- b. Completion of the draft revisions to the *SME Development Statute*, along with explanations of the factors necessitating these revisions;
- c. Formulation of an outline of the contents of draft *SME Development Statute* sub-statutes.

2. Strengthening the Provision of Legal and Regulatory Affairs Guidance and Consulting Services to SMEs

With regard to the provision of SME legal and regulatory affairs consulting services, presentations were held to discuss the Consumer Protection Law, and the establishment of a website to educate the business community regarding Consumer Protection Law issues. The main work items implemented in 2006 and the results achieved were as follows:

(1) The Holding of Presentations to Publicize the Impact of the Consumer Protection Law

In order to strengthen the provision of Consumer Protection Law guidance to SMEs, in 2006 the SMEA held a number of presentations and printed various handbooks and promotional literature. The aim of these activities was to encourage SMEs to improve the quality of their goods and services. The attendees reported that the presentations had given them a more in-depth understanding of the Consumer Protection Law; the overall level of satisfaction with the presentations exceeded 90%.

(2) Revision of the Consumer Protection Law Website, and Production of Promotional Materials

The first Consumer Protection Law Website went online in 2005. A revised website was introduced in 2006, with expanded content and improved visual design. The content of the website is being updated every month; it includes details of laws, regulations and rulings relating to consumer protection, listings of consumer protection presentations, sample contracts, and government announcements.

3. Enhancing the Overall Quality of Service Provided to SMEs

(1) Publication of the SMEA Services White Paper

To improve the quality of service provided by the SMEA, simplify operational procedures and expand the range of service provision, the SMEA publishes the *SMEA Services White Paper*. This bilingual publication is produced for the benefit of both SMEs and overseas readers. A total of 1,000 copies of the *White Paper* were printed in 2006; the content included information about the SMEA's service philosophy, the SMEA service team, the range of services that the SMEA provides, the SMEA's standard operating procedures, the revolutionary new methods now being used by the SMEA in its service provision, the SMEA's undertakings with regard to future service provision, and the SMEA's partner organizations that support its service provision.

(2) Publication of Making a Success of SME Upgrading and Transformation

In 2006, the SMEA invited a group of 20 leading academics and experts to visit 20 outstanding Taiwanese SMEs and to collaborate on the compilation of *Making a Success of SME Upgrading and Transformation*. The case studies were divided into five categories: management innovation, marketing innovation, R&D innovation, service innovation, and new business start-up. Written in narrative form, the book outlines the key factors that can enable SMEs to achieve success through innovation.

II Establishment of SME Start-up and Incubation Platforms

1. Providing Assistance for Technology Innovation and New Business Start-up

To strengthen the provision of guidance for encouraging innovation and R&D, and to assist with the establishment and development of new enterprises, in 1996 the SMEA began working with other government agencies, research institutes, universities and the private sector to develop strategies for SME incubation. As of 2006, there were 95 incubator centers in Taiwan, located in 22 different counties and cities. Of these 95 centers, 82 were receiving subsidies from the SME Development Fund. The incubator centers fell into the following four categories:

- (1) University incubator centers: A total of 73 incubator centers, of which 69 (31 public and 38 private) were in receipt of SME Development Fund subsidies.
- (2) Incubator centers with foundation status: A total of 10 incubator centers, of which 7

were in receipt of SME Development Fund subsidies.

- (3) Government-run incubator centers: A total of 8 incubator centers, of which 4 were in receipt of SME Development Fund subsidies.
- (4) Privately-run incubator centers: A total of 4 incubator centers, of which 2 were in receipt of SME Development Fund subsidies.

As of the end of December 2006, a total of 1,229 additional enterprises had “graduated” from the 73 incubator centers that were in receipt of funding support from the SME Development Fund, giving a cumulative total of 2,551 enterprises that have “graduated” from Taiwan’s incubator centers over the past 10 years. Incubator center stimulated investment totaling around NT\$5,336.27 million in 2006, with a cumulative total of over NT\$40 billion in investment over the past 10 years.

2. Building Up the Business Start-up Knowledge and Information Platform

(1) Provision of Business Start-up Consulting and Information Services

The SMEA has established business start-up consulting and service centers at 24 locations throughout Taiwan. A toll-free start-up consulting hotline has been established, and experts in various fields have been invited to serve as consultants, providing free one-to-one consulting services on a wide range of business start-up issues. In 2006, the centers provided initial consulting services on 9,674 occasions, representing an increase of 104 occasions compared to 2005. The SMEA has also set up a business start-up knowledge base that integrates the various resources available in this area, thereby helping to increase the likelihood of successful new business start-ups.

(2) The Start-up and Innovation Cultivation Institute

The Start-up and Innovation College offers both introductory and advanced courses for entrepreneurs. As of the end of 2006, training had been provided to a total of 3,231 start-up managers and entrepreneurs.

(3) The Entrepreneur Success Plan

In 2006, the resources of the SME Service Centers in individual counties and cities were used to establish 24 “Entrepreneur Success Plan Workshops,” with entrepreneurship consultants being attached to them to provide on-site guidance. A total of 729 entrepreneurs were accepted into the Entrepreneur Success Plan Workshops in

2006, of which 380 have completed the guidance process, and 232 have successfully established their own businesses, creating 1,285 new jobs; in all, NT\$1,104 million has been invested in these enterprises.

(4) The Holding of the New Enterprise Awards

101 enterprises registered to take part in the Fifth Annual New Enterprise Awards. Gold, silver and bronze medals were presented to a total of 12 enterprises in four categories—High Technology, Traditional Industries, Knowledge-based Service Industries, and Micro-enterprises.

3. Holding of SME Manpower Cultivation Courses to Help SMEs Develop Their Human Resources

The SME manpower cultivation courses organized by the SMEA in 2006 included SME Managerial Talent Cultivation courses, Discussion of Key Trends in SME Development, SME Managerial Leadership courses, and training courses for SME management consultants and guidance providers. The SMEA presents all trainees with a “lifelong learning passport” to encourage lifelong learning among SME personnel.

4. Active Participation in International SME Activities to Promote International Exchange and Collaboration

The achievements of Taiwan’s SMEs have won widespread international recognition, and Taiwan’s SME sector has been the object of intensive study in other countries. Active participation in the meetings and activities of international economic and trade organizations has helped to raise Taiwan’s international visibility, while also providing opportunities to share Taiwan’s experience in SME development with other nations, and to learn from them in turn. While promoting international exchange and business collaboration, these activities also help Taiwan’s SMEs to achieve sustainable development. The main aspects of Taiwan’s participation in international SME activities in 2006 are outlined below.

(1) The Holding of the APEC Local Cultural Industry Market Development Forum and Virtual Exposition

During the 21st APEC SME Working Group meeting held in 2005, Chinese Taipei’s Plan for Promoting Market Development by Local Industries Within the APEC Region won approval from the other APEC members, and the APEC Budget Committee agreed to provide part of the funding for the project. The APEC Local Cultural Industry

Market Development Forum and Virtual Exposition was held in Taipei on August 29 - 31, 2006.

The five key themes of the three-day Forum were as follows:

- a. The economic value of local cultural industries, and current trends in their development;
- b. The policy environment and local cultural industry market development;
- c. Market strategies for local cultural industries;
- d. Market trends as they affect micro-enterprises;
- e. Models of successful market development.

Some 150 scholars, experts and industry leaders attended the Forum, which featured 15 keynote speakers from 6 APEC member economies.

The APEC Local Cultural Industry Virtual Exposition involves the establishment of a virtual exhibition on the Internet. This virtual handicrafts exposition is a first both for APEC and for Taiwan. Participants include 14 APEC members and one observer. The exposition has been designed to showcase the handicrafts products of local cultural industries on the Internet, using photographs, pictures, text, animation and film clips. Each participating APEC member has its own virtual exhibition hall; the exhibits will remain on display for one year (the exposition can be found at www.alcive.tw). As of the end of 2006, a total of 3,500 handicraft product items were on display in the exposition, which had had more than 60,000 visitors from 114 different countries. The exposition website provided links to several hundred international websites. This exposition has given people all over the world the opportunity to view the handicraft products of APEC members' local cultural industries, creating new export opportunities for these industries.

(2) Attendance at the 13th APEC SME Ministerial Meeting

The 13th APEC SME Ministerial Meeting was held on September 28–29, 2006 in Hanoi, Vietnam. The delegation from Taiwan was led by Shih Yen-shiang, Administrative Deputy Minister of the Ministry of Economic Affairs, who presented a paper entitled “Building Up SMEs’ Trade and Investment Capabilities”, which introduced the measures adopted by the government to help SMEs develop international markets, undertake foreign trade, build up their product image and brands, grow exports and develop e-commerce, along with major investment projects in the SME field. Chinese Taipei secured the support of the other APEC members for its proposal to implement

the Plan for Promoting Market Development by Local Industries Within the APEC Region for a second year.

The ministers and other representatives attending the Ministerial Meeting praised Chinese Taipei's holding of the APEC Local Cultural Industry Market Development Forum and Virtual Exposition, which it was felt had made a positive contribution towards helping SMEs and micro-enterprises to develop overseas markets. Reference to the Forum and Virtual Exposition was made in Item 21 of the Ministerial Meeting Joint Statement.

(3) Attendance at the APEC Business Incubator Forum and APEC Conference on Supporting Local and Home-based Industries

Mr. Robert Lai, Director General of the SMEA, was invited to attend the APEC Business Incubator Forum and APEC Conference on Supporting Local and Home-based Industries that were held in Hanoi, Vietnam on September 21 – 23, 2007. Mr. Lau read reports on Taiwan's experience in the development of incubator centers, and the strategies used, and on the results achieved by Taiwan in the APEC project to promote the development of local cultural industries.

The SMEA also arranged for a 23-member delegation from Taiwan to attend the APEC Business Incubator Forum, to hold an SME products presentation, business matching fair and seminar, and to undertake visits to Vietnamese companies. The aim of these activities was to develop business opportunities and foster economic and trade collaboration; it is anticipated that the activities will have created business opportunities worth around US\$300,000.

(4) Attendance at the 7th Meeting of the APEC Sub-group on Micro-enterprises and the 23rd APEC SME Working Group Meeting

Mr. Johnny Yeh, Deputy Director General of the Small and Medium Enterprise Administration, led a delegation to attend the 7th Meeting of the APEC Sub-group on Micro-enterprises, held on September 25, 2006, and the 23rd APEC SME Working Group Meeting, held on September 26 – 27. Chinese Taipei proposed two projects: a proposal to implement the Plan for Promoting Market Development by Local Industries Within the APEC Region for a second year, and an APEC OVOP (One Village, One Product) online information and product display platform proposal. Both of these proposals won the approval of the other APEC members. It was agreed that APEC would provide part of the funding for the first of these projects.

(5) Attendance at Other International SME Activities

- a. The APEC Business Advisory Council meeting, held in Montreal on May 9 – 10, 2006;
- b. The 51st meeting of the International Council for Small Business (ICSB), held in Melbourne on June 18 – 21, 2006;
- c. The APEC Conference on Supporting Local and Home-based Industries, held in Hanoi on September 22 – 23, 2006;
- d. The APEC Innovation Center Leadership Cultivation Seminar, held in Seoul on November 7, 2006;
- e. The OECD Global Conference on Removing Barriers to SME Access to International Markets, held in Athens on November 5 – 8, 2006.

III Upgrading SMEs' IT Capabilities

The government has been working to build an e-enabled environment for the provision of services to SMEs, with the aim of enhancing the overall quality of service provision. The key measures implemented in 2006, and the results achieved, are outlined below.

1. Building an Environment Conducive to SME e-Commerce Development

In line with the Executive Yuan's national development strategy, the SMEA has been working to promote SME e-enablement, and helping SMEs to provide high-quality products and services and to strengthen their competitiveness. Working with specialist IT firms and industry associations the SMEA has completed the establishment of a number of online databases and has implemented various other activities to promote e-business adoption. The main achievements in 2006 were as follows:

- (1) Completion of 10 industry-specific online database systems, with the integration of over 1,000 items of data. For each of the industries in question, at least 100 SMEs were encouraged to implement e-commerce adoption.
- (2) Providing in-depth guidance for the operation of 8 industry-specific online database systems, with the integration of over 800 items of business data.
- (3) Implementation of industry–university sector collaboration to promote innovation in SME e-commerce activity.

(4) Helping the industry associations of export-oriented industries to integrate their marketing operations and promote international business.

2. Upgrading SMEs' Quality Management Capabilities

In 2006, the SMEA's activities in this area focused on providing guidance for industry cluster formation, offering guidance to help SMEs in the car parts industry to secure TS16959 and other types of international certification, and providing guidance for securing "green supply chain" ISO14001 and QC080000 standards certification. The SMEA also provided a range of quality consulting, diagnostics and guidance services, along with manpower cultivation assistance.

3. Establishment of the SME e-Enablement Service Team

The SMEA has established the SME e-Enablement Service Team to help SMEs to e-enable their operations and to strengthen their IT capabilities. In July 2006, industry-specific sub-teams were created within the SME e-Enablement Service Team to achieve the objectives of providing guidance to industry clusters and deepening the utilization of model companies. At the same time, the SMEA has been encouraging application service providers to participate in SME e-enablement promotion, so as to strengthen the supply-side capabilities in this area.

The biggest transformation in the activities of the SME e-Enablement Service Team in 2006 as compared to 2005 was the new focus on providing e-enablement services to industry clusters, so that e-enablement could be replicated on a larger scale. Besides vertical and horizontal integration within the same industry, cross-industry alliances are also being leveraged for the purpose of providing group guidance to help SMEs e-enable their operations and get maximum benefit from this e-enablement.

