White Paper on Small and Medium Enterprises in Taiwan, 2004



Small and Medium Enterprise Administration Ministry of Economic Affairs September, 2004

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Foreword

Over the past decade, the domestic and international economic environment has seen drastic changes. The rapid rise of mainland China and other emerging economies, globalization led by multinational corporations, and waves of regional economic coalitions around the world all present challenges to the successful economic model Taiwan has depended upon in the past.

'Challenge 2008: Six Years National Development Plan" was launched in 2002 to cope with the new challenges facing Taiwan's economy. The results have gradually become apparent, with the volume of trade and manufacturing production in Taiwan beginning to expand rapidly in the second half of 2003 after two years of recession. Entering 2004, the economy began to make an even stronger rebound, and the growth rate of 5.8% expected for 2004 is the highest in four years.

The statistics in this volume of the White Paper show that the performance of SMEs in 2003 also improved. The number of SMEs continued to increase, up 3.77% in 2003, the highest in three years, while SME-employment increased 0.87%. Meanwhile, the value of total sales and domestic sales of SMEs increased 16.17% and 20.10%, respectively. However, their export value decreased 1.71%, and thus providing guidance and assistance to SMEs to improve their export capability has become the focus of this Administration.

In this volume of the White Paper on SMEs, Part One examines the development of SMEs from all perspectives for

2003, followed by a comparison with their performance in previous years, and with the performance of large enterprises. A comparison of 15 economies in terms of major SME indicators and related government policies are also provided.

Two special topics are analyzed in Part Two, the impact of SARS on SMEs, and female entrepreneurship in Taiwan.

In Part Three, the major government policies and measures relating to SMEs are reviewed, along with their effects in the past year. The last chapter concludes with a discussion of the overall prospects on future SME policies. The Appendix to this volume provides some important SME statistics covering the last decade.

I hope that the publication of this English version of the SME White Paper can serve as a useful reference for SMEs, scholars, and government officials around the world, paving the way for a better understanding of their needs, and facilitating future cooperation.

Lai, Sun-Dual

Lai, Sun-Quae Director General Small and Medium Enterprise Administration Ministry of Economic Affairs September, 2004

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Summary

The White Paper on Small and Medium Enterprises in Taiwan, 2004, is presented in three parts, with the first part comprised of six chapters dealing with the macroeconomic environment facing SMEs, their recent development, their performance in terms of finance, labor utilization, and internationalization, and their participation in Taiwan's cultural and creative industries. The second part comprises two chapters on two special topics, dealing with the impact of the 2003 SARS epidemic on SMEs and women entrepreneurs. The last part covers two chapters on governmental guidance policy and programs for SMEs and a review of their prospects in the future. A summary of these chapters is presented below.

Macroeconomic Environment

In the first half of 2003, the war in Iraq and the Severe Acute Respiratory Syndrome (SARS) epidemic led to a continuation of the global economic downturn. However, the global economic recovery started to pick up speed during the second half of 2003, ending up with a global economic growth of 2.7 per cent for the whole year. In 2003, the economic growth rate was 3.1 per cent for the United States, 0.4 per cent for the Eurozone, 2.7 per cent for Japan, 9.1 per cent for mainland China, and 5.7 per cent for the overall Asia Pacific region. The Japanese economy has finally shown sign of recovering after many years of weakness. The Latin American economies, like Mexico, Argentina, and Brazil, were also greatly improved. But the economic performance of Africa's nations was still very much weaker than it should be.

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Despite the disruptions caused by the war and the SARS epidemic, the global economy as a whole has been improving. The volume of world trade grew by 4.5 per cent in 2003, higher than the original forecast of 3.0 per cent, with many leading trading nations seeing their currencies appreciate against the dollar. The pegged Renminbi has led to widespread calls in the international community for it to appreciate. Concerned about its overheating economy, the Chinese government has adopted measures to slow down the expansion. The emergence of China as a major player in the global economy has made other Asian nations less dependent on the United States and Japan, and intra-regional trade is becoming more significant.

Although the impact of SARS reduced Taiwan's economic growth rate in the second quarter, Taiwan's overall annual growth rate attained 3.31 per cent, due mainly to the export growth of 10.89 per cent in 2003. Over the whole year consumer spending grew only by 0.69 per cent and private-sector investment even declined by 1.47 per cent. Although the unemployment rate averaged 4.99 per cent for 2003, it fell to 4.58 per cent in December. Taiwan's economic growth rate is expected to reach 5.87 per cent in 2004, bringing Taiwan's per capita GNP up to US\$13,925.

Taiwan's international competitiveness is continuing to rise, as indicated by the global competitiveness rankings for 2003 published by Switzerland's World Economic Forum, for moving up to 5th place from 6th place in 2002, being the only Asian nation among the top five. The main reasons for Taiwan's high ranking are the impressive performance of its hi-tech sector and the aggressive pursuance of globalization by its domestic enterprises. Facing such a changing macroeconomic and competitive environment, Taiwan's SMEs need: to make effective use of marketing to create new customers, to create value and boost quality, to make culture the foundation and innovation the guide, to use new business models to discover core value, and to focus on knowledge and creativity to build competitive advantage.

SME Development

For Taiwan's industry as a whole, all indicators showed an improvement in 2003, compared to 2002. There were a total of 1.15 million SMEs in 2003, representing growth of 3.77 per cent, the largest increase for three years, but the number of large enterprises declined by 1.51 per cent. The number of SMEs as a percentage of all enterprises increased from 97.72 per cent in 2002 to 97.83 per cent in 2003. Among them 41.59 per cent had been in existence for more than 10 years and newly-established enterprises, or those in existence for less than one year, accounted for 9.57 per cent of the total. While SMEs generally aim to achieve perpetual operation, they retain a high flexibility to enter or withdraw from the market.

For both large enterprises and SMEs there was a slight increase in the number of persons employed in 2003. SMEs account for 77.56 per cent of all employed persons and play an important role in maintaining social stability and contributing to improvement in living standards for the society as a whole. In 2003, SMEs' domestic sales rose dramatically by 20.10 per cent, but their export sales fell by 1.71 per cent. Large enterprises experienced domestic sales growth of 5.85 per cent and export sales growth of 6.15 per cent. In recent years, there has been a change in Taiwan's sales structure, with SMEs coming to focus more on the domestic market while large

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enterprises produce mainly for export.

SMEs in the commercial sector continued to rank top in terms of the number of enterprises and domestic sales, followed by the manufacturing sector. The ranking was reversed in terms of persons employed and export sales. In the service sector SME domestic sales increased by 13.0 per cent, but export sales declined by 39.5 per cent. In the manufacturing sector, although both the number of enterprises and the number of persons employed fell, the export sales grew by 50.16 per cent. Regionally, northern Taiwan has the largest number of SMEs, followed by southern Taiwan. In fact, the largest concentrations of SMEs are found in Taipei City and Taipei County.

An international comparison is made for 15 economies in terms of their number, employment, sales, exports, and governmental policy for SMEs. There are similarities and differences. SME development policies in many countries offer valuable lessons. Taiwan needs to formulate a comprehensive set of SME development policies that take into account the actual circumstances in Taiwan.

Financial Status

The financial status of enterprises refers to 2002 on the basis of a one-year time lag in tax data. The overall economy was still weak in 2002. Many enterprises found that not only was overall demand falling, but that many of their customers were moving their operations overseas. The negative impact of this trend was even more pronounced among SMEs than among large enterprises. Consequently, the financial status of SMEs worsened in 2002. The sample showed that 37.19 per cent of enterprises incurred a loss, 25.36 per cent of those large enterprises and 37.74 per cent of them SMEs, indicating that SMEs suffered more from the economic downturn than large enterprises.

Due to weak domestic demand, SMEs' short-term liquidity continued to deteriorate in 2002, with the current ratio, quick ratio and inventory ratio all falling. As a proportion of total assets, SMEs' current assets declined by 3.35 percentage points in 2002, while their funds and long-term investments rose by 3.64 percentage points due to outward investment in mainland China. The fixed assets ratio fell by 0.35 percentage points and the machinery's share of total assets declined by 0.71 percentage points. Facing an uncertain economic outlook, SMEs, which tend not to have much capital, continued to delay investment in machinery. There was a slight increase in inventory turnover but a fall in the receivables turnover ratio.

SMEs' debt ratio rose slightly from 66.23 per cent in 2001 to 66.33 per cent in 2002. The current liability ratio in 2002 was 0.63 percentage points lower, but the long-term debt ratio was 0.56 percentage points higher. There was relatively little change in SME funding sources in 2002 compared to 2001. There was no significant improvement in profitability. SMEs had current profit and loss of -0.24 per cent in 2002, as compared with the 2001 figure of -0.53 per cent.

Considerable disparities are apparent between the financial structures of the different industries. As in 2001, SMEs in the construction sector had the highest ratio of current assets, at 83.68 per cent, in 2002. The social and personal services sector had the lowest ratio of 27.01 per cent. On the contrary, the social and personal services industry has the

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highest fixed asset ratio, at 65.53 per cent, while the construction industry has the lowest, at 11.84 per cent. In 2002, the short-term repayment ability of SMEs in all industries worsened, with the situation in the water, electricity and gas industry and the business services industry being particularly serious. The finance, insurance and real estate industries, and the social and personal services industries were the only industries that did not experience a worsening in their long-term repayment ability.

As of the end of 2003 there were 50 domestic banks (including 45 regular banks and five specialist SME banks) and 36 foreign banks operating in Taiwan. The total value of all outstanding bank loans to SMEs was NT\$2.81 trillion, down by NT\$7.8 billion at the end of 2002. The 10 banks providing the largest amount of loans to SMEs had a combined market share of 73.31 per cent. Of the 10 banks, the specialist SME banks occupied the top five places. The combined value of outstanding loans to SMEs by all foreign banks was NT\$16.7 billion, giving the foreign banks market share of just 0.59 per cent, roughly unchanged from 2002.

Labor Utilization

Taiwan had a total available workforce of 10.08 million in 2003. The labor participation rate was 57.34 per cent and the average unemployment rate was 4.99 per cent. Both the workforce and the number of persons in work increased in 2003 compared to 2002. Thanks to the various measures adopted by the government to boost employment, the number of unemployed fell by 12,000 compared to 2002. The labor market thus displayed more vitality in 2003 than it had done in 2002.

In 2003, a total of 7.43 million people were working in SMEs in Taiwan, about 64,000 up on the 2002 total of 7.36 million. The share of people working for SMEs fell from 77.86 per cent in 2002 to 77.56 per cent in 2003 because the implementation of the 'Project for the Creation of Employment Opportunities through the Expansion of Public Services" led to a dramatic increase in the number of people employed by the government. In 2003, the number of SME owners increased by nearly 4,000 compared to 2002, rising to 493,000. Most were aged between 25 and 55, and the share of SME owners who were female had risen slightly compared to 2002. The long-term trend is for the ratio of female SME owners to rise, reflecting a gradual increase in entrepreneurial drive among women. While the total number of self-employed persons was slightly lower than in 2002, the share held by those in the 41-55 age bracket increased because the high unemployment rate is encouraging middle-aged people who have lost their iobs to start their own businesses. The number of self-employed women has been gradually rising, with more and more women starting their own small-scale businesses. The number of people employed in SMEs in the hi-tech sector was over 1.29 million. The hi-tech sector is becoming a fertile breeding ground for SMEs.

To reduce unemployment, the government has implemented a SME Manpower Assistance Program in 2003. Under this program, SMEs that recruit new employees can receive a government subsidy of NT\$10,000 per month for each employee for a period of not more than 12 months. Over the period from June 18, 2003 to December 31, 2003 subsidies were granted for a total of 41,386 new employees at 10,992 SMEs.

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Average salaries in 2003 were higher for employees in the medical, healthcare and social services industry and some others. There was a slight fall in the wage share of total operating expenses. Average working hours per week remain more or less the same in all industries, decline with age, and vary with the level of education. Both the number of labor disputes reported to private arbitration organizations and the number of people involved in such disputes rose, but the number of disputes reported to government agencies and the number of people involved in such disputes was substantially lower than in 2002. It appears that enterprises and workers may have become more receptive to the idea of resorting to private arbitration.

2002 fewer SME employees participated In in professional training, compared to 2001. Enterprise spending on professional training remained low. Average training expenses accounted for 0.21 per cent of operating costs for SMEs, whereas the figure is only 0.1 per cent for large enterprises. The main motivation for organizing training is to meet the organization's development needs, cultivating first-rate managers, and raising overall employee quality. Promotion of e-learning in Taiwan has been underway for at least three years now, but the implementation in most SMEs is still limited to the adoption of electronic methods for data exchange and internal integration. The main limiting factors are inadequate bandwidth and IT hardware and software, and the high cost of establishing a bi-directional interactive platform for many SMEs. Cultivating specialist skills and communications skills are considered most needed in the future

Internationalization

SMEs have played a very important part in Taiwan's economic development; their strength has been the foundation for over 40 years of prosperity and growth. Many leading Taiwanese trading companies started out as SMEs, and these companies can be thought of as the forerunners in the internationalization of Taiwan's SMEs. However, since 1986 there have been major changes in the macroeconomic environment in Taiwan. The appreciation of the NT dollar destroyed the price advantage that Taiwan's exports had previously enjoyed, wages rose, and the environmental protection and labor movements grew in strength. With production costs rising, Taiwanese products were no longer as competitive as those of Southeast Asian nations, mainland China, and other Third World countries. Large numbers of Taiwanese SMEs moved their operations overseas to low-cost production destinations. This trend was not confined to manufacturing enterprises; trading companies also began to establish sourcing, purchasing distribution facilities overseas they adopted and as а trans-national marketing model.

Thus, the motivation to invest overseas was the desire: to reduce labor costs, to increase production capacity, to comply with customers' requirements, to achieve competitive advantage on cost, to develop new markets, to spread risk, to gain access to new sources of production resources, to expand into other industries, to keep up to date with the latest developments in technology, to achieve segmentation through the development of unique products, etc. Data indicates that in 2002 small enterprises accounted for 64.84 per cent of wholly-owned subsidiaries established by Taiwanese SMEs

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overseas, by 2003 this figure had risen to 67.33 per cent. Meanwhile, 87.47 per cent of SME overseas investment projects involved cash investment and more than 90 per cent for medium-sized enterprises, with around 50 per cent of SMEs providing machinery and equipment as part of their investment, and 25.43 per cent providing raw materials, components, semi-finished products or finished products. The provision of patents or technology accounted for part of the investment in less than 10 per cent of cases.

In this new era of globalized competition, collaborating with multinationals provides SMEs with a shortcut to internationalization. Taiwan still occupies an important place in the global supply chain. Not only does Taiwan possess a first-rate manufacturing capability, its OEM and ODM providers have already achieved a high level of e-adoption and e-enablement. Those Taiwanese SMEs that have yet to complete the process of internationalization need to focus more on leveraging the advantages that Taiwan's industry networks give them, using these networks of relationships to increase their e-business capabilities and to build up more experience in internationalization.

The percentage of SMEs marketing their products in overseas markets through their own subsidiaries or affiliates continues to rise, having increased from 58.41 per cent in 2000 to 61.78 per cent in 2003. The share of total sales held by local sales has increased dramatically for the SME overseas operations. Between 2001 and 2002, more than 50 per cent of SMEs experienced an increase in local sales, while over 40% reported an increase in exports to another region. Clearly, Taiwan's SMEs have achieved impressive results in their

recent efforts to develop overseas production and overseas marketing.

SMEs suffer from a shortage of human resources, and this problem is particularly acute when trying to recruit specialist and technical personnel locally. Product line segmentation and the interaction between parent company and overseas subsidiary on personnel, marketing, and financial matters is another problem to be resolved. Surveys indicate that the level of control that Taiwanese SMEs exercise over their overseas operations is increasing, with a corresponding fall in the degree of autonomy that the overseas subsidiaries enjoy.

Cultural and Creative Industries

With the cost of production factors rising and developing nations catching up, Taiwanese industry needs to adopt new concepts to create new sources of competitive advantage. If cultural industries can be integrated effectively with consumer goods industries and digital content technology can be applied to culture and creativity, then the competitiveness of Taiwanese industry can be enhanced, resulting further growth in exports and breathing new life into the Taiwan economy. Therefore, the development of the cultural and creative industry, which encompasses culture, art, technology and local traditions, has been prioritized by the government's Challenge 2008 National Development Plan.

In 2002 the total operating revenue of the cultural and creative industry came to approximately NT\$523.24 billion. The overall production value came to around NT\$302.62 billion, accounting for 2.9 per cent of GDP, as compared with 2.0 per cent in Hong Kong, 3.3 per cent in Australia, and 3.1

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per cent in New Zealand. The industry included over 47,800 enterprises, employing more than 325,500 people, about 3.4 per cent of the employed population. The four industries with the highest production value are the construction design industry, broadcasting industry, publishing industry, and handicrafts industry. The industries employing the largest number of people are the design industry, digital leisure industry, advertising industry, and publishing industry.

Three cases of successful enterprises in the cultural and creative industry are presented to reveal their experience in terms of products and commercialization strategies. The first one is Liuli Gongfang, which grew from a small workshop into one of the world's leading glassware makers. The second one is the Seagull Group, which has been very successful in marketing its 'Franz' own-brand products in international markets. The third one is PiLi International Multimedia, which successfully transformed itself from a traditional *budaihsi* puppet theatre troupe into a diversified enterprise. Their production, marketing, human resources, product design, finance, R&D, operational management, and development strategies are accounted in detail.

The cultural and creative industry can be divided into the handicraft industry and the cultural economy. To commercialize handicrafts, a maker needs to think about costs and profits and also to consider whether the company's products are sufficiently innovative and distinctive, or whether the company possesses some particular technological edge, or has a niche market that it can develop. The industrialization of culture may go through several stages from original idea, innovation formation, start-up, and then final industrialization. It is best suited to those companies that possess innovation, originality, their own brands, and the capabilities needed for successful commercialization. The government assistance can focus on particular cultural and creative industries that have strong development potential, make companies' business plans one of the criteria for assistance, canvass the views of experts and overseeing the establishment of effective peripheral and supporting systems, provide an SME innovation subsidy plan, and establish special funds and programs to foster the growth of companies that can serve as models. Thus the government and private companies can work together to promote the development of the cultural and creative industry.

SARS Epidemic

The SARS epidemic began at Foshan in Guangdong Province, mainland China, in November 2002. By the end of May 2003, the disease had spread to more than 30 countries throughout the world. Its impact on Taiwan's economy can be examined based on business tax data and on a survey conducted in the second quarter of 2004.

The impact on Taiwanese industry as a whole was relatively limited. According to tax data, overall sales for Taiwanese industry as a whole fell by 0.38 per cent year-on-year in the period May-June 2003, and sales continued to grow in every other two-month period, both consecutively and year-on-year. Nevertheless, the impact of SARS was felt in almost every industry. If one examines the changes in sales by individual industries, it is apparent that a significant number of industries experienced a decline in sales during the periods March-April and May-June 2003. In terms of year-on-year comparison with 2002, the number of industries experiencing a

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decline in sales was 31 in March-April and 36 in May-June; both these figures are substantially higher than those for the other two-month periods. If one compares sales performance with that in the previous two-month period, 20 industries can be seen to have experienced a decline in March-April, 21 in May-June, and 21 in July-August. May-June was thus the peak period for declining sales, with approximately half of Taiwan's industries seeing their sales fall off during these two months. The industries that experienced a decline in sales in March-April and May-June were mainly in the service sector, such as the retail industry, hotel industry, restaurant industry, air transportation industry, insurance industry, and leisure industry. In the manufacturing sector there was no pronounced decline in sales until May-June, and even then it was short-lived.

The questionnaire survey also showed that, although the impact of SARS was felt across a wide range of industries, in most cases its impact was short-lived. Only a minority of industries (travel, hotel, and restaurant) suffered heavily, or for an extended period. The survey results indicated that as of April 2004 (one year on from the SARS epidemic), 12 per cent of enterprises felt that their operating revenue was still being affected by SARS. The main strategies adopted by business enterprises in response to SARS were to strengthen sanitation, introduce cost-cutting measures, and make adjustments to production or service contents, and one-third of enterprises did not adopt any special response measures. Moreover, 57 per cent of respondents stated that their domestic investment was not adversely affected by SARS and 25 per cent said otherwise. The size of an enterprise appeared to make little difference. On the other hand, 50 per cent of respondents reported a reduction

in confidence to invest in mainland China and 47 per cent stated that their confidence had not been affected.

Women's Entrepreneurial Activity

Helping women to improve their economic welfare can benefit families and the economy, and can also reduce the problem of poverty. Many international organizations have been thus aggressively promoting women's entrepreneurial activity. In Taiwan, women have come to account for an increasingly large percentage of entrepreneurs. Of all the new enterprises that were established in 2003, 37.57 per cent had a woman as chairperson or business owner, higher than almost any other country in the world. In 1978, women accounted for just 10.15 per cent of business owners and 15.79 per cent of the self-employed. By 2003 these figures had risen to 15.14 per cent and 22.00 per cent, respectively. As women come to account for a higher percentage of Taiwan's entrepreneurs, the importance of female entrepreneurs within the economic system is increasing.

The factors affecting women's entrepreneurial activity in Taiwan are many. These include Taiwan's rapid economic growth. increased educational opportunities, gradual acceptance of job equality, growing service sector, emergence of the knowledge economy, growth of franchise operations, and government promotion. Since 1968 the Taiwan government has been providing special loans to young entrepreneurs so as to encourage the establishment of new SMEs. As of the end of 2003 the loan program had helped nearly 30,000 individuals, many of them women, to start their own businesses. The loans have thus made a significant contribution towards promoting entrepreneurial activity by

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women. In recent years, the government has also organized special incubator facilities and guidance programs for female entrepreneurs. These measures have helped women to strengthen their business capabilities and undertake effective business development planning.

In 2003 there were 1,164,121 people heading business enterprises in Taiwan, of which 33.87 per cent of the total were women. By comparison, in 2002 women accounted for 46 per cent of the owners of unlisted companies in the US, and the figure for mainland China was only around 12.6 per cent. However, the average operating revenue of female-owned businesses is only around 30% that of male-owned businesses. Although both male-owned and female-owned enterprises are more likely to be oriented towards the domestic market, the trend is more pronounced among female-owned enterprises. Sole proprietorships are the largest single group of femaleowned businesses, but their average size is guite small. The service sector accounts for 86.42 per cent of all female-owned businesses in Taiwan. The industry with the largest number of female-owned businesses is the wholesale and retail industry. In 2003 a total of 41,864 new female-owned businesses were established in Taiwan, accounting for 10.62 per cent of all female-owned enterprises, and 37.56 per cent of all newly-established enterprises. Female-owned businesses in Taiwan are highly concentrated in the major metropolitan areas of Taipei City, Taipei County, and Kaohsiung City. These three districts combined account for 38.46 per cent of all female-owned enterprises in Taiwan, and 55.93 per cent of the total operating revenue of all female-owned enterprises in Taiwan.

Self-motivated and externally motivated are the two main types of motivation for women to establish a new business. Women's businesses can be technology-oriented and nontechnology-oriented. The examples of the first type are the chairperson of Chiu Ta Stationery and the founder of O'Girl Trading Corp., while the examples of the second type are the founder of Taohuayuan Workshop and the founder of Family-Life Co. Market and product positioning, funding sources, brand management, sales channels, and the problems encountered by female entrepreneurs are discussed with actual examples in Chapter 8 in detail.

The government in Taiwan currently provides various forms of assistance for entrepreneurial activity. Low-interest loans available to women, the Flying Swallow Plan, and the Flying Phoenix Plan are specifically for women, the other forms of government assistance are not gender-specific. In the future, government policy regarding the promotion of entrepreneurial activity by women is to emphasize the exchange and sharing of experience, and on strengthening entrepreneurs' knowledge in the areas of operational management, financial planning, technology and other specialized fields. The government will need to focus on building a suitable environment for entrepreneurial activity, the establishment of female entrepreneurial activity funds, and enhancing the visibility of female-owned businesses.

Guidance Policy and Measures

The Small and Medium Enterprise Administration (SMEA) has been working to improve the overall business environment for SMEs, encouraging SMEs to collaborate with each other, and providing guidance to help SMEs achieve self-strengthening. The overall aim is to develop Taiwan into an ideal location for the establishment, growth and development of SMEs. SME development policy is adjusted as necessary in line with the changes in the domestic and international economic environment and in SMEs' needs. At the same time, the SMEA tries to draw ancillary measures appropriate to SMEs' current requirements in order to enhance their competitiveness, thereby instilling new vitality into Taiwanese industry. Several topics are discussed in Chapter 9 on implementation of the SME guidance and service mechanism, establishment of an SME start-up and incubation platform, upgrading SMEs' technology capabilities, strengthening SME management, and IT building a first-class environment for SME development, and allocated SME development the resources to bv the government.

One of the main emphases on the government's efforts to help SMEs strengthen their own capabilities has been the provision of various types of resources, along with attempts to ensure effective integration of external networks. These include strengthening the SME troubleshooting center and local SME service centers, continuing the promotion of the SME honorary instructor system and the industrial upgrading training activities, and expanding the publication of SME success stories.

The establishment of an SME start-up and incubation platform includes such measures as the provision of start-up information and inquiry services, the establishment of entrepreneurship and innovation colleges, organizing entrepreneurship and innovation fairs, holding the national new enterprise award competition, organizing the exchange of experience between entrepreneurs, continuing manpower cultivation for entrepreneurial activity, continuing financial assistance for public and private incubator centers, promoting the establishment of an SME incubator center within the Tainan science-based industrial park, promoting the development of the Nankang software industry incubator center and other incubator center related work, helping SME start-ups to obtain working capital, and strengthening SME human resources development and training.

To upgrade SMEs' technology and IT capabilities, the SMEA needs to strengthen the information management capabilities of Taiwan's SMEs by continuing provision of guidance to help SMEs establish industry-specific on-line databases and e-commerce systems, establishing e-enablement and e-service teams, stepping up the cultivation of e-adoption talent, establishing electronic marketplaces and appraising their effectiveness, promoting on-line learning, adoption of broadband internet access, and SME information management applications, strengthening the provision of SME information management guidance service, and providing guidance for the enhancement of SMEs' quality management capability.

On strengthening SME management, the SMEA needs to improve the quality of SME management, and promote SME upgrading and transformation, help SMEs to strengthen their financial and accounting systems and to ensure they have adequate working capital through special purpose loans, expanding the government's efforts to promote the development of traditional local industries.

On building a first-class environment for SME development, the SMEA must ensure that SMEs' legal rights

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are protected by helping SMEs to establish legal affairs systems, organizing related education and training activities, and providing information on laws and regulations, along with related consulting services, to SMEs. The SMEA can also help SMEs to secure government procurement business opportunities by providing information relating to government purchasing opportunities and government procurement law and seminars to help SMEs participate in government procurement.

In 2003, the government allocated resources totaling approximately NT\$690.6 billion to SME development, of which the government purchased goods and services worth NT\$653 billion from SMEs. The Ministry of Economic Affairs provided guidance to SMEs worth a total of NT\$18.72 billion. Special project loans for SMEs totaled around NT\$13.19 billion. Subsidies, allowances and compensation totaled NT\$597.45 million.

Prospects for SME Guidance Policy

With the trend towards economic globalization and the development of the knowledge economy, the key factors affecting SME operations today are innovation, speed and markets. These three factors are closely inter-related. In the past, the assistance that the Taiwan government has provided to SMEs in these areas has taken many different forms and has made numerous contributions. However, many improvements still can be made. For example, there is a need for more provision of guidance to start-ups. There is also a need to revise the relevant laws and regulations for more flexibility and efficiency and to strengthen the existing SME guidance and credit guarantee systems.
The most urgent work is the revision of relevant sub-statutes of the SME Development Statute on such matters as regulations governing the provision of guidance for SME start-up, regulations governing the management of incubator centers and venture capital firms, regulations governing SME guidance measures, and regulations governing direct investment by the SME development fund.

In the future, for enterprise start-ups, the SME start-up guidance service center should continue to provide one-stop service by the same staffers. It should also strive to achieve an effective division of labor between itself and other agencies providing similar services. In particular, the activities of the SME start-up guidance service center need to be integrated with those of the instant solution center, and with those of the dual-track financing system being promoted by the instant solution center, the SME credit guarantee fund, and the joint guidance center, so as to keep the cost of communication and coordination to a minimum. In the area of innovation and incubation, efforts should be made to relax the legal framework and clarifying the status of persons working in the academic sector, strengthening the cultivation of SMEs in the service development of new technology sector. (access and applications). Finally, the SME credit guarantee fund should focus on five main areas: expansion of the direct credit guarantee mechanism, promotion of a new enterprise appraisal diversification guarantee of credit operations, system, strengthening the financial health of the Fund, and performing efficient service.

Part One Recent Development of SMEs

2007

Chapter 1

The Macroeconomic Environment

In the first half of 2003, the war in Iraq and the Severe Acute Respiratory Syndrome (SARS) epidemic led to a continuation of the global economic downturn. Not only did the global economy grow at a very slow pace, the international flow of goods and people was severely disrupted. Fortunately, the US conquest of Iraq was completed very rapidly, and the epidemic was brought under control in only a few weeks. Financial markets, the corporate sector and ordinary consumers gradually began to regain confidence, and by the second half of 2003 the global economic recovery was starting to pick up speed.

Both the war in Iraq and the SARS epidemic had a substantial negative impact on the Taiwanese economy. However, as the global economy began to pick up again, so too did Taiwan's economy. The leading Taiwanese and international economic forecasting institutions are mostly optimistic about the prospects for continuing economic growth in 2004. Nevertheless, Taiwan's small and medium enterprises (SMEs) still face the challenge of achieving breakthroughs in intensely competitive global markets and in the complex relationship between Taiwan and mainland China.

I Changes in the International Economic Environment

1. A Gradual Improvement in the Global Economic Outlook in 2003

Despite the short duration of the US-Iraq war in the first quarter of 2003, the constant rumors, which had begun in the second half of 2002, that a US invasion of Iraq was incipient discouraged investment, depressed the world's leading stock markets, and led to violent fluctuations in the price of oil.

Meanwhile, as the war in Iraq was drawing to a close, the seriousness of the SARS epidemic was becoming more pronounced, causing global panic. The economies of the East Asian nations were most severely affected. Taiwan, mainland China, Hong Kong and Singapore all experienced either negative growth or a very low economic growth rates in the second quarter of 2003; overall, the negative impact was on a par with the Asian Financial Crisis of the late 1990s.

However, by the second half of the year the SARS epidemic had been brought under control and the global economy was showing signs of rebounding. Both consumer confidence and business confidence began to revive, and the price of raw materials started to increase again. Countries worldwide were using fiscal and monetary policy to try to create an environment conducive to economic growth. As a result, the global economy achieved a growth rate of 3.9% in the second half of the year (Table 1-1-1).

					Unit: %
Zone/ Country Year	World	US	Japan	Mainland China	Eurozone
2000	4.7	3.8	2.4	8.0	3.5
2001	2.4	0.3	0.4	7.5	1.5
2002	3.0	2.2	-0.3	8.0	0.9
2003	3.9	3.1	2.7	9.1	0.4

Table 1-1-1Economic Growth Rates for Leading Nations,
2000 – 2003

Source: IMF, World Economic Outlook, April 2004.

2. Steady Economic Growth in the US

Although the US economy had begun to show some signs of recovery in 2001, the low levels of investment and consumer confidence, rising unemployment and worsening budget deficit that the US had been experiencing since the 1990s continued through into 2003. Although the invasion of Iraq, which ended soon after it began in March 2003, the war resulted in a 45% increase in defense spending, causing the budget deficit to balloon.

The success in bringing the war in Iraq to a rapid conclusion helped to restore confidence. Whereas in the first quarter of 2003 the US economy had grown by 1.2%, in the second quarter it grew by 1.8%, partly because both consumer spending and the level of investment in the corporate sector were increasing, but also because the massive increase in defense spending caused overall government expenditure to rise.

In the second half of the year, with political and economic

stability having been reestablished, increased consumer spending began to stimulate industrial production again, and foreign trade expanded. In the third and fourth quarters the US economy grew by 3.0% and 2.8% respectively, giving an economic growth rate for the whole year of 3.1%, 0.9 percentage points up on 2002 (Table 1-1-1).

3. A Slow Pace of Economic Recovery in the Eurozone

In the first half of 2003 the Eurozone economies continued to stagnate. By the second half of the year, however, a gradual economic upturn in the US and Japan was providing a substantial boost to exports. This, coupled with a relaxation of monetary policy and a revitalization of the financial sector, led to a steady improvement in economic growth in the Eurozone. The performance of Germany, France and Italy in the first three quarters was particularly impressive. However, slow growth returned in the fourth quarter, so that for the whole of 2003 the economic growth rate in the Eurozone was just 0.4%, 0.5 percentage points down on 2002.

Within the Eurozone the strong Euro, a reduction in private-sector investment and a decline in consumer confidence prevented the economic recovery from taking wing. Over the course of 2003 the Eurozone suffered a net loss of around 200,000 jobs, its first decline since 1994, and the unemployment rate rose to 8.9%.

Although consumer spending grew slowly, while private-sector investment had been falling for several quarters in a row, nevertheless, by the end of 2003 the strong Euro and the consequent fall in price of imports was giving a boost to consumer spending again. Nevertheless, the Eurozone nations' substantial budget deficits ensured that both consumer confidence and business confidence remained depressed. Not only did this reduce the impact of the government's fiscal policy, it also increased the risk that long-term interest rates would begin to rise again.

4. A Continuing Economic Recovery in the Asia Pacific Region

By 2003, Japan was showing signs of emerging from the economic malaise of the previous few years. A dramatic increase in exports was boosting output, leading to a recovery in business confidence that in turn stimulated capital expenditure. Japan's economic performance in 2003 was thus better than had originally been anticipated; according to an IMF estimate, the Japanese economy grew by 2.7% in 2003 (Table 1-1-1).

Nevertheless, Japan's recovery was attended by a high level of risk. Japan's financial institutions were still saddled with an enormous quantity of non-performing loans, and the unemployment rate remained stubbornly high in the second half of the year; in fact, it appeared that Japan might be experiencing a "jobless recovery." With prices continuing to fall, deflation remained a problem. There were thus still some clouds hanging over the economy as Japan headed towards 2004; it remains to be seen how these will affect the competitiveness of Japan's exports.

As for other Asia Pacific countries, following the SARS epidemic, the upturn in the US and rapid growth in the hi-tech sector provided stimulus for both exports and consumer spending, and industrial production expanded steadily.

Mainland China has been leading growth for the Asia Pacific region as a whole. According to estimates produced by the Asian Development Bank, for the overall Asia Pacific region the economic growth rate in 2003 may have been as high as 5.7%.

5. Signs of Improvement in Other Regions due to a Global Economic Upturn

The Latin American economies are highly dependent on the US, and this is particularly true of Mexico. The continuing upturn in the US has boosted Mexico's exports. At the same time. low interest rates have provided stimulus for private-sector investment and consumer spending, leading to a significant improvement in the health of the Mexican economy in 2003. The upturn in the global economy as a whole also contributed to impressive growth in Argentina and Brazil. Argentina had already experienced a financial crisis in 1998, and in 2002 the economy contracted by 16%. This left large quantities of resources lying idle, creating the potential for a dramatic recovery in 2003.

Africa's integration into the global economy is still much weaker than it should be; nevertheless, African nations do rely on exports for economic growth. In 2003, commodity prices remained depressed, and some countries were affected by drought and resulting poor harvests, making 2003 a year of severe economic downturn.

6. Devaluation of the US Dollar and a Euro Rising to New Highs

By the second half of 2002, the depressed state of the US

economy and the US government's huge current account deficit were exerting heavy deflationary pressure on the US dollar. The US invasion of Iraq in March 2003 and the reconstruction following the war led to a substantial increase in defense spending, causing the government's budget deficit to gradually worsen.

Faced with a serious current account deficit and budget deficit, the US abandoned its long-standing efforts to maintain a strong dollar. As a result, almost all of the world's leading trading nations saw their currencies appreciate against the dollar. From end-2002 to end-2003 the Euro appreciated by 20% against the US dollar, the Yen appreciated by 10%, the Pound appreciated by 11%, the Canadian Dollar appreciated by 18%, the NT Dollar appreciated by 2.2%, the New Zealand Dollar appreciated by 25%, the Australian Dollar appreciated by 34% and the Singapore Dollar appreciated by 2%.

While other currencies were appreciating, because the Renminbi is pegged to the US dollar the depreciation of the US dollar caused the Renminbi to depreciate too, providing a further boost to the competitiveness of China's exports, leading to widespread calls in the international community for the Renminbi to be allowed to appreciate.

7. Rapidly Increasing Foreign Exchange Reserves among the Asian Nations

IMF statistics indicate that, over the past two years, the foreign exchange reserves of the Asian nations have grown 1.5-fold; they now account for approximately 60% of the world's total foreign exchange reserves. As of the end of December 2003 Japan's foreign exchange reserves totaled US\$673.5 billion,

representing year-on-year growth of 43%. Taiwan and South Korea had total foreign exchange reserves of US\$206.6 billion and US\$155.4 billion at end-2003; in both cases this represented year-on-year growth of 28% (Table 1-1-2).

				Units: L	JS\$ billions ; %
Country Item	Japan	Mainland China	Taiwan	South Korea	Hong Kong
Foreign exchange reserves	673.5	403.3	206.6	155.4	118.4
Growth rate	43	42	28	28	6
Country	Singapore	Malaysia	Thailand	Indonesia	Philippines
Foreign exchange reserves	96.3	44.9	40.9	35.8	16.8
Growth rate	17	31	5	16	28

Table 1-1-2The Foreign Exchange Reserves of Leading Asian
Nations (End of December 2003)

Note: Data for the Philippines is for the period up to end-November 2003. Source: The respective countries' central bank.

Mainland China's foreign exchange reserves have doubled in the last two years. By the end of 2003 they stood at US\$403.3 billion, representing year-on-year growth of 42%. The main reason for this growth is the fact that the Renminbi remains pegged to the US dollar, which tends to attract foreign investment.

8. The Volume of World Trade Grew by 4.5% in 2003

The SARS epidemic in the first half of 2003 had a serious dampening effect on the expansion of global trade. However, with the economies of both the US and the Asian nations continuing to recover, the volume of world trade grew by 4.5% overall in 2003, higher than the original forecast of 3.0%. Commodity exports totaled US\$7.3 trillion, representing a

growth rate of 16%, while exports of services rose by 12%.

Mainland China experienced import growth of 40% and export growth of 35%; both of these figures were unprecedentedly high. China became the world's third largest importer, behind the US and the European Union; in terms of exports it ranked fourth, behind the European Union, the US and Japan.

9. The Global Business Climate is Gradually Starting to Improve

Despite the negative impact of the war in Iraq and the SARS epidemic on the global economy in 2003, by the second half of the year the factors that had retarded economic growth were gradually disappearing, and the global economy as a whole was starting to pick up again. According to leading international institutions and forecasting agencies such as the IMF, Global Insight and the Economist Intelligence Unit (EIU), with the aggressive measures being taken in the US and other advanced nations to cut interest rates and reduce taxation, and with the wealth effect keeping the stock market buoyant, the recovery is continuing to pick up speed. Global Insight forecasts that the global economy as a whole will grow by 4.0% in 2004 (Table 1-1-3).

With both exports and consumer spending continuing to increase, the Japanese economy is also gradually recovering; Japan is expected to achieve a growth rate of 4.1% in 2004. The emergence of China as a major player in the global economy has made other Asian nations less dependent on the US and Japan; intra-regional trade is becoming more significant. Having built up a reputation as "factory to the

world," in 2004 the Chinese economy is expected to grow by 8.1%, and other East Asian nations will also experience high rates of economic growth. Concerned that the economy may be overheating, the Chinese government has adopted measures to bring the growth rate down. In the ASEAN member nations, high consumer spending should ensure an average growth rate in excess of 4% in 2004, and in Thailand the growth rate may be as high as 8%.

Zone/Country Institution	World	US	Japan	Mainland China	Eurozone
World Bank	3.7	4.6	3.1	7.7	1.7
OECD	3.0 *	4.2	1.8	-	1.8
Project Link	3.7	4.7	3.1	8.5	1.6
IMF	4.6	4.6	3.4	8.5	1.7
Global Insight	4.0	4.7	4.1	8.1	1.4

Table 1-1-3 Economic Growth Rate Forecasts for 2004

Notes: 1. DRI-WEFA was renamed Global Insight Inc. in October 2002. 2. *Includes only OECD member nations.

Sources: 1. Global Economic Prospects, World Bank, April 2004.

2. Economic Outlook, OECD, December 2003.

3. LINK Global Economic Outlook, UN, April 2004.

4. World Economic Outlook, IMF, April 2004.

5. World Overview, Global Insight, April 2004.

II Economic Trends in Mainland China and Economic Interaction between Taiwan and Mainland China

1. The Mainland Chinese Economy Grew by 9.1% in 2003

Its WTO accession and an overall upturn in the global economy have instilled new vigor into the mainland Chinese economy. The economic growth rate in 2003 was 9.1%, China's highest since the Asian Financial Crisis of 1997.

Primary industry grew by 2.5%, secondary industry by 12.5%, and tertiary industry by 6.7%.

The rapid growth that mainland China has experienced in the last few years has led to the emergence of a large middle class, which in turn has become the main driving force behind consumer spending growth. Spending on cars, communications equipment and other types of electronics products, and real estate property has increased dramatically.

2. A Substantial Increase in Foreign Trade

According to Chinese customs statistics, in 2003 mainland China had total exports of US\$438 billion, representing a growth rate of 34.6%, and imports of US\$413 billion (Figure 1-2-1), representing 39.9% growth. This gave mainland China a trade surplus of US\$25.53 billion over the whole year. Foreign exchange reserves increased by 46.5% to US\$400 billion, China's biggest increase ever.

3. A Rapid Decline in Foreign Direct Investment due to SARS

According to statistics produced by mainland China's Ministry of Commerce, in 2003 the government approved the establishment of 41,081 foreign-invested companies, 20.22% up on 2002. The total amount of agreed investment was US\$115.07 billion, representing a growth rate of 39.03%, while the total amount actually invested during the year was US\$53.51 billion, giving a growth rate of 1.44%.

Due to the impact of the SARS epidemic in the second quarter of 2003, the rate of increase in the amount of actual

Figure 1-2-1 The Mainland Chinese Total Imports and Exports, 1998 – 2003



Source: State Bureau of Statistics (mainland China), China Statistical Yearbook, 2003.

investment slowed considerably from the second quarter onward, and over the course of the whole year, the actual amount of foreign investment grew by only 1.44%. Given that the growth rate in the first quarter of 2003 had been 56.7%, this was very low.

4. The Hi-Tech Sector Accounts for 24.6% of the Total Production Value of Mainland Chinese Industry

In 2003 mainland China's hi-tech industries had a total production value of RMB 2.75 trillion, accounting for 21.4% of the total production value of mainland Chinese industry. Hi-tech exports totaled US\$110.16 billion, representing an

annual growth rate of 62.7%, compared to 27.6% for exports in general.

The electronics and IT hardware manufacturing industry is now mainland China's largest industry, and ranks third in the world. The industry had total sales of RMB 1,880 billion in 2003, 34% up on 2002; PC production volume grew by 83.2%.

5. The Risks Accompanying Rapid Economic Growth

Mainland China's outstanding economic performance masks several latent problems. The rapid growth of the past few years has been driven by high levels of investment, but there are concerns over duplicated investment, excess capacity and banks overextending themselves in credit provision.

The impressive growth achieved by mainland Chinese industry has mostly been in industries that consume large quantities of petroleum and other energy sources, and there have been frequent shortages of electric power, coal and petroleum. The problem is most serious in the case of electricity; the shortage of electric power will not be solved before 2005 at the earliest, so power cuts will continue to be a problem for some time to come.

With surplus labor continuing to flow into the cities from rural areas and with the operational performance of many enterprises continuing to worsen, the unemployment rate has been rising, leading to a deterioration in social stability. The process of economic development is also causing the disparities in income levels between regions to become more pronounced, which is not conducive to balanced regional development.

6. An Improving Investment Environment in Mainland China

According to a survey conducted by the Taiwan Electrical and Electronic Manufacturers' Association, the overall investment environment in mainland China was steadily improving over the period 2000–2003. The areas with which investing companies expressed most satisfaction were the natural environment and infrastructure; the area with which they were least satisfied was the legal environment.

Mainland China's most competitive cities include Shanghai, Beijing, Guangzhou and Shenzhen. In the last two years, Dalian, Qingdao and Chengdu have also established themselves among the ranks of the ten most competitive cities in mainland China. Worsening investment environments pushed Hangzhou, Ningbo, Suzhou and Nanjing out of the top ten.

7. A Growing Level of Economic Interdependency between Taiwan and Mainland China

The volume of trade between Taiwan and mainland China has been growing steadily. According to mainland Chinese statistics, in 2003 mainland China imported goods worth US\$49.36 billion from Taiwan, accounting for 12% of mainland China's total imports; this figure represented an annual growth rate of 29.68%. Mainland China's exports to Taiwan totaled US\$9 billion, accounting for 2.1% of mainland China's total exports and giving a growth rate of 36.73%. Mainland China thus ran a trade deficit of US\$40 billion with Taiwan (Table 1-2-1 and Figure 1-2-2).

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Table 1-2-1Trade between Taiwan and Mainland China,
2000 – 2003

	Unit: US\$ billions ; S								ilions;%		
Year	Т	rade in To	tal		Export			Import		Trade I	balance
	Value	Shares*	Growth Rate	Value	Shares*	Growth Rate	Value	Shares*	Growth Rate	Value	Growth Rate
Taiwan Statistics											
2001	29.96	13.0	-7.4	24.06	19.6	-8.0	5.90	5.5	-5.2	18.16	-8.8
2002	37.41	15.4	24.9	29.47	22.6	22.5	7.95	7.1	34.7	21.52	18.5
2003	46.32	17.1	23.8	35.36	24.5	20.0	10.96	8.6	37.9	24.40	13.4
Mainland China Statistics											
2001	32.34	6.30	5.92	5.00	1.90	-0.79	27.34	11.20	7.24	-22.34	-9.30
2002	44.65	7.20	38.06	6.59	2.00	31.72	38.06	12.90	39.23	-31.48	-10.90
2003	58.37	6.90	30.72	9.01	2.10	36.73	49.36	12.00	29.68	-40.36	-9.90

Note: * indicates the shares in total foreign trade.

Sources: 1. Board of Foreign Trade (Ministry of Economic Affairs) website: http://www.trade.gov.tw. 2. Mainland China Monthly Customs Statistics Bulletins (collated by the Hong Kong Office

of the Far Eastern Trade Services Center).

3. Mainland China Customs Administration website: http://www.customs.gov.cn.

Figure 1-2-2 Taiwan-Mainland China Trade Statistics, 2000 – 2003



Sources: See Table1-2-1.

However, according to Taiwanese government statistics, Taiwan's exports to mainland China in 2003 totaled US\$35.36 billion, accounting for 24.5% of Taiwan's total exports, and representing a growth rate of 20.0%; Taiwan imported goods worth US\$10.96 billion from mainland China, accounting for only 8.6% of Taiwan's total imports, but representing an annual growth rate of 37.9%, and making mainland China's trade deficit with respect to Taiwan just US\$24.40 billion.

As can be seen from the Taiwan government's *Survey on Overseas Investment by Manufacturing Industry*, the share of Taiwanese companies in mainland China that import raw materials from Taiwan is falling, with a growing share of raw materials being purchased locally. Nevertheless, the increase in Taiwan's trade surplus with respect to mainland China shows that the level of economic interdependence between Taiwan and mainland China is increasing.

8. Economic Growth Rate in Excess of 8% in 2004 is Expected

With the global economy gradually recovering, international financial markets stabilizing, the political situation growing less strained, and both consumer and business confidence improving, leading international economic forecasters are unanimous in predicting that the global economy will be healthier in 2004 than in the previous two years. It can thus be anticipated that mainland China will continue to enjoy rapid economic growth. With both the manufacturing and service sectors growing strongly, the economic growth rate for the economy as a whole will be over 8%.

The efforts made to boost economic growth in various

parts of China have led to over-investment, and real estate prices have been rising throughout the country. With the surge in investment, consumption and exports, not only have the prices of steel, cement and other raw materials rocketed, the cost of electricity has risen too, leading to growing inflationary pressure.

Faced with the threat of an emerging bubble, the mainland China government has adopted counter-measures. Banks have been required to raise their reserve ratios, and efforts have been made to slow the inflow of foreign capital, boost overseas investment by mainland China companies, expand imports and slow down on the provision of loans to the mining and iron and steel industries. In this way, the government hopes to prevent the economy from overheating and ensure that inflation does not become a serious problem.

III The Changes in Taiwan's Economic Environment and Export Competitiveness

1. A Moderate Pace of Economic Growth in 2003

Although the impact of SARS in the first half of the year reduced Taiwan's economic growth rate in the second quarter of 2003 to -0.08%, as the global economy recovers so is Taiwan. By December the economy had begun to show a "yellow light"; with both leading indicators and coincident indicators rising, there was a significant increase in the number of enterprises that expected the economic situation to improve.

Taiwan's economic growth rate exceeded 4% in both the third and fourth quarters, giving an overall annual growth rate

of 3.24% (Table 1-3-1).

Table 1-3-1Major Indicators of the Taiwanese Economy,
2002 – 2004

<	-			Unit: %
Index Year	Economic Growth Rate	Consumer Spending	Fixed Capital Formation	Government Spending
2002	3.59	2.00	-2.10	-0.20
2003	3.24	0.79	-1.60	0.83
2004	5.87	2.70	13.79	0.20
Index Year	Exports	Imports	CPI	Unemployment
2002	10.00	5.80	-0.20	5.17
2003	10.49	7.56	-0.30	4.99
2004	17.10	20.10	1.49	-

Notes: 1. With the exception of the unemployment rate, all other figures are growth rates. 2. Data for 2004 are forecasts.

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Quarterly Statistical Bulletin of Economic Trends in Taiwan R.O.C.*, August 20, 2004.

2. Trade is Stimulating Economic Growth

The upturn in the Taiwanese economy is attributable mainly to the improved state of the global economy as a whole. In particular, by the third quarter of 2003 Taiwan was no longer feeling the ill-effects of the war in Iraq and SARS, and exports had become the most important factor stimulating economic growth. Exports for the whole of 2003 amounted to US\$144.18 billion million, representing a growth rate of 10.4% (Table 1-3-2).

With the price of raw materials rising and the level of demand in Taiwan increasing, Taiwan's imports in 2003 totaled US\$127.25 billion million, representing a 13.1% growth rate. There was a particularly rapid increase in imports

of machinery, representing an increased willingness to invest in the private sector.

			Un	its: US\$ billions ; %	
Index Year	Exp	orts	Imports		
	Value	Growth Rate	Value	Growth Rate	
2000	148.32	21.98	140.01	26.49	
2001	122.87	-17.16	107.24	-23.41	
2002	130.60	6.29	112.53	4.94	
2003	144.18	10.40	127.25	13.08	

Table 1-3-2 Taiwan's Exports and Imports, 2000 – 2003

Source: Ministry of Finance, Import and Export Statistics: http://www.mof.gov.tw.

3. Steady Growth in Domestic Demand

In the second quarter of 2003, Taiwan suffered the impact of SARS, depressing consumer spending by 1.81% in the first half of the year. However, by the third quarter the epidemic had been brought under control. As it became clear that the global economy as a whole was recovering, consumer confidence was restored; as a result consumer spending grew by 0.79% over the whole year (Table 1-3-1).