4. Development of the ESMENET Website

ESMENET was developed as one of the e-government initiatives under the Challenge 2008 National Development Plan, with implementation taking place over the five-year period from 2003–2007. The ESMENET portal site (<http://sme.nat.gov.tw>) was established to integrate SME information services, creating an easy-to-use platform for business service provision and for the exchange and sharing of relevant information. ESMENET gives SMEs ready access to timely, useful business information that can be used to create value for the enterprise. The main work items implemented in 2006 and the results achieved are outlined below:

- (1) Basic portal site system establishment was completed over the period 2003–2005, so in 2006 the emphasis shifted to the provision of value-added information and to promotion. While continuing to maintain and expand the hardware and application systems that were established during the period 2003 – 2005, efforts have also been made to improve the overall functionality of the site, and to provide SMEs with a wider range of information and services. The year 2006 saw the establishment of new template systems to integrate the website resources relating to the various different projects that the SMEA has been commissioned to implement, along with planning work for the creation of an e-paper and a new service system to facilitate SME registration to participate in activities organized by the SMEA. The goal has been to both increase the depth of the content provided and to enhance overall service capabilities.
- (2) New services added to ESMENET in 2006 included e-paper, activity registration, customer relationship management, and usage analysis capabilities. ESMENET now provides industry analysis reports, FAQs that cover some of the SMEs' most common questions, standard forms for enterprises to download, and a wide range of business information. The website resources of the 17 individual projects currently being implemented by the SMEA have also been integrated with ESMENET.
- (3) SMEA personnel visited 10 industry associations to find out what their needs were with respect to ESMENET. More than 20,000 individual items of information were added to the ESMENET portal site, along with various analytical reports. The site received over 1.6 million visitors in 2006.

5. Implementation of the Plan to Reduce the Digital Divide between Industries

The implementation of the Plan to Reduce the Digital Divide Between Industries constitutes one of the most important elements in the Executive Yuan's strategy for the provision of guidance to SMEs. This Plan is one of the three major sub-plans making up the Executive Yuan's Action Plan to Reduce the Digital Divide. During the three-year period from 2005 to 2007, the emphasis is being placed on helping enterprises to strengthen their basic digital capabilities and on helping them to make effective use of information technology to secure new business opportunities. Guidance provision has targeted small enterprises and start-ups, particularly enterprises in traditional industries with 20 or fewer employees. So far, 16,000 enterprises have been encouraged to upgrade to broadband Internet access, and 53,000 additional enterprises

have adopted e-commerce; these efforts have stimulated the creation of more than NT\$1.64 billion worth of business opportunities for the information services industry.

One new initiative in 2006 that was implemented with a view to strengthening the provision of e-commerce guidance to SMEs in regions where the digital divide is particularly severe was the creation of a Female-owned Business e-Enablement Service Team. Of the 20,000 enterprises that were encouraged to adopt e-commerce in 2006, approximately 7,000 had been established by female entrepreneurs. Getting SMEs to adopt e-commerce can produce a significant multiplier effect in terms of the business opportunities created. In addition, several promotional activities were implemented in areas where the digital divide is particularly severe, such as outlying islands. These activities have been integrated with the Plan to Reduce the Digital Divide Between Urban and Rural Areas in order to maximize the results achieved.

IV Strengthening the SME Management Guidance Function

The SMEA has been working to help SMEs improve their operational management capabilities, promote collaboration among SMEs, and ensure that useful lessons from model SMEs can be diffused as widely as possible.

1. Helping SMEs to Strengthen Their Operational Capabilities

The SMEA's efforts to help SMEs enhance their managerial capabilities include the provision of guidance with respect to business strategy, market positioning and the adoption of up-to-date commercial business practices, with the overall goal of improving enterprise competitiveness. The main work items implemented in 2006 and the results achieved are outlined below:

- (1) Provision of short managerial diagnostics programs for 109 SMEs and individual guidance for 10 SMEs.
- (2) The holding of 30 Taiwan Innovation and Entrepreneurship Forum courses.
- (3) The holding of a new technologies and new products business fair.
- (4) The holding of four presentations to introduce new management concepts.
- (5) Providing guidance to stimulate turnkey factory equipment exports in the papermaking, flour-making and fish-food industries.
- (6) Helping companies engaged in the exportation of plastic seating and food product

turnkey factory equipment to secure long-term financing.

- (7) The holding of three innovative technology and investment business matching fairs.
- (8) Helping 10 SMEs to secure guidance and subsidies from government agencies.
- (9) Assisting three SMEs with the preparation of business expansion plans.
- (10) Providing guidance to help six SMEs adopt intellectual property management systems.
- (11) Providing branded marketing guidance for SMEs, including the provision of assistance to enable a total of 16 SMEs to develop two joint brands: Anko and Haohsing.

2. Promotion of Mutual Assistance and Collaboration among SMEs to Create Synergy

Collaboration between enterprises that can complement one another (in terms of the resources that they possess) has the potential to create significant economies of scale. Such collaboration can help to strengthen not only the quality of internal operations but also competitiveness vis-à-vis external competitors. The main work items implemented in this area in 2006, and the results achieved, were as follows:

- (1) The holding of 48 collaboration and exchange fairs, the implementation of 5 practical collaboration projects, and the registration of 1,435 enterprises for collaboration purposes.
- (2) Approximately 10 applications a month were received for the provision of guidance and consulting services.
- (3) Guidance visits to enterprises were made on 42 occasions, including 16 mid-term and final visits.

3. Establishment of Sustainable Mechanisms to Promote the Development of Local Cultural Industries

The main objective of this initiative is to further the development of local cultural industries, strengthen the competitiveness of their products in the marketplace, and integrate the implementation of the various projects for stimulating local cultural industry development. The “One Town, One Product” website (<http://www.otop.tw>) provides the basic platform for this initiative. By facilitating the establishment of distribution channels and the development of international markets, this initiative is

helping to promote the growth of local products and revitalize local economies. The main results achieved in 2006 were as follows:

- (1) Integration of the One Town, One Product (OTOP) website with new technology. Planning was undertaken to enable users of the site to access local cultural industry data and services (including text, graphics and video) using 3G handsets, PDAs, and GPS devices.
- (2) The number of OTOP members grew six-fold compared to 2005, rising to around 25,000. The number of page views also grew six-fold, rising to 2.53 million for the whole year; the number of visitors to the site increased four-fold, to 240,000. The number of individual items of data held on the site rose by 150% to 2,097 items. 20 issues of the *Local Cultural Industry Newsletter* were published, along with 40 issues of *Local Cultural Industry Expert* and 3 issues of the *Local Cultural Industry Quarterly*.
- (3) Five local cultural industry internationalization guidance projects were implemented in 2006, along with 11 community industry development projects. The Local Cultural Industry Database received 1,000 page views. A total of 25 OTOP presentations were held in counties and cities throughout Taiwan; these presentations made a significant contribution towards stimulating the growth of local cultural industries.

4. Provision of Guidance for Local Cultural Industries and Community Enterprises

Local cultural industries constitute an important foundation for the provision of assistance to SMEs by the SMEA. The SMEA's planning for local cultural industry and community enterprise guidance emphasizes leveraging the concept of the knowledge economy to create new types of high-value-added business clusters. The provision of guidance for local cultural industries began back in 1989, while the provision of guidance for community enterprises commenced in 1994. The overall strategy for the provision of guidance to local cultural industries and community enterprises involves focusing on a single township or district, using a comprehensive range of guidance measures to achieve effective integration of local industry, creating linkages to build synergy and support the growth of a prosperous local economy.

5. Helping SMEs to Participate in Government Purchasing

The SMEA implemented two projects in 2006 to facilitate SME participation in

government purchasing: the SME Government Purchasing Service Center project, and a plan to undertake statistical analysis of SMEs' share of government purchasing. The implementation results were as follows:

- (1) 10 lectures on the government purchasing system were held in 2006, with a total of 574 participants.
- (2) 396 inquiries relating to government purchasing were handled by the SMEA.
- (3) Four government purchasing seminars were held (with the participation of legal experts) to assist SMEs with the resolution of disputes relating to government purchasing issues.
- (4) 1,000 copies of the 2006 edition of the brochure *Handbook for SME Participation in Government Purchasing* were printed.
- (5) Statistics indicate that 32% of government purchasing opportunities in 2005 went to SMEs.

New functions added to the government purchasing information website in 2006 included English language service, online registration, and bi-directional interaction capability.

6. Enhancing the Functionality of the SME Service Network

The SMEA has been working to strengthen the functions of the SME Service Centers located in each of Taiwan's 24 counties and cities, and of the 47 Industrial Development and Investment Promotion Committee SME Service Centers, while also continuing with the implementation of the "honorary SME guidance personnel" system (honorary SME guidance personnel provide consulting services to SMEs and help them to solve their problems).

- (1) In 2006, the SMEA provided assistance and consulting services (including coordination, guidance referral and the assignment of consultants to work with SMEs) to SMEs on 72,754 occasions.
- (2) Study tours, lectures and seminars were held on 1,268 occasions, with a total of 90,151 people participating. 15,775 took part in visits to model enterprises. In all, there were 2,371,859 instances of information service provision and 271,836 instances of consulting service provision.

7. Holding of SME Awards to Encourage Aggressive Business Development

The SMEA organizes a number of annual award activities. Commendation activities were all completed successfully. A brief overview of each award activity in 2006 is given below:

(1) The 15th National Award for Small and Medium Enterprises

The National Award for Small and Medium Enterprises was established to encourage SMEs to upgrade themselves, by selecting for public commendation those SMEs that had achieved impressive performance across the board, and that had also made a meaningful contribution to society.

A total of seven SMEs received awards in the 15th National Award for Small and Medium Enterprises, the awards ceremony for which was held on October 26, 2006. The winning firms included manufacturers of computer heat dissipation equipment, monitoring systems, power supply switches, and furniture, along with a company from the biomedical services industry.

Since the National Award for Small and Medium Enterprises was first held in 1992, a total of 164 SMEs have been honored. The Ministry of Economic Affairs hopes that the Award can serve to showcase the excellent performance of Taiwan's SMEs and provide encouragement for SMEs throughout the country, thereby helping to inject new vitality into the economy.

To ensure that the knowledge and experience accumulated by the award-winning enterprises can be passed on to others, exhibitions are held every year to showcase the achievements of the award-winners. Four exhibitions of this type were held in 2006.

(2) The 9th Little Giant Awards

The purpose of the Little Giant Awards is to honor those SMEs that have achieved particularly impressive export performance, by focusing on SMEs that have succeeded in developing international markets while keeping their main production facilities in Taiwan. To be eligible, SMEs must have built up a high level of international competitiveness and display sound operational management. The Awards constitute recognition of the contribution that these enterprises have made to Taiwan's foreign trade and economic development.

A total of 11 SMEs received awards at the 9th Little Giant Awards, the awards

ceremony for which was held on August 31, 2006. Towards the end of the year, a conference was held at which the award-winners were able to share their experiences with other firms.

Since the Little Giant Awards were first held in 1992, a total of 171 enterprises have received the awards.

(3) The 13th Small and Medium Enterprise Innovation Research Awards

To encourage SMEs to undertake innovation and R&D activity on an ongoing basis over the long term, to upgrade their R&D capabilities and invest in innovation, thereby enhancing overall enterprise competitiveness, the SMEA holds the Small and Medium Enterprise Innovation Research Awards.

In 2006, a total of 139 enterprises entered for the 13th Small and Medium Enterprise Innovation Research Awards, of which 22 enterprises were selected to receive awards. Each award-winner received NT\$300,000 in prize money. The Awards have played an important role in encouraging SMEs to undertake ongoing R&D and innovation activity, and to develop knowledge-oriented core technology that can provide a foundation for enterprise competitiveness.

Since the establishment of the Small and Medium Enterprise Innovation Research Awards in 1993, a total of 503 SMEs and their innovative products have been honored. The winning companies' products and services benefit from the increased media exposure, the publication of award-related materials and assistance with advertising; they also have the opportunity to participate in various exhibitions and technology matching fairs, helping them to leverage their award-winning products to develop new business opportunities.

(4) The 11th Golden Book Awards

The purpose of the Golden Book Awards is to encourage the writing, translation and publication of more books that will be of practical use to SMEs, thereby encouraging SME owners and employees to read more and helping SMEs to meet the new challenges of the future.

Of the 208 books from 35 different publishers that were entered in the 2006 Golden Book Awards, 14 books, 10 publishers and 29 individual authors were chosen to receive prizes. The awards ceremony was held on November 7, 2006.

The award-winning books included books about the business environment,

strategic management, organizational and human resources management, e-business and e-commerce, marketing management and financial management, along with biographies of successful businesspeople. In the 11 years since the Awards were first held in 1995, a total of 155 books have been honored.

(5) The 11th SME Studies Masters and Ph.D. Thesis Awards

A total of 329 candidates (including 301 Masters candidates and 28 Doctoral candidates) participated in the 11th SME Studies Masters and Ph.D. Thesis Awards. After intensive scrutiny, including qualification review, written evaluation and oral presentations, a total of 14 theses were selected to receive awards; these included 10 Masters and 4 Doctoral theses.

In the 11 years since the SME Studies Masters and Ph.D. Thesis Awards were first held, a total of 160 Masters candidates, 54 Doctoral candidates, and their supervisors have been honored. The Awards have helped to stimulate research in the field of SME studies, and have encouraged graduate students to take an interest in the SME field and to view the idea of working in an SME more favorably. The Awards have thus made an important contribution towards bringing new blood and new managerial concepts into the SME sector.

Abstracts of the winning books in the Golden Book Awards and the winning theses in the SME Studies Masters and Ph.D. Thesis Awards can be accessed on the SMEA website (<http://www.moeasmea.gov.tw>), for the benefit of both universities and SMEs.

(6) Radio Programs for SMEs

The SMEA has arranged for an SME information radio program (which introduces the government's SME policy and guidance measures and the results achieved) to be broadcast on the Broadcasting Corporation of China (BCC) news station. The content of the program, which is on at 9:30 – 10:00 p.m. every evening from Monday to Friday, includes information on SME guidance, explanations of government policy, descriptions of financing guidance resources, and opportunities for SMEs to share their experiences, etc. A total of 196 programs were broadcast in 2006.

V Integration of SME Financing Mechanisms

1. Promoting the Use of SMEs' Intellectual Property Rights for Financing Purposes

The main emphasis in the government's efforts to promote the use of SME intellectual property rights for financing purposes is on ensuring the ready availability of information regarding intellectual property rights financing, while working to improve the ability of financial institutions to read and understand intellectual property rights financing reports, thereby helping SMEs to obtain the working capital they need. The main work items undertaken in 2006, and the results achieved, were as follows:

- (1) The SMEA arranged for academics and experts to provide intellectual property management and financing diagnostics and guidance service to 57 SMEs. In all, information and consulting services were provided on a total of 395 occasions.
- (2) To further the diffusion of information regarding intellectual property rights financing, a total of 13 intellectual property rights financing presentations were held for financial institutions and SMEs; 626 individuals attended these presentations.
- (3) Extensive use has been made of both print and electronic media to publicize the concept of intellectual property financing.
- (4) Intellectual property financing training courses were arranged for six financial institutions. In addition, three intellectual property rights financing conferences, and three intellectual property rights financing presentations were given to senior managers of financial institutions.
- (5) By leveraging the resources of the SME Credit Guarantee Fund, intellectual property credit guarantees were provided for 10 SMEs, making it possible for these SMEs to use their intellectual property to secure financing totaling NT\$232 million.
- (6) The SMEA has improved the functionality of the SME intellectual property rights financing matching network platform, which provides investment- and technology-related news and information.

2. Helping SMEs to Strengthen Their Financial Structure

In order to strengthen SMEs' financial structure and facilitate the securing of financing by SMEs, in 2006 the SMEA continued to implement a range of financing guidance

services for SMEs to help ensure that SMEs have access to the working capital they need.

By comparison with 2005, the total amount of financing that the SMEA helped SMEs to secure rose by over NT\$330 million. The SMEA provided short-term diagnostic and guidance service to 260 SMEs in 2006. The number of enterprises receiving short-term financing diagnostics guidance rose by 150; telephone consulting service was provided on 4,600 occasions.

3. Helping SMEs to Secure Loans through the Provision of Credit Guarantees

The SMEs' small size, limited earning ability, lack of collateral and frequently unsound accounting systems make it difficult for them to secure financing from financial institutions. Over time, this problem has become more and more pronounced; as a result, the provision of guidance for SMEs in this area has become one of the main priorities in the government's SME policy.

In 1974, the government provided funding support to establish the SME Credit Guarantee Fund (which is today the longest-established of the specialist SME guidance providers), the first specialist credit guarantee institution to be set up in Taiwan. The credit guarantee provided by the Fund can increase financial institutions' willingness to lend to SMEs, and collaborate with other guidance providing agencies to ensure that the government's guidance efforts had maximum effect.

In January 2004, the Executive Yuan finalized the SME Credit Guarantee Development Fund Transformation and Development Plan. The main elements in the transformation strategy were to establish a direct credit guarantee mechanism, promote the adoption of a new enterprise appraisal system, develop a range of innovative new credit guarantee services, strengthen the financial underpinnings of the SME Credit Guarantee Fund, and improve the efficiency of service provision. The overall goal was to create a financially sound SME Credit Guarantee Fund with strong credit guarantee capabilities.

(1) Operation of the SME Credit Guarantee Fund

a. Bridge Function

The main role of the SME Credit Guarantee Fund is to serve as a bridge between banks and SMEs. By providing credit guarantees for those SMEs that lack sufficient collateral

of their own, the Fund helps SMEs to secure the financing they need. As of the end of December 2006, the Fund had provided a cumulative total of 3,131,377 credit guarantees, with a combined value of NT\$3,653.9 billion, which enabled SMEs to secure financing worth NT\$5,356.8 billion. Overall, the SME Credit Guarantee Fund has made a major contribution towards helping Taiwan's SMEs to grow strong and stand on their own feet, which in turn has had a significant positive impact on the economy as whole. The number and combined value of credit guarantees provided over the past five years is shown in Table 10-5-1 below.

Table 10-5-1 The Number of Credit Guarantees Provided by the SME Credit Guarantee Fund and the Combined Value of the Guarantees, 2001 – 2006

Year	Item	Cumulative Number of SMEs in Receipt of Credit Guarantees	Number of Credit Guarantee Applications Accepted	Combined Value of Credit Guarantees (NT\$ millions)	Total Amount of Financing Secured (NT\$ millions)
2001		144,402	149,610	147,804	233,913
2002		162,293	160,123	151,028	250,977
2003		187,517	199,783	205,179	347,852
2004		216,964	265,137	315,449	516,775
2005		243,325	271,401	333,020	538,947
2006		262,441	261,824	319,604	530,459
Cumulative total (as of 2006)			3,131,377	3,653,921	5,356,840

Source: SME Credit Guarantee Fund.

b. Providing Easier Access to the Fund's Services

The SME Credit Guarantee Fund has signed agreements with 42 domestic financial institutions whereby these institutions agree to handle SME credit guarantee business. These agreements make it possible for SMEs to access SME credit guarantees and secure financing via any one of nearly 2,800 bank branches throughout Taiwan. The contracting out of the SME credit guarantee provision has also enabled the SME Credit Guarantee Fund to streamline its organizational structure, and to extend its reach into every corner of Taiwan.

c. Staged Assistance

The vast majority of the enterprises that receive SME credit guarantees eventually grow strong enough to be able to raise funds through the capital markets or secure loans from banks directly without the need for further credit guarantees. What this means in practice is that the SME Credit Guarantee Fund provides credit guarantees at the point in time when financial risk is at its greatest; once the enterprise has grown strong, the

process of providing finance provision can be left to the banks.

d. Small Enterprises Are the Main Recipients of SME Credit Guarantees

According to statistics compiled by the SME Credit Guarantee Fund, as of the end of 2006, 71.97% of the SMEs in receipt of SME credit guarantees had been granted guarantees of less than NT\$2 million, 88.12% had been granted guarantees of less than NT\$5 million, and 94.79% had been granted guarantees of less than NT\$10 million. Of the SMEs in receipt of SME credit guarantees, 97.27% had capitalization of less than NT\$30 million. It can thus be seen that small enterprises are the main recipients of SME credit guarantees.

(2) Expanding the Range of Credit Guarantee Services Provided in Line with Government Policy

Besides regular SME credit guarantee service, the SME Credit Guarantee Fund also collaborates in regard to the provision of various other types of credit guarantee service in line with government policy requirements. They are listed as follows:

- a. Credit guarantees for Young Entrepreneur Loans, since October 1986;
- b. Credit guarantees for Brand Development Loans, since October 1990. In December 2006, in line with the goals of the Ministry of Economic Affairs' Branding Taiwan project, the Fund raised the maximum size of Brand Development Loan credit guarantees to NT\$200 million. Credit guarantees for Brand Development Loans are available to large enterprises as well as SMEs;
- c. Credit guarantees for Earthquake Reconstruction Loans. Besides collaborating in the provision of credit guarantees for enterprises affected by the severe earthquakes that hit Taiwan on September 21, 1999 and October 22, 1999, since June 2001 the SME Credit Guarantee Fund has also been providing credit guarantees for Earthquake Reconstruction Loans;
- d. Credit Guarantees for Micro-enterprise Start-up Loans, since January 2003;
- e. Credit Guarantees for R&D Loans for Industrial Upgrading, since January 2003;
- f. Credit Guarantees for R&D Environment Construction Loans, since October 2005;
- g. Credit Guarantees for Digital Content Industry and Cultural and Creative Industry Development Loans, since October 2004;
- h. Credit Guarantees for Labor Insurance Pension Fund Loans, since July 1, 2005;

- i. Credit Guarantees for Loans to Help Taiwanese Enterprises Fight International Patent Lawsuits, since July 1, 2005;
- j. Credit Guarantees for Loans to Help Taiwanese SMEs Invest in Countries That Have Formal Diplomatic Relations with Taiwan, since January 2006;
- k. Credit Guarantees for Disaster Recovery Loans, since May 2006;
- l. Credit Guarantees for Micro-enterprise and SME Owners Affected by Credit Card Debt, since June 2006.

(3) Development of Innovative New Services by the SME Credit Guarantee Fund

Over the years, the SME Credit Guarantee Fund has been vigorous in the implementation of credit guarantee services in accordance with the government's SME guidance policy. In the last few years, the Fund has introduced a range of innovative new services in line with the changes in the financial environment and in customer needs.

- a. Direct credit guarantees: In line with government policy regarding industrial development and the strengthening of SME financing, SMEs with significant R&D, operational or market development potential may now apply directly to the SME Credit Guarantee Fund for credit guarantees, which they can then use to secure financing from financial institutions;
- b. Credit guarantees for knowledge economy enterprise financing: In line with the new requirements of the knowledge economy era, the SME Credit Guarantee Fund provides credit guarantees to help knowledge economy enterprises that have significant development potential to secure the financing they need;
- c. Batch-type credit guarantees: The SME Credit Guarantee Fund has begun to apply the gross credit risk control method to credit guarantee provision;
- d. Credit guarantees for Mutual Guarantee Project Loans: Since March 2006, the SME Credit Guarantee Fund has been providing credit guarantees to help enterprises recommended by companies that have donated to the Mutual Guarantee Fund (enterprises that may include their suppliers, customers, associate companies, distributors or franchisees) to secure financing.

(4) The Results Achieved Through the Provision of Credit Guarantees by the SME Credit Guarantee Fund

In 2006, the SME Credit Guarantee Fund provided 261,824 credit guarantees with a combined value of NT\$319.6 billion, helping over 150,000 enterprises to secure financing worth NT\$530.5 billion. 257,806 of the credit guarantees were not supported by special project funds; these guarantees had a combined value of NT\$308.6 billion, and helped SMEs to secure financing worth NT\$513.9 billion from financial institutions. As of the end of 2006, the total amount of outstanding credit guarantees was NT\$380.8 billion, representing an increase of 7.78% compared with the end of 2005; the amount of loans outstanding stood at NT\$581.1 billion, representing an increase of 7.08% over the end of 2005. The number and value of the various types of credit guarantees as of the end of 2006 are shown in Table 10-5-2 below.

Table 10-5-2 The Cumulative Number of Cases and Value of Individual Types of Credit Guarantee as of the End of 2006

Type of Credit Guarantee	Cumulative Case of Guarantees Provided	Cumulative Value of Guarantees Provided (NT\$ millions)
Credit guarantees for Young Entrepreneur Loans	11,965	8,620
Credit guarantees for Brand Development Loans	96	2,165
Credit guarantees for Traditional Industry Loans	38,409	140,061
Credit guarantees for Digital Content Industry and Cultural and Creative Industry Development Loans	105	913
Credit guarantees for Earthquake Reconstruction Loans	338	2,092
Credit guarantees for Micro-enterprise Start-up Loans	7,678	6,391
Credit guarantees for R&D Loans for Industrial Upgrading	223	2,975
Credit guarantees for R&D Environment Construction Loans	5	70
Credit guarantees for Loans to Help Taiwanese Enterprises Fight International Patent Lawsuits	7	136
Credit guarantees for Disaster Recovery Loans	1	5
Direct Credit Guarantees	232	1,817
Credit Guarantees for Knowledge Economy Enterprise Financing	83	583
Batch-type Credit Guarantees	52,185	175,139
Credit Guarantees for Mutual Guarantee Project Loans	41	51

Source: Small and Medium Enterprise Administration, Ministry of Economic Affairs.

There is good evidence to show that the availability of credit guarantees helps SMEs to grow stronger. Of the 164 SMEs that have won the National Award of Small and Medium Enterprises over the years, 124 had previously been recipients of credit guarantees from the SME Credit Guarantee Fund; the same was true of 123 of the 171 winners of the Little Giant Award, 312 out of 503 winners of the Small and Medium Enterprise Innovation Research Award, and 7 out of 10 winners of the National Quality Award. Furthermore, more than 2,000 of the SMEs that have been granted credit

guarantees in the past have since grown sufficiently large to be classed as “large enterprises” rather than SMEs, 518 have secured stock market or OTC listing.

(5) The Delinquent Ratio of the SME Credit Guarantee Fund Needs to be Further Controlled

As the SME Credit Guarantee Fund provides credit guarantees that enable SMEs to secure loans without collateral, the level of risk is inherently rather high. In the last few years, the Fund has had to collaborate with government initiatives to expand the scale of credit guarantee provision; this, coupled with the changes in the overall economic and financial environment which have caused banks’ delinquent loan ratios to rise, has resulted in a further increase in the level of risk that the Fund has to bear. The delinquent loan ratio for loans obtained using credit guarantees provided by the SME Credit Guarantee Fund rose from 4.61% in 2005 to 5.71% in 2006 (Table 10-5-3). The Fund has adopted a variety of risk control measures to try to keep the delinquent loan ratio below a reasonable level.

Table 10-5-3 Delinquent Loan Ratios for Loans Obtained through Credit Guarantees, 1975 – 2006

Unit: %

Year	Ratio of New Delinquent Loans	Year	Ratio of New Delinquent Loans
1975	14.79	1992	2.87
1976	4.21	1993	4.51
1977	2.68	1994	4.42
1978	1.64	1995	6.13
1979	2.00	1996	6.48
1980	1.06	1997	4.83
1981	1.34	1998	5.41
1982	2.98	1999	5.97
1983	3.46	2000	4.92
1984	3.05	2001	7.25
1985	6.06	2002	4.97
1986	3.64	2003	2.75
1987	2.77	2004	2.76
1988	2.01	2005	4.61
1989	2.32	2006	5.71
1990	3.30	Average (1975 – 2006)	4.17
1991	2.46		

Notes: 1. The ratio of new delinquent loans = the amount of new delinquent loans/ the total amount of loans that come due.

2. The SME Credit Guarantee Fund classifies as delinquent loans those that have not yet been repaid two months after becoming due; this is different from the method used by most banks, which classify as delinquent those loans that have not yet been repaid three months after becoming due. The basis for calculation of delinquent loans that is used by the Fund is thus different from that used by the banks.

Source: SME Credit Guarantee Fund.