Private-sector business confidence had already been depressed for several years; the war in Iraq and SARS made a bad situation even worse. Companies continued to adopt a wait-and-see attitude with respect to investment, and over the whole year private-sector investment declined by 0.7%.

4. A Gradual Improvement in the Job Market

In 2003, the unemployment rate averaged 4.99%, 0.18 percentage points down on 2002. The average number of

unemployed fell by 12,000 to around 503,000. In December 2003 the unemployment rate stood at 4.58%, 0.13 percentage points down on November, and lower than at any time in the year. Clearly, efforts made by the government to create jobs were starting to bear fruit, and the job market was beginning to recover.

5. A Continuing Rise in Taiwan's International Competitiveness

In the global competitiveness rankings for 2003 published by Switzerland's World Economic Forum (WEF), Taiwan had moved up from 6th place in 2002 to 5th place. It was the only Asian nation among the top five, with just Finland, the US, Sweden and Denmark displaying superior competitiveness. The main reason for Taiwan's high ranking was the impressive performance of the hi-tech sector.

In the global competitiveness rankings produced by the Institute for Management Development, Lausanne (IMD), in terms of overall competitiveness Taiwan moved up to sixth place in 2003, one place higher than in 2002. This increase was mainly due to improvements made in the areas of fiscal policy and international trade.

6. A Tax Shortfall of More Than NT\$100 Billion in 2003

Taiwan's economy had not yet fully recovered in 2003, and in any case improvements in tax collection usually lag one to two years behind the state of the economy. As a result, Taiwan experienced a tax shortfall of more than NT\$100 billion in 2003, in keeping with the tendency of the tax shortfall to increase in recent years.

7. New Enterprises Registered Increased in 2003

There were 5,103 new factories registered in Taiwan in 2003, representing a growth rate of 18.21% (Table 1-3-3). However, 6,752 factories closed down, one of the highest totals in recent years. The main reason was that, from July 2003, factories that failed to maintain their registrations had them cancelled in accordance with the newly legislated *Law of Guidance and Regulation for Factories*.

Table 1-3-3New Enterprises and Enterprises Going Out of
Business, 1999 – 2003

Units: enterprises : % Non-incorporated Item For-profit Enterprises Factories Corporations Enterprises Year Went Out of Went Out of Went Out of Went Out of Established Established Established Established Business **Business Business Business** No. of Enterprises 1999 76,841 52,683 5,846 3,982 35,367 22,681 47,612 45,349 2000 74,134 56,040 5,711 5,007 34,404 39,347 49,146 37,423 2001 71,402 61,355 3,792 5,194 29,921 34,569 53,630 45,779 2002 81.806 60.682 4.317 3.292 44.552 38.596 49,870 47,093 2003 5,103 6,752 40,837 33,330 53,530 43,687 Annual Growth Rate 1999 -3.98 3.41 2.10 -41.34 -3.14 -6.49 7.71 76.02 2000 -3.52 6.37 -2.69 25.44 -2.72 73.48 3.22 -17.48-12.14 2001 -3.69 9.48 -33.33 3.84 -13.03 9.12 22.33 2002 14.57 -1.10 13.84 -36.62 48.90 11.65 -7.01 2.87 2003 -13.64 7.34 18.21 105.10 -8.34 -7.23 _ **Rate of Entry/Withdrawal** 1999 7.34 5.03 5.94 4.04 5.97 3.83 6.77 6.45 2000 7.01 5.30 5.81 5.10 5.86 6.70 6.96 5.30 2001 6.75 5.80 3.90 5.34 5.14 5.93 7.47 6.37 2002 7.74 5.74 4.39 3.35 7.57 6.56 6.91 6.52 2003 5.16 6.83 6.85 5.59 7.50 6.12

Note: The rate of entry/withdrawal is the number of new enterprises or enterprises going out of business as a percentage of all enterprises in that category.

Source: Ministry of Economic Affairs, Bulletin of Domestic and International Economic Statistics, March 2004.

Regarding the number of new corporations being established and the number of corporations going out of business, both of these figures declined in 2003 compared to 2002. However, the number of new corporations established was larger than the number of corporations that went out of business, resulting in a net increase of 7,507 corporations. The total number of non-incorporated new enterprises registered in 2003 was 53,530; the number of non-incorporated enterprises going out of business was lower than in 2001 or 2002. This may have been related to the upturn in the global economy, and to the fact that the government has introduced various incentive measures for establishing new businesses.

8. 70% of FDI Going to Mainland China

Despite the 2003 outbreak of SARS, foreign direct investment in Taiwan continued to increase. There was a particularly sharp increase in inward investment after the international business fair held in October 2003, with total inward investment for the year coming to US\$3.58 billion, representing a growth rate of 9.29%.

At the same time, there has been no slowdown in outward investment from Taiwan. Total investment in regions other than mainland China came to US\$3.97 billion, with the largest share going to Belize. Investment in mainland China totaled US\$7.7 billion, with most of it concentrated in the electronics and electrical appliance industries. In the last two years, investment in mainland China has accounted for 70% of total outward investment, indicating that the main focus of Taiwanese enterprises' operations is gradually shifting towards mainland China.

9. Quality and Price are the Main Elements Contributing to Competitiveness for Enterprises in the Industrial and Commercial Sectors

Internationalization and globalization have led to major changes in the production and distribution networks of Taiwanese enterprises; in response, companies have been working to enhance their competitiveness. However, the competitiveness factors in the industrial sector are different from those in the commercial sector. According to a survey conducted by the Ministry of Economic Affairs in 2003, for the manufacturing sector "high-quality products" are the main source of competitiveness, followed by "uniqueness of products," "brand recognition," "reasonable prices" and "superior production technology" (Table 1-3-4). Clearly, improving product quality and product design have become the most important competitive strategies for Taiwanese companies; medium-sized and large enterprises are also working to increase their competitiveness in the area of R&D.

				Unit: %
Size	All	Small Enterprises	Medium-sized Enterprises	Large Enterprises
High-quality products	35.68	36.08	34.98	34.36
Distinctiveness of products	19.67	20.34	17.84	18.06
Reasonable prices	9.93	11.37	7.04	5.51
Brand recognition	5.64	5.08	6.81	7.27
Superior production technology	5.00	5.17	3.52	5.51

Table 1-3-4Main Competitiveness Factors for the
Manufacturing Sector

Source: Ministry of Economic Affairs, Survey of Manufacturing Industry Operations, July 2003.

In the commercial sector "reasonable prices" are the most important competitiveness factor (Table 1-3-5), followed by "stable customer base," "expertise and experience," "healthy corporate image," "comprehensive product line" and "high brand recognition." The overall aim for enterprises in this sector is to achieve perpetual development. It can thus be seen that in the manufacturing sector the main emphasis is on product quality and innovation, while in the service sector the emphasis is on price, specialist services and corporate image.

Table 1-3-5 Main Competitiveness Factors for the Commercial Sector

				Unit: %			
Size	2002		2003				
Item	All	All	SMEs	Large Enterprises			
Reasonable prices	42.30	44.36	47.51	32.50			
Stable customer base	39.22	35.55	38.03	26.20			
Expertise and experience	29.62	32.10	31.47	34.49			
Superior corporate image	28.20	31.58	29.62	38.97			
Comprehensive product line	24.59	25.59	25.96	24.21			
Strong brand image	23.42	24.93	22.30	34.83			

Source: Ministry of Economic Affairs, Survey of Commercial Sector Operations, Aug. 2003.

10. Taiwan's Share of Imports to the US and Japan is Falling

In 2003, Taiwan had total exports of US\$144.18 billion, representing a growth rate of 10.4%; the highest growth was found in exports to Hong Kong and mainland China. The share of total imports to the US originating in Taiwan has been

falling gradually, and by 2003 it stood at just 2.51%. Total US imports rose by 8.44%, but imports from Taiwan declined by 1.7% (Table 1-3-6). A similar phenomenon could be seen in Japan's imports from Taiwan.

Unit: US\$ millions ; % Year 2001 2002 2003 Item US **Total US imports** 1. 1,140,999 1,161,365 1,259,395 2. Imports from Taiwan as percentage of total US 2.93 2.77 2.51 imports 3. Growth rate in total US -6.24 1.68 8.44 imports 4. Growth rate in US imports -17.62 -1.70 -3.52from Taiwan Japan 349.235 337.957 383.026 1. Total Japanese imports 2 Imports from Taiwan as percentage of total 4.06 4.02 3.72 Japanese imports 3. Growth rate in total -7.99 -3.2313.34 Japanese imports 4. Growth rate in Japanese -20.70 -4.35 5.07 imports from Taiwan Mainland China Total mainland China 1. 243,567 295,303 413,096 imports 2. Imports from Taiwan as percentage of total 11.23 12.90 11.95 mainland China imports 3. Growth rate in total 8.21 21.24 39.89 mainland China imports Growth rate in mainland 4. 7.24 39.27 29.62 China imports from Taiwan

Table 1-3-6Taiwan's Exports to the US, Japan and Mainland
China, 2001 – 2003

Source: Ministry of Economic Affairs, Trade Competitiveness Database.

Taiwan's share of mainland China's total imports fell slightly in 2002, despite a 29.62% growth rate in Taiwanese imports.

11. Taiwan's Economic Growth Rate in 2004 May Be as High as 5.87%

With both the domestic economy and the global economy starting to pick up again, Taiwan's exports continue to increase. Investment has grown dramatically, and consumer spending is starting to rise again. Taiwan's economic growth rate is expected to grow from 3.24% in 2003 to 5.87% in 2004, which would bring per capital GDP up to US\$14,106.

IV Options for Taiwan's SMEs in a Changing Macroeconomic Environment

Considering the changes that have taken place in the domestic and international environment in the last few years, what are the options open to Taiwan's SMEs? This section contains some suggestions.

1. Making Effective Use of Marketing to Create New Customers

Enterprises and products exist in order to attract more customers; without customers, there can be no enterprise. Developing new customers is thus the key to survival for a business enterprise. Innovation is one good way to develop new customers; another is marketing.

For SMEs, which tend to have weaker marketing

capabilities, high-quality products and first-class customer relations are the keys to survival. In particular, SMEs have always relied on technology to achieve success; they have generally been at a disadvantage in human talent and capital. While technology innovation provides one answer, SMEs can also compensate for their weaknesses in the areas of manpower and capital by building up their marketing capabilities; this upgrading process may give the SME the potential for perpetual operation.

2. Creating Value and Boosting Quality

Regardless of whether it is the manufacturing sector or the service sector, the basic principle for achieving profitability is for the enterprise to concentrate its resources in such a way as to create value through its products or services, thereby meeting the market's needs. While developing products and services that consumers will actually want is no easy task, SMEs tend to be very perceptive. The enterprise owner is often personally involved in R&D work, which makes for greater flexibility. In the new business environment of today characterized by globalization, the expansion of the global market and the opportunity to develop business opportunities from a relatively slight degree of differentiation, Taiwan's SMEs have great potential. The key factors in determining whether a given SME is successful are whether or not the SME is able to find ways to emphasize its local character, and how much effort it puts into creating products and services that will be genuinely useful to consumers.

3. Making Culture the Foundation and Innovation the Guide

With economic globalization and the rapid development of high technology, the global economy has been transformed into an innovation-based knowledge economy. Other countries have found that, when the global economy is depressed, creative industries such as music, literature, the arts and animation continue to grow, as do activities related to historical monuments, nature and folk traditions.

aim of the Cultural and Creative Industry The Development Plan, promoted by the government as part of its Challenge 2008 National Development Plan, is to integrate artistic creation, design and commercial mechanisms to development of products with cultural encourage the characteristics. In this way, the cultural and creative industry will be able to breathe new life into Taiwan's traditional industries. SMEs will find new business opportunities in the cultural and creative sector, increasing the level of differentiation between their products and those of other nations and establishing distinctively Taiwanese brands with which they can go on to develop international markets and stimulate the development of other, peripheral industries.

4. New Business Models and New Sources of Core Value

The fundamental objective of business is to achieve perpetual operation. A prerequisite for achieving this goal is to have a sufficiently high level of profits; the business model that an enterprise adopts can thus have a major impact on its success or failure. Despite the restrictions imposed by their limited size, SMEs can use careful analysis of business models to discover sources of core value for their enterprise; they can then employ this core value to boost their overall competitiveness.

5. Focusing on Knowledge and Creativity to Build Competitive Advantage

With the emergence of the "New Economy," companies emphasize globalization, worldwide have begun to internationalization and diversification. Product life-cvcles have grown shorter, industry structures and capital structures have changed rapidly, and many SMEs have gradually found themselves in difficulties. In the new century, SMEs have to compete not only on price, but also on quality, innovation and speed. In this dynamic environment, "knowledge" has become the fundamental source of core value; of the various strategic assets that an enterprise possesses, knowledge is now the most important. It is only through the accumulation, acquisition, utilization and creation of knowledge, and through constant innovation, that an enterprise can create a new future for itself. For SMEs, knowledge and innovation are now the keys to successful operation.

Chapter 2

SME Development Trends

In the first half of 2003, the nascent recovery in the global economy was stalled by the war in Iraq and by the Severe Acute Respiratory Syndrome (SARS) epidemic. In the second half of the year, however, strong economic growth in the US stimulated a more rapid recovery worldwide. This change in the international business climate was reflected in Taiwan, where the economic growth rate rose from just 1.7% in the first half of the year to 4.7% in the second half. How did Taiwan's SMEs perform under these circumstances? This chapter will use statistical data to present the main developments and trends.

The definition of 'SME" used in this chapter is that of the May 2000 revision of the *Standard for Determination of SME Status*. In the case of the manufacturing sector, construction industry and mining and quarrying industry, SMEs are defined as those enterprises with paid-in capital of NT\$80 million or less, or with fewer than 200 employees. For other industries, SMEs are defined as enterprises that had operating revenue of NT\$100 million or less in the previous year, or which have 50 or fewer employees.

In this chapter, the number of regular full-time employees is used for determining whether an enterprise should be classed as an SME when analyzing employment and SMEs. For the other four indicators examined in this chapter, the determination of SME status is based on capitalization or operating revenue.

Data for the number of enterprises, sales, domestic sales and export sales are based on Ministry of Finance Tax Data Center business tax collection statistics. The data for the number of persons employed by SMEs is based on the *Monthly Report on Human Resources Utilization* published by the Directorate General of Budget, Accounting and Statistics.

Beginning in 2003, in line with the seventh revision of the ROC Industry Classification Standard, the number of industries for which indicators are produced has been increased from 10 to 15.

I Overall Development Status of SMEs

The overall state of Taiwanese industry and the role that SMEs played in the Taiwanese economy in 2003 (a year in which the economic situation both in Taiwan and overseas began to improve) is outlined below.

1. The State of Taiwanese Industry Overall

For Taiwanese industry as a whole, all indicators showed an improvement in 2003 compared to 2002. The annual growth rates were all positive values, with the most impressive rate of growth being seen in domestic sales (10.61%). A breakdown into large enterprises and small enterprises shows that for large enterprises, while the number of large enterprises declined by 1.51%, other indicators grew, with export sales rising fastest (by 6.15%). Among SMEs the largest growth rate was that for domestic sales (20.10%); export sales declined slightly, by 1.71% (Table 2-1-1 and Figure 2-1-1).

	Units: number of er	nterprises; thousand pe	rsons; NT\$ millions; %
Size	All Enterprises	Large Enterprises	SMEs
No. of enterprises	1,171,780	25,428	1,146,352
Percentage of total	100.00	2.17	97.83
Annual growth rate	3.65	-1.51	3.77
No. of persons employed	9,573*	1,160	7,425
Percentage of total	100.00	12.11	77.56
Annual growth rate	1.26	1.08	0.87
Total sales	27,670,606	18,963,546	8,707,060
Percentage of total	100.00	68.53	31.47
Annual growth rate	8.96	5.94	16.17
Domestic sales	20,337,864	12,958,640	7,379,224
Percentage of total	100.00	63.72	36.28
Annual growth rate	10.61	5.84	20.10
Export sales	7,332,742	6,004,906	1,327,836
Percentage of total	100.00	81.89	18.11
Annual growth rate	4.63	6.15	-1.71

Table 2-1-1The State of Taiwanese Industry in 2003 by
Enterprise Size

Note: Figures marked with an asterisk (*) include the 988,000 people employed by the government. Sources: 1. Collated from Ministry of Finance Tax Data Center business tax statistics.

2. Collated from statistics included in the *Monthly Report on Human Resources Utilization* published by the Directorate General of Budget, Accounting and Statistics, Executive Yuan.

2. Number of Enterprises

In 2003 there were about 1,172,000 enterprises in Taiwan; this figure represented an increase of around 41,000 (3.65%) on 2002. There were about 25,000 large enterprises (representing a decrease of 390, or 1.51%), and 1,146,000 SMEs (representing an increase of around 42,000, or 3.77%, the largest increase for five years). As a percentage of all

enterprises, SMEs increased from 97.72% in 2002 to 97.83% in 2003; large enterprises accounted for only 2.17% of the total (Table 2-1-1 and Figure 2-1-2).





Sources: 1. Collated from Ministry of Finance Tax Data Center business tax statistics.

 Collated from statistics included in the *Monthly Report on Human Resources Utilization* published by the Directorate General of Budget, Accounting and Statistics, Executive Yuan.

(1) Number of Enterprises –by Enterprise Age

Breaking the number of enterprises in Taiwan down by the number of years they have been in existence reveals that the largest group, accounting for 24.17% of all enterprises, has been in existence for 10-20 years. The next largest group comprises those that had been in existence for 5-10 years, accounting for 21.19% of the total. The cumulative total of all enterprises that had been in existence for at least 5 years amounted to 63.05% of all enterprises; for those enterprises
that were at least 10 years old the figure was 41.86% (Table 2-1-2).





Source: Collated from Ministry of Finance Tax Data Center business tax statistics.

Table 2-1-2 Enterprise Age in 2003

Units: number of enterprises ; %							
Size Age	All enterprises		Large enterprises		SMEs		
	No. of enterprises	%	No. of enterprises	%	No. of enterprises	%	
Total	1,171,780	100.00	25,428	100.00	1,146,352	100.00	
Less than 1 year	112,154	9.57	647	2.54	111,507	9.73	
1 – 2 years	104,183	8.89	1,315	5.17	102,868	8.97	
2 – 3 years	82,234	7.02	1,373	5.40	80,861	7.05	
3-4 years	69,545	5.93	1,337	5.26	68,208	5.95	
4 – 5 years	64,843	5.53	1,254	4.93	63,589	5.55	
5 – 10 years	248,300	21.19	5,701	22.42	242,599	21.16	
10 – 20 years	283,225	24.17	7,889	31.02	275,336	24.02	
Over 20 years	207,296	17.69	5,912	23.25	201,384	17.57	

Source: Collated from Ministry of Finance Tax Data Center business tax statistics.

76.69% of large enterprises had been in existence for at least 5 years; more than half (54.27%) were at least 10 years old, and only 2.54% were new enterprises that had been in existence for less than one year. Among SMEs, 62.75% of enterprises had been in existence for at least 5 years, and 41.59% had been in existence for more than 10 years, but newly-established enterprises less than 1 year old accounted for 9.73% of the total. It can thus be seen that, while SMEs generally aim to achieve perpetual operation, they retain a high level of flexibility in terms of the ability to enter and withdraw from the market.

3. Employment Status

The total number of employed persons in Taiwan in 2003 was about 9,573,000. This figure represented an increase of about 119,000 persons, or 1.26%, compared to 2002, the largest increase for three years. Around 1,160,000 persons were employed by large enterprises, accounting for 12.11% of all employed persons; this represented an increase of about 12,000 persons, or 1.08%, compared to 2002. The total number of persons employed by SMEs was around 7,425,000 (77.56% of all employed persons), representing an increase of about 64,000 persons, or 0.87%. The government employed about persons (10.32%) employed persons), 988,000 of all representing an increase of around 42,000, or 4.46%; this was the highest increase in recent years (Table 2-1-1 and Figure 2003 Small and 2-1-3). In the Medium Enterprise Administration (SMEA) implemented various projects to help Taiwan's SMEs achieve renewed growth. Of these, the SME Manpower Assistance Project was particularly effective in increasing the number of employed persons.



Figure 2-1-3 Number of Persons Employed, and Percentage of Persons Employed by SMEs, 2001 –2003

Note: For the purposes of this table, the number of full-time, regular employees is used to determine SME status (see Appendix Table B).

Source: Collated from statistics included in the *Monthly Report on Human Resources Utilization* published by the Directorate General of Budget, Accounting and Statistics, Executive Yuan.

4. Total Sales

In 2003 Taiwanese enterprises had total sales of NT\$27,671 billion, representing an increase of NT\$2,275 billion (8.96%) on 2002. Large enterprises had total sales of NT\$18,964 billion, representing an increase of NT\$1,063 billion (5.94%); SMEs had total sales of NT\$8,707 billion, representing an increase of NT\$1,212 billion (16.17%). Large enterprises accounted for 68.53% of total sales; SMEs' share rose from 29.51% in 2002 to 31.47% in 2003 (Table 2-1-1 and Figure 2-1-4).

5. Domestic Sales

In 2003 Taiwanese enterprises had total domestic sales of NT\$20,338 billion, 10.61% up on 2002. Large enterprises had total domestic sales of NT\$12,959 billion, representing an

increase of NT\$715.5 billion (5.84%) on 2002; SMEs had total domestic sales of NT\$7,379 billion, representing a very substantial increase of NT\$1,235 billion (20.10%). Large enterprises held a 63.72% share of total domestic sales; SMEs' share rose from 33.42% in 2002 to 36.28% in 2003 (Table 2-1-1 and Figure 2-1-5).



Figure 2-1-4 Total Sales of Enterprises, 2001 – 2003

Source: Collated from Ministry of Finance Tax Data Center business tax statistics.

Figure 2-1-5 Domestic Sales Value of Enterprises, 2001 –2003



Source: Collated from Ministry of Finance Tax Data Center business tax statistics.

6. Export Sales

Taiwanese enterprises had total export sales of NT\$7,332 billion in 2003, representing an increase of 4.63% compared to 2002. Large enterprises' export sales rose by NT\$348 billion (6.15%) to reach NT\$6,004.9 billion; SMEs' export sales declined slightly, by NT\$23 billion (1.71%), falling to NT\$1,328 billion. Large enterprises' share of total exports stood at 81.89%; SMEs' share fell from 19.28% in 2002 to 18.11% in 2001 (Table 2-1-1 and Figure 2-1-6).



Figure 2-1-6 Export Sales Value of Enterprises, 2001 –2003

Source: Collated from Ministry of Finance Tax Data Center business tax statistics.

7. Domestic Sales and Export Sales as a Percentage of Total Sales

In 2003, domestic sales accounted for 73.50% of Taiwanese enterprises' total sales, while export sales accounted for 26.50%. The 47-percentage-point disparity between these figures reflects that trend for Taiwanese enterprises to become more oriented towards the domestic market.

Breaking the statistics down by scale of operations (Figure 2-1-7), it can be seen that in 2003 domestic sales held an 84.75% share of SMEs' total sales, while for large enterprises the figure was 68.33%. Export sales accounted for only 15.25% of SMEs' total sales, but 31.67% in the case of large enterprises. Comparing these figures with those for 2002, it can be seen that, while there was little change in the percentages for large enterprises, export sales' share of SMEs' total sales declined by 2.8 percentage points.





Source: Collated from Ministry of Finance Tax Data Center business tax statistics.

8. Conclusions

The data presented above can be summarized as follows:

- (1) The total number of enterprises in Taiwan rose by 3.65% in 2003. The employed population increased by 1.26%, domestic sales grew substantially (by 10.61%), and export sales increased by 4.63%. These figures reflect the fact that the economic recovery in Taiwan is now getting into its stride.
- (2) In 2003 the number of SMEs in Taiwan rose by 3.77% compared to the previous year; this was the highest growth rate for five years. The number of large enterprises declined slightly, by 1.51%. For both large enterprises and SMEs there was a slight increase in the number of persons employed. SMEs' total sales increased by 16.17%, much higher than the increase in the total sales of large SMEs' enterprises (5.94%). domestic sales rose dramatically, by 20.10%, but export sales fell by 1.71%. Large enterprises experienced domestic sales growth of 5.84% and export sales growth of 6.15%.
- (3) In recent years, there has been a change in Taiwan's industrial structure, with SMEs coming to focus more on the domestic market while large enterprises produce mainly for export. Domestic sales now account for 84.75% of SMEs' total sales, while export sales' share has fallen to just 15.25%. SMEs' share of Taiwan's total exports has fallen from 21.11% in 1999 to 18.11% in 2003.
- (4) SMEs account for 97.83% of all enterprises in Taiwan, and 77.56% of all employed persons. They thus play an extremely important role in maintaining social stability and contributing to improvement in living standards for the nation as a whole.

II Changes in SME Structure

This section examines the changes that have taken place in the structure of Taiwan's SMEs, with the aim of gaining a clearer understanding of the main transformation and development trends. Comparison with the data for 2002 is affected somewhat by the upheavals that took place in the service sector in 2003, especially the effect of SARS.

1. SME Status - by Industry

Looking at the growth rates for SMEs in individual sectors in 2003 (Figure 2-2-1), it can be seen that in the service sector, although domestic sales increased by 13.0%, export sales declined by 39.5%. In the manufacturing sector, although the number of enterprises and the number of persons employed fell, overall operational performance was impressive, with export sales growing by 50.16%. In the agricultural sector, SMEs experienced a 10.16% decline in export sales, and the number of people employed fell by 2.06%.

Of Taiwan's 15 major industries, in 2003 the wholesale and retail industry had the largest number of SMEs, 611,000 (53.33% of all SMEs). The manufacturing sector had the second largest number of SMEs (134,000, or 11.65% of the total), followed by the hotel and restaurant industry (85,000, or 7.42% of the total) (Figure 2-2-2). The water, electricity and gas industry, educational services industry, medical, healthcare and social services industry and public administration sector all accounted for less than 0.01% of the total number of SMEs in Taiwan (Table 2-2-1).



Figure 2-2-1 Growth Rates of Indicators for SMEs in Individual Sectors in 2003

Source: Collated from Ministry of Finance Tax Data Center business tax statistics.





Source: Collated from Ministry of Finance Tax Data Center business tax statistics.

	Units:	enterprises	; hundred	persons ; N	IT\$ millions
Indicator	No. of Enterprises	No. of Persons Employed	Total Sales	Domestic Sales	Export Sales
Total	1,146,375	74,254	8,707,135	7,379,299	1,327,836
Percentage	100.00	100.00	100.00	100.00	100.00
Agriculture, forestry and fisheries	10,718	6,884	13,499	11,651	1,847
Percentage	0.93	9.27	0.16	0.16	0.14
Mining and quarrying	1,393	70	33,648	33,235	413
Percentage	0.12	0.09	0.39	0.45	0.03
Manufacturing	133,560	20,505	3,146,123	2,304,413	841,710
Percentage	11.65	27.61	36.13	31.23	63.39
Water, electricity and gas	593	21	7,718	7,585	133
Percentage	0.05	0.03	0.09	0.10	0.01
Construction	75,861	6,809	850,925	838,936	11,989
Percentage	6.62	9.17	9.77	11.37	0.90
Wholesale and retail	611,339	15,964	3,381,904	2,975,902	406,002
Percentage	53.33	21.50	38.84	40.33	30.58
Hotel and restaurant	85,061	5,612	177,207	175,038	2,169
Percentage	7.42	7.56	2.04	2.37	0.16
Transportation, warehousing and communications	44,721	3,132	357,039	308,823	48,217
Percentage	3.90	4.22	4.10	4.18	3.63
Finance and insurance	10,513	2,009	165,044	164,828	216
Percentage	0.92	2.71	1.90	2.23	0.02
Real estate and rental	22,803	597	122,976	122,166	809
Percentage	1.99	0.80	1.41	1.66	0.06
Specialist, scientific and technical services	44,298	2,259	209,731	197,945	11,786
Percentage	3.86	3.04	2.41	2.68	0.89
Educational services	459	1,614	1,891	1,843	48
Percentage	0.04	2.17	0.02	0.02	0.00
Medical, healthcare and social services	367	1,327	1,220	1,212	7
Percentage	0.03	1.79	0.01	0.02	0.00
Cultural, sporting and leisure services	26,612	1,277	75,844	75,061	783
Percentage	2.32	1.72	0.87	1.02	0.06
Other service industries	78,054	6,171	162,291	160,585	1,706
Percentage	6.81	8.31	1.86	2.18	0.13
Public administration	23	3	75	75	0
Percentage	0.00	0.00	0.00	0.00	0.00

Table 2-2-1 Status of SMEs in 2003 by Industry

Source: Collated from Ministry of Finance Tax Data Center business tax statistics.

2. Geographical Distribution of SMEs

(1) Northern Taiwan Has the Largest Number of SMEs, Followed by Southern Taiwan

If one breaks the data for the number of SMEs in Taiwan down by region, it can be seen that in 2003 northern Taiwan had the largest number of SMEs, accounting for 46.60% of the total; this figure represented an increase of 1.06% compared to 2002. Central Taiwan had 24.19% of Taiwan's SMEs, representing a 4.52% increase; southern Taiwan had 25.70% (a 4.73% increase); eastern Taiwan and Kinmen had 3.50% (Figure 2-2-3).

Figure 2-2-3 Geographical Distribution of SMEs in 2003 by Region



Source: Collated from Ministry of Finance Tax Data Center business tax statistics.

(2) The Largest Concentrations of SMEs are Found in Taipei City and Taipei County

The data for 2003 show that Taipei City and Taipei County had a significantly larger number of SMEs than any other city or

county in Taiwan. However, in both cases their share of the total was less than 20%. There were about 201,000 SMEs in Taipei City, accounting for 17.51% of all SMEs in Taiwan; this figure represented a reduction of 4.75% compared to 2002. Taipei County had around 174,000 SMEs (15.17% of the total), representing an increase of 4.91%. Kaohsiung City had the third largest number of SMEs, at about 86,000 (7.46% of the total), representing an increase of 3.44% (Figure 2-2-4).

Figure 2-2-4 Geographical Distribution of Taiwan's SMEs in 2003 by County or City



Source: Collated from Ministry of Finance Tax Data Center business tax statistics.

As can be seen from the data in Figure 2-2-4, Taiwan's SMEs tend to be heavily concentrated in the major metropolitan cities and the satellite cities and counties surrounding them.

(3) Taipei City Accounts for the Highest Share of Service Sector SMEs

If one examines the distribution of SMEs between the 15 major industries by county or city, it can be seen that the cities and counties that accounted for the highest share of SMEs in particular industries were as follows: agriculture, forestry and fisheries, Kaohsiung City (41.64% of all SMEs in that industry); mining and quarrying, Hualien County (17.44%); manufacturing, Taipei County (21.45%); water, electricity and gas, Pingtung County (13.66%); construction, Taipei County (17.74%); wholesale and retail, Taipei City (18.96%); hotel and restaurant industry, Taipei City (18.30%); transportation, warehousing and communications, Taipei City (28.29%); finance and insurance, Taipei City (36.19%); real estate and rental, Taipei City (17.57%); specialist, scientific and technical services, Taipei City (37.87%); educational services, Taipei City (44.88%); medical, healthcare and social services, Taipei City (29.43%); cultural, sporting and leisure services, Taipei City (21.18%); other service industries, Taipei City (13.81%). There is thus a very high concentration of service sector SMEs in Taipei City.

3. Organization Type Distribution of SMEs

Of the more than 1,140,000 SMEs in Taiwan, in 2003 over 1 million (95.61%) were sole proprietorships, limited companies or corporations limited by shares. Sole proprietorships were the

largest single group, at more than about 673,000 enterprises (58.74% of all SMEs); this represented an increase of 4.59% compared to 2002. There were around 311,000 limited companies (27.12% of the total), representing an increase of 1.72%, and 112,000 corporations limited by shares (9.76%), representing an increase of 1.42% (Table 2-2-2).

Table 2-2-2Taiwan's SMEs by Organizational Type,
2002 –2003

			Units: e	nterprises; %	
Year	2002 Enterprises	2003			
Type of Organization		Enterprises	Percentage	Annual Growth Rate	
Total	1,104,706	1,146,352	100.00	3.77	
Corporations limited by shares	110,271	111,838	9.76	1.42	
Limited companies	305,646	310,889	27.12	1.72	
Unlimited liability companies	21	17	0.00	-19.05	
Hybrid companies	10	14	0.00	40.00	
Partnerships	15,164	15,800	1.38	4.19	
Sole proprietorships	643,800	673,326	58.74	4.59	
Foreign companies	2,062	2,284	0.20	10.77	
Taiwan representative offices of foreign companies	103	103	0.01	0.00	
Subsidiaries	17,322	20,114	1.75	16.12	
Others	10,307	11,967	1.04	16.11	

Source: Collated from Ministry of Finance Tax Data Center business tax statistics.

4. Employment Structure

In 2003 a total of about 2,051,000 people were employed in SMEs in the manufacturing sector, accounting for 27.62% of all persons employed by SMEs. This total represented an increase of about 16,000 (0.76%) compared to 2002. The total for SMEs in the wholesale and retail sector was around

1,596,000 persons (21.50% of the total), representing an increase of around 11,000 (0.71%) compared to 2002. SMEs in the agricultural sector employed the third largest number of people, at about 688,000 (9.27%); this figure represented a decrease of 14,000 (2.06%).

If one compares the number of people working in SMEs in the 16 major industries in 2002 and 2003, it can be seen that in 2003 the manufacturing sector experience the largest increase in the number of people working in its SMEs, with an increase of about 16,000. The hotel and restaurant industry had the next largest increase, at around 15,000, followed by the educational services industry with about 13,000. The construction industry experienced the largest decline; the number of people working in SMEs in this industry fell by 22,000. The next largest decline was in the agriculture, forestry and fisheries industry, about 15,000.

5. Structure in Value of Sales

(1) The Wholesale and Retail Sector Accounted for the Highest Share of Total Sales

In 2003 Taiwan's wholesale and retail industry had total sales of NT\$3,382 billion, accounting for 38.84% of total sales in all industries; this was a higher share than any other industry. The manufacturing sector had the next highest total, NT3,146 billion (36.13%), followed by the construction industry with NT\$8,509 billion (9.77%) (see Table 2-2-1).

(2) The Wholesale and Retail Sector Held the Highest Share of Domestic Sales

In 2003 the wholesale and retail sector had total domestic sales

of NT\$2,976 billion (40.33% of total domestic sales for all industries), higher than any other industry. The manufacturing sector had the next highest total, NT\$2,304 billion (31.23%), followed by the construction industry with NT\$839 billion (11.37%) (Table 2-2-1).

(3) The Highest Share of Total SME Export Sales was Found in the Manufacturing Sector

In 2003 the SMEs in Taiwan's manufacturing sector had combined exports of NT\$842 billion, accounting for 63.39% of total export sales for SMEs in all industries. The next highest total was found in the wholesale and retail industry, NT\$406 billion (30.58% of the total), with the transportation and warehousing industry in third place, with NT\$48 billion (3.63%) (Table 2-2-1).

6. Production Value (Value Added) of SMEs

In 2001 Taiwan's SMEs had combined production value of approximately NT\$3,000 billion, accounting for 42.77% of Taiwan's production value for enterprises of all sizes. If one examines the trends since the 1980, it can be seen that SMEs' share of total national production value peaked in 1996 at 47.5%, and then fell off; by 2001 it had declined by 4.7 percentage points compared to 1996 (Figure 2-2-5).

7. SMEs and Triangular Trade

Table 2-2-3 shows the status of those SMEs in the manufacturing sector and wholesale sector involved in triangular trade. According to the definition employed in the *Industrial and Commercial Census* for 2001, the term

'triangular trade' refers to cases where orders are received in Taiwan, but the goods are shipped from another location. If one compares the value added rates for triangular trade and non-triangular trade, it can be seen that, in the case of the manufacturing sector, regardless of whether one is considering



Figure 2-2-5 The Production Value of Taiwanese Industry, 1981 –2001

traditional manufacturing industries or non-traditional manufacturing industries, knowledge-intensive industries or non-knowledge-intensive industries, those companies that are not involved in triangular trade have the highest value added rates. Among the four main industry groups, only in the information and electronics sector do companies involved in triangular trade have higher value added rates; for companies household goods sector, chemical industry the in and metals/machinery sector, it is those companies not involved in triangular trade that have the highest value added rates. The situation is much the same in the wholesale industry; it is those

Source: Calculated from Industrial and Commercial Census (successive years).

companies not involved in triangular trade that have the higher value added rates.

Units: enterprises ; persons ; NT\$ millions ; 9								
Item	No. of Enterprises	No. of Employees	Total Production (1)	Gross Production (2)	Value-added Rate = (2) /(1)*100			
Engaged in triangular trade								
Manufacturing sector	1,287	80,392	2,956,092	851,712	28.81			
Traditional	656	39,405	1,216,586	351,629	28.90			
Non-traditional	631	40,987	1,739,506	500,083	28.75			
Knowledge-intensive	409	25,835	1,122,471	325,911	29.04			
Non-knowledge-intensive	878	54,557	1,833,621	525,802	28.68			
Household goods	306	18,674	493,062	146,260	29.66			
Chemical industry	219	13,696	469,318	139,761	29.78			
Metals and machinery	357	19,197	761,613	213,787	28.07			
Information and electronics	405	28,825	1,232,100	351,904	28.56			
Wholesale	5,942	57,354	810,790	518,697	63.97			
	Not engaged in triangular trade							
Manufacturing sector	137,948	1,439,575	30,463,844	9,395,654	30.84			
Traditional	91,671	913,039	19,551,782	5,836,038	29.85			
Non-traditional	46,277	526,536	10,912,061	3,559,616	32.62			
Knowledge-intensive	38,871	426,184	8,790,127	2,904,710	33.05			
Non-knowledge-intensive	99,077	1,013,391	21,673,717	6,490,944	29.95			
Household goods	29,312	345,359	6,821,700	2,048,062	30.02			
Chemical industry	29,867	303,556	6,555,242	2,081,127	31.75			
Metals and machinery	63,934	558,748	11,193,891	3,507,624	31.34			
Information and electronics	14,835	231,912	5,893,010	1,758,840	29.85			
Wholesale	150,521	755,960	8,091,926	5,850,798	72.30			

Table 2-2-3 SMEs and Triangular Trade

Source: Calculated from Industrial and Commercial Census (2001).

III New Enterprises

This section will examine the structure of newly established enterprises by size of enterprise and industry type, in order to gain a clearer understanding of their operational status.

1. The Overall State of New Enterprises in Taiwan

For the purposes of this section, the term 'hew enterprise" is used to refer to enterprises that began operation in 2003. Data for these enterprises derives from the Ministry of Finance Tax Data Center's business tax records for enterprises that have been operating for less than one year.

(1) The Size of New Enterprises

The following points can be made from the data in Table 2-3-1:

- a. In 2003 there were 112,154 new enterprises in Taiwan, of which 647 were large enterprises (accounting for 0.58% of the total) and 111,507 were SMEs (99.42% of the total).
- b. These new enterprises had total sales revenue of NT\$948 billion, with large enterprises accounting for NT\$652 billion of this (68.83% of the total) and SMEs accounting for NT\$295 billion (31.17%).
- c. The new enterprises had total domestic sales of NT\$681 billion, with large enterprises accounting for NT\$415 billion (60.87%) and SMEs for NT\$267 billion (39.13%).
- d. The export sales of new enterprises totaled NT\$266 billion, with large enterprises accounting for NT\$238 billion (89.21%) and SMEs for NT\$29 billion (10.79%).

(2) Comparison of New Enterprises with Taiwanese Enterprises as a Whole

In 2003, the percentage of all enterprises in Taiwan that were new enterprises (i.e. the entry rate) was 9.57%. For SMEs, the entry rate was 9.73%.



Figure 2-3-1 SME Shares in New Enterprises in 2003

Turning to total sales, domestic sales and export sales, for all three of these indicators new enterprises accounted for more than 3% of the total figure for all enterprises in Taiwan, 3.42%, 3.35% and 3.63%, respectively. For SMEs, the highest percentage was for domestic sales (3.61%); for large enterprises, it was export sales (3.96%).

(3) New Enterprises –by Industry

Enterprises in the wholesale and retail industry accounted for the largest share of new enterprises in Taiwan in 2003, at 49.87%. The hotel and restaurant industry held the second largest share, at 15.70%. As 99.42% of new enterprises were SMEs, the figures for newly-established SMEs were more or less the same as those for new enterprises as a whole.

Source: Collated from Ministry of Finance Tax Data center business fax statistics.

	Units: No. of enterprises ; NT\$ millions					
Indicator	Size	All enterprises	Large enterprises	SMEs		
	All enterprises	1,171,804	25,429	1,146,352		
No. of	New enterprises	112,154	647	111,507		
enterprises	New enterprises as % of all enterprises	9.57	2.54	9.73		
	All enterprises	27,670,875	18,963,740	8,707,060		
Total sales	New enterprises	947,693	652,323	295,370		
	New enterprises as % of all enterprises	3.42	3.44	3.39		
	All enterprises	20,338,134	12,958,834	7,379,244		
Domestic	New enterprises	681,417	414,783	266,634		
sales	New enterprises as % of all enterprises	3.35	3.20	3.61		
Export sales	All enterprises	7,332,742	6,004,906	1,327,836		
	New enterprises	266,275	237,539	28,736		
	New enterprises as % of all enterprises	3.63	3.96	2.16		

Table 2-3-1Comparison of New Enterprises with All Taiwanese
Enterprises in 2003

Source: Collated from Ministry of Finance Tax Data Center business tax statistics.

The industries where new enterprises had the largest total sales were the manufacturing sector, the wholesale and retail sector, and 'other service industries'; these industries accounted for 29.13%, 28.37% and 25.55% of total sales by new enterprises. For newly established SMEs it was the wholesale and retail industry that held the highest share of total sales by new enterprises, at 53.31%, followed by the manufacturing sector with 14.79% and the construction industry with 11.09%.

As for domestic sales, the industry whose new enterprises accounted for the highest share of total domestic sales by new enterprises was the 'other service industries," with 35.50% of

the total, followed by the wholesale and retail sector with 34.09%. Among newly-established SMEs it was the wholesale and retail sector that held the highest share, at 53.34%, followed by the construction industry with 12.14% and the manufacturing sector with 11.84%.

The manufacturing sector accounted for the highest percentage of total export sales by new enterprises, with 84.11%, followed by the wholesale and retail sector with 13.71%. Among newly-established SMEs it was the wholesale and retail sector that held the highest share, at 53.05%, followed by the manufacturing sector with 42.18%.

IV International Comparisons

Table 2-4-1 provides an international comparison of SME data. Owing to the fact that the data included was produced at different times and to various other problems relating to data collection, there are some gaps in the data. The table compares important economic indicators for SMEs in 15 countries and regions: Taiwan, Australia, Canada, Hong Kong, Japan, South Korea, Malaysia, Mexico, New Zealand, the Philippines, Russia, Thailand, Singapore, the US and the UK. Different countries define the term 'SME" in different ways, and in some cases data for the years covered by the comparison is not available; readers should be aware of these limitations when studying the data.

1. SMEs Account for a Very High Percentage of Enterprises in All Countries

Of the 15 countries and regions covered by the comparison, the

US, Canada and Mexico define the term 'SME" rather loosely; all enterprises with 500 or fewer employees are classed as SMEs. As a result, SMEs account for an extremely high percentage of enterprises in these three countries –99% in the case of the US, 99.8% in the case of Canada, and 99.6% in the case of Mexico. Countries defining SMEs as enterprises with 300 or fewer employees include Japan and South Korea, although in Japan's case the cut-off point is reduced to 100 employees for firms in the wholesale and service sector, and to 50 employees for retailers. As of 2002, there were 4.27 million SMEs in Japan, accounting for 99.7% of all enterprises; in South Korea, which uses a similar classification, the percentage was 99.7%.

The British government defines SMEs as those enterprises with 250 or fewer employees; approximately 99.8% of business enterprises in the UK fall under this category. Australia, the Philippines, Thailand and Singapore all define SMEs as enterprises with 200 or fewer employees; the percentage of enterprises classed as SMEs in these countries is 96%, 99.6%, 99.7% and 91% respectively. In Hong Kong, Malaysia and New Zealand SMEs' share of all enterprises also exceeds 90%. The definition of SMEs in Taiwan depends on the type of industry. For enterprises in the manufacturing, construction and mining and quarrying sectors, SMEs are defined as those enterprises with paid-in capital of less than NT\$80 million; for other sectors, SMEs are defined as those enterprises with annual sales revenue of less than NT\$100 million in the previous year. On the basis of this definition, approximately 97.8% of enterprises in Taiwan are SMEs. The definition of SMEs used in Taiwan is thus more stringent than that used in most other countries. Overall, it can be seen that in

all 15 of the countries and regions included in the comparison SMEs account for a very high percentage of all enterprises, reflecting the important role that they play in the economy.

2. Comparison of SME Employment Data

For the purpose of comparison with other countries, in this section the definition of SMEs in Taiwan is based on the number of employees; in this respect, the definition employed in Taiwan is also more restrictive than that used in other countries. If one excludes SMEs in the agricultural sector, Taiwan ranks second out of the 15 countries included in the survey in terms of the percentage of the total employed population working in SMEs; the percentage for Taiwan is 74.3%, with only South Korea having a higher percentage (81.9%). SMEs thus provide the vast majority of employment opportunities in Taiwan. The figure for the Philippines is also very high, at around 70%. The percentages in Canada, Hong Kong, Japan, Mexico and Thailand are not far behind, at 65.2%, 60%, 64.1%, 64% and 60% respectively. For the other countries included in the survey, the figures are: Australia, 43.5%; New Zealand, 40.9%; Russia, 45.2%; Singapore, 57%; USA, 57.1%; UK, 54.7%. New Zealand thus has the lowest percentage. It is worth noting that in all of these six countries SMEs account for more than 90% of enterprises, but they account for only around 50% of jobs. This suggests that in these countries a high proportion of SMEs are small enterprises or individual self-employed persons.

If the data for Taiwan is broken down by sector, it can be seen that in the manufacturing sector SMEs account for 79.2% of employed persons, while in the commercial sector the percentage is 94%; these figures are significantly higher than those for the same sectors in other countries.

3. Comparison of Sales Percentages

In Taiwan, SMEs account for nearly 31.4% of total business enterprise sales. This is very similar to the figure for the US (31%). The country where SME sales account for the highest share of total sales is the UK, with 51.4%; Japan comes second, with 48.2%. The figures for New Zealand and Russia are 33.2% and 39.3% respectively. The vast majority of SMEs have total sales much lower than those of large enterprises, reflecting the fact that SMEs tend to be highly labor-intensive enterprises.

4. Comparison of Export Percentages

In 2002, direct exports by SMEs accounted for 17.1% of Taiwan's total exports. This percentage has been falling steadily over the last few years, reflecting the gradual transformation in the role that SMEs play in Taiwan's economy. Whereas in the past SMEs exported products directly by themselves, today they are mainly serving as suppliers of components to Taiwan's large enterprises. It is not merely the role played by SMEs that is being transformed; Taiwan's entire industrial structure is being re-oriented towards the hi-tech sector. In Australia, South Korea, Singapore and the US, SMEs' share of direct exports stands at 51%, 36.9%, 16% and 30% respectively; the data available for Mexico and Japan is rather old (1996), and thus of little use for comparative purposes. Comparison of SMEs' share of total exports reveals that, while SMEs account for a high percentage of enterprises in every country included in the survey, they generally account

Item Country/Zone	No. of SMEs (excluding the agricultural sector) (million enterprises)	SMEs as % of all enterprises (excluding the agricultural sector)	No. of persons employed by SMEs (excluding the agricultural sector) (million persons)	SME employees as % of the total employed population (excluding the agricultural sector)
Taiwan (2003)	1.14	97.8	6.74	75.9 79.2 (manufacturing)
Australia (2000)	1.10	96	3.94	43.5
Canada (2001)	2.17	99.8	6.43	65.2 55.5 (manufacturing) 75.6 (wholesale) 60.8 (retail)
Hong Kong (2003)	0.28	98	1.31	60.0 64.0 (manufacturing) 64.0 (commerce)
Japan (2002)	4.27	99.7	26.99	64.1
South Korea (2000)	2.77	99.7	8.86	81.9 74.3 (manufacturing) 90.2 (commerce)
Malaysia (2001)	0.05	92	NA	45.0 (manufacturing)
Mexico (2001)	2.84	99.6	NA	64.0 66.0 (manufacturing)
New Zealand (2001)	0.27	96.1	0.6	40.9
Philippines (2001)	0.8	99.6	4.1	70.0 51.6 (manufacturing) 86.2 (services)
Russia (2002)	8.24	86.0	29.55	45.2
Thailand (2000)	0.85	99.7	NA	60.0
Singapore (2000)	0.54	91.0	0.4	57.0
USA (2002)	22.9	99.0	54.8	57.1
UK (2002)	3.62	99.8	12.18	54.7 52.8 (manufacturing) 48.9 (wholesale)

Table 2-4-1 International Comparison of SMEs

Item Country/Zone	SME sales as % of total business enterprise sales	SME exports as % of total exports	Newly established SMEs as % of all SMEs	% of SMEs going out of business
Taiwan (2003)	31.4 34.0 (manufacturing)	18.11	9.7	NA
Australia (2000)	NA	51.0	4.3	8.0
Canada (2001)	NA	NA	6.2	5.7
Hong Kong (2003)	NA	NA	NA	NA
Japan (2002)	48.2	15.0 (1996)	2.7	3.2
South Korea (2000)	NA	36.9	1.5	NA
Malaysia (2001)	NA	NA	NA	NA
Mexico (2001)	NA	21.0 (1996)	NA	NA
New Zealand (2001)	33.2	NA	18.5	15.7
Philippines	NA	NA	NA	NA
Russia (2002)	39.3	NA	NA	NA
Thailand (2000)	NA	NA	NA	NA
Singapore (2000)	NA	16.0	NA	NA
USA (2002)	31.0	30.0	10.0	10.0
UK (2002)	51.4	NA	4.85	4.85

Table 2-4-1 International Comparison of SMEs (continued)

Notes: 1.Canada, Mexico and the US defines SMEs as enterprises with 500 or fewer employees.

2. Japan defines SMEs as enterprises with 300 or fewer employees.

3. South Korea defines SMEs as enterprises with 300 or fewer employees, or which have capitalization of less than 8 billion Won.

- 4. The UK and Russia defines SMEs as enterprises with 250 or fewer employees.
- 5. Australia, the Philippines, Thailand and Singapore defines SMEs as enterprises with 200 or fewer employees.

6.Malaysia defines SMEs as enterprises with 150 or fewer employees. The data given in this table for Malaysia includes only manufacturing enterprises.

7.Hong Kong defines SMEs as enterprises with 100 or fewer employees. The data given in this table for Hong Kong does not include enterprises in the construction industry, street traders and hawkers, transportation firms, home helps, writers or other self-employed persons.

8.New Zealand defines SMEs as enterprises with 20 or fewer employees.