VI The Resources Allocated by the Government for SME Development

To support SME development, the government provides resources in the form of guidance, project loans, awards etc. every year. The SME Development Statute clearly stipulates that the *White Paper on Small and Medium Enterprises in Taiwan* should describe all of the resources available for promoting SME development, and since 2001 the *White Paper* has included a section outlining these resources. However, the SME Development Statute provision in question does not clearly define the scope of “resources allocated for SME development.” For the purposes of this section, with the exception of government purchasing of goods, construction work or services from SMEs, all other resources – such as government resources allocated for SME guidance or for the provision of project loans to SMEs – are limited to resources provided by agencies at the central government level. The data presented in this section are based on the actual amounts spent. In all, government resources allocated for SME development in 2006 amounted to NT\$735,383 million (including donations to the SME Credit Guarantee Fund). The items that made up this total are described below.

1. Government Purchasing from SMEs–NT\$704,359 million

Tender award statistics from the Government Procurement Information System show that, in 2006, total government purchasing from SMEs (regardless of whether the SMEs were being used as contractors or sub-contractors) came to NT\$704,359 million, down from NT\$726,471 million in 2005. However, the share of total government procurement going to SMEs (whether as contractors or subcontractors) rose slightly from 74.18% in 2005 to 74.69% in 2006. As the Government Procurement Information System covers all levels of government, these procurement data include both central government and local government purchasing.

2. Government Spending on the Provision of Guidance to SMEs–NT\$35,018 million

Previously, the statistics for government resources allocated to SME guidance used by the SMEA covered only the Eleven Major Guidance Systems established by the SMEA in concert with other Ministry of Economic Affairs agencies, and the manpower cultivation funding provided by the Council of Labor Affairs. However, since 2005 the government’s contribution to the SME Credit Guarantee Fund has also been included. Table 10-6-1 shows the settled account of expenditures for each of the agencies

concerned in 2006. The grand total comes to NT\$35,018 million, of which NT\$21,263 million (60.72% of the total) was applied to SME guidance. The agencies involved in the Eleven Major Guidance Systems include the SMEA itself, the Industrial Development Bureau, the Bureau of Foreign Trade, the Commerce Department, the Department of Industrial Technology, and the Industrial Development and Investment Center. In 2006, the Department of Industrial Technology made the single largest contribution to SME guidance, at NT\$8.1 billion, followed by the Bureau of Foreign Trade with NT\$2.9 billion and the Industrial Development Bureau with NT\$2.7 billion. Besides allocating NT\$1.4 billion for SME guidance, the SMEA also made a contribution of NT\$5.5 billion to the SME Credit Guarantee Fund in 2006; all of this expenditure falls under the category of SME financing guidance.

Table 10-6-1 Resources Allocated to SME Guidance by the Ministry of Economic Affairs

Units: NT\$ thousand; %

Agency	Annual Amount	Settled Account of Expenditures (2006)	Total Expenditure on SME Guidance
Small and Medium Enterprise Administration (including the SME Development Fund)		6,921,132	6,921,132 (100.00)
Industrial Development Bureau (industrial technology guidance and the Industrial District Development Fund)		4,461,981	2,721,320 (60.99)
Bureau of Foreign Trade (overseas marketing guidance and the Trade Promotion Fund)		3,448,787	2,928,711 (84.92)
Commerce Department (promoting the modernization of commercial operations and the development of relevant technology)		1,447,564	493,251 (34.07)
Department of Industrial Technology		18,561,394	8,124,954 (43.77)
Industrial Development and Investment Center (overseas investment guidance and overseas hi-tech talent recruitment)		176,736	73,458 (41.56)
Total		35,017,594	21,262,826 (60.72)

Notes: 1. Figures in parentheses are the percentage of the total settled account of expenditures for the agency in question.

2. The SMEA's expenditure includes a contribution of NT\$5.5 billion made to the SME Credit Guarantee Fund.

Source: Respective agencies.

Agencies whose share of total spending on the provision of guidance to SMEs rose in 2006 included the SMEA, the Industrial Development Bureau, the Bureau of Foreign Trade, the Commerce Department, the Department of Industrial Technology and the Industrial Development and Investment Center. The largest increases were in the shares held by the Bureau of Foreign Trade and the Industrial Development Bureau, which rose by 19.41% and 15.65%, respectively. The main reasons for these increases were the increase in the amount of funding allocated by the Bureau of Foreign Trade for its

brand development initiative, which indirectly caused the amount of funding allocated to SME guidance to increase, and a direct increase in SME guidance funding by the Industrial Development Bureau.

As regards investment in manpower resources, the Council of Labor Affairs allocated around NT\$162 million for SME manpower cultivation in 2006. Total government spending on SME cultivation in 2006 was therefore approximately NT\$21,424 million.

3. SME Project Financing Loans Totaled Approximately NT\$9.6 billion

The government provides six types of project financing loans that target SMEs: SME Upgrading Loans, Young Entrepreneur Loans, SME Development Fund Project Loans, SME Root Establishment Project Loans, Loans for Indigenous People, and Micro-enterprise Start-up Loans. As the Agricultural Machinery Loans provided by the Agricultural Development Fund are available only to farmers and fishermen, they have been omitted from the list this year. Total government spending on SME project financing loans in 2006 was approximately NT\$9.6 billion (Table 10-6-2).

Table 10-6-2 Government Spending on SME Project Financing Loans in 2006

Unit: NT\$ millions

Loan Type	Targets	Funding Sources	Amount	
			Total Loan Amount	Government Expenditure
SME Upgrading Loans	SMEs	The Executive Yuan Development Fund provides one quarter of the funds for each loan, with the remaining three quarters being provided by banks.	78.39	19.60
Young Entrepreneur Loans	Young entrepreneurs aged 20 – 45 who are starting their first business.	The Sino-American Fund for Economic and Social Development provides half of the funds for each loan, with the other half being provided by banks.	17.25	8.63
SME Development Fund Project Loans	SMEs	The SME Development Fund provides all funding.	2.89	2.89
SME Root Establishment Project Loans	SMEs	The Council for Economic Planning and Development provides funding support from medium- and long-term funds.	62.49	62.49

**Table 10-6-2 Government Spending on SME Project Financing Loans in 2006
(continued)**

Unit: NT\$ millions

Loan Type	Targets	Funding Sources	Amount	
			Total Loan Amount	Government Expenditure
Loans for Indigenous People	Indigenous people	Council for Indigenous people	1.08	1.08
Micro-enterprise Start-up Loans	Enterprises established by the middle-aged or elderly unemployed (aged 45–65) that have been in existence for less than one year.	The Council of Labor Affairs makes up the interest differential.	11.11	1.31
Total			173.21	96.00

Source: Respective agencies.

Chapter 11

The Perspective of SME Policy in Taiwan

Over the last few years, with the rapid growth of the knowledge economy throughout the world and the amazing progress that has been made in information technology, Taiwan's SMEs have found themselves operating in a business environment that is significantly more challenging than in the past. Given the changes that are taking place in the business environment, there is a clear need for the Taiwanese government to adjust and revise its SME guidance policy and development strategies in line with the new requirements of globalized logistics management and localization, while maintaining the underlying vision of building Taiwan into a first-class environment for SME growth and development. In this way, the government will be able to help Taiwan's SMEs to build the innovation capabilities they need and create value-added, thereby achieving long-term, sustainable growth, revitalizing the Taiwanese economy as a whole, and contributing to the maintenance of social stability.

This chapter will examine the changes taking place in the business environment and in Taiwan's industrial structure, and will consider how the government's SME guidance policy may evolve in the future.

1. Creating a First-rate Environment for the Sustainable Development of SMEs

(1) Building a New Policy Formulation System, and Upgrading the Government's Strategic Planning Capabilities

During the process of democratization and liberalization that has taken place in Taiwan in the last few years and has brought about rapid change in the political, economic, social and cultural environment, the public have become increasingly insistent on their right to express their views during the formulation of government policy. As a result, when drawing up new policies that will have an impact on the general public, the government has to take the views of all interested parties into account, or else face being subjected to fierce criticism. In the future, the formulation of new SME guidance policies and strategies will need to be based on thorough analysis and detailed surveys. Policies will need to be supported by comprehensive statistics, and alternative strategies

will be needed, ensuring that SMEs' real needs are met.

(2) Establishing a Fair Legal and Regulatory Environment to Reduce Obstacles to Successful Operation

A fair, equitable legal and regulatory environment is one of the fundamental requirements for the sustainable development of the SME sector. When formulating new laws and regulations, government agencies generally tend to focus on the needs of large enterprises and business groups, even when the legislation in question will apply to enterprises of all sizes; the special characteristics and needs of SMEs are often ignored, creating a situation where SMEs are forced to operate within an unfair and inequitable legal and regulatory environment. In the future, besides encouraging SME organizations to report any problems with the legal and regulatory system and collect information regarding these issues, the government will also need to encourage government agencies at all levels to add SME legal and regulatory adjustment analysis procedures to existing legal and regulatory procedures, establish expert review models for different fields, and undertake research on the legal and regulatory difficulties experienced by SMEs and their needs in this regard. A Legal and Regulatory Adjustment Data Exchange Platform will also be needed to improve the efficiency of the adjustment analysis, stimulate business enterprise participation in the drafting of legislation, and enhance the overall efficiency of legal and regulatory affairs, thereby helping to eliminate the obstacles that SMEs experience in this area.

While encouraging government agencies to implement legal and regulatory adjustment analysis mechanisms, the government will also need to respond to changes in the business environment both within Taiwan and globally and in Taiwan's industrial structure by identifying areas where the law could be changed to help SMEs. The underlying goal here is to create a legal and regulatory environment conducive to SME innovation and new business start-ups.

2. Promoting Innovation and New Business Start-ups

(1) Improving the Functioning of Taiwan's Business Start-up Service System, and Stimulating the Cultivation of SMEs in New Industries

Currently, most of the incubator centers in Taiwan are still heavily reliant on the SME Development Fund for funding support. Steadily declining interest income and restrictions on the use of external funding sources have pushed the SME Development Fund steadily deeper into the red in the last few years. Besides establishing mechanisms

for appraising the performance of incubator centers, so that under-performing centers can be allowed to go under, the government also needs to do more to help incubator centers identify alternative sources of funding, including medium- and long-term funding from participation in national Science and Technology Plans. These measures will help to reduce the financial burden on the SME Development Fund. The key tasks that need to be performed in the integration of the incubator service system include the following:

a. Encouraging Incubator Centers to Differentiate Themselves

For over 10 years now, the government has been promoting the establishment of incubator centers on university campuses. This initiative has certainly helped to stimulate collaboration between industry and the university sector, thereby contributing to SME innovation and new business start-ups. However, as noted above, government budget cuts and the decline in interest income have affected the amount of funding that the SME Development Fund is now able to provide. In its efforts to strengthen the mechanisms for collaboration between industry and the university sector and to establish new platforms for technology exchange, the government will also need to encourage incubator centers to establish areas of specialty and differentiate themselves from one another, while also helping them to become financially independent. For example, incubator centers could be encouraged to transform themselves into foundations or corporations so as to access new sources of funding. These are the areas on which the government and the incubator centers will need to be focusing on in the future.

b. Establishment of Regional Incubation Support Centers to Integrate Guidance Resources

While encouraging existing incubator centers to strengthen their capabilities and differentiate themselves, the government will also need to tackle the problems related to the small size and limited resources of existing university incubator centers. The effective integration of technology, marketing, funding and intellectual property services will be needed to create synergy in the incubation sector. The establishment of functional or industry-specific regional incubation support centers will help incubator centers to achieve some of the benefits that are provided by industry clusters.

c. Deepening Collaboration between Industry and the University Sector to Maximize the Benefits from Incubator Center Operation

As noted above, in many countries around the world innovation and new business

start-up have become key underpinnings for economic growth and industrial development. In the future, the government will need to work through the existing innovation and start-up incubation mechanisms to strengthen the implementation of these activities in universities and research institutes, thereby creating additional value through the enhancement of service capabilities, and facilitating the ongoing cultivation of SMEs with significant growth potential.

(2) Integrating Sources of Business Start-up Knowledge and Information to Help Entrepreneurs Realize Their Ambitions

The emergence of the knowledge economy has encouraged many people with innovative ideas to start their own businesses. To help these people to succeed, the government needs to consider how it can integrate the various sources of information that are available for this purpose. This will involve the establishment of an innovation and new business start-up knowledge and information platform, the compilation of case studies of successful new business establishment, and the dissemination of these case studies. In this way, it will be possible to strengthen Taiwan's business start-up knowledge and innovation capabilities, and help entrepreneurs to achieve successful new business establishment. This should be one of the most important elements in the government's efforts to promote innovation and business start-ups.

(3) Increasing the Funding Resources Available for Innovation so as to Improve Start-ups' Chances of Success

Entrepreneurs trying to start their own business usually suffer from inadequate capital and difficulty in securing financing. When a new business is just getting off the ground, there is always a serious danger that it may be derailed by cash-flow problems. What is needed is the effective integration of external resources, such as the Executive Yuan Development Fund, the SME Development Corporations, trust-type investment accounts, private-sector financing, the industrial banks, and venture capital providers, along with the provision of credit guarantees by the SME Credit Guarantee Fund, to ensure that newly-established SMEs have access to the funds they need. This integration is a vital element in the incubation guidance system.

(4) Strengthening the Provision of Business Start-up Guidance for Small Enterprises, Micro-enterprises, and Female Entrepreneurs, Thereby Contributing to the Maintenance of Social Stability

The last few years have seen an ongoing process of diversification in Taiwanese society and in the economy. This process has stimulated a dramatic increase in the number of

start-ups in emerging service industries, and in the number of SOHO-type businesses being established. The transformation of Taiwan's industrial structure has caused large numbers of middle-aged manual workers to lose their jobs, leading to a widening of the wealth gap between rich and poor in Taiwanese society. At the same time, the aging of Taiwan's population and the trend towards smaller families have drawn attention to the importance of women's participation in the workforce. Many of the new industries that are emerging in Taiwan – such as the long-term care industry—are ideally suited to female participation, including new business establishment. The question of how to provide appropriate guidance to micro-enterprises, small enterprises and female entrepreneurs will be a key element in the government's SME guidance work in the future.