9. Taiwan defines SMEs as: see appended Table 6.

Sources: 1.Australia - Department of Industry, Tourism and Resources, /www.industry.gov.au/

2.Canada - Department of Industry, /www.ic.gc.ca/

3.Hong Kong - Small and Medium Enterprises Office, /www.sme.gov.hk/

4. Japan - White Paper on Small and Medium Enterprises in Japan 2003

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

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

7.Mexico - OECD Small and Medium Enterprise Outlook 2002

8.New Zealand - Ministry of Economic Development, /www.med.govt.nz/

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

10.Russia - Russian SME Resource Centre, /docs.rcsme.ru/

11. Thailand - Department of Industry Promotion, /www.smethai.net/en/

12.Singapore - Ministry of Trade and Industry, /www.mti.govt.sg/

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

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

15. Taiwan - White Paper on Small and Medium Enterprises in Taiwan.

for less than 50% of exports (in some cases much less). Clearly, SMEs' small size makes them less competitive compared to large enterprises.

5. New SMEs and SMEs Going Out of Business

The process whereby new SMEs are established and existing SMEs go out of business acts as a driver of growth in the economic system; newly-established SMEs can be a shot in the arm for the economy. If the number of new enterprises being established is larger than the number of enterprises going out of business, then that country is benefiting from a healthy economic system and a strong entrepreneurial spirit. Data on new enterprises and enterprises going out of business thus provide a picture of how flexibly SMEs in different countries are responding to the changes taking place in the global economy.

As can be seen from the table, the percentage of all SMEs accounted for by newly-established SMEs ranges from 1.5% to 18.5% in different countries and regions. New Zealand has the highest percentage, at 18.5%; this is probably related to the New Zealand government's policy of aggressively promoting SME development. In the US and the UK, the new SME percentage and the percentage of SMEs going out of business during the period 2002-2003 were more or less the same – 10.0% in the case of the US and 4.8% in the case of the UK.

By contrast, in Australia and Japan the percentage of SMEs going out of business was higher than the new SME percentage, reflecting a decline in economic vitality in these two countries.

In South Korea, new SMEs accounted for 1.5% of all SMEs in 2000; the data for SMEs going out of business was incomplete. Lack of available data for Hong Kong, Malaysia, Mexico, the Philippines, Russia, Thailand and Singapore makes it difficult to make comparisons in this area.

6. SME Policy Framework

SMEs play an important role in economic development throughout the world. In order to cope with the changes taking place in the global economy, governments are aggressively promoting SME development, and implementing measures to provide guidance to SMEs. The exact measures adopted vary according to the state of the country's economy, its political system etc., as does the overall strategy. The analysis undertaken for this sub-section focused on the SME guidance policies adopted in the UK, Taiwan, Japan, South Korea and the US. The eight key similarities and differences are outlined below:

(1) Establishment of Dedicated Government Agencies for SME Supervision

In order to provide guidance for SME development, many countries have established SME agencies. The Federal Government in the US includes a Small Business Administration (SBA) that provides SMEs with guidance and services in the areas of legislation, policy coordination, funding, information provision, etc. Japan has the Small and Medium Enterprise Agency, a subordinate agency of the Ministry of Economy, Trade and Industry, which provides consulting services for SMEs with regard to business management, technology, information, etc. In South Korea, the Small and

Medium Business Administration (which comes under the Ministry of Commerce, Industry and Energy) is responsible for helping SMEs to restructure, and for providing guidance and support services to SMEs. Taiwan has the SMEA under the Ministry of Economic Affairs, which has responsibility for SME affairs planning, promotion and guidance, for helping SMEs to overcome the problems they encounter, and for building a business environment conducive to SME growth.

(2) Establishment of a Comprehensive Legal Framework for SME Development

To ensure that the rights of SMEs are protected and to promote SME development, in most countries, basic policy with regard to SMEs and the principles according to which the government handles SME affairs are laid down in law. As long ago as the 1940s, the US had established SME committees within the Senate and the House of Representatives, and enacted several dozen items of SME-related legislation, including the Small Business Act, the Small Business Regulatory Enforcement Fairness Act, and the Small Business Investment Act. The Small Business Act clearly stipulates that the government should seek to prevent large enterprises from expanding their control over the market, with the objective being to create a regulatory framework that ensures fair competition. Japan also possesses a reasonably sound legal and regulatory framework for SMEs, the most important elements in which are the Basic Law Regarding SMEs that was promulgated in 1963, and which has come to be seen as the "constitution" for Japanese SMEs, the Law for Promoting the Modernization of SMEs, and the SME Credit Guarantee Law; in all, Japan has more than 30 laws relating to SMEs. South Korea has also sought to create a business environment based on fair competition through the

enactment of legislation that includes the Framework Act on Small and Medium Enterprises, the SME Procurement Law, and the Fair Trade Law. Taiwan has also enacted a series of laws and regulations to ensure the healthy development of including the Development Statute, SMEs. SME the Regulations Governing SME Guidance System Establishment and the Provision of Guidance, the Regulations Governing the Establishment, Operation and Management of **SME** Development Corporations, and the Regulations Governing Fund Development Receipts, SME Disbursements. Management and Operation.

(3) Promotion of SME Guidance and Support Policies to Enhance the Competitiveness of SMEs

The promotion of healthy SME development and the provision of guidance to SMEs has become an important task for governments (and particularly for those government agencies responsible for economic affairs) all over the world. The main objectives are always to boost the competitiveness of SMEs, establish a healthy environment for SME operation, provide financing services. encourage technology SMEs with innovation and start-up establishment, provide specialist consulting services, etc. The SME guidance system that has been established in Taiwan is a very comprehensive one. Besides the SME Development Fund and SME Credit Guarantee Fund, the government has also established 10 major guidance systems covering production technology, quality upgrading, R&D, marketing, information, finance, operational management, industrial safety, pollution prevention and mutual assistance. Governments in other countries have been equally energetic in promoting SME development; the main features of the measures adopted are outlined below:

a. Japan

The fundamental objective of SME guidance policy in Japan is to reduce the disparity between SMEs and large enterprises in terms of value added and productivity, and to improve the terms of trade for SMEs. The main guidance measures adopted with respect to SMEs include: industry-specific modernization projects, upgrading products, management rationalization, raising technology levels, organizational measures, enterprise transformation measures, energy conversion and energy conservation. internationalization measures. labor force measures and measures targeting SMEs in particular regions.

b. South Korea

South Korea has established four main guidance systems for SMEs – the financial support mechanism, sales and market development support mechanism, production technology guidance and support mechanism, and operational management support system. The main objective of these systems is to help SMEs to implement restructuring, to improve their technology and quality standards, to promote the growth of hi-tech start-ups, to enhance the competitiveness of SMEs in the distribution sector, to stabilize SME management structure, and to cultivate managerial talent in SMEs, etc.

c. USA

In the US, the objectives behind the provision of guidance for SME development are: to create new business opportunities for SMEs, to build a superior business environment for SMEs, and to provide assistance to those SMEs affected by natural or man-made disasters. The government provides support for SMEs in the areas of policy, funding, technology and services.

(4) Providing SMEs with Funding Assistance and Special Financial and Tax Incentives

The methods whereby different countries provide funding assistance for SMEs include: tax breaks, subsidies, loans, and encouragement of the provision of direct financing. An overview of these methods is given below:

a. Emphasis on Tax Incentives and Subsidies – the UK

Most countries have formulated tax incentive policies for SMEs, but the extent of the tax breaks provided varies from country to country. The UK is one of the countries where tax incentives are the most important element in the provision of assistance to SMEs. Tax breaks and subsidies are used to facilitate SME development, mainly by a steady reduction in the corporate tax rate. For small businesses with annual output of less than £300,000, the corporate tax rate has been reduced from 24% to 20% (the lowest level ever), and the British government is currently considering further reductions. The tax system is also being reformed to make it easier for SME employees to hold shares in the enterprise they work for, and to provide special tax breaks for employees who have held such shares for at least three years. These measures encourage business owners and employees to work together for the good of the enterprise.

b. Emphasis on Loans - the US, Japan and South Korea

(i)The US

The main sources of financing for SMEs in the US include

from commercial banks, financing loans companies. government assistance, securities financing, etc. The Small Business Administration (SBA) collaborates with more than 700 commercial banks to arrange funding assistance for SMEs. The types of financing plan provided include SBA participation in loan operations, provision of financing guarantees by registered SME development corporations, direct investment and loans, financing for direct investment, insurance for political risk attached to overseas investment, regional development corporate loans, small business investment corporate loans, etc. The US government has introduced 'quick loans for SMEs" where the approval process can be completed in 36 hours, thereby helping to improve the efficiency of fund use among SMEs.

(ii) Japan

The provision of loan support to SMEs in Japan takes place mainly through financial institutions established by the government; these institutions provide SMEs with loans at lower than market rates. There are also several private SME financing institutions that provide financing to SMEs. Where an SME is unable to repay a loan, repayment is made by a credit guarantee association established under the 'credit supplementation system'; in this case 70-80% of the cost is borne by the SME Credit Guarantee Fund.

(iii) South Korea

In South Korea, the provision of financial support to SMEs involves three funds established by the government –the Korea Credit Guarantee Fund, the New Technology Business Finance Korea Technology Credit Guarantee Fund and the SME Mutual Assistance Fund. Funding for SMEs is being steadily expanded. The main measures adopted include: raising the limit on loans to SMEs; establishing a special credit guarantee system for commercial paper up to 1 trillion South Korean Won, to ensure an adequate supply of funding for SMEs; implementation of a special loan guarantee system and technology guarantee system to enable SMEs to use their patents and technology as security for loans; creation of special guidance plans for SMEs in particular regions whose development is in conformity with the needs of the region in question, with the cost of guidance provision being covered by the government.

(iv) Taiwan

In order to help SMEs secure funding, in 1974 the Taiwan government established the SME Credit Guarantee Fund. Its main functions were to implement government guidance policy with respect to SMEs, to eliminate the obstacles that SMEs had previously faced due to their lack of collateral that could be used to secure financing, to increase the willingness of financial institutions to grant loans to SMEs, and to collaborate in the expansion of the activities of the various agencies providing guidance to SMEs (for more details, see Chapter 9).

(5) Attaching Due Importance to SME Management Talent, Manpower Cultivation and Professional Training

a. UK

The British government attaches considerable importance to SME manpower cultivation and training. In the late 1980s, the government set to work on the establishment of a unified national training network; today, most senior managers at

Britain's SMEs have undergone training arranged by government agencies. Broadly speaking, training takes place on two levels: training for business owners is arranged by the government on a unified basis, while training for employees is arranged by the individual SMEs. SMEs can arrange to have government experts (including retired engineers) provide training for them at no charge, and SME managers can participate in intensive training programs that are provided on a regular basis at various locations around the country.

b. Taiwan, the US, Japan and South Korea

Governments in all of these countries have established concrete guidance measures with respect to SME management capabilities and manpower cultivation, and they provide SME owners and other entrepreneurs with channels for manpower cultivation and information provision to ensure that SMEs are managed in the most efficient possible manner.

(6) Encouraging SMEs to Undertake Innovation and R&D

When developing new technology or acquiring it from outside sources, SMEs have to deal with problems in terms of risk, funding, manpower, access to information, etc. Most countries have implemented measures to encourage R&D and innovation among SMEs.

a. USA

The US government has achieved great success in its implementation of the Small Business Innovation Research (SBIR) program, which requires Federal Government Agencies to allocate a specific percentage of their budget towards the
provision of funding assistance for innovation and research activities among SMEs, with the aim of stimulating activity of this kind. In addition, the Small Business Administration has established Small Business Development Centers (SBDCs) in universities and colleges throughout the United States; these SBDCs provide SMEs with both specialist and academic assistance, as well as offering technology and business consulting services.

b. Japan

The Japanese government has adopted several measures to strengthen technology development among SMEs. These measures have included: the establishment of more than 200 laboratories throughout Japan to give SMEs free access to laboratory facilities and technology; the setting up of a technology consulting system to provide concrete technology-related assistance to SMEs in the areas of product design and pilot production; the formulation of an SME technology development subsidies system to provide financial assistance for technology development on the part of SMEs.

c. South Korea

In South Korea, the government has been working to promote technology development and higher quality standards. Besides conducting surveys of innovation among Korean SMEs, and providing subsidies to cover up to 75% of the cost of technology development, the government also provides special credit guarantees for enterprises that have strong growth potential but are hobbled by a lack of capital, to enable them to avoid cashflow problems. The government also attaches great importance to boosting the competitiveness of regional SMEs

so as to revitalize the regional economies, and to encourage collaboration between industry, universities and research institutes on technology development projects.

(7) Providing Guidance for New Business Start-ups

Most governments have been adopting various different measures to support the development of new enterprises. One approach is to simplify the application procedures that entrepreneurs are required to undergo, so as to reduce the obstacles faced in the early stages of new business start-ups. In the USA, for example, the procedures for establishing a new enterprise are extremely simple; the entrepreneur is merely required to notify the government that the business has been established, and for the self-employed even this is not necessary. Some countries provide special incentives to encourage entrepreneurial activity, such as Britain's £160 million Enterprise Grants fund, established to provide start-up funding for new businesses in the hi-tech sector. Other countries have formulated special policies to support SME development. In South Korea, the Support for SME Establishment Act that was enacted in 1986 sought to establish a comprehensive system (covering financing, taxation and administrative procedures) for supporting the establishment of new businesses; the specific measures adopted included expanding the provision of funding for new business start-ups, establishment of incubator centers, establishment of companies to provide consulting services for SMEs, and the simplification of the procedures that must be completed to set up a new SME. The overall aim is to offer guidance in the areas of start-up, business management and technology, and to provide consulting services.

(8) Other Measures

Different countries have formulated different SME development policies depending on their own unique circumstances and the state of development of SMEs in that country. Some of the policies adopted are outlined below:

a. Assisting SMEs through the Provision of Social Security

Governments in Europe and North America tend to attach considerable importance to the establishment of effective social security systems, ensuring that SME employees receive protection with respect to unemployment and health insurance; by providing this social security safety net, the government reduces the burden that SMEs have to bear. Taking the US as an example, the government provides social security, and helps SMEs to establish pension schemes for their employees.

b. Establishment of Special SME Development Zones

Through the establishment of industrial parks and development zones, national and regional governments can provide SMEs with the infrastructure and public facilities they need. The establishment of such zones also encourages the development of an industry cluster effect among SMEs, thereby boosting the overall scale of SME activity; creating zones of this kind also improves the efficiency of public facilities utilization, ensures efficient use of land and improves environmental protection. By setting up trade centers, technical services centers and training facilities within industrial parks, governments can build up a support system for SME clusters. Japan in particular has seen a high level of clustering among SMEs, with SMEs coming together in a particular location to share training, sales,

transportation and warehousing facilities, thereby reducing the size of the investment required for business start-up and improving overall efficiency. In Taiwan, the government has established several small-scale industrial districts that provide a comprehensive range of ancillary facilities for particular target industries. These industrial districts give SMEs convenient access to the infrastructure they need, and allow them to achieve effective integration with other SMEs in the same industry, leading to enhanced economies of scale.

c. Provision of Guidance for Traditional Local Industries

With the changes taking place in the global economic environment, individual countries find that their industrial structure is changing all the time. In many countries, primary industries are in decline, with companies in these industries seeing their operational performance fall off and in some cases being forced out of business. Governments have adopted encourage transformation various policies to the or restructuring of these industries, which often play an important role in keeping traditional technologies and local culture alive. In Taiwan, the transformation of the industrial structure has had a major impact on the grassroots layer of Taiwanese society.

In response, the government has been working together with local communities to build the 'software" and 'hardware" infrastructure needed to raise the overall quality of life in each region and to give individual localities their own unique image. As long ago as 1989, the SMEA was already working to promote the restructuring of traditional local industries and to provide guidance for community SMEs. In its provision of guidance, the administration targeted those industries that were of particular historical or cultural significance, and which had the potential to develop into important local industries for the township, rural township or urban district in question. These efforts have already produced impressive results.

The South Korean government has also implemented measures to promote the development of SMEs in particular regions, including the formulation of a local SME cultivation increased funding for local plan. SME cultivation. establishment of comprehensive SME support centers, designation of areas entitled to receive special assistance, etc. The aim of these measures is to achieve balanced regional development.

7. Conclusions

If one compares the situation in Taiwan with that in other countries and regions, it can be seen that SMEs account for a very high percentage of jobs created in Taiwan; South Korea is the only country where SMEs play a more important role in job creation than they do in Taiwan. The number of new businesses established each year continues to grow, confirming that the entrepreneurial spirit of Taiwan's citizens remains as strong as ever, despite the impact of the global economic downturn.

Comparison of the SME development policies adopted in Taiwan with those adopted in other countries (such as the US, the UK, Japan and South Korea) offers valuable lessons. What is needed now is for the government in Taiwan to formulate a comprehensive set of SME development policies that take into account the actual circumstances currently existing in Taiwan. In the past, the government has already provided a great deal of

assistance for SME development. In order to help Taiwan's SMEs survive and flourish, in the future the SMEA of the Ministry of Economic Affairs will continue to make adjustments to SME development policy in line with changing circumstances and the evolution of the overall business environment.

Chapter 3

Financial Status of SMEs

The data on the financial status of SMEs in the first and second sections of this chapter is based on data held by the Ministry of Finance Tax Data Center. As this data is derived from business income tax declarations, there is a one-year time lag compared to the data included in the other chapters. In other words, the data in this chapter relates to 2002 rather than 2003. Section III considers the state of Taiwan's banks, which have traditionally been the main source of financing for SMEs. The changes in the statistical data for the banking sector can be used to examine the interaction between banks and SMEs.

In 2002 more than 640,000 enterprises submitted business tax declarations. After extracting those enterprises that did not provide comprehensive data and where it was unclear as to which industry the enterprise belonged, or where there were inconsistencies in the data, we are left with a total of 311,971 enterprises, of which 298,112 were SMEs. Of these SMEs, 138,162 (46.35% of the total) were in the wholesale, retail and restaurant sector, 79,558 (26.69%) were in the manufacturing sector, and 34,835 (11.69%) were in the construction sector.

The definition of SMEs used in this chapter is the revised definition adopted by the Ministry of Economic Affairs in May 2000: firms in the mining and quarrying, manufacturing and construction sectors with capitalization of NT\$80 million or less, and firms in other sectors with annual sales revenue of NT\$100 million or less.

The year 2002 saw the unemployment rate rise, the stock market perform badly, industry suffer from inadequate investment, and the fiscal health of the government worsen. As a result, the overall level of demand in the economy was weak, and fixed capital investment declined by 2.04%. However, trade within the Asia region continued to flourish, and in the global economy overall demand continued to increase. As a result. Taiwan was able to achieve an economic growth rate of 3.59% in 2002. Every business enterprise in Taiwan had to deal with a depressed business climate and intense competition. Many enterprises found that not only was overall demand falling, but that many of their customers were moving their operations overseas. The negative impact of this trend was even more pronounced among SMEs than among large enterprises. Consequently, the financial status of Taiwan's SMEs worsened in 2002. Of the enterprises included in the sample, only 195,953 were in profit, with 37.19% making a loss; the percentages for large enterprises and SMEs were 25.36% and 37.74% respectively, indicating that SMEs suffered more from the economic downturn than large enterprises.

I SMEs' Overall Financial Status

In this section, a consolidated balance sheet is used to examine enterprises' sources of funds, and their usage, with the figures converted into percentages of total assets (Table 3-1-1), whilst a consolidated profit and loss table is used to show overall profit and loss status for SMEs and large enterprises (Table 3-1-2).

						Unit: %
Year	Lar	ge Enterpri	ses		SMEs	
Item	2000	2001	2002	2000	2001	2002
Current Assets	56.17	60.20	64.10	60.92	59.39	56.04
Cash	20.73	23.27	26.51	15.66	15.55	14.67
Accounts Receivable	24.68	22.70	29.16	17.30	16.53	16.04
Inventory	7.82	10.59	5.28	23.94	23.54	21.81
Advance Payments	0.76	0.55	0.51	1.99	1.87	1.68
Other Current Assets	2.18	3.09	2.64	2.02	1.91	1.84
Funds and Long-term Investments	23.74	24.76	19.81	9.22	9.74	13.38
Fixed Assets	15.77	11.36	12.03	26.68	27.51	27.16
Land and Buildings	8.06	6.50	6.44	14.34	15.78	16.20
Machinery	6.08	3.76	4.65	10.32	9.65	8.94
Other Fixed Assets	1.64	1.10	0.94	2.02	2.08	2.02
Intangible and Other Assets	4.32	3.68	4.07	3.18	3.36	3.42
Total Assets = Liabilities + Net Worth	100.00	100.00	100.00	100.00	100.00	100.00
Liabilities	75.83	79.55	80.73	65.43	66.23	66.33
Current Liabilities	55.69	57.19	61.76	59.05	59.58	58.95
Short-term Loans Repayable	33.77	41.91	43.20	17.72	17.24	17.27
Accounts Payable	14.73	9.27	12.26	14.96	14.92	14.93
Income Received in Advance	2.35	1.89	2.29	5.37	4.92	4.64
Other Current Liabilities	4.84	4.13	4.01	20.99	22.50	22.11
Long-term Liabilities	15.33	18.93	12.97	4.63	4.75	5.31
Long-term Loans Repayable	5.12	3.81	3.98	4.24	4.30	4.54
Other Long-term Liabilities	10.21	15.11	8.99	0.38	0.45	0.77
Other Liabilities	4.80	3.43	6.01	1.75	1.90	2.07
Net Worth	24.17	20.45	19.27	34.58	33.77	33.67
Stockholders' Equity	17.64	14.59	14.46	39.35	41.40	41.17
Reserves and Operating Surplus	6.54	5.87	4.81	-4.78	-7.63	-7.51

Table 3-1-1 Consolidated Financial Data for Taiwanese Enterprises, 2000 - 2002

Note: For the definition of SMEs used in this table, see the appended Table B - "The Evolving Definition of SMEs in Taiwan." Source: Ministry of Finance Tax Data Center's business income tax data.

1. Analysis of Fund Usage by SMEs

(1) A Significant Decrease in the Ratio of Current Assets to Total Assets

As can be seen from Table 3-1-1, for large enterprises in 2002 the share of total assets held by current assets increased by 3.9 percentage points compared to 2001. However, for SMEs the share in current assets declined by 3.35 percentage points. Inventory displayed the most pronounced decline, falling by 1.73 percentage points, followed by cash, which fell 0.88 percentage points, and accounts receivable, with 0.49 percentage points. With domestic demand still weak and consumer spending restrained, SMEs have been thinking defensively, working to bring their inventory levels down and becoming more cautious about entering into credit transactions.

(2) A Dramatic Increase in the Share of Total Assets Held by Funds and Long-term Investments

For large enterprises, the share of total assets held by funds and long-term investments fell by 4.95 percentage points in 2002 compared to 2001. With the threat of deflation worldwide, large enterprises have become more cautious in their investment strategies. By contrast, for SMEs the share of total assets held by funds and long-term investments rose, increasing 3.64 percent compared to 2001. According to the *Monthly Bulletin of Investment Statistics* published by the Ministry of Economic Affairs, the number of Taiwanese investment projects in mainland China rose by 25.6% in 2002, up to 1,490 projects in 2002 from 1,186 projects in 2001. The amount of investment involved increased by 38.6%, to US\$3.86 billion. Investment in mainland China accounted for 53.4% of

Taiwan's total outward investment. According to the *Survey on Overseas Investment by Manufacturing Industry* published by the Statistics Department of the Ministry of Economic Affairs, SMEs account for a high degree of mainland China's share of outward investment, while large enterprises account for a large degree of outward investment to places other than mainland China. The economic environment in Taiwan continued to worsen in 2002, giving SMEs even greater incentive to investment overseas; this may explain the dramatic increase in the share of total assets held by funds and long-term investments.

(3) A Fall in the Share of Machinery as Total Assets, and a Slight Fall in the Share Held by Fixed Assets as a Whole

For SMEs, the share of total assets held by fixed assets in 2002 was more or less the same as in 2001 - 27.16% compared to 27.51%, a decrease of 0.35 percentage points. Machinery's share in total assets continued to fall, declining by 0.71 percentage points. With the economic outlook still uncertain, SMEs, which tend not to have much capital, are continuing to delay investment in machinery.

2. Analysis of SME Funding Sources

Overall, there was relatively little change in SME funding sources in 2002 compared to 2001. With no clear sign of an upturn in the economy, enterprises have continued to struggle, and there was no significant improvement in profitability.

(1) A Fall in the Current Liability Ratio Accompanied by an Increase in the Long-term Liability Ratio

The economic downturn that began in the second half of 2000 has gradually worsened. SMEs' overall debt ratio increased from 55.64% in 1999 to 65.43% in 2000, then remained at around that level for the following two years (66.23% in 2001, and then 66.33% in 2002). The current liability ratio in 2002 was 58.95%, 0.63 percentage points down on 2001. However, the long-term debt ratio increased by 0.56 percentage points. These funds are being used either for long-term investment, to take advantage of the depressed state of the real estate market to purchase land, or to buy other types of fixed assets.

(2) Reserves and Operating Surplus Still a Negative Value

By and large, the operational performance of Taiwan's SMEs in 2002 was unimpressive; of just over 310,000 enterprises included in the sample, 37.19% failed to make a profit. Among SMEs the percentage was 37.74%, creating a situation where accumulated losses were higher than accumulated surplus; reserves and operating surplus was thus a negative value. This situation was first observed in 2000, and has continued to worsen in 2001 and 2002.

3. Analysis of SME Profit and Loss

(1) No Significant Change in Operating Costs Compared to the Previous Year

In 2002 SMEs' operating costs accounted for 81.40% of net operating income (Table 3-1-2), representing an increase of only 0.08 percentage points compared to 2001; among large enterprises the increase was 0.34 percentage points. In the last few years SMEs' gross operating profit has hovered around the 18.5% mark; in 2002 it was 18.6%. In 2001 and 2002, with the

economy in a downturn, the overall business climate for large enterprises deteriorated significantly. Whereas in 2000 operating costs accounted for 90.57% of large enterprises' net operating income, this figure rose to 94.26% in 2001 and to 94.60% in 2002. As a result, gross operating profit fell to around 5.5%. These figures reflect the fact that SMEs usually operate in niche markets where price competition is less intense; they are thus able to maintain reasonably high gross operating profit margins even when the economic climate has deteriorated.

Table 3-1-2Profit and Loss Structure of Taiwanese Enterprises,
2000 –2002

						Unit: %	
Year	Lar	ge Enterpr	ises	SMEs			
Item	2000	2001	2002	2000	2001	2002	
Net Operating Income	100.00	100.00	100.00	100.00	100.00	100.00	
Minus: Operating Costs	90.57	94.26	94.60	81.13	81.32	81.40	
Gross Operating Profit	9.43	5.75	5.40	18.87	18.68	18.60	
Minus: Operating Expenses	7.40	4.93	4.89	17.62	18.51	18.38	
Net Operating Profit	2.03	0.82	0.52	1.25	0.16	0.22	
Plus: Non-operating Income	1.24	0.78	0.71	1.88	1.87	1.62	
Minus: Interest Expenditure	0.65	0.41	0.42	0.75	1.09	0.93	
Minus: Other Non-operating Expenditure	0.93	0.54	0.39	1.43	1.48	1.15	
Current Profit and Loss	1.69	0.64	0.41	0.95	-0.53	-0.24	

Source: Ministry of Finance Tax Data Center's business income tax data.

(2) A Slight Fall in Operating Expenses, but SMEs' Operating Expense Ratios are Still Substantially Higher Than Those of Large Enterprises

Operating expenses include all expenses arising from operations, including salaries, rental, advertising, depreciation, insurance, etc. In 2002 operating expenses amounted to 18.38% of net operating income, down from 18.51% in 2001,

but still significantly higher than the percentage for large enterprises (4.89%). Whether because of contractual requirements or because of the accounting methods used, it is generally very difficult to achieve an adjustment in rental, depreciation and salaries in line with the changes in the economic situation. SMEs find it much harder than large enterprises to achieve economies of scale, so operating expenses (as a percentage of net operating income) tend to be much higher for SMEs than for large enterprises.

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

Operating costs and operating expenses combined account for 99.78% of SMEs' net operating income; net operating profit is thus very small. SMEs have 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, operating expenses account for a very high percentage of SMEs' net operating income. High gross operating profit margins are thus eroded by high operating expenses, resulting in net operating profit performance that is inferior to that of large enterprises. In 2002 Taiwan's SMEs had a net operating profit margin of only 0.22%. Large enterprises have seen their gross operating profit fall, but they have been more successful at keeping operating expenses under control; as a result, although large enterprises had gross operating profit of only 5.4% in 2002, they were able to maintain a net operating profit margin of 0.52%.

(4) Current Profit and Loss Still a Negative Value

Although net operating profit rose slightly in 2002, to 0.22%,

SMEs were not very successful at keeping operating expenses, interest expenditure and non-operating expenditure down. As a result, SMEs had current profit and loss of -0.24% in 2002, although this was still an improvement on the 2001 figure of -0.53%. Large enterprises also saw their net operating profit shrink because of the economic downturn, but they proved more adept at bringing operating expenses and non-operating expenditure under control, and were able to achieve current profit and loss of 0.41%.

4. Analysis of SMEs' Financial Ratios

(1) Declining Current Ratio, Quick Ratio and Inventory Ratio Compared to 2001

Due to weak domestic demand, SMEs' short-term liquidity continued to deteriorate in 2002 (Figure 3-1-1), with the current ratio, quick ratio and inventory ratio all falling. It can be seen from the consolidated balance sheet that the main reason for the decline in short-term liquidity was the fact that the share of total assets held by current assets fell by 3.35 percentage points, while the ratio of current liabilities to total assets fell by only 0.63 percentage points. Reducing inventory and advance payments and bringing down the share of sales paid for other than in cash are normal behavior for enterprises during an economic downturn. However, if enterprises are unable to bring short-term liabilities under control, then their short-term solvency will be affected. In 2002 large enterprises saw their liquidity ratio fall by only 1.46 percentage points, but the quick ratio rose by 8.52 percentage points, indicating that the short-term solvency of large enterprise had improved substantially compared to 2001. Large enterprises' inventory ratio fell from 18.53% in 2001 to 8.54% in 2002; weak

domestic demand led large enterprises to reduce their inventory levels and resort to cut-price promotions to boost their inventory turnover.



Figure 3-1-1 Short-term Liquidity of Enterprises, 2001 –2002

- Note: 1. Current Ratio = Current Assets ÷ Current Liabilities × 100 (Reference value = 200; ideally, the current ratio should be higher than reference value).
 - Quick Ratio = (Current Assets –Inventories) ÷ Current Liabi lities × 100 (Reference value = 100; ideally, the quick ratio should be higher than the reference value).
 - Inventory Ratio = Inventories ÷ Current Liabilities × 100 (Reference value = 50; ideally, the inventory ratio should be higher than the reference value).

Source: Ministry of Finance Tax Data Center's business income tax data.

(2) A Rise in Both the Ratio of Total Liabilities to Net Worth and the Long-term Funds Ratio

In 2002 Taiwan's SMEs had a ratio of total liabilities to net worth of 197.02%, 0.9 percentage points up on 2001. However, for large enterprises the ratio rose by 29.93 percentage points, climbing from 389.01% in 2001 to 418.94% in 2002. With the economic climate worsening over the last few years, large enterprises have become more heavily indebted than SMEs.

The ratio of total liabilities to net worth is a measure of an enterprise's long-term solvency; an increase in this ratio indicates a reduction in the enterprise's ability to guarantee that it will meet its obligations to creditors. SMEs' long-term funds ratio rose to 143.59%; although this was lower than the figure for large enterprises (268.08%), it remained within acceptable limits (Figure 3-1-2).



Figure 3-1-2 Long-term Stability of Enterprises, 2001 –2002

Note: 1. Ratio of Total Liabilities to Net Worth = Liabilities ÷ Net Worth × 100% (Reference Value =100; ideally, the ratio should be lower than the reference value).

 Long-term Funds Ratio = (Net Worth + Long-term Liabilities) ÷ Fixed Assets × 100% (Reference value = 100; ideally, the ratio should be higher than the reference value).

Source: Ministry of Finance Tax Data Center's business income tax data.

(3) A Slight Increase in Merchandise Turnover, Accompanied by a Fall in All Other Turnover Ratios

An enterprise's operational performance depends on the efficient utilization of the different kinds of assets that the

enterprise possesses. Inventory levels reflect the extent to which assets are being used efficiently, the company's credit sales policy, and its inventory policy. The receivables turnover ratio and inventory turnover ratio can be used to measure an enterprise's management capability. If these ratios are high, this indicates superior management performance, effective monitoring of receivables and the avoidance of excessive inventory pressure. Looking at the data for 2002, SMEs' receivables turnover fell from 6.12 turns to 6.04 turns (Figure 3-1-3), while merchandise turnover increased slightly, from 4.30 turns in 2001 to 4.44 turns in 2002.



Figure 3-1-3 Managerial Capability of Enterprises, 2001 – 2002

Note: Merchandise Turnover Ratio = Net Operating Income / Inventory. Fixed Asset Turnover Ratio = Net Operating Income / Fixed Assets. Receivables Turnover Ratio = Net Operating Income / Accounts Receivable. Net Worth Turnover Ratio = Net Operating Income / Net Worth. Source: Ministry of Finance Tax Data Center's business income tax data. The other two turnover ratios – net worth turnover ratio and fixed asset turnover ratio – are used to evaluate the efficiency of asset utilization. The higher these ratios are, the better able the enterprise is to make effective use of its assets and owned capital. In 2002 SMEs' net worth turnover ratio and fixed asset turnover ratio both fell slightly; the fixed asset turnover ratio declined from 3.68 turns in 2001 to 3.57 turns in 2002, while the net worth turnover ratio fell from 2.99 turns to 2.88 turns. The fall in domestic demand thus had a negative impact on SMEs' ability to make effective use of their fixed assets and owned capital.

(4) Profitability Indicators All Negative, But Showing Some Improvement on 2001

Profitability can be examined by looking at an enterprise's ability to use its funds and capital to produce a surplus. Taiwan's economic growth rate rose from -2.18% in 2001 to 3.59% in 2002, but domestic demand remained weak, the unemployment rate continued to rise, and consumer spending grew only slightly. SMEs' current profit and loss was negative, and consequently all of the profitability indicators were negative values. The operating profit ratio was -0.24%, the return on gross assets was -0.87%, the return on fixed assets was -0.24%, the return on capital was -0.57%, and the return on net worth was -0.70%. Nevertheless, these figures did represent an improvement compared to 2001 (Figure 3-1-4).

II Analysis of Financial Status by Industry

The breakdown by industry of the 311,971 enterprises for which comprehensive financial data was available in 2002 is

shown in Table 3-2-1. Of the 298,112 SMEs, 112,504 (37.74%) failed to make a profit. The industries in which the percentage of SMEs failing to make a profit was higher than the overall average of 37.74% included the finance, insurance and real estate industries (57.95%), the business services industry (48.62%), the water, electricity and gas industries (45.49%), the commerce sector (44.89%), and the social and personal services industries (41.53%).

Return on Net Worth = Current Profit or Loss / Capital.

Source: Ministry of Finance Tax Data Center's business income tax data.

The commerce sector accounted for the largest number of SMEs, at 138,162; of these, 62,017 failed to make a profit. The

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manufacturing sector had the next largest number of SMEs, at 79,558, with 19,011 of these failing to make a profit; the construction industry had 34,835 SMEs, of which 11,339 failed to make a profit. In the finance, insurance and real estate industry, 57.95% of enterprises failed to make a profit, possibly reflecting the fall in profit margins. For Taiwanese industry as a whole, 37.74% of SMEs did not make a profit in 2002. When examining the financial status of SMEs by industry, the financial status of enterprises that failed to make a profit is bound to have a significant impact on the results.

				Unit: %
Size	SN	1Es	Large Er	nterprises
Industry	No. of Enterprises	% failed to make a profit	No. of Enterprises	% failed to make a profit
Agriculture, forestry and fisheries	977 (201)	0.21	32 (6)	0.19
Mining and quarrying	407 (61)	0.15	8 (5)	0.63
Manufacturing	79,558 (19,011)	0.24	2,008 (633)	0.32
Water, electricity and gas	288 (131)	0.46	35 (7)	0.20
Construction	34,835 (11,339)	0.33	1,220 (481)	0.39
Commerce	138,162 (62,017)	0.45	7,440 (1,500)	0.20
Transportation, warehousing and communications	8,102 (2,384)	0.29	556 (90)	0.16
Finance, insurance and real estate	7,916 (4,587)	0.58	1,354 (543)	0.40
Business services	16,914 (8,224)	0.49	497 (124)	0.25
Social and personal services	10,953 (4,549)	0.42	409 (125)	0.31
Total	298,112 (112,504)	0.38	13,859 (3,514)	0.25

Table 3-2-1 Financial Status of SMEs by Industry, 2002

Note: Figures in parentheses represent the number of enterprises failing to make a profit. Source: Ministry of Finance Tax Data Center's business income tax data.

1. Overall Financial Analysis by Industry

Considerable disparities are apparent between the financial structures of the different industries (Table 3-2-2a, Table 3-2-2b and Table 3-2-2c). These are summarized below:

(1) The Highest Ratio of Current Assets is Found in the Construction industry, with the Social and Personal Services Industry Having the Lowest Ratio

As in 2001, the construction industry had the highest ratio of current assets (current assets as a percentage of total assets), at 83.68%. Current assets account for the vast majority of building firms' assets, with inventory being a particularly significant item. Inventory is converted into cash, and if the enterprise feels that a reasonable return can be made it will continue to pour in cash to increase inventory. As shown in Table 3-2-2a, inventory accounts for nearly 50% of current assets in the construction industry. The main reason for this is the continuing slump in the real estate market, which has made it difficult for companies to get real estate products off their hands, leading to high inventory levels.

The lowest ratio of current assets is found in the social and personal services industry, where the ratio is only 27.01%, far lower than the average for Taiwanese industry as a whole. The reason is the nature of the social and personal services industry, in which enterprises mainly provide services, and where payment is normally made in cash, leading to a low level of accounts receivable. Services can be converted to cash immediately, with no need to accumulate inventory.

										Unit: %
Industry Item	Agriculture, Forestry and Fisheries	Mining and Quarrying	Manu- facturing	Water, Electricity and Gas	Con- struction	Com- merce	Transportation Warehousing and Communication	Finance, Insurance and Real Estate	Business Services	Social and Personal Services
Current Assets	49.60	43.52	60.18	37.43	83.68	68.61	54.38	30.54	46.14	27.01
Cash	13.18	12.22	12.96	13.90	15.19	17.01	21.86	11.50	25.01	9.71
Accounts Receivable	10.22	17.52	21.72	10.17	23.30	18.58	20.46	3.90	11.74	6.92
Inventory	11.63	10.06	22.74	9.70	41.35	29.02	4.31	12.32	5.18	6.01
Advance Payments	11.43	2.24	1.44	0.99	1.65	1.90	5.05	1.01	1.94	2.17
Other Current Assets	3.14	1.48	1.33	2.68	2.18	2.11	2.70	1.81	2.26	2.19
Funds and Long-term Investments	3.54	1.17	1.44	9.56	1.28	7.32	4.63	42.60	26.41	3.48
Fixed Assets	42.52	50.13	36.51	50.48	11.84	20.84	35.89	21.97	21.08	65.53
Land and Buildings	12.13	15.91	18.94	28.46	5.08	13.18	12.25	17.98	10.57	45.78
Machinery	24.95	31.05	15.28	13.14	6.20	6.43	21.93	1.88	7.43	12.79
Other Fixed Assets	5.44	3.16	2.29	8.89	0.56	1.23	1.71	2.11	3.08	6.97
Intangible and Other Assets	4.34	5.18	1.88	2.53	3.20	3.22	5.11	4.89	6.37	3.98
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
Liabilities	63.80	60.58	68.36	62.29	74.22	69.39	42.01	58.22	64.44	75.69
Current Liabilities	54.24	50.78	61.88	47.50	71.85	64.19	36.42	46.15	59.72	54.64
Short-term Loans Repayable	15.55	13.02	18.50	9.68	10.16	14.93	8.82	19.57	31.99	12.76
Accounts Payable	12.74	13.65	19.50	17.70	15.73	18.46	10.68	5.72	11.74	11.68
Income Received in Advance	1.03	0.70	1.43	0.91	32.78	1.69	2.36	1.32	3.47	3.21
Other Current Liabilities	24.92	23.41	22.45	19.20	13.18	29.11	14.56	19.54	12.52	26.99
Long-term Liabilities	6.23	7.68	5.05	14.34	1.30	3.73	2.90	8.80	2.64	14.07
Long-term loans Repayable	5.64	4.36	4.50	13.80	1.15	3.35	2.70	6.92	2.19	12.71
Other Long-term Liabilities	0.59	3.33	0.55	0.54	0.15	0.38	0.20	1.88	0.44	1.36
Other Liabilities	3.33	2.11	1.43	0.46	1.08	1.46	2.69	3.27	2.09	6.98
Net Worth	36.20	39.42	31.64	37.71	25.78	30.62	57.99	41.78	35.56	24.31
Stockholder's Equity	42.33	38.14	31.08	48.43	32.23	46.04	70.80	46.42	53.42	44.89
Reserves and Operating Surplus	-6.14	1.29	0.56	-10.72	-6.45	-15.43	-12.81	-4.64	-17.86	-20.57

Table 3-2-2a SMEs' Consolidated Financial Data for Individual Industries in 2002

Table 3-2-2b Large Enterprises' Consolidated Financial Data for Individual Industries in 2002

										Unit: %
Industry Item	Agriculture, Forestry and Fisheries	Mining and Quarrying	Manu- facturing	Water, Electricity and Gas	Con- struction	Com- merce	Transportation Warehousing and Commu- nication	Finance, Insurance and Real Estate	Business Services	Social and Personal Services
Current Assets	57.86	61.58	36.03	18.07	79.15	66.23	32.68	70.08	47.02	23.46
Cash	27.10	7.75	9.22	8.39	9.42	13.06	16.74	32.20	14.29	9.50
Accounts Receivable	6.62	46.49	13.24	5.44	13.56	31.67	12.11	33.46	19.64	6.84
Inventory	9.91	4.82	10.83	2.71	50.69	17.12	0.52	1.47	9.83	2.67
Advance Payments	11.82	0.41	1.05	0.51	2.04	1.87	0.94	0.17	1.17	1.55
Other Current Assets	2.40	2.11	1.69	1.03	3.44	2.50	2.37	2.78	2.10	2.89
Funds and Long-term Investments	12.92	19.59	10.72	8.27	4.94	6.20	29.85	23.11	19.19	8.31
Fixed Assets	18.71	16.70	48.84	67.28	10.43	23.71	33.20	2.93	30.27	61.01
Land and Buildings	10.19	13.34	17.63	9.03	6.81	17.37	15.60	2.50	12.18	39.47
Machinery	6.88	2.37	29.23	52.92	3.21	3.61	14.65	0.24	9.61	11.98
Other Fixed Assets	1.64	0.99	1.98	5.33	0.41	2.73	2.95	0.19	8.48	9.57
Intangible and Other Assets	10.51	2.13	4.41	6.38	5.48	3.87	4.28	3.88	3.53	7.22
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
Liabilities	40.56	68.67	54.16	59.72	77.34	72.72	43.18	87.69	67.55	64.67
Current Liabilities	37.71	63.76	32.34	11.12	73.93	63.76	22.36	68.02	46.84	35.75
Short-term Loans Repayable	16.27	57.07	15.19	3.69	10.70	20.46	9.02	53.71	13.03	13.04
Accounts Payable	8.09	2.84	12.10	5.67	13.78	31.47	10.41	10.46	18.25	10.61
Income Received in Advance	9.79	0.19	1.38	1.20	45.45	1.85	0.53	0.30	11.67	7.08
Other Current Liabilities	3.56	3.66	3.67	0.55	4.00	9.98	2.40	3.55	3.90	5.02
Long-term Liabilities	1.21	4.19	18.95	43.27	2.23	6.88	11.08	12.84	14.97	18.71
Long-term Loans Repayable	1.15	4.19	15.04	4.71	2.18	6.20	8.06	1.65	11.53	15.82
Other Long-term Liabilities	0.06	0.00	3.91	38.55	0.04	0.68	3.02	11.19	3.44	2.90
Other Liabilities	1.64	0.71	2.88	5.34	1.18	2.09	9.74	6.84	5.73	10.20
Net Worth	59.44	31.33	45.84	40.28	22.67	27.28	56.82	12.31	32.45	35.33
Stockholder's Equity	48.72	24.58	33.48	33.03	25.90	22.83	48.68	8.41	26.58	29.35
Reserves and Operating Surplus	10.72	6.76	12.36	7.25	-3.23	4.45	8.14	3.90	5.87	5.98

										Unit: %
Industry Item	Agriculture, Forestry and Fisheries	Mining and Quarrying	Manu- facturing	Water, Electricity and Gas	Con- struction	Com- merce	Transportation Warehousing and Commu- nication	Finance, Insurance and Real Estate	Business Services	Social and Personal Services
Current Assets	2.56	-3.76	0.60	-0.75	1.60	-0.94	-0.30	-9.68	-7.96	-2.79
Cash	-1.69	-1.14	-0.01	-6.66	-0.68	-0.71	-0.36	-2.67	1.65	-1.33
Accounts Receivable	0.84	-0.76	0.89	2.38	-1.09	-0.09	0.28	0.41	-4.12	-0.48
Inventory	1.84	0.84	-0.30	2.19	3.45	-0.11	0.53	-6.59	-4.79	-0.68
Advance Payments	1.02	-2.84	0.03	0.22	-0.33	-0.17	-0.56	-0.38	-0.04	-0.11
Other Current Assets	0.54	0.13	0	1.12	0.24	0.14	-0.19	-0.44	-0.67	-0.21
Funds and Long-term Investments	-3.99	-0.15	0.15	9.18	-0.38	0.50	0.31	11.25	6.29	-0.22
Fixed Assets	1.44	2.38	-0.77	-9.24	-0.84	-0.27	-0.28	-1.05	2.22	4.40
Land and Buildings	0	4.45	0.24	2.83	-0.19	0.51	1.40	-1.59	1.49	6.13
Machinery	2.2	-2.33	-0.96	-6.82	-0.63	-0.38	-1.59	0.48	0.22	-2.09
Other Fixed Assets	-0.77	0.25	-0.05	-5.25	-0.02	-0.39	-0.09	0.05	0.52	0.36
Intangible and Other Assets	-0.01	1.53	0.03	0.81	-0.38	0.69	0.28	-0.51	-0.56	-1.38
Total Assets = Liabilities + Net Worth	0	0	0	0	0	0	0	0	0	0
Liabilities	7.95	1.70	0.94	14.64	2.89	1.93	0.29	-6.25	7.44	-1.42
Current Liabilities	6.97	-2.59	0.71	12.69	2.76	1.29	0.74	-7.90	9.10	-2.08
Short-term Loans Repayable	0.53	-4.87	-1.05	-0.79	-0.51	-0.18	-0.73	-4.71	24.07	-1.42
Accounts Payable	3.86	2.51	1.78	7.68	0.60	1.14	-0.77	-0.81	-7.83	0.05
Income Received in Advance	0.1	0.21	-0.13	-0.35	3.37	-0.45	1.22	-0.70	-4.42	1.04
Other Current Liabilities	2.48	-0.44	0.11	6.14	-0.70	0.79	1.02	-1.68	-2.74	-1.75
Long-term Liabilities	0.74	3.98	0.10	2.19	-0.19	0.55	-1.74	1.69	-0.80	-0.37
Long-term Loans Repayable	0.17	0.83	-0.04	2.91	-0.08	0.48	-1.60	0.50	-0.99	-0.05
Other Long-term Liabilities	0.57	3.16	0.14	-0.71	-0.12	0.07	-0.14	1.19	0.18	-0.32
Other Liabilities	0.25	0.30	0.13	-0.24	0.34	0.07	1.29	-0.04	-0.85	1.03
Net Worth	-7.95	-1.71	-0.95	-14.64	-2.89	-1.92	-0.29	6.25	-7.44	1.42
Stockholder's Equity	-5.61	-2.89	-0.70	-13.92	-1.92	-0.41	-0.28	2.38	-5.32	0.02
Reserves and Operating Surplus	-2.35	1.20	-0.25	-0.72	-0.97	-1.53	0	3.87	-2.12	1.41

Table 3-2-2c SMEs' Consolidated Financial Data for Individual Industries – Increase or Decrease in 2002 Compared to 2001

(2) The Highest Ratio of Fixed Assets to Total Assets is Found in the Social and Personal Services Industry; the Lowest in the Construction Industry

The situation with the ratio of fixed assets to total assets is a mirror image of the situation with the ratio of current assets; the social and personal services industry has the highest fixed asset ratio, at 65.53%, while the construction industry has the lowest, at 11.84%.

(3) In the Construction Industry and Social and Personal Services Industry the Ratio of Total Liabilities to Net Worth is Nearly 80%

In most industries, the ratio of total liabilities to net worth has remained at around 50-60%. However, in the construction industry and social and personal services industry the ratio is 74.22% and 75.69% respectively. The construction industry has a higher current liability ratio than any other industry, at 71.85%. The construction industry's ratio of current assets to total assets is also very high, at 83.68%; these figures reflect the fact that the construction industry 'relies on cash to create more cash." Although the ratio of current assets to total assets is significantly higher than the ratio of current liabilities to total assets, because the construction industry's liquid assets consist mainly of inventory, the level of short-term liquidity risk is relatively high. Income received in advance accounts for 30% of the construction industry's current assets; this situation reflects production needs, the sale of pre-sale housing products, and advance payments for construction work. With advance payments, there is usually a contractual requirement that the work be completed on schedule; if progress is not monitored properly, there is a risk of incurring high breach of contract

penalties.

The second highest ratio of total liabilities to net worth is found in the commercial sector, where the ratio is 64.19%. The ratio of current assets to total assets in the commercial sector is 68.61%, so the situation here is similar to that in the construction industry; however, the transaction types used in the commercial sector are different, leading to a very low level of income received in advance. In the social and personal services industry the ratio of current liabilities to net worth is 54.64%, but the ratio of current assets to total assets is 27.01%. Clearly, there is an excessive reliance on short-term borrowing in the social and personal services industry; companies in this sector need to pay more attention to working capital management and receipts and expenses in order to keep credit risk to a minimum.

(4) Negative Operating Surplus and Reserves in Most Industries

With 37.74% of all enterprises failing to make a profit in 2000, all industries (with the exception of mining and quarrying and manufacturing) reported negative reserves and operating surplus. Five industries had accumulated loss in excess of 10%: social and personal services (-20.57%), business services (-17.86%), the commercial sector (-15.43%), finance, insurance and real estate (-12.81%), and water, electricity and gas (-10.72%).

(5) A Reasonably High Level of Gross Operating Profit, But Poor Cost Control and Unsatisfactory Current Profit and Loss

Looking at the profit and loss structure of Taiwan's SMEs in 2002 (Table 3-2-3), it can be seen that, of the 10 industry categories, only four - agriculture, forestry and fisheries, mining and quarrying, manufacturing and construction -made a profit; for all other industries current profit and loss was a negative value. Gross operating profit was around 20% for all industries. Only SMEs in the agriculture, forestry and fisheries sector had gross operating profits lower than large enterprises in the same industry; in all other industries the reverse was true. This situation reflects the tendency for SMEs to focus on niche markets. However, despite their impressive performance in terms of gross operating profit, SMEs' ability to keep operating expenses and costs under control is far inferior to that of large enterprises. After deducting operating expenses, only half of the industry categories achieved a positive value for net operating profit. Deducting non-operating expenses, there were only four industries in which SMEs as a whole made a profit.

While SMEs' gross operating profit is far higher than that of large enterprises, after deducting costs and expenses their current profit and loss performance is significantly worse than that of large enterprises. This probably reflects the fact that SMEs' ability to control costs and non-operating expenses is inferior to that of large enterprises, but there may also be some deliberate reporting of extra expenditure on the part of SMEs in order to reduce their tax burden.