(5) Aggressive Development of Human Resources, Including Recruitment from Overseas, to Speed Up the Process of Upgrading and Transformation

As a result of their small size and limited resources, the SMEs' provision of employee welfare often leaves a lot to be desired. Not only do SMEs find it difficult to recruit high-caliber, skilled employees, but the employee turnover rate among lower-level employees is frequently also very high. It has become clear that, if Taiwan's SMEs are to be helped to upgrade and transform themselves, not only will they need an adequate supply of labor, but efforts will also have to be made to cultivate the five key abilities—foresight, the ability to overcome obstacles, the ability to influence others, professional expertise, and communications skills—among SME managers. In the future, in its efforts to develop SME human resources, the government will need to focus on strengthening the existing SME manpower cultivation mechanisms, integrating SME education and training resources, and building a service information network. At the same time, the Internet can be used to integrate physical learning models. This may involve the establishment of an SME training center, or expanding the operations of the recently established SME Online College, to ensure the ongoing cultivation of the manpower that SMEs need over the long term.

An even more important task is to ensure that effective use is made of the resources of the various government agencies that are involved in SME affairs. This would include integrating the manpower cultivation resources of the Industrial Development Bureau and the Commerce Department of the Ministry of Economic Affairs, as well as making full use of the Council of Labor Affairs' program for

arranging large groups of enterprise employees to study together, and the Industrial Manpower Investment Program, which provides opportunities for enterprise employees to undertake day-release study at universities and colleges. Careful planning of collaborative SME manpower cultivation should make it possible to create a comprehensive SME manpower cultivation coordination mechanism.

Besides arranging manpower cultivation programs to cultivate senior managers and specialist personnel for SMEs, effective use will also need to be made of the mechanisms for recruiting overseas technical and managerial talent, so as to help SMEs to recruit overseas experts who can come to Taiwan to share their experience and provide guidance. Arrangements can be made for SME managers and technical personnel to acquire hands-on experience of working overseas, or they can be encouraged to apply for participation in the government's StudyAbroad program. These measures should bring about a significant improvement in both the quantity and quality of SME manpower resources, thereby helping SMEs to meet the challenges of the new business environment.

3. Provision of Management Guidance

(1) Developing Special Local Industries to Revitalize Local Economies

In the new globalized business environment of today, while large enterprises will inevitably play a major role in stimulating economic growth and boosting exports, the survival and growth of special local industries (which may have a long history, may take the form of a cluster of enterprises exploiting local resources, and are usually composed of small and micro-enterprises) still has great significance in terms of job creation and the maintenance of social stability. In the future, when providing guidance to support the development of special local industries, besides continuing to strengthen the special products design and development platform, expanding the One Town One Product Web and information exchange platform, and working to improve the quality of operational management in special local industries, the government will also need to undertake the following key tasks:

a. Integrating Local Industry Guidance Resources to Create Synergy

For many years now, there has been a lack of horizontal coordination in the government's allocation of resources to support the development of special local industries. Little synergy appears to have been created, and business owners in special local industries often feel that the government is not doing enough to help them. Clearly,

what is needed is a mechanism for coordinating the guidance resources provided by different government agencies, so as to ensure that firms in these industries receive the support they need.

b. Giving Local Government Authorities the Main Role in Special Local Industry Development Promotion

To ensure that the resources of the various government agencies are used with maximum effectiveness when promoting the development of special local industries, it is important that a clear decision be made as to where the main center of responsibility for promoting their development shall lie. Given that supporting the development of special local industries is closely tied up with the activities of local government, the positioning of local government in this respect must be clarified. This is particularly important in the early stages of a special local industry development project, when a consensus has not yet been formed among the local community, making the active involvement of the local government authorities—which can serve as a bridge for communication between the parties concerned—all the more vital. In addition, the role that industry associations and local civic associations can play in ensuring the success of special local industry development guidance work should also not be ignored.

c. Providing Different Categories of Guidance to Meet Different Needs

Promoting the development of special local industries has become one of the most important strands in the government's guidance policy. One of the things that stands out when looking back over the course of the government's guidance provision over the last two decades is the extent to which special local industries' guidance needs vary, whether because of differences in the way that the individual industries evolved, differences in the size of the area in which they are located, differences in the nature of the industry itself or its target markets, and differences in the operational difficulties that firms in each industry encounter. The guidance methods that are being used at present may need to be adjusted to meet the needs of the individual industries.

(2) Establishing Collaborative Mechanisms to Develop New Business Areas

Over the last few years, the process of economic liberalization and internationalization has stimulated the growth of ever larger enterprises and business groups, while putting SMEs under increasingly heavy pressure. Besides helping SMEs to leverage their own special strengths, the government should also be encouraging SMEs to work together through strategic alliances and cross-industry exchange. By strengthening collaboration between SMEs it should be possible to develop joint brands and collaborative

marketing mechanisms. The sharing of technology, production, sales, business intelligence and other resources will help SMEs to achieve economies of scale that will compensate for the weaknesses of the individual enterprises, thereby helping Taiwan's SMEs to develop new business areas.

Taiwan's strong entrepreneurial spirit and the flexibility and tenacity of its SMEs have made Taiwan a model for other countries when it comes to providing guidance for SME development. Business start-up in the SME sector have been one of the main sources of vitality for Taiwanese industry and for the Taiwanese economy as a whole. The various SME awards have an important role to play in this respect; by publicizing the methods used by successful SMEs to achieve growth, other firms and entrepreneurs will have the opportunity to learn from them, and individuals with innovative ideas will be encouraged to think more seriously about starting their own business.

(3) Establishment of Business Matching Platforms to Increase Opportunities for Market Participation

In the last few years, large enterprises and business groups have increasingly come to dominate the economy, making it more and more difficult for SMEs to stay in business. Efforts should be made to stimulate the purchasing of SMEs' products. This could be achieved through leveraging the various projects (such as the Global Purchasing Center plan) that are being implemented to encourage more foreign corporations (particularly chain stores) to attend trade shows in Taiwan, establishing a comprehensive database of international purchasing offices (IPOs) in Taiwan, organizing purchasing fairs for foreign companies operating in Taiwan, and simplifying customs clearance procedures, etc. The key tasks that need to be accomplished to help SMEs expand their marketing networks include the following:

- a. Leveraging industry alliances to achieve concentration of resources, promote innovation and R&D, develop branded marketing, and build economies of scale;
- b. Integration of the government's strategy for bringing new technology into Taiwan; making effective use of Taiwan's existing advantages and resources to meet changing time-to-market requirements;
- c. Making use of joint brands and joint distribution mechanisms to create synergy and maximize economies of scale;
- d. Providing specialist consulting and business opportunity information services (integrated with financing mechanisms) to help turnkey providers develop

international markets.

(4) Helping SMEs to Develop Their Brand Management and International Marketing Capabilities

In this the new era of globalization and shrinking profit margins, it has become increasingly important for companies to develop their own brands. Successful brand development is not something that can be achieved overnight. It can constitute a severe test of a firm's tenacity and the wisdom of its managers; the slightest error can lead to complete failure.

While the promotion of brand development by SMEs definitely has much to recommend it, there are various factors that make it difficult for SMEs to develop their own brands, including inadequate capital, shortages of specialist manpower, and low technology levels, etc. The provision of direct financial subsidies is probably the most effective means of helping SMEs in this respect. Given the limited financial resources available to the government, it may be advisable to focus on certain key industries, arranging for brand management consulting firms to help SMEs in these industries to establish their own brand management systems. More specifically, assistance could be provided with respect to Corporate Identification System (CIS) design, brand strategy planning, development of international marketing channels, placing advertisements in the international media, and participation in international trade shows, etc. These measures would help to strengthen SMEs' brand visibility and brand recognition.

At the same time, the Small and Medium Enterprise Administration may also need to establish international service contact windows and work more closely with relevant agencies and organizations such as Taiwan's overseas representative offices and Taiwanese chambers of commerce in other countries. Working with these organizations will facilitate the collection of information regarding overseas markets and facilitate the establishment of overseas offices and development of international marketing channels by SMEs.

Efforts should also be made to promote exchange between Taiwanese SMEs and overseas business associations, so as to further the formulation of international marketing strategies by SMEs.

4. Enhancing the Digital Competitiveness of Taiwanese SMEs

(1) Strengthening SMEs' Ability to Make Effective Use of Information Technology, and Creating Maximum Benefit from the Electronic Value Chain

Given the rapid pace of change in information technology, in the future information technology will be the key factor that enables SMEs to maintain their competitiveness within a rapidly evolving environment. Whether focusing on the Taiwanese domestic market or the international market, the provision of guidance to SMEs in the future will need to include efforts to improve both SMEs' internal information management and their ability to make effective use of the Internet for marketing purposes. The government should help SMEs to work together to establish or rent electronic transaction platforms and to expand their marketing channels through the use of the Internet, while stepping up the promotion of the various industry network development guidance plans, thereby helping SMEs to access the information they need.

(2) Strengthening Green Product Technology and Product Quality in Response to the Worldwide Growth in Environmental Awareness

In response to the new environmental directives introduced by the European Union, the Small and Medium Enterprise Administration (SMEA) will need to integrate its guidance resources with those of other agencies to help SMEs establish environmentally friendly production systems and implement waste produce recycling. If Taiwan's SMEs can conform to international environmental legislation and manufacture products that conform to international environmental standards, this will provide a significant boost to their development of international markets.

(3) Promoting the Adoption of Knowledge Management Applications to Reduce the Digital Divide between Industries

To be able to strengthen the competitive advantage of enterprise, managers need to have an extensive knowledge of enterprise management, market information, information networks, and manpower cultivation. Effective use must be made of information technology in helping SMEs to undertake e-enablement. At the same time, online marketing platforms can be utilized to provide guidance for the establishment of new supply management and customer relationship management mechanisms, thereby helping SMEs to respond to changes in the market environment and in customer demand. The core objective here is to help give Taiwanese SMEs a reputation for outstanding product quality, while also strengthening the innovation system, promoting sustainable development, helping SMEs in the service sector to upgrade themselves,

and revitalizing local industries, thereby promoting the growth of the economy as a whole. The government also needs to promote the establishment of knowledge management communities among different categories of SME, so as to speed up the accumulation and diffusion of knowledge.

(4) Establishing Comprehensive Business Information Systems to Strengthen Managerial Efficiency and Decision-making Capabilities

Given the rapid pace of change in information technology and its widespread use, SMEs that are seeking to build competitive advantage cannot rely solely on the experience that they have accumulated in the past. They need to have an in-depth understanding of all types of business information to be able to keep up to date with the latest market trends. However, because of the limited financial and other resources available to SMEs, they rely heavily on external resources to provide them with the information they require. In the future, efforts will need to be made to strengthen business information platforms, so that they can provide value-added information services for SMEs with regard to business information, management strategy, guidance policy, etc. The website of the SMEA should seek to provide as comprehensive a range of information as possible for the reference of SMEs in their decision-making.

5. Strengthening the Funding Support Mechanisms

(1) Strengthening Financial and Accounting Systems to Improve SMEs' Ability to Secure Financing

It is widely recognized that difficulty in securing financing (partly due to the limited range of financing channels available) is one of the main operational difficulties that SMEs have to deal with. Many SMEs do not have proper financial and accounting systems in place. As a result of this failure to recognize the importance of sound financial and accounting systems to business operations, when the SME is exposed to some shock emanating from the external business environment, it may find itself facing serious operational difficulties, and may even be forced out of business. While continuing to upgrade the functionality of the existing SME financing guidance system and monitoring the current state of financing provision to SMEs and the attendant problems, the government will also need to implement effective integration of the resources belonging to the various different organizations involved in providing guidance in this area, to ensure that SMEs can receive guidance both before and after securing financing, thereby contributing to the creation of a long-term partnership relationship between banks and SMEs. One option would be to follow the example of

the European Accounting Association, by developing accounting standards suitable for the use of SMEs. This would help SMEs to establish sound financial and accounting systems, making it easier for them to secure financing through various channels.

Different levels of guidance will be needed when helping SMEs of different types to adopt the most appropriate model (in terms of financial management, internal controls and accounting systems) to reduce financial risk and improve operational performance.

(2) Expanding the Capabilities of the SME Credit Guarantee Fund to Make a Wider Range of Financing Channels Available to SMEs

The higher level of risk that financial institutions need to bear when providing financing to SMEs leads them to impose stricter terms than would be the case with large enterprises. The cost of securing financing is thus higher for SMEs, putting them under increased pressure. There is an urgent need for the government to provide more guidance in this area, so as to help SMEs secure the credit guarantees they need to get loans.

Future SME guidance policy will also need to focus on the ongoing promotion of the SME Credit Guarantee Fund Pass the Torch Academy to help SMEs build sound financial and accounting systems, and on the expansion of the Firefly Program for encouraging large enterprises and banks to assist SMEs with R&D and innovation. By integrating credit databases, it should be possible to build a credit guarantee rating model that can be used to enhance the efficiency of service provision. Efforts should also be made to make it easier for members of disadvantaged groups and female entrepreneurs to secure loans for business establishment. The government could also consider the provision of direct credit guarantees to help SMEs in emerging industries—such as the cultural and creative industries and the digital content industry—to secure the financing they need. At the same time, industry – university sector collaboration and industry cluster models can be leveraged to integrate guidance, credit guarantees and financing into a unified whole.

(3) Allocating NT\$10 billion from the National Development Fund to Invest in SMEs with Significant Growth Potential

The government could also consider using the National Development Fund to provide funding support for SMEs with particularly impressive growth potential and for those investing in countries with which Taiwan has particularly close relations. Assuming an

investment of NT\$10 million per enterprise, it would be possible to provide support for 1,000 individual SMEs, thereby creating an estimated 20,000 new jobs. If the funding from the National Development Fund accounted for an average of 20% of the total amount of funding required, then this initiative would also be stimulating around NT\$50 billion in private-sector investment.