The industry whose SMEs made the biggest loss in 2002 was the finance, insurance and real estate industry. Its current profit and loss was -25.26%; while this was an improvement over the figure of -32.09% posted in 2001, it was still unimpressive. In the last few years, many banks and insurance

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Table 3-2-3 Profit and Loss Structure by Industry in 2002

										Unit: %	
Industry Item	Agriculture, Forestry and Fisheries	Mining and Quarrying	Manu- facturing	Water, Electricity and Gas	Con- struction	Com- merce	Transportation, Warehousing and Commu- nication	Finance, Insurance and Real Estate	Business Services	Social and Personal Services	
SMEs											
Net Operating Income	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Minus: Operating Costs	85.78	76.93	83.76	77.22	86.24	80.09	65.72	86.23	51.93	57.17	
Gross Operating Profit	14.22	23.07	16.24	22.78	13.76	19.91	34.28	13.77	48.07	42.84	
Minus: Operating Expenses	12.63	18.97	13.48	24.65	12.45	21.97	33.71	28.34	56.33	49.56	
Net Operating Profit	1.59	4.11	2.76	-1.87	1.31	-2.06	0.56	-14.57	-8.25	-6.73	
Plus: Non-operating Income	2.47	0.97	1.37	2.43	0.60	1.67	1.52	8.32	3.35	2.89	
Minus: Interest Expenditure	1.21	0.92	0.76	0.75	0.52	0.62	1.44	9.24	1.98	1.34	
Minus: Other Non-operating Expenditure	1.88	0.77	1.22	1.37	0.45	0.61	0.79	9.77	1.06	2.89	
Current Profit and Loss	0.97	3.39	2.15	-1.55	0.95	-1.62	-0.14	-25.26	-7.95	-8.08	
				Large En	terprises						
Net Operating Income	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Minus: Operating Costs	79.24	81.94	84.43	77.85	94.79	86.09	82.11	97.97	76.81	60.12	
Gross Operating Profit	20.76	18.06	15.57	22.15	5.21	13.91	17.89	2.03	23.19	39.88	
Minus: Operating Expenses	10.61	22.57	9.42	9.47	4.78	12.38	16.07	2.38	20.76	34.69	
Net Operating Profit	10.15	-4.50	6.15	12.67	0.43	1.53	1.82	-0.35	2.43	5.19	
Plus: Non-operating Income	3.03	2.95	2.32	2.35	1.60	1.25	2.97	0.32	1.64	5.37	
Minus: Interest Expenditure	2.55	10.97	1.71	3.04	1.27	0.58	0.80	0.21	1.36	1.76	
Minus: Other Non-operating Expenditure	2.06	5.91	1.88	4.66	1.06	0.67	1.58	0.10	1.25	3.51	
Current Profit and Loss	8.57	-18.43	4.89	7.33	-0.29	1.54	2.42	-0.33	1.47	5.28	

companies have been making a loss because of the high levels of non-performing loans that banks are encumbered with and the need for the insurance companies to conform to new regulatory requirements. The data in the table show that SMEs in this industry are inferior to large enterprises when it comes to cost control. Although large enterprises in the finance, insurance and real estate industry have an operating cost ratio of 97.97%, effective control of costs and expenses enabled them to achieve a pre-tax profit and loss performance of -0.33%. There is clearly considerable room for improvement in cost control among SMEs in this industry.

2. Financial Ratios by Industry

The indicators used in this section are the same as in Section I, but they have been recalculated to give financial ratios for each individual industry so as to examine the changes in the financial status of the enterprises in these industries (Tables 3-2-4 and 3-2-5).

(1) A Worsening in the Short-term Repayment Ability of SMEs in All Industries in 2002, with the Water, Electricity and Gas Industry and the Business Services Industry being Particularly Serious

With no sign of the global economy starting to pick up again, short-term repayment ability worsened in most industries. As can be seen from Table 3-2-4, there were seven industries that had current ratios lower than 100%. Regarding the quick ratio, only the transportation, warehousing and communications industry had a quick ratio higher than 100% (137.44%). For all other industries the quick ratio was under 70%, indicating a

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Table 3-2-4 Financial Ratios for Individual Industries in 2002

										Unit: %
Industry Item	Agriculture, Forestry and Fisheries	Mining and Quarrying	Manu- facturing	Water, Electricity and Gas	Con- struction	Com- merce	Transportation, Warehousing and Commu- nication	Finance, Insurance and Real Estate	Business Services	Social and Personal Services
SMEs										
Current Ratio	91.50	85.70	97.30	78.07	116.51	106.82	149.28	66.04	77.18	49.41
Quick Ratio	70.04	65.89	60.54	57.84	58.93	61.65	137.44	39.40	68.52	38.41
Inventory Ratio	21.45	19.81	36.76	20.23	57.57	45.18	11.84	26.65	8.67	11.00
Ratio of Total Liabilities to Net Worth	176.26	153.65	216.10	165.18	287.93	226.64	72.44	139.36	181.22	311.31
Long-term Funds Ratio	99.74	93.98	100.44	104.09	228.61	164.90	169.75	230.56	181.41	58.59
Net Worth Turnover	2.01	3.21	4.83	1.52	4.17	3.93	1.35	0.24	1.12	1.73
Receivables Turnover	7.12	7.22	7.04	5.70	4.61	6.48	3.82	2.58	3.40	6.07
Fixed Assets Turnover	1.71	2.52	4.19	1.15	9.07	5.78	2.18	0.46	1.90	0.64
Merchandise Turnover	6.25	12.57	6.72	5.98	2.60	4.15	18.14	0.82	7.71	6.99
Operating Profit Ratio	0.97	3.39	2.15	-1.55	0.95	-1.62	-0.14	-25.26	-7.95	-8.08
Return on Gross Assets	1.66	8.54	9.00	-1.79	8.61	-9.35	-0.30	-11.57	-15.07	-5.18
Return on Fixed Assets	0.71	4.28	3.29	-0.89	1.02	-1.95	-0.11	-2.54	-3.17	-3.39
Return on Capital	1.67	11.23	10.57	-1.84	3.16	-4.23	-0.15	-5.47	-5.94	-7.56
Return on Net Worth	1.95	10.86	10.39	-2.37	3.95	-6.36	-0.19	-6.08	-8.92	-13.95
				Large E	nterprises	5				
Current Ratio	153.44	96.58	111.40	162.56	106.98	103.87	146.16	103.03	100.41	65.61
Quick Ratio	127.17	89.02	77.91	138.21	38.47	77.01	143.84	100.87	79.42	58.13
Inventory Ratio	26.28	7.56	33.50	24.35	68.51	26.85	2.32	2.16	20.99	7.48
Ratio of Total Liabilities to Net Worth	68.22	219.13	118.15	148.29	341.21	266.61	75.98	712.58	208.13	183.03
Long-term Funds Ratio	324.16	212.70	132.68	124.18	238.73	144.10	204.53	857.07	156.64	88.58
Net Worth Turnover	0.93	0.39	1.58	1.37	2.43	7.41	1.12	9.02	2.97	1.28
Receivables Turnover	8.32	0.26	5.46	10.17	4.06	6.38	5.24	3.32	4.90	6.62
Fixed Assets Turnover	2.95	0.72	1.48	0.82	5.28	8.52	1.91	37.84	3.18	0.74
Merchandise Turnover	5.56	2.50	6.67	20.43	1.09	11.80	122.53	75.56	9.80	16.95
Operating Profit Ratio	8.57	-18.43	4.89	7.33	-0.29	1.54	2.41	-0.33	1.47	5.28
Return on Gross Assets	25.25	-13.31	7.23	6.02	-1.53	13.14	4.61	-12.46	4.66	3.92
Return on Fixed Assets	4.73	-2.22	3.53	4.05	-0.16	3.12	1.53	-0.37	1.41	2.39
Return on Capital	9.70	-9.05	10.55	12.26	-0.62	13.64	3.15	-4.35	5.31	8.16
Return on Net Worth	7.95	-7.10	7.70	10.06	-0.71	11.42	2.70	-2.97	4.35	6.78

Table 3-2-5Financial Ratios for Individual Industries –Increa se or
Decrease in 2002 Compared to 2001

										Unit: %
Industry Item	Agricul- ture, Forestry and Fisheries	Mining and Quarrying	Manu- facturing	Water, Electricity and Gas	Construc- tion	Com- merce	Transportation Warehousing and Commu- nication	Finance, Insurance and Real Estate	Business Services	Social and Personal Services
				SM	Es					
Current Ratio	-8.01	-2.74	-0.10	-31.93	-2.24	-3.82	-4.15	-8.33	-29.65	-3.13
Quick Ratio	-8.77	-5.28	0.81	-30.53	-4.98	-2.65	-5.38	0.01	-18.61	-2.34
Inventory Ratio	0.75	2.54	-0.90	-1.39	2.74	-1.15	1.23	-8.33	-11.02	-0.79
Ratio of Total Liabilities to Net Worth	49.77	10.49	9.21	74.17	39.15	19.36	0.85	-42.10	48.65	-25.56
Long-term Funds Ratio	-21.11	-0.03	-0.25	-3.60	-9.44	-4.26	-3.96	45.24	-64.93	-2.49
Net Worth Turnover	0.40	0.33	0.11	0.52	0.24	0.26	0.02	-0.08	0.21	-0.36
Receivables Turnover	-0.48	0.74	-0.34	-0.99	-0.01	0.09	-0.01	-0.72	0.93	-0.39
Fixed Assets Turnover	-0.03	0.04	0.07	0.28	0.19	0.13	0.04	-0.04	-0.17	-0.14
Merchandise Turnover	-1.03	-0.26	0.05	-0.96	-0.37	0.06	-2.29	0.21	3.79	-0.16
Operating Profit Ratio	2.53	1.30	-0.22	2.12	0.15	0.28	0.34	6.83	7.11	0.72
Return on Gross Assets	4.36	3.37	-0.79	1.41	1.53	1.37	0.72	4.49	16.16	1.70
Return on Fixed Assets	1.82	1.81	-0.36	1.03	0.12	0.31	0.26	1.16	2.72	0.81
Return on Capital	3.99	5.22	-0.92	1.23	0.53	0.64	0.37	2.92	4.08	1.81
Return on net worth	4.46	4.87	-0.81	1.29	0.82	0.60	0.44	4.32	4.77	4.41
			L	arge Ent	erprises					
Current Ratio	71.25	-183.54	-0.87	26.84	-8.35	1.12	-8.26	-1.24	-12.95	13.25
Quick Ratio	58.40	-88.63	-2.48	14.71	-8.89	1.06	-4.83	11.22	-22.46	10.79
Inventory Ratio	12.85	-94.91	1.62	12.13	0.54	0.05	-3.42	-12.45	9.50	2.46
Ratio of Total Liabilities to Net Worth	-59.96	196.24	8.70	30.86	95.79	16.01	18.86	58.84	22.53	3.23
Long-term Funds Ratio	196.55	-18.66	-11.44	2.62	-77.94	4.98	-23.55	-168.63	-32.41	2.71
Net Worth Turnover	-0.97	-0.05	-0.18	0.67	0.70	0.81	-3.08	1.85	0.37	0
Receivables Turnover	-1.41	-4.44	-0.15	6.00	0.83	-0.07	-34.46	-0.56	1.13	0.44
Fixed Assets Turnover	0.65	-0.21	-0.46	0.31	0.31	1.47	-6.29	9.82	-0.02	-0.01
Merchandise Turnover	-7.35	-1.12	-0.95	2.27	-0.02	0.17	-87.79	65.02	-9.54	-8.44
Operating Profit Ratio	-1.85	-3.47	2.83	-4.88	-0.65	0.42	1.82	-0.69	-1.35	5.79
Return on Gross Assets	1.34	0.52	3.23	-0.19	-3.30	5.23	-0.26	-22.58	-4.36	4.30
Return on Fixed Assets	-3.94	3.12	1.80	0.12	-0.34	1.01	-0.06	-0.71	-1.16	2.62
Return on Capital	-15.77	-1.92	5.67	2.04	-1.25	4.73	0.29	-8.62	-4.71	8.91
Return on net worth	-11.84	-0.54	4.08	1.52	-1.32	4.02	0.21	-5.56	-2.98	7.43

very low ability to convert assets into cash to meet repayment needs. As shown in Table 3-2-5, the situation is particularly serious in the water, electricity and gas industries and the business services industry. In 2002, both of these industries experienced negative growth in their current ratio and quick ratio; their current ratios fell by 31.93 percentage points and 29.65 percentage points respectively, while their quick ratios fell by 30.53 percentage points and 18.61 percentage points. There was thus a significant deterioration in short-term repayment ability. The short-term repayment ability of the finance, insurance and real estate industry and the social and personal services industry was not impressive either. These two industries ranked lowest in terms of both current ratio and quick ratio, with quick ratios of just 39.40% and 38.41%, respectively.

(2) A Deterioration in the Long-term Repayment Ability of Eight Industries

The ratio of total liabilities to net worth (also known as the 'leverage ratio') provides a measurement of a company's long-term repayment ability and whether the company has an excessively high level of debt. As shown in Table 3-2-5, in 2002 the finance, insurance and real estate industries and the social and personal services industries were the only industries that did not experience a worsening in their long-term repayment ability. The water, electricity and gas industries, agriculture, forestry and fisheries industries, and commercial sector and construction industries all had leverage ratios that were at least 40 percentage points higher than in 2001. The data in Table 3-2-4 also shows that the transportation, warehousing and communications industries was the only industry whose SMEs had a leverage ratio lower than 100%,

indicating that it had sufficient capital to cover all of its liabilities. Every other industry had a leverage ratio higher than 100%, indicating an unsatisfactory long-term repayment ability and an excessively high level of debt.

(3) Little Change in Turnover Ratios for All Industries, with the Finance, Insurance and Real Estate Industries Displaying the Lowest Turnover Ratios

As regards management capability and efficiency of asset utilization, broadly speaking 2002 saw little change compared to 2001. For all four turnover ratios, the finance, insurance and real estate industries had lower ratios than any other industry, with net worth turnover of 0.24, receivables turnover of 2.58, fixed assets turnover of 0.46 and inventory turnover of 0.82. As can be seen from Table 3-2-5, half of the industry categories saw their receivables turnover ratio and merchandise turnover ratio fall slightly in 2002. However, for most industries the net worth turnover ratio and fixed assets turnover ratio rose slightly, indicating that the downturn in the economy is starting to ease off, leading to a gradual improvement in asset utilization.

(4) Manufacturing Has Higher Profitability Than Any Other Industry, But Its Performance is Inferior to 2001

In 2002, the profitability of SMEs in the manufacturing sector was superior to that of any other sector; however, profitability was slightly down on 2001. For all other industries, the profitability indicators showed an improvement on 2001. Current profit and loss was a negative value for six industries – water, electricity and gas, the commercial sector, transportation, warehousing and communications, finance, insurance and real estate, business services, and social and personal services –b ut the loss these industries made was smaller than in 2001.

SMEs in the finance, insurance and real estate industries had an operating profit rate of -25.26% in 2002. This was markedly inferior to SMEs in other industries and to large enterprises in the finance, insurance and real estate industry. With the gap between deposit rates and lending rates narrowing, and with the Ministry of Finance insisting that banks get serious about tackling their non-performing loans, the weaker SMEs in this sector have experienced a dramatic worsening in their profitability.

III Financial Institutions and SME Financing

Financing is the lifeblood of a business enterprise, and this is particularly true for SMEs, which tend to have inadequate capital. Smooth access to funding and the ability to manage working capital effectively are among the keys to success in an SME operation. With the rapid development of Taiwan's capital markets in the last few years, direct financing has become more important; as of the end of 2003 it accounted for 28.75% of all financing. Nevertheless, bank loans remain the most important source of financing for SMEs.

1. Seven Leading Banks Provide a Particularly Large Amount of Financing to SMEs

Taiwan Cooperative Bank has always been the main source of financing for SMEs; by the end of 2002 its outstanding loans to SMEs totaled NT\$536.7 billion (NT\$14.7 billion up on the end of 2001), giving it market share of 19.08%. Taiwan Business

Bank, one of the specialist SME banks, was in second place with NT\$341.8 billion in outstanding loans to SMEs; this gave it market share of 12.15%, but was NT\$3 billion lower than at the end of 2001. Chang Hwa Commercial Bank had outstanding loans to SMEs of NT\$338.8 billion, representing market share of 12.04%. Seven banks – Taiwan Cooperative Bank, Taiwan Business Bank, Chang Hwa Commercial Bank, First Commercial Bank, Hua Nan Commercial Bank, Land Bank of Taiwan and the Bank of Taiwan – accounted for a particularly high share of all bank financing to SMEs (Table 3-3-1).

			•••••••••••••••••••••••••••••••••••••••
Bank	Outstanding Loans	Market Share	Loans to SMEs as Percentage of Total Loans
Taiwan Cooperative Bank	536,737	19.08	43.93
Taiwan Business Bank	341,765	12.15	49.87
Chang Hwa Commercial Bank	338,809	12.04	43.90
First Commercial Bank	248,575	8.84	31.99
Hua Nan Commercial Bank	183,521	6.52	22.49
Land Bank of Taiwan	104,214	3.70	8.29
Bank of Taiwan	97,143	3.45	9.54
Hsinchu International Bank	77,381	2.75	33.39
Tainan Business Bank	69,252	2.46	67.03
Chiao Tung Bank	65,287	2.32	17.06
Total	2,062,684	73.71	

Table 3-3-1The 10 Banks Providing the Largest Amount of
Loans to SMEs, End of 2003

Linits: NT\$ millions : %

Source: Bureau of Monetary Affairs, Ministry of Finance, *Summary of Financial Statistics*, February 2004.
These seven banks had NT\$217,880 million worth of non-performing loans on their books in 2002, falling to NT\$114,727 million in 2003. The non-performing loan totals for individual banks in 2003 were: Bank of Taiwan, NT\$7,296 million; Land Bank of Taiwan, NT\$19,035 million; Taiwan Cooperative Bank, NT\$18,346 million; First Commercial Bank, NT\$39,538 million; Hua Nan Commercial Bank, NT\$9,302 million; Chang Hwa Commercial Bank, NT\$17,306 million; Taiwan Business Bank, NT\$3,844 million. Despite the efforts that these seven banks have been making to write off non-performing loans, total outstanding loans to SMEs actually increased by NT\$16.2 billion in 2003, rising from NT\$1,834.6 billion at the end of 2002 to NT\$1,850.8 billion at the end of 2003.

2. A High Level of Market Concentration in the Provision of Loans to SMEs by Regular Banks

As of the end of 2003 there were 50 domestic banks (including 45 regular banks and 5 specialist SME banks) and 36 foreign banks operating in Taiwan. The total value of all outstanding bank loans to SMEs was NT\$2.81 trillion, NT\$7.8 billion down on the end of 2002. The 10 banks providing the largest amount of loans to SMEs had a combined market share of 73.31% (Table 3-3-1); this represents a very high level of concentration. The combined value of outstanding loans to SMEs by all foreign banks was NT\$16.7 billion, giving the foreign banks market share of just 0.59%, roughly unchanged from 2002.

In the last two years, although the Shanghai Commercial & Savings Bank has dropped out of the list and been replaced by Chiao Tung Bank, the other nine members of the top 10

banks providing the largest amount of loans to SMEs are unchanged. The biggest changes in the share of total financing going to SMEs were found at Chang Hwa Commercial Bank, where the share of loans going to SMEs fell by 3.36 percentage points (7.1%), and at Hsinchu International Bank, where the percentage rose by 2.32 percentage points (7.5%). For the other eight banks, the share of all loans going to SMEs changed only very slightly.

3. Specialist Small Business Banks Providing a Higher Proportion of Loans to SMEs

There are only five specialist small business banks in Taiwan. As one might expect given their policy goals, these banks provide a larger share of their total loans to SMEs than other banks do. Of the 10 banks in which the proportion of loans provided to SMEs was highest, the specialist small business banks occupied the top five places. In the last two years the financial health of Kaohsiung Business Bank continued to worsen. On January 28, 2002, the Ministry of Finance ordered the Central Deposit Insurance Corporation (CDIC) to take over the management of the bank; as of the end of 2003 the bank was still under CDIC's administration. By the end of 2003 Kaohsiung Business Bank's outstanding loans to SMEs totaled only NT\$7.8 billion, NT\$27.5 billion less than at the end of 2002, and SMEs' share of all outstanding loans had fallen from 70.33% to 36.71% over the same period, a decline of 33.62 percentage points (Table 3-3-2). With the exception of Taiwan Business Bank and Tainan Business Bank the other specialist small business banks tend to be smaller than regular commercial banks; they are thus limited in the total amount of loans that they can make available to SMEs.

Units: % ; NT\$ millior									
	20	02	200	03					
Bank	Loans to SMEs as Percentage of Total Loans	Total Loans	Loans to SMEs as Percentage of Total Loans	Total Loans					
Tainan Business Bank*	66.26	66,076	67.03	69,252					
Hualien Business Bank*	60.98	18,031	60.37	15,236					
Taitung Business Bank*	60.15	21,650	60.04	24,839					
Taiwan Business Bank*	50.88	344,740	49.87	341,765					
Taiwan Cooperative Bank	43.24	522,010	43.93	536,737					
Chang Hwa Commercial Bank	47.26	347,451	43.90	338,809					
Kaohsiung Business Bank*	70.33	35,301	36.71	7,802					
Hsinchu International Bank	31.07	68,803	33.39	77,381					
First Commercial Bank	32.32	252,678	31.99	248,575					
En Tie Commercial Bank	30.66	44,532	28.72	42,800					

Table 3-3-2The 10 Banks with the Highest Proportion of Total
Loans Provided to SMEs, 2002 –2003

Note: * indicates a specialist small business bank.

Source: Ministry of Finance, Summary of Financial Statistics, February 2004.

4. A Significant Increase in Outstanding Loans to SMEs by Banks Owned by Financial Holding Companies

With the aim of facilitating the provision of a wider range of operations of the individual players in the financial sector, improving their operational performance and boosting their international competitiveness, the *Financial Holding Companies Law* was approved by the Legislative Yuan and signed into law by the President on July 9, 2001, taking effect as of November 1, 2001. So far, a total of 14 financial holding companies have been established. As of the end of 2003 the 14 domestic banks controlled by these holding companies had a combined total of NT\$774.3 billion in outstanding loans to SMEs on their books, accounting for 27.53% of all outstanding

loans to SMEs (Table 3-3-3). These 14 banks' outstanding loans to SMEs had increased by NT\$76.7 billion (10.99%) compared to the end of 2002; this was a higher rate of increase than that found among other banks, indicating that, despite their now being subsidiaries of financial holding companies, these banks are still lending aggressively to SMEs.

		Units: NT\$	millions; %			
	20	02	20	03		
Bank	Loans to SMEs	Loans to SMEs as Percentage of Total Loans	Loans to SMEs	Loans to SMEs as Percentage of Total Loans	Increase or Decrease in Loans to SMEs	Growth Rate
First Commercial Bank	252,678	32.32	248,575	31.99	-4,103	-1.62
Hua Nan Commercial Bank	172,451	22.54	183,521	22.49	11,070	6.42
Chiao Tung Bank	59,465	16.03	65,287	17.06	5,822	9.79
International Commercial Bank	44,756	12.49	57,418	15.53	12,662	28.29
Chinatrust Bank	24,261	5.00	42,265	7.30	18,004	74.21
Taishin International Bank	21,267	6.42	37,843	9.94	16,576	77.94
Taipei Bank	36,196	10.03	32,362	8.87	-3,834	-10.59
United World Chinese Commercial Bank	22,910	6.08	31,021	5.84	8,111	35.40
Fubon Commercial Bank	14,601	10.45	20,455	15.08	5,854	40.09
E. Sun Commercial Bank	15,814	10.41	18,627	10.21	2,813	17.79
Jihsun International Commercial Bank	14,391	9.63	16,009	9.69	1,618	11.24
Fuhwa Bank	13,821	12.17	15,048	9.41	1,227	8.88
China Development Industrial Bank	3,956	5.03	4,116	6.57	160	4.04
Bank SinoPac	1,106	0.64	1,798	0.96	692	62.57
Total	697.673	15.05	774.345	15.20	76.672	10.99

Table 3-3-3 Outstanding Loans to SMEs by Banks Owned by Financial Holding Companies 2002 –2003

Source: Ministry of Finance, Summary of Financial Statistics, February 2004.

5. Overall, Banks Loans to SMEs Remained at Roughly the Same Level as at the End of 2002

In order to conform to the requirements of the government's '2-5-8 financial reform program' (which requires banks to reduce their non-performing loans to 5% and increase their capital adequacy ratio to 8% within two years), banks have been working to clean up their NPLs; they have become more aggressive in payment prompting, and have been selling off non-performing assets and writing off bad debts in order to bring their NPL ratios down. According to statistics produced by the Bureau of Monetary Affairs, in 2003 Taiwanese banks wrote off a total of NT\$236.8 billion in bad debts. Nevertheless, total outstanding loans at end-2003 were still 2.96% higher than at end-2002 (Figure 3-3-1). Outstanding loans to SMEs fell, but only by 0.28%, from NT\$2.82 trillion to NT\$2.81 trillion, and the share of total bank loans going to SMEs declined only very slightly, from 20.67% to 20.02%. The fact that outstanding loans to SMEs remained at roughly the same level as in the previous year despite all the NPLs that were being written off implies that the amount of new bank loans granted to SMEs grew significantly in 2003.