(4) Establishment of Restructuring Guidance Mechanisms to Help SMEs with Potential to Get Back on Their Feet

Many of the SMEs that experience financial difficulties are in fact companies with significant growth potential. If assistance is not provided to firms of this type, in the long term there will be a severe negative impact on the industry value chain, on job creation, on the development of the capital markets, and on the economy as a whole. Taiwan should follow the example of other countries and establish an SME restructuring mechanism to help SMEs that are experiencing temporary financial difficulties but which still have significant value creation potential. The provision of ongoing financial guidance can help these firms to continue to grow their operating revenue and create jobs.

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Appendix A

Table A-1 Number of Enterprises by Industry, 2003-2006

Unit: Number of enterprises; %

Industry/ Year	Size	Total		SMEs		Large enterprises	
		Total	Share	Total	Share	Total	Share
Total	2003	1,172,633	100.00	1,147,200	97.83	25,433	2.17
	2004	1,204,343	100.00	1,176,986	97.73	27,357	2.27
	2005	1,253,694	100.00	1,226,095	97.80	27,599	2.20
	2006	1,272,508	100.00	1,244,099	97.77	28,409	2.23
Agriculture, forestry, fishing and animal husbandry	2003	10,755	100.00	10,722	99.69	33	0.31
	2004	10,802	100.00	10,767	99.68	35	0.32
	2005	11,135	100.00	11,099	99.68	36	0.32
	2006	10,989	100.00	10,949	99.64	40	0.36
Mining and quarrying	2003	1,414	100.00	1,393	98.51	21	1.49
	2004	1,427	100.00	1,405	98.46	22	1.54
	2005	1,431	100.00	1,410	98.53	21	1.47
	2006	1,456	100.00	1,437	98.70	19	1.30
Manufacturing	2003	137,710	100.00	133,588	97.01	4,122	2.99
	2004	137,422	100.00	133,107	96.86	4,315	3.14
	2005	138,519	100.00	134,172	96.86	4,347	3.14
	2006	136,887	100.00	132,354	96.69	4,533	3.31
Water, electricity and gas	2003	720	100.00	594	82.50	126	17.50
	2004	683	100.00	546	79.94	137	20.06
	2005	664	100.00	522	78.61	142	21.39
	2006	662	100.00	494	74.62	168	25.38
Construction	2003	77,591	100.00	75,958	97.90	1,633	2.10
	2004	81,095	100.00	79,594	98.15	1,501	1.85
	2005	87,398	100.00	86,001	98.40	1,397	1.60
	2006	92,626	100.00	91,290	98.56	1,336	1.44
Wholesale and retail	2003	624,510	100.00	611,614	97.94	12,896	2.06
	2004	641,202	100.00	626,724	97.74	14,478	2.26
	2005	666,418	100.00	651,590	97.77	14,828	2.23
	2006	672,794	100.00	657,583	97.74	15,211	2.26
Accommodation and eating-drinking place	2003	85,440	100.00	85,201	99.72	239	0.28
	2004	92,229	100.00	91,959	99.71	270	0.29
	2005	102,347	100.00	102,096	99.75	251	0.25
	2006	107,464	100.00	107,205	99.76	259	0.24

Table A-1 Number of Enterprises by Industry, 2003-2006 (continued)

Unit: Number of enterprises; %

Industry/ Year	Size	Total		SMEs		Large enterprises	
		Total	Share	SMEs	Share	Large enterprises	Share
Transportation warehousing and communication	2003	46,372	100.00	44,803	96.62	1,569	3.38
	2004	42,902	100.00	41,401	96.50	1,501	3.50
	2005	38,227	100.00	36,898	96.52	1,329	3.48
	2006	36,437	100.00	35,186	96.57	1,251	3.43
Finance and insurance	2003	12,855	100.00	10,515	81.80	2,340	18.20
	2004	13,316	100.00	10,932	82.10	2,384	17.90
	2005	13,630	100.00	11,263	82.63	2,367	17.37
	2006	13,376	100.00	10,916	81.61	2,460	18.39
Real estate and rental	2003	23,615	100.00	22,815	96.61	800	3.39
	2004	25,233	100.00	24,323	96.39	910	3.61
	2005	26,830	100.00	25,827	96.26	1,003	3.74
	2006	28,233	100.00	27,035	95.76	1,198	4.24
Professional, science and technical services	2003	45,195	100.00	44,322	98.07	873	1.93
	2004	46,129	100.00	45,167	97.91	962	2.09
	2005	47,352	100.00	46,352	97.89	1,000	2.11
	2006	47,363	100.00	46,331	97.82	1,032	2.18
Educational services	2003	465	100.00	459	98.71	6	1.29
	2004	464	100.00	457	98.49	7	1.51
	2005	437	100.00	430	98.40	7	1.60
	2006	491	100.00	482	98.17	9	1.83
Medical, healthcare and social service	2003	379	100.00	368	97.10	11	2.90
	2004	382	100.00	375	98.17	7	1.83
	2005	379	100.00	375	98.94	4	1.06
	2006	364	100.00	360	98.90	4	1.10
Culture, sporting and leisure services	2003	27,074	100.00	26,715	98.67	359	1.33
	2004	28,362	100.00	27,993	98.70	369	1.30
	2005	29,146	100.00	28,779	98.74	367	1.26
	2006	30,162	100.00	29,793	98.78	369	1.22
Other service industries	2003	78,538	100.00	78,133	99.48	405	0.52
	2004	82,695	100.00	82,236	99.44	459	0.56
	2005	89,781	100.00	89,281	99.44	500	0.56
	2006	93,204	100.00	92,684	99.44	520	0.56

Note: 1. The industries are classified according to the 7th revision of Industry Classification Standard.

2. Data of Lienchiang County, a small offshore island, are included in the calculation of all figures.

Source: Ministry of Finance Tax Data Center, VAT data for consecutive years.

TableA-2 Domestic Sales Value by Industry, 2003-2006

Unit: NT million; %

Industry/ Year	Size	Total		SMEs		Large enterprises	
		Total	Share	Total	Share	Total	Share
Total	2003	20,340,791	100.00	7,381,065	36.29	12,959,726	63.71
	2004	23,262,158	100.00	8,278,347	35.59	14,983,810	64.41
	2005	25,310,936	100.00	8,481,397	33.51	16,829,539	66.49
	2006	25,594,318	100.00	8,678,992	33.91	16,915,326	66.09
Agriculture, fishing and animal husbandry	2003	22,360	100.00	11,653	52.11	10,707	47.89
	2004	30,534	100.00	11,489	37.63	19,045	62.37
	2005	30,198	100.00	12,065	39.95	18,133	60.05
	2006	30,061	100.00	12,834	42.69	17,227	57.31
Minig and quarrying	2003	37,680	100.00	33,235	88.20	4,445	11.80
	2004	44,503	100.00	38,430	86.35	6,073	13.65
	2005	50,837	100.00	43,151	84.88	7,687	15.12
	2006	52,932	100.00	45,595	86.14	7,337	13.86
Manufacturing	2003	5,001,841	100.00	2,304,474	46.07	2,697,366	53.93
	2004	6,050,614	100.00	2,664,369	44.03	3,386,246	55.97
	2005	6,075,726	100.00	2,632,475	43.33	3,443,252	56.67
	2006	6,445,589	100.00	2,716,891	42.15	3,728,699	57.85
Water, electricity and gas	2003	378,876	100.00	7,595	2.00	371,281	98.00
	2004	447,390	100.00	6,918	1.55	440,472	98.45
	2005	518,016	100.00	7,624	1.47	510,392	98.53
	2006	559,337	100.00	6,985	1.25	552,352	98.75
Construction	2003	1,373,064	100.00	839,960	61.17	533,103	38.83
	2004	1,661,634	100.00	1,037,143	62.42	624,491	37.58
	2005	1,692,301	100.00	1,079,962	63.82	612,339	36.18
	2006	1,755,089	100.00	1,135,859	64.72	619,230	35.28
Wholesale and retail	2003	7,739,860	100.00	2,976,278	38.45	4,763,582	61.55
	2004	8,920,098	100.00	3,223,332	36.14	5,696,765	63.86
	2005	9,388,145	100.00	3,377,894	35.98	6,010,250	64.02
	2006	9,446,847	100.00	3,405,165	36.05	6,041,682	63.95
Accommodation and eating-drinking place	2003	254,331	100.00	175,092	68.84	79,239	31.16
	2004	288,460	100.00	193,400	67.05	95,060	32.95
	2005	300,724	100.00	205,964	68.49	94,760	31.51
	2006	314,676	100.00	216,293	68.74	98,382	31.26

Table A-2 Domestic Sales Value by Industry, 2003-2006 (continued)

Unit: NT million; %

Industry/ Year	Size	Total		SMEs		Large enterprises	
		Total	Share	Total	Share	Total	Share
Transportation warehousing and communication	2003	1,491,004	100.00	309,025	20.73	1,181,979	79.27
	2004	1,035,052	100.00	301,264	29.11	733,789	70.89
	2005	987,307	100.00	280,949	28.46	706,358	71.54
	2006	960,097	100.00	276,758	28.83	683,339	71.17
Finance and insurance	2003	1,810,194	100.00	164,832	9.11	1,645,362	90.89
	2004	2,647,301	100.00	175,945	6.65	2,471,356	93.35
	2005	4,150,467	100.00	171,993	4.14	3,978,474	95.86
	2006	3,840,503	100.00	173,560	4.52	3,666,943	95.48
Real estate and rental	2003	499,262	100.00	122,168	24.47	377,094	75.53
	2004	574,630	100.00	140,383	24.43	434,247	75.57
	2005	643,459	100.00	156,303	24.29	487,156	75.71
	2006	771,235	100.00	171,774	22.27	599,461	77.73
Professional, science and technical services	2003	699,171	100.00	197,977	28.32	501,194	71.68
	2004	739,800	100.00	218,336	29.51	521,464	70.49
	2005	749,800	100.00	227,840	30.39	521,960	69.61
	2006	769,183	100.00	222,860	28.97	546,323	71.03
Educational services	2003	4,247	100.00	1,843	43.40	2,404	56.60
	2004	4,266	100.00	1,843	43.21	2,423	56.79
	2005	3,516	100.00	1,752	49.82	1,764	50.18
	2006	4,770	100.00	2,272	47.62	2,498	52.38
Medical, healthcare and social service	2003	11,331	100.00	1,212	10.70	10,119	89.30
	2004	8,103	100.00	1,345	16.60	6,758	83.40
	2005	2,041	100.00	1,262	61.84	779	38.16
	2006	2,419	100.00	1,358	56.16	1,060	43.84
Culture, sporting and leisure services	2003	477,508	100.00	75,077	15.72	402,432	84.28
	2004	262,374	100.00	80,314	30.61	182,061	69.39
	2005	264,307	100.00	81,228	30.73	183,078	69.27
	2006	255,355	100.00	79,027	30.95	176,328	69.05
Other service industries	2003	540,062	100.00	160,643	29.75	379,419	70.25
	2004	547,395	100.00	183,835	33.58	363,560	66.42
	2005	454,092	100.00	200,934	44.25	253,158	55.75
	2006	386,225	100.00	211,760	54.83	174,465	45.17

Note: 1. The industries are classified according to the 7th revision of Industry Classification Standard.

2. Data of Lienchiang County, a small offshore island, are included in the calculation of all figures.

Source: Ministry of Finance Tax Data Center, VAT data for consecutive years.

Table A-3 Export Sales Value by Industry, 2003-2006

Unit: NT\$ million, %

Industry/ Year	Size	Total		SMEs		Large enterprises	
			Share		Share		Share
Total	2003	7,332,745	100.00	1,327,839	18.11	6,004,906	81.89
	2004	8,493,156	100.00	1,448,374	17.05	7,044,782	82.95
	2005	8,630,921	100.00	1,518,823	17.60	7,112,098	82.40
	2006	8,731,753	100.00	1,562,224	17.89	7,169,529	82.11
Agriculture, fishing and animal husbandry	2003	3,654	100.00	1,847	50.55	1,807	49.45
	2004	2,976	100.00	2,031	68.24	945	31.76
	2005	3,482	100.00	2,186	62.80	1,295	37.20
	2006	2,945	100.00	1,608	54.59	1,337	45.41
Minig and quarrying	2003	846	100.00	413	48.76	434	51.24
	2004	831	100.00	463	55.69	368	44.31
	2005	791	100.00	440	55.62	351	44.38
	2006	814	100.00	407	50.07	406	49.93
Manufacturing	2003	4,246,510	100.00	841,710	19.82	3,404,800	80.18
	2004	5,071,089	100.00	957,873	18.89	4,113,216	81.11
	2005	5,117,849	100.00	1,042,667	20.37	4,075,182	79.63
	2006	5,620,063	100.00	1,083,456	19.28	4,536,607	80.72
Water, electricity and gas	2003	5,450	100.00	133	2.45	5,317	97.55
	2004	6,691	100.00	177	2.65	6,514	97.35
	2005	8,772	100.00	100	1.15	8,671	98.85
	2006	11,460	100.00	92	0.80	11,368	99.20
Construction	2003	19,127	100.00	11,989	62.68	7,138	37.32
	2004	28,784	100.00	15,548	54.01	13,237	45.99
	2005	26,026	100.00	13,972	53.68	12,055	46.32
	2006	29,799	100.00	13,549	45.47	16,250	54.53
Wholesale and retail	2003	2,459,711	100.00	406,005	16.51	2,053,705	83.49
	2004	2,787,240	100.00	417,806	14.99	2,369,433	85.01
	2005	2,916,406	100.00	417,182	14.30	2,499,224	85.70
	2006	2,475,974	100.00	426,061	17.21	2,049,913	82.79
Accommodation and eating-drinking place	2003	8,405	100.00	2,169	25.81	6,235	74.19
	2004	4,307	100.00	1,817	42.19	2,490	57.81
	2005	1,805	100.00	818	45.33	987	54.67
	2006	1,768	100.00	571	32.28	1,198	67.72

Table A-3 Export Sales Value by Industry, 2003-2006 (continued)

Unit: NT\$ million; %

Industry/ Year	Size	Total		SMEs		Large enterprises	
		Total	Share	Total	Share	Total	Share
Transportation warehousing and communication	2003	425,479	100.00	48,217	11.33	377,262	88.67
	2004	427,591	100.00	36,999	8.65	390,592	91.35
	2005	384,207	100.00	26,520	6.90	357,687	93.10
	2006	421,777	100.00	21,327	5.06	400,450	94.94
Finance and insurance	2003	13,245	100.00	216	1.63	13,030	98.37
	2004	9,181	100.00	308	3.35	8,873	96.65
	2005	8,580	100.00	339	3.95	8,241	96.05
	2006	1,854	100.00	226	12.19	1,628	87.81
Real estate and rental	2003	19,348	100.00	809	4.18	18,539	95.82
	2004	21,850	100.00	779	3.57	21,070	96.43
	2005	24,651	100.00	757	3.07	23,895	96.93
	2006	13,823	100.00	731	5.29	13,092	94.71
Professional, science and technical services	2003	115,740	100.00	11,786	10.18	103,954	89.82
	2004	116,137	100.00	12,036	10.36	104,101	89.64
	2005	119,633	100.00	11,138	9.31	108,495	90.69
	2006	134,152	100.00	11,462	8.54	122,691	91.46
Educational services	2003	115	100.00	48	41.99	67	58.01
	2004	94	100.00	16	17.11	78	82.89
	2005	349	100.00	5	1.53	343	98.47
	2006	549	100.00	7	1.22	542	98.78
Medical, healthcare and social service	2003	117	100.00	7	6.04	110	93.96
	2004	45	100.00	8	18.73	37	81.27
	2005	60	100.00	2	3.31	58	96.69
	2006	20	100.00	2	8.48	19	91.52
Culture, sporting and leisure services	2003	3,671	100.00	783	21.33	2,888	78.67
	2004	3,999	100.00	735	18.38	3,264	81.62
	2005	3,217	100.00	651	20.25	2,565	79.75
	2006	3,327	100.00	622	18.70	2,705	81.30
Other service industries	2003	11,327	100.00	1,706	15.06	9,621	84.94
	2004	12,342	100.00	1,779	14.41	10,563	85.59
	2005	15,093	100.00	2,045	13.55	13,048	86.45
	2006	13,426	100.00	2,104	15.67	11,322	84.33

Note: 1. The industries are classified according to the 7th revision of Industry Classification Standard.

2. Data of Lienchiang County, a small offshore island, are included in the calculation of all figures.

Source: Ministry of Finance Tax Data Center, VAT data for consecutive years.

Table A-4 Overview of Newly-established SMEs in 2006 - by Industry

Unit: Number of enterprises; NT\$ million; %

Industry/ Year	Size	Total		SMEs		Large enterprises	
		Total	Share	SMEs	Share	enterprises	Share
Total	Number of enterprises	108,673	100.00	108,320	99.68	353	0.32
	Sales value	357,223	100.00	236,973	66.34	120,250	33.66
	Domestic value	322,484	100.00	221,496	68.68	100,988	31.32
	Export value	34,739	100.00	15,477	44.55	19,262	55.45
Agriculture, fishing and animal husbandry	Number of enterprises	379	100.00	379	100.00	0	0.00
	Sales value	500	100.00	500	100.00	0	0.00
	Domestic value	496	100.00	496	100.00	0.00	0.00
	Export value	4	100.00	4	100.00	0	0.00
Mining and quarrying	Number of enterprises	104	100.00	103	99.04	1	0.96
	Sales value	523	100.00	523	100.00	0	0.00
	Domestic value	523	100.00	523	100.00	0	0.00
	Export value	0	100.00	0	0.00	0	0.00
Manufacturing	Number of enterprises	4,604	100.00	4,540	98.61	64	1.39
	Sales value	35,921	100.00	28,123	78.29	7,798	21.71
	Domestic value	26,325	100.00	22,691	86.20	3,634	13.80
	Export value	9,597	100.00	5,432	56.61	4,164	43.39
Water, electricity and gas	Number of enterprises	20	100.00	20	100.00	0	0.00
	Sales value	131	100.00	131	100.00	0	0.00
	Domestic value	131	100.00	131	100.00	0	0.00
	Export value	0	100.00	0	0.00	0	0.00
Construction	Number of enterprises	10,737	100.00	10,726	99.90	11	0.10
	Sales value	37,561	100.00	37,434	99.66	127	0.34
	Domestic value	37,444	100.00	37,317	99.66	127	0.34
	Export value	118	100.00	117	99.28	1	0.72
Wholesale and retail	Number of enterprises	51,927	100.00	51,712	99.59	215	0.41
	Sales value	191,269	100.00	122,964	64.29	68,306	35.71
	Domestic value	167,391	100.00	113,625	67.88	53,767	32.12
	Export value	23,878	100.00	9,339	39.11	14,539	60.89
Accommodation and eating-drinking place	Number of enterprises	17,372	100.00	17,370	99.99	2	0.01
	Sales value	15,314	100.00	15,076	98.44	239	1.56
	Domestic value	15,314	100.00	15,076	98.44	239	1.56
	Export value	0	100.00	0	0.00	0	0.00

Table A-4 Overview of Newly-established SMEs in 2006 – by Industry (continued)

Unit: Number of enterprises; NT\$ million; %

Industry/ Year	Size	Total	SMEs		Large enterprises		
		Share	Share	Share	Share		
Transportation warehousing and communication	Number of enterprises	1,015	100.00	1,010	99.51	5	0.49
	Sales value	8,091	100.00	4,231	52.29	3,860	47.71
	Domestic value	7,649	100.00	3,995	52.23	3,654	47.77
	Export value	442	100.00	236	53.40	206	46.60
Finance and insurance	Number of enterprises	548	100.00	529	96.53	19	3.47
	Sales value	28,494	100.00	1,844	6.47	26,650	93.53
	Domestic value	28,480	100.00	1,830	6.43	26,650	93.57
	Export value	14	100.00	14	100.00	0	0.00
Real estate and rental	Number of enterprises	3,220	100.00	3,207	99.60	13	0.40
	Sales value	9,825	100.00	6,082	61.91	3,743	38.09
	Domestic value	9,821	100.00	6,078	61.89	3,743	38.11
	Export value	4	100.00	4	100.00	0	0.00
Professional, science and technical services	Number of enterprises	4,821	100.00	4,803	99.63	18	0.37
	Sales value	17,438	100.00	8,642	49.56	8,796	50.44
	Domestic value	16,816	100.00	8,367	49.76	8,448	50.24
	Export value	622	100.00	275	44.14	347	55.86
Educational services	Number of enterprises	83	100.00	83	100.00	0	0.00
	Sales value	251	100.00	251	100.00	0	0.00
	Domestic value	251	100.00	251	100.00	0	0.00
	Export value	0	100.00	0	0.00	0	0.00
Medical, healthcare and social service	Number of enterprises	32	100.00	32	100.00	0	0.00
	Sales value	21	100.00	21	100.00	0	0.00
	Domestic value	21	100.00	21	100.00	0	0.00
	Export value	0	100.00	0	0.00	0	0.00
Culture, sporting and leisure services	Number of enterprises	4,527	100.00	4,526	99.98	1	0.02
	Sales value	3,012	100.00	2,896	96.15	116	3.85
	Domestic value	3,009	100.00	2,893	96.15	116	3.85
	Export value	3	100.00	3	100.00	0	0.00
Other service industries	Number of enterprises	9,284	100.00	9,280	99.96	4	0.04
	Sales value	8,871	100.00	8,256	93.06	615	6.94
	Domestic value	8,814	100.00	8,203	93.07	611	6.93
	Export value	57	100.00	53	92.21	4	7.79

Note: 1. The industries are classified according to the 7th revision of Industry Classification Standard.

2. Data of Lienchiang County, a small offshore island, are included in the calculation of all figures.

Source: Ministry of Finance Tax Data Center, VAT data for consecutive years.

Table A-5 Total Employment by Industry, 2002-2006

Unit: Thousand persons; %

Industry/ Year	Size	Total	SMEs	Share	Large enterprises		Government	
					Share	Share	Share	Share
Total	2002	9,454	7,361	77.86	1,147	12.13	946	10.01
	2003	9,573	7,425	77.56	1,159	12.11	988	10.32
	2004	9,786	7,553	77.18	1,238	12.65	995	10.17
	2005	9,942	7,648	76.93	1,333	13.41	961	9.67
	2006	10,111	7,751	76.66	1,426	14.10	934	9.24
Agriculture, forestry, fishing and animal husbandry	2002	709	703	99.15	1	0.14	5	0.71
	2003	696	688	98.85	2	0.29	6	0.86
	2004	642	635	98.82	2	0.31	6	0.93
	2005	591	584	98.79	2	0.34	6	1.02
	2006	555	548	98.74	2	0.36	5	0.90
Mining and quarrying	2002	9	8	88.89	0	0.00	1	11.11
	2003	8	7	87.50	0	0.00	1	12.50
	2004	7	6	85.71	0	0.00	1	14.29
	2005	7	5	71.43	0	0.00	2	28.57
	2006	7	5	71.43	0	0.00	2	28.57
Manufacturing	2002	2,563	2,035	79.38	490	19.12	39	1.52
	2003	2,590	2,051	79.19	508	19.61	31	1.20
	2004	2,671	2,095	78.41	547	20.48	30	1.12
	2005	2,726	2,099	77.00	597	21.90	30	1.10
	2006	2,772	2,105	75.94	639	23.05	28	1.01
Water, electricity and gas	2002	35	2	5.71	2	5.71	31	88.57
	2003	35	2	5.71	3	8.57	30	85.71
	2004	35	2	5.71	3	8.57	30	85.71
	2005	34	2	5.88	2	5.88	30	88.24
	2006	34	3	8.82	2	5.88	29	85.29
Construction	2002	725	703	96.97	8	1.10	14	1.93
	2003	702	681	97.01	8	1.14	13	1.85
	2004	732	713	97.40	8	1.09	11	1.50
	2005	791	771	97.47	10	1.26	10	1.26
	2006	830	808	97.35	10	1.20	13	1.57
Wholesale and retail	2002	1,693	1,585	93.65	97	5.73	10	0.59
	2003	1,698	1,596	94.03	92	5.42	9	0.53
	2004	1,727	1,621	93.90	96	5.56	9	0.52
	2005	1,727	1,618	93.72	99	5.73	9	0.52
	2006	1,760	1,648	93.69	102	5.80	9	0.51
Accommodation and eating-drinking places	2002	575	546	95.09	28	4.87	0	0.00
	2003	585	561	95.90	24	4.10	0	0.00
	2004	602	578	96.14	23	3.82	0	0.00
	2005	629	604	96.10	24	3.82	0	0.00
	2006	660	631	95.61	28	4.24	1	0.15

Table A-5 Total Employment by Industry, 2002-2006 (continued)

Unit: Thousand persons; %

Industry/ Year	Size	Total	SMEs		Large enterprises		Government	
				Share		Share		Share
Transportation, warehousing and communication	2002	477	307	64.36	79	16.56	91	19.08
	2003	484	313	64.67	84	17.36	88	18.18
	2004	489	321	65.64	83	16.97	85	17.38
	2005	480	316	65.97	87	18.13	76	15.83
	2006	486	318	65.43	111	22.84	57	11.73
Finance and insurance	2002	378	195	51.59	153	40.48	30	7.94
	2003	376	201	53.46	145	38.56	30	7.98
	2004	386	199	51.61	157	40.67	29	7.51
	2005	404	211	52.23	169	41.83	24	5.94
	2006	406	219	53.94	167	41.13	20	4.93
Real estate and rental	2002	60	56	93.33	3	5.00	1	1.67
	2003	66	60	90.91	4	6.06	2	3.03
	2004	74	67	91.37	5	6.76	1	1.35
	2005	80	72	90.00	6	7.50	2	2.50
	2006	85	77	90.59	7	8.24	2	2.35
Professional, scientific and technical services	2002	285	226	79.30	48	16.84	11	3.86
	2003	285	226	79.30	46	16.14	13	4.56
	2004	302	241	79.80	49	16.23	12	3.97
	2005	328	263	80.18	52	15.85	13	3.96
	2006	344	268	77.91	61	17.73	15	4.36
Educational services	2002	487	148	30.39	67	13.76	272	55.85
	2003	512	161	31.45	69	13.48	282	55.08
	2004	533	171	32.18	72	13.51	289	54.22
	2005	551	178	32.30	77	13.97	296	53.72
	2006	558	184	32.97	82	14.70	292	52.33
Medical, healthcare and leisure services	2002	279	129	46.24	88	31.54	62	22.22
	2003	290	133	45.86	94	32.41	62	21.38
	2004	305	141	46.23	103	33.77	61	20.00
	2005	322	146	45.34	116	36.02	60	18.63
	2006	332	146	43.98	123	37.05	64	19.28
Culture, sporting and leisure services	2002	184	125	67.93	50	27.17	9	4.89
	2003	187	128	68.45	48	25.67	11	5.88
	2004	192	130	67.71	50	26.04	12	6.25
	2005	194	132	68.31	49	25.26	12	6.19
	2006	196	130	66.33	53	27.04	13	6.63
Other services industries	2002	666	593	89.04	33	4.95	40	6.01
	2003	692	617	89.16	32	4.62	43	6.21
	2004	716	632	88.27	40	5.59	44	6.15
	2005	729	646	88.64	42	5.76	40	5.49
	2006	741	662	89.34	40	5.40	39	5.26
Public administration	2002	329	0	0.00	0	0.00	329	100.00
	2003	369	0	0.00	0	0.00	369	100.00
	2004	373	0	0.00	0	0.00	373	100.00
	2005	351	0	0.00	0	0.00	351	100.00
	2006	346	0	0.00	0	0.00	346	100.00

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics*.

Table A-6 Number of Paid Employees by Industry, 2002-2006

Unit: Thousand persons; %

Industry/ Year	Size	Total	SMEs	Large enterprises		Government		
				Share	share	Share	Share	
Total	2002	6,771	4,682	69.15	1,143	16.88	946	13.97
	2003	6,898	4,754	68.92	1,156	16.76	988	14.32
	2004	7,131	4,903	68.74	1,234	17.30	995	13.95
	2005	7,336	5,047	68.80	1,327	18.09	961	13.10
	2006	7,542	5,186	68.76	1,422	18.85	934	12.38
Agriculture, forestry, fishing and animal husbandry	2002	75	69	92.00	1	1.33	5	6.67
	2003	79	71	89.87	2	2.53	6	7.59
	2004	75	68	90.06	2	2.67	6	8.00
	2005	75	68	90.54	2	2.67	6	8.00
	2006	73	66	90.41	2	2.74	5	6.85
Mining and quarrying	2002	8	7	87.50	0	0.00	1	12.50
	2003	8	7	87.50	0	0.00	1	12.50
	2004	7	5	79.14	0	0.00	1	14.29
	2005	7	5	71.43	0	0.00	2	28.57
	2006	6	5	83.33	0	0.00	2	33.33
Manufacturing	2002	2,274	1,747	76.82	489	21.50	39	1.72
	2003	2,301	1,763	76.62	507	22.03	31	1.35
	2004	2,382	1,806	75.82	546	22.92	30	1.26
	2005	2,444	1,818	74.40	595	24.35	30	1.23
	2006	2,492	1,826	73.27	638	25.60	28	1.12
Water, electricity and gas	2002	35	2	5.71	2	5.71	31	88.57
	2003	35	2	5.71	3	8.57	30	85.71
	2004	35	2	5.71	3	8.57	30	85.71
	2005	34	2	5.88	2	5.88	30	88.24
	2006	34	3	8.82	2	5.88	28	82.35
Construction	2002	600	578	96.33	8	1.33	14	2.33
	2003	586	565	96.42	8	1.37	13	2.22
	2004	609	590	96.88	8	1.31	11	1.81
	2005	662	642	96.98	10	1.51	10	1.51
	2006	693	671	96.83	10	1.44	13	1.88
Wholesale and retail	2002	875	769	87.89	96	10.97	10	1.14
	2003	886	785	88.65	91	10.27	9	1.02
	2004	917	812	88.55	96	10.47	9	0.98
	2005	932	824	88.41	99	10.62	9	0.97
	2006	969	859	88.65	101	10.42	9	0.93
Accommodation and eating-drinking places	2002	280	252	90.00	28	10.00	0	0.00
	2003	277	252	91.29	24	8.66	0	0.00
	2004	290	267	92.07	23	7.93	0	0.00
	2005	312	288	92.31	24	7.69	0	0.00
	2006	341	313	91.79	28	8.21	1	0.29

Table A-6 Number of Paid Employees by Industry, 2002-2006 (continued)

Unit: Thousand persons; %

Industry/ Year	Size	Total	SMEs		Large enterprises		Govern-ment	
			Share	Share	Share	Share		
Transportation, warehousing and communication	2002	352	182	51.71	78	22.16	91	25.85
	2003	363	192	52.89	83	22.87	88	24.24
	2004	366	198	54.10	83	22.68	85	23.22
	2005	365	202	55.34	87	23.84	76	20.82
	2006	371	204	54.99	111	29.92	57	15.36
Finance and insurance	2002	374	191	51.07	153	40.91	30	8.02
	2003	372	197	52.96	145	38.98	30	8.06
	2004	383	196	51.19	157	40.99	29	7.57
	2005	401	208	51.87	169	42.14	24	5.99
	2006	404	217	53.71	167	41.34	20	4.95
Real estate and rental	2002	43	38	89.78	3	6.98	1	2.33
	2003	48	42	87.50	4	8.33	2	4.17
	2004	56	50	89.29	5	8.93	1	1.79
	2005	62	54	87.10	6	9.68	2	3.23
	2006	404	217	53.71	167	41.34	20	4.95
Professional, scientific and technical services	2002	219	161	73.52	47	21.46	11	5.02
	2003	222	162	73.29	46	20.72	13	5.86
	2004	230	170	73.63	49	21.30	12	5.22
	2005	247	182	73.68	52	21.05	13	5.26
	2006	261	186	71.26	60	22.99	15	5.75
Educational services	2002	464	126	27.16	66	14.22	272	58.62
	2003	485	135	27.84	69	14.23	281	57.94
	2004	505	143	28.43	72	14.26	289	57.23
	2005	523	149	28.59	77	14.72	296	56.60
	2006	530	156	29.43	81	15.28	292	55.09
Medical, healthcare and leisure services	2002	240	90	37.50	88	36.67	62	25.83
	2003	250	93	37.36	94	37.60	62	24.80
	2004	265	102	38.49	103	38.87	61	23.02
	2005	283	107	37.81	116	40.99	60	21.20
	2006	296	109	36.82	122	41.22	64	21.62
Culture, sporting and leisuers services	2002	160	100	62.69	50	31.25	9	5.63
	2003	159	101	63.26	48	30.19	11	6.92
	2004	162	100	61.73	50	30.86	12	7.41
	2005	158	97	61.54	48	30.38	12	7.59
	2006	163	97	59.51	53	32.52	13	7.98
Other services industries	2002	443	371	83.75	32	7.22	40	9.03
	2003	460	386	83.76	32	6.96	43	9.35
	2004	476	393	82.56	39	8.19	44	9.24
	2005	482	400	82.99	42	8.71	40	8.30
	2006	498	419	84.14	40	8.03	39	7.83
Public administration	2002	329	0	0.00	0	0.00	329	100.00
	2003	369	0	0.00	0	0.00	369	100.00
	2004	373	0	0.00	0	0.00	373	100.00
	2005	351	0	0.00	0	0.00	351	100.00
	2006	346	0	0.00	0	0.00	346	100.00

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics*.

Table A-7 Women Owned Enterprises in 2006 – Number of Enterprises and Sales Value by Industry

Unit: Number of enterprises; NT\$ million; %

Industry/Size \ Item		Number of Enterprises			Sales Value		
		Total	Women owned Enterprises	Women owned Enterprises' Share	Total	Women owned Enterprises	Women owned Enterprises' Share
Total	Total	974,983	359,316	36.85	18,309,688	2,553,462	13.95
	SMEs	959,460	356,660	37.17	6,256,874	1,433,504	22.91
	Large enterprises	15,523	2,656	17.11	12,052,814	1,119,958	9.29
Agriculture, forestry, fishing and animal husbandry	SMEs	9,926	2,182	21.98	8,742	1,760	20.13
	Large enterprises	26	10	38.46	15,462	3,632	23.49
Mining and quarrying	SMEs	957	211	22.05	24,590	2,193	8.92
	Large enterprises	12	0	0.00	6,689	0	0.00
Manufacturing	SMEs	84,930	21,723	25.58	2,302,035	316,252	13.74
	Large enterprises	2,408	206	8.55	4,684,450	147,193	3.14
Water, electricity and gas	SMEs	347	87	25.07	5,026	455	9.06
	Large enterprises	107	8	7.48	389,011	15,780	4.06
Construction	SMEs	60,069	14,518	24.17	688,640	155,145	22.53
	Large enterprises	810	152	18.77	363,264	36,397	10.02
Wholesale and retail	SMEs	510,108	198,456	38.90	2,329,732	691,301	29.67
	Large enterprises	8,213	1,640	19.97	3,737,664	618,534	16.55
Accommodation and eating-drinking places	SMEs	100,768	49,675	49.30	160,947	61,247	38.05
	Large enterprises	140	25	17.86	50,756	11,816	23.28
Transportation, warehousing and communications	SMEs	26,526	6,326	23.85	197,101	54,385	27.59
	Large enterprises	700	117	16.71	562,891	64,888	11.53
Finance and insurance	SMEs	7,062	2,031	28.76	97,369	19,165	19.68
	Large enterprises	1,418	190	13.40	1,391,095	104,621	7.52
Real estate and rental	SMEs	20,151	6,257	31.05	111,842	28,383	25.38
	Large enterprises	722	154	21.33	341,257	73,092	21.42
Professional, science and technical services	SMEs	30,396	10,256	33.74	125,482	36,333	28.95
	Large enterprises	448	66	14.73	293,061	19,167	6.54
Educational services	SMEs	294	114	38.78	1,152	245	21.23
	Large enterprises	5	0	0.00	1,620	0	0.00
Medical, healthcare and social service	SMEs	273	88	32.23	805	199	24.71
	Large enterprises	3	0	0.00	749	0	0.00
Culture, sporting and leisure service	SMEs	26,394	8,552	32.40	55,488	15,229	27.45
	Large enterprises	223	33	14.80	107,390	10,731	9.99
Other service industries	SMEs	81,259	36,184	44.53	147,925	51,211	34.62
	Large enterprises	288	55	19.10	107,453	14,107	13.13

Note: The figure in total do not include those enterprises that owners are legal persons or foreigners for which gender cannot be identified.

Source: Ministry of Finance Tax Data Center, business income tax data, 2006.

TableA-8 Women Owned Enterprises in 2006 – Domestic Sales value and Export Sales Value by Industry

Unit: NT\$ million; %

Industry/Size	Item	Domestic Sales			Export Sales		
		Total	Women owned Enterprises	Women owned Enterprises' Share	Total	Women owned Enterprises	Women owned Enterprises' Share
Total	Total	13,829,367	2,135,791	15.44	4,480,321	417,672	9.32
	SMEs	5,408,812	1,301,361	24.06	848,063	132,144	15.58
	Large enterprises	8,420,555	834,430	9.91	3,632,258	285,528	7.86
Agriculture, forestry, fishing and animal husbandry	SMEs	7,953	1,573	19.78	790	187	23.71
	Large enterprises	14,370	3,408	23.72	1,092	224	20.49
Mining and quarrying	SMEs	24,313	2,179	8.96	276	14	5.21
	Large enterprises	6,282	0	0.00	406	0	0.00
Manufacturing	SMEs	1,706,928	261,056	15.29	595,107	55,196	9.28
	Large enterprises	2,237,025	102,592	4.59	2,447,426	44,600	1.82
Water, electricity and gas	SMEs	4,976	455	9.15	50	0	0.00
	Large enterprises	380,326	15,780	4.15	8,685	0	0.00
Construction	SMEs	683,282	154,053	22.55	5,357	1,092	20.38
	Large enterprises	361,891	36,389	10.06	1,373	8	0.59
Wholesale and retail	SMEs	2,101,393	620,919	29.55	228,339	70,382	30.82
	Large enterprises	2,803,925	402,353	14.35	933,739	216,181	23.15
Accommodation and eating-drinking places	SMEs	160,649	61,179	38.08	298	68	22.90
	Large enterprises	50,060	11,381	22.73	696	435	62.45
Transportation, warehousing and communications	SMEs	186,202	51,302	27.55	10,899	3,083	28.29
	Large enterprises	395,910	43,156	10.90	166,981	21,731	13.01
Finance and insurance	SMEs	97,294	19,121	19.65	74	44	59.33
	Large enterprises	1,390,122	104,621	7.53	972	0	0.00
Real estate and rental	SMEs	111,425	28,252	25.35	417	131	31.46
	Large enterprises	334,514	73,083	21.85	6,743	9	0.14
Professional, science and technical services	SMEs	120,611	34,874	28.91	4,872	1,459	29.95
	Large enterprises	234,142	18,068	7.72	58,920	1,098	1.86
Educational services	SMEs	1,150	245	21.28	3	0	0.00
	Large enterprises	1,561	0	0.00	59	0	0.00
Medical, healthcare and social service	SMEs	805	199	24.71	0	0	0.00
	Large enterprises	730	0	0.00	19	0	0.00
Culture, sporting and leisure service	SMEs	55,175	15,197	27.54	313	32	10.24
	Large enterprises	105,831	10,695	10.11	1,559	36	2.29
Other service industries	SMEs	146,656	50,757	34.61	1,269	454	35.79
	Large enterprises	103,865	12,901	12.42	3,589	1,206	33.61

Note: The figure in total do not include those enterprises that owners are legal persons or foreigners for which gender cannot be identified.

Source: Ministry of Finance Tax Data Center, business income tax data, 2006.

Appendix B

Table B The Evolving Definition of SMEs in Taiwan

Year of modification	Industry	Manufacturing	Construction	Mining and quarrying	Commerce, transportation services and other services
September 1967		Capital under NT\$ 5 million; and regular employees under 100 persons.			Annual operating revenue under NT\$ 5 million; and regular employees under 50 persons.
March 1973		Registered capital under NT\$ 5 million and total assets not exceeding NT\$ 20 million, or registered capital under NT\$ 5 million and the number of regular employees in accordance with the standards as below: (1) under 300 persons for garments, clothing and electronics industry; (2) under 200 persons for food products industry; (3) under 100 persons for others.			No change
August 1977		Paid-in capital under NT\$ 20 million and total assets amount not exceeds NT\$ 60 million, and the number of regular employees not exceeds 300 persons.		Paid-in capital under NT\$ 20 million and the number of regular employees not exceed 500 persons.	Annual operating revenue under NT\$ 20 million; and regular employees under 50 persons.
February 1979		No change		Paid-in capital under NT\$ 40 million.	No change
July 1982		Paid-in capital under NT\$ 40 million and total assets amount not exceed NT\$ 120 million.		No change	Annual operating revenue under NT\$ 40 million.
November 1991		No change, except for extending industry terms into construction.		No change	No change
September 1995		Paid-in capital not exceeds NT\$ 60 million; or regular employees not exceed 200 persons.			Total operating revenue in the preceding year not exceeds NT\$ 80 million; or its regular employees not exceed 50 persons (extending industry terms to agriculture).
May 2000		Paid-in capital not exceeds NT\$ 80 million; or regular employees not exceed 200 persons.			Total operating revenue in the preceding year not exceeds NT\$ 100 million; or its regular employees not exceed 50 persons (extending industry terms to agriculture).
July 2005		Paid-in capital not exceed NT\$ 80 million; or regular employees not exceed 200 persons.			Total operating revenue in the preceding year not exceeds NT\$ 100 million; or its regular employees not exceed 50 persons (Industrial classification has changed according to the 7 th edition).

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