The financial health of SMEs is often rather unsatisfactory, which makes banks less willing to lend to them. In the last few years, however, the government has been allocating additional funds to increase the net value of the SME Credit Guarantee Fund, with the aim of compensating for the difficulty that SMEs experience in providing adequate collateral, thereby making banks less cautious about extending loans to SMEs. The SME Credit Guarantee Fund's 'Credit Guarantee Utilization Rate" (i.e., financing extended to SMEs through the



Figure 3-3-1 Proportion of Financing Granted to SMEs by All Financial Institutions

Source: Ministry of Finance, Summary of Financial Statistics (consecutive years).

provision of credit guarantees as a percentage of all financing granted to SMEs) rose from 8% in late 2002 to 10.23% in late 2003. In this new era of low interest rates, the profits that banks can make on lending to large corporations are now very limited; they are therefore starting to make consumer finance and SME financing the main focus of their operations. It can be anticipated that the share of bank loans going to SMEs will continue to increase in the future, making it easier for SMEs to secure the financing they need.

6. A Continuing Fall in the Amount of Financing Secured by SMEs for Every NT\$100 of Operating Revenue

The total amount of outstanding bank loans to SMEs in 2003 was NT\$2.81 trillion, and loans to SMEs accounted for 20.02% of all outstanding bank loans; these figures were roughly the same as in 2002 (Figure 3-3-2). 2003 saw financial institutions continuing to write off NPLs, reduce the level of overdue loans

and bring their NPL ratio down in an effort to improve their financial health. By the end of 2003 the NPL ratio had fallen to 4.33%, total overdue loans had fallen to NT\$630.6 billion, and the NPL ratio had fallen by 3.71 percentage points from its historic high of 8.04% in the first quarter of 2002. Overdue loans had fallen by NT\$516.9 billion compared to the Q1 2002 total of NT\$1,147.5 billion. Clearly, the overall health of Taiwan's banking system was gradually improving, making it appear more likely that the banks would be able to play their role as financial intermediaries effectively in the future, and making it easier for SMEs to secure financing.





Note: The definition of SMEs was adjusted in 2000 (see appended Table B). Source: 1. Ministry of Finance, *Summary of Financial Statistics*, February 2004.

In 2003 SMEs accounted for 31.35% of the total operating revenue of all enterprises in Taiwan; this figure was 1.84 percentage points higher than in 2002. However, the amount of

Small and Medium Enterprise Administration, White Paper on Small and Medium Enterprises in Taiwan (consecutive years).

loans extended to SMEs for every NT\$100 of operating revenue fell, declining from NT\$37.6 in 2002 to NT\$32.72 in 2003. As can be seen from Table 3-1-1, the ratio of total liabilities to net worth for SMEs as a whole was more or less the same in 2003 as in 2002. Thus, although the amount of financing that SMEs have been able to secure from banks has fallen, they have been able to compensate for this by obtaining funding from other sources, for example by direct participation in the financial bill and bond markets.

7. The Cost of Financing Has Gradually Fallen over the Last Few Years

In the first half of 2003 Taiwan's economy was affected by the war in Iraq, the Severe Acute Respiratory Syndrome (SARS) epidemic and other factors that could not have been predicted. With the unemployment rate still high, consumer spending and private sector investment growth were lower than expected. In the second half of the year, although the impact of the above factors had diminished and the global economy had begun to recover, Taiwan achieved an economic growth rate for the whole of 2003 of just 3.59%, while domestic demand remained weak and private-sector investment remained low. Both private-sector capital investment and overall capital investment continued to display negative growth, and as a result demand for funding was weak. Central Bank data showed 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 8.73% in 1994 to 2.36% in December 2003. From the point of view of business enterprises, therefore, the cost of bank funding has fallen steadily in the last few years.

Chapter 4

The Current Status of SME Labor Utilization

Following a two-year economic downturn, by 2002 the economy both in Taiwan and overseas was gradually starting to pick up again. However, the unemployment rate in Taiwan continued to rise, climbing to 5.17%. Following the war in Iraq and the SARS epidemic, by August 2003, the unemployment rate rose to 5.21% before falling again.

In response to the increasingly serious unemployment problem, the government encouraged private-sector companies to recruit more employees while at the same time working to create new jobs in the public sector. SMEs that took on additional workers were paid a subsidy of NT\$10,000 per employee per month. In the public sector, the government implemented the 'Project for the Creation of Employment Opportunities through the Expansion of Public Services," providing temporary work for the unemployed for six-month periods. It was anticipated that, in addition to providing a temporary solution to the unemployment problem, this measure would also help to revive the economy. By the end of 2003, the unemployment rate had fallen to 4.99%.

In order to gain a better understanding of the state of labor utilization among Taiwan's SMEs in 2003, this chapter will examine the impact of human resources, working conditions and the government's labor policy on SMEs, along with the issue of SME manpower cultivation.

In principle, enterprise scale is defined according to the

number of employees. Enterprises in the mining and quarrying, manufacturing and construction sector with less than 200 employees, and enterprises in other sectors with less than 50 employees, are classified as SMEs. However, in some cases the restrictions imposed by the data make it impossible to use this classification; in such cases, enterprises with less than 100 employees will be regarded as SMEs; this is highlighted where appropriate.

I Labor Usage in SMEs

Taiwan had a total available workforce of 10.08 million in 2003. There were 9.57 million people in work, 6.90 million directly employed persons and about 503,000 unemployed. The labor participation rate was 57.34%; the average unemployment rate was 4.99%.

Both the workforce and the number of persons in work increased in 2003 compared to 2002. Thanks to the various measures adopted by the government to boost employment, the number of unemployed fell by 12,000 compared to 2002. The labor market thus displayed more vitality in 2003 than it had done in 2002. The following section examines labor usage in Taiwan's SMEs in 2003.

1. An Increase in the Number of Persons Working in SMEs, but a Decline in SMEs' Share of the Working Population

In 2003, a total of 7.43 million people were working in SMEs in Taiwan, about 64,000 up on the 2002 total of 7.36 million (Table 4-1-1). The share of people in work held by people

working for SMEs fell from 77.86% in 2002 to 77.56% in 2003, mainly because the implementation of the 'Project for the Creation of Employment Opportunities Through the Expansion of Public Services''led to a dramatic increase in the number of people employed by the government.

SME employees tend to be concentrated within the 25-55 age band. However, in large enterprises the level of concentration within this age group is even more pronounced. People in the prime of life thus continue to account for the lion's share of the employed population in Taiwan. As for the gender and educational structure of the employed population, there was little change in 2003 compared to 2002. Males continued to account for nearly 60% of SME employees, with more than 50% having completed senior vocational school, senior or junior high school. The gender makeup of large enterprises is more evenly balanced than in SMEs.

2. An Increase in the Percentage of Female SME Owners

In 2003, the number of SME owners increased by nearly 4,000 compared to 2002, rising to about 493,000. Most were aged between 25 and 55 (Table 4-1-2), about the share of SME owners who were female had risen slightly compared to 2002. The long-term trend is for the ratio of female SME owners to rise, reflecting a gradual increase in entrepreneurial drive among women. By contrast, the number of large business owners declined by around 520 in 2003, and the percentage of large business owners who were female fell by three percentage points. Besides the fact that building up a large enterprise is an extremely difficult task, this decline may be related to the fact that Taiwan's economic recovery is not yet

complete.

Table 4-1-1 Characteristics of Persons in Work, 2002 – 2003

Units: thousand persons ; ^c							
		2002			2003		
Item	SMEs	Large Enterprises	Government Employees	SMEs	Large Enterprises	Government Employees	
Total No. of Persons (percentage)	7,361 (77.86)	1,147 (12.13)	946 (10.01)	7,425 (77.56)	1,159 (12.11)	988 (10.32)	
Age							
15~24	12.04	12.17	4.61	11.30	11.22	4.43	
25~40	46.33	59.32	44.95	45.84	60.10	44.26	
41~55	33.25	25.96	43.59	34.53	26.17	44.75	
56~65	6.72	2.39	6.54	6.65	2.27	6.36	
65 or over	1.66	0.16	0.30	1.68	0.25	0.20	
Sex							
Male	59.99	52.29	56.20	59.52	53.20	54.90	
Female	40.01	47.71	43.80	40.48	46.80	45.10	
Education							
Illiterate	1.53	0.09	0.22	1.35	0.15	0.20	
Self-taught	0.40	0.04	0.08	0.32	0.05	0.03	
Primary school	17.67	3.95	4.18	16.71	3.39	4.38	
Junior high school	20.71	6.98	4.54	20.03	6.59	4.75	
Senior high school	9.40	7.61	8.26	9.49	7.40	7.88	
Senior vocational school	28.51	25.93	18.02	29.03	25.06	17.81	
Junior college	14.02	26.61	25.71	14.42	26.50	25.34	
University	6.83	21.60	31.73	7.67	22.94	31.65	
Masters	0.86	5.94	5.71	0.90	6.41	6.34	
Ph.D.	0.07	1.25	1.56	0.07	1.52	1.62	

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, Monthly Bulletin of Manpower Statistics, Taiwan Area, original data, 2002 –2003.

As can be seen from Table 4-1-2, the owners of SMEs tend to be younger than the owners of large enterprises, and their average educational level tends to be lower.

Units: thousand persons ; %									
	20	02	2003						
Item	SMEs	Large Enterprises	SMEs	Large Enterprises					
Total No. of Persons (percentage)	488.97 (99.20)	3.91 (0.80)	492.94 (99.32)	3.39 (0.68)					
Age									
15~24	0.74	-	0.55	-					
25~40	36.40	24.78	34.88	13.12					
41~55	53.17	48.33	54.64	65.83					
56~65	7.98	16.07	8.29	10.93					
65 or over	1.70	10.82	1.64	10.11					
Sex									
Male	84.20	88.14	83.45	91.38					
Female	15.80	11.86	16.55	8.62					
Education									
Illiterate	0.25	-	0.15	-					
Self-taught	0.09	-	0.08	-					
Primary school	12.35	1.75	12.07	4.85					
Junior high school	17.78	7.76	17.73	18.90					
Senior high school	12.50	16.16	12.13	3.84					
Senior vocational school	26.14	5.38	26.19	11.88					
Junior college	15.95	11.51	16.65	20.40					
University	12.76	42.38	13.01	34.91					
Masters	1.87	11.23	1.66	5.22					
Ph.D.	0.31	3.82	0.32	—					

Table 4-1-2 Characteristics of SME Owners, 2002 –2003

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, Monthly Bulletin of Manpower Statistics, Taiwan Area, original data, 2002 –2003.

3. A Slight Decrease in the Number of Self-employed Persons Compared to 2002

Self-employed persons are those who run their own business, either alone or in partnership, with no paid employees; the scale of operation of their businesses thus tends to be relatively

small. In 2003 there were over 1.48 million self-employed persons in Taiwan (Table 4-1-3), all of whose businesses fell under the category of SMEs. While the total number of self-employed persons was slightly lower than in 2002, the share held by those in the 41-55 age band increased. A possible explanation is that the high unemployment rate is encouraging middle-aged people who have lost of their jobs to start their own businesses.

Table 4-1-3Characteristics of Self-employed Persons,
2002 –2003

		Unit: thousand persons ; %
Year Item	2002	2003
Total No. of Persons	1,496	1,484
Age		
15~24	1.38	1.18
25~40	29.98	28.07
41~55	46.08	48.09
56~65	17.20	17.01
65 or over	5.36	5.64
Sex		
Male	78.59	77.95
Female	21.41	22.05
Education		
Illiterate	3.45	3.14
Self-taught	1.07	0.88
Primary school	33.20	32.48
Junior high school	23.94	23.40
Senior high school	9.14	9.38
Senior vocational school	20.37	21.23
Junior college	6.30	6.58
University	2.29	2.67
Masters	0.21	0.21
Ph.D.	0.03	0.02

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, Monthly Bulletin of Manpower Statistics, Taiwan Area, original data, 2002 –2003.

The number of self-employed women has been gradually rising, with more and more women starting their own small-scale businesses. Putting the data for employers and the self-employed together, it is clear that entrepreneurial activity among women is on the rise.

4. The Number of People Employed in SMEs in the Hi-tech Sector Has Reached the 1 Million Mark

Looking at the data for 2003, there were more than 2.28 million people in Taiwan working in the OECD-defined high-tech and knowledge-intensive industries; of these, over 1.29 million worked in SMEs. Most of these employees were aged under 55, with more than 50% being in the 25-40 age bracket; there is thus a higher level of concentration than is normally found in other industries. This phenomenon is even more pronounced among large enterprises, indicating that knowledge-intensive industries have a greater need for younger workers than do traditional industries (Table 4-1-4).

5. SMEs Dominate the Cultural and Creative Industries

Faced with the dawning of a knowledge-economy era and the impact of economic globalization, the government has been working to speed up the development of Taiwan into a 'Green Silicon Island," establish a first-rate investment environment, and also create unique sources of competitive advantage. Particular emphasis is being given to the development of industries that are distinctively Taiwanese, and that reflect the wisdom and culture of the Taiwanese people, so as to avoid the unbalanced emphasis on technology at the expense of culture characterize Taiwan's that has tended to industrial development in the past. The 'Challenge 2008 National

Table 4-1-4

Development Plan" formulated by the government in 2002 incorporated a 'Cultural and Creative Industry Plan," with the aim of making Taiwan a world leader in these industries.

Characteristics of Persons Working in High-tech

Units: thousand persons ; %							
ltem		2002		2003			
nem	SMEs	Large Enterprises	Government Employees	SMEs	Large Enterprises	Government Employees	
Total No. of Persons (percentage)	1,222.5 (56.40)	507.8 (23.43)	437.1 (20.17)	1,297.74 (56.78)	539.59 (23.61)	448.40 (19.62)	
Age							
15~24	14.46	11.73	5.82	13.66	10.76	6.07	
25~40	56.84	62.57	47.52	56.97	62.25	47.65	
41~55	25.59	23.30	40.87	26.17	24.48	41.32	
56~65	2.62	2.25	5.61	2.79	2.21	4.84	
65 or over	0.49	0.15	0.18	0.41	0.30	0.12	
Sex							
Male	52.51	45.60	42.81	52.85	47.78	41.51	
Female	47.49	54.40	57.19	47.15	52.22	58.49	
Education							
Illiterate	0.16	0.02	0.06	0.11	0.08	0.05	
Self-taught	0.08	0.04	0.04	0.03	0.06	0.01	
Primary school	5.51	1.88	1.99	5.15	1.60	1.98	
Junior high school	9.69	3.79	2.62	9.10	3.85	2.59	
Senior high school	8.19	5.41	5.13	7.77	5.43	5.02	
Senior vocational school	28.65	19.49	11.55	28.44	18.95	11.05	
Junior college	26.71	30.36	19.77	26.73	29.21	19.60	
University	17.85	27.75	48.07	19.50	28.54	47.80	
Masters	2.94	8.82	7.93	2.92	9.27	9.04	
Ph.D.	0.21	2.42	2.85	0.24	2.99	2.86	

and Knowledge-intensive Industries, 2002 –2003

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, Monthly Bulletin of Manpower Statistics, Taiwan Area, original data, 2002 –2003.

In 2003 the Taiwanese government selected 13 key industries as the main focus in developing cultural and creative industry. In 2002 and 2003 the number of people working in the cultural and creative industries was about 269,000 and 266,000 respectively; in both years the number of people working in SMEs was around 205,000 (Table 4-1-5), accounting for 76.27% and 77.15% of the total respectively.

However, the scope of the cultural and creative industries does not directly match regular industry classifications. What is more, it includes many "compound" industries, such as the innovative lifestyles industry, designer branding and the fashion industry, to name a few. Extending as it does over food, clothing, accommodation, travel, education and entertainment, there is no clear standard for deciding which industries should be included within the cultural and creative industry rubric. Table 4-1-5 merely provides an analysis of those industries that are closely related to the cultural and creative industry, including the artistic and sporting services industries, the film industry, the broadcasting industry, the publishing industry, the advertising industry, the specialist design services industry, and the construction and engineering services industry, etc.

6. A Slight Fall in the Percentage of the Unemployed Who Previously Worked in SMEs

Both the unemployment rate and the absolute number of unemployed were lower in 2003 than in 2002. The number of unemployed who had previously worked for SMEs declined from about 383,000 to 368,000, while the number who had worked for large enterprises fell from about 39,000 to 37,000 (Table 4-1-6). However, the number of unemployed who had previously worked for the government

Table 4-1-5 Characteristics of Employees in the Cultural and Creative Industries, 2002 –2003

Units: thousand persons ;								
l llana		2002		2003				
Item	SMEs	Large Enterprises	Government	SMEs	Large Enterprises	Government		
Total Number of Persons (thousands)	205.27 (76.27)	59.68 (22.17)	4.20 (1.56)	205.50 (77.15)	55.75 (20.93)	5.11 (1.92)		
Industry								
Artistic and sporting services	10.62	9.43	34.03	11.40	10.93	28.71		
Film industry	1.63	2.28	-	1.86	1.77	-		
Broadcasting	6.25	30.18	12.76	5.43	33.23	15.83		
Publishing	10.97	29.95	1.70	11.59	28.85	2.14		
Advertising	19.24	3.96	-	18.87	2.52	-		
Specialist design services	8.72	4.40	-	8.51	4.37	0.95		
Construction and engineering services	11.84	8.61	13.85	11.12	7.67	24.89		
Leisure services	30.73	11.20	37.66	31.21	10.66	27.48		
Sex								
Male	54.20	58.00	62.15	53.65	55.89	77.31		
Female	45.80	42.00	37.85	46.35	44.11	22.69		
Education								
Illiterate	0.19	0.11	-	0.21	0.46	1.57		
Self-taught	0.02	0.07	2.05	0.08	-	-		
Primary school	5.45	5.00	7.11	4.80	4.65	9.12		
Junior high school	12.67	6.17	7.62	11.89	6.33	5.63		
Senior high school	10.03	8.44	9.52	9.65	7.60	18.15		
Senior vocational school	32.81	22.40	22.21	32.15	23.78	17.78		
Junior college	20.18	22.11	30.36	22.16	21.38	18.70		
University	15.13	28.98	15.54	16.07	27.76	19.65		
Masters	3.36	6.37	5.12	2.85	7.82	7.91		
Ph.D.	0.16	0.34	0.46	0.13	0.21	1.48		

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, Monthly Bulletin of Manpower Statistics, Taiwan Area, original data, 2002 –2003.

rose, probably due to the expiry of temporary contracts under the government's 'Project for the Creation of Employment Opportunities through the Expansion of Public Services."

Units: thousand persons							
\searrow		2002			2003		
Year Item	Previous Employer was SME	Previous Employer was Large Enterprise	Previous Employer was the Government	Previous Employer was SME	Previous Employer was Large Enterprise	Previous Employer was the Government	
Total No. of Persons	383.32 (74.41)	38.53 (7.48)	93.29 (18.11)	367.80 (73.13)	36.99 (7.36)	98.12 (19.51)	
Age							
15~24	19.23	19.31	68.03	17.91	14.98	60.57	
25~40	49.31	50.89	26.13	46.82	51.21	29.52	
41~55	28.65	27.84	5.36	31.18	29.47	7.99	
56~65	2.78	1.96	0.48	4.06	4.27	1.92	
65 or over	0.03	-	-	0.04	0.07	-	
Sex							
Male	70.69	56.37	59.55	68.53	53.45	54.76	
Female	29.31	43.63	40.45	31.47	46.55	45.24	
Education							
Illiterate	0.53	0.10	0.06	0.50	0.19	0.26	
Self-taught	0.10	-	-	0.12	-	0.01	
Primary school	14.22	5.10	2.84	14.47	5.91	4.19	
Junior high school	25.24	11.00	10.11	24.75	10.06	10.27	
Senior high school	10.14	11.97	7.34	9.90	10.91	8.11	
Senior vocational school	31.76	27.72	35.02	31.69	35.08	29.89	
Junior college	12.41	26.06	19.94	12.59	22.60	19.18	
University	5.03	15.51	22.44	5.57	13.25	25.28	
Master's	0.57	2.27	2.24	0.40	1.97	2.81	
Ph.D.	-	0.27	0.01	0.03	0.04	-	

Table 4-1-6 Characteristics of the Unemployed, 2002 –2003

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, Monthly Bulletin of Manpower Statistics, Taiwan Area, original data, 2002 –2003.

7. A Fall of Around 1,000 in the Number of Foreign Laborers Employed by SMEs

In order to avoid creating a situation where foreign workers and Taiwanese citizens are competing for the same jobs, starting in 2001 the Council of Labor Affairs began to restrict the entry of foreign laborers, with the aim of reducing the unemployment rate in Taiwan. The number of foreign laborers in the country has thus been gradually falling. The number of approved foreign laborers fell by 6,597 in 2003 compared to 2002, with SMEs accounting for 2,643 (Table 4-1-7) and large enterprises for 3,954, while the number of foreign laborers actually in Taiwan fell by 1,022 and 2,860 respectively.

Table 4-1-7 Number of Foreign Laborers Employed by Large Enterprises and SMEs

Units: persons ; %								
Year/ Size	2001		20	02	2003			
	SMEs	Large Enterprises	SMEs	Large Enterprises	SMEs	Large Enterprises		
Approved foreign laborers	104,481	134,601	85,965	117,270	83,322	113,316		
Percentage of total	43.70	56.30	42.30	57.70	42.37	57.63		
Actually in Taiwan	83,094	107,328	76,846	103,192	75,824	100,332		
Percentage of total	43.64	56.36	42.68	57.32	43.04	56.96		

Notes: 1. Includes only foreign laborers imported by manufacturing and construction firms.

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

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

8. Around 10,000 SMEs Have Benefited from the Government's 'SME Manpower Assistance Program''

In an effort to help Taiwan's approximately 1 million SMEs recover from the economic downturn as quickly as possible, and to provide them with assistance in the areas of financing

and human resources, on June 18, 2003 the Executive Yuan commenced implementation of the 'SME Manpower Assistance Program.' Under this program, SMEs that recruit new employees can receive a government subsidy of NT\$10,000 per month for each employee for a period of not more than 12 months. A total of NT\$3 billion has been budgeted for the project to provide subsidies for the employment of 25,000 new personnel.

Initially, the subsidies were available to SMEs (excluding those in seven specially designated industries) that recruited unemployed workers aged 30-65. However, it was found that there was a significant disparity between the high-level manpower that SMEs were seeking to recruit and the types of unemployed worker registering with the government. Beginning in early August, therefore, the restrictions were relaxed to allow SMEs to apply for subsidies when recruiting persons aged 18-30, in line with the changes in Taiwan's industrial structure and the nature of supply and demand on the labor market. However, for recruits aged 18-30, the subsidy is available for only six months.

Over the period from June 18, 2003 to December 31, 2003 subsidies were granted for a total of 41,386 new employees at 10,992 SMEs. The number of people who actually took up their new positions was 34,680, an average of 3.16 per SME. However, the number of new employees still employed as of December 31, 2003 was 31,559, equivalent to 2.9 per SME.

II Labor Conditions in SMEs

1. Higher Average Salaries in 2003 for Employees in Some Industries

By 2003, Taiwan's economy was starting to pick up again compared to 2002, and in some industries average salaries were higher than in 2002. However, in the water, electricity and gas industry, transportation, warehousing and communications industry, finance and insurance industry and educational services industry, average wages fell compared to 2002. Clearly, at the time of the survey (May 2003), the economy had not yet fully recovered (Table 4-2-1).

Overall, for workers in SMEs average salaries are highest in the medical, healthcare and social services industry. As a rule, salaries tend to be higher in large enterprises, but in this industry the reverse is true. In 2002 and 2003 average salaries in SMEs in this industry were over NT\$46,000 and NT\$48,000 respectively, compared to NT\$41,000 and NT\$46,000 for large enterprises.

Government employees also tend to have higher salaries than the employees of SMEs. However, in the medical, healthcare and social services industry the salaries of government employees are slightly lower than those of SME employees.

2. A Slight Fall in Wage Share of Total Operating Expenses

Operating expenses include wages, rental, travel expenses, advertising, water, electricity and gas bills, postal and

Linit: NT\$ thousands

telecommunications charges, insurance premiums, entertainment expenses, training expenses, etc. In 2002 personnel expenses accounted for 44.59% of SMEs' total operating expenses, while for large enterprises the figure was 36.07% (Table 4-2-2). For SMEs, the share of total operating expenses accounted for by wages is highest in the construction industry, at 51.23%, and lowest in the mining and quarrying industry. Among large enterprises, the percentage is highest in the water, electricity and gas industry, and lowest in the mining and quarrying industry.

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Size	SN	1Es	Large En	terprises	Gover	nment
Industry	2002	2003	2002	2003	2002	2003
Agriculture, forestry and fisheries	13.29	17.85	41.36	39.99	36.54	32.15
Mining and quarrying	35.59	33.62	-	-	55.65	46.72
Manufacturing	30.09	31.17	36.43	37.14	51.89	48.31
Water, electricity and gas	40.31	33.80	45.31	39.59	51.92	52.55
Construction	32.08	32.38	60.92	55.34	42.10	41.63
Wholesale and retail	28.42	32.84	37.93	40.43	32.79	40.26
Hotel and restaurant	23.13	28.24	32.10	34.57	44.01	45.61
Transportation, warehousing and communications	34.44	32.88	47.40	45.56	48.22	50.49
Finance and insurance	40.37	39.88	45.21	42.85	53.09	49.82
Real estate and rental	32.08	33.89	36.97	47.95	32.80	50.97
Specialist, scientific and technical services	35.61	38.46	50.24	54.16	49.53	41.63
Educational services	30.14	29.48	53.03	49.10	46.90	46.30
Medical, healthcare and social services	46.68	48.01	41.40	46.16	42.45	46.66
Cultural, sporting and leisure services	29.24	29.78	38.44	39.92	31.34	39.32
Other service industries	26.30	27.30	33.29	32.12	33.25	30.06
Public administration	-	_	-	32.00	44.54	45.36

Table 4-2-1 Average Monthly Salary by Industry

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, Manpower Utilization Survey, Taiwan Area, original data, 2002 and 2003.

Table 4-2-2Wages as Percentage of Operating Expenses,
2001 –2002

				Unit: %	
Size	SM	1Es	Large Enterprises		
Industry	2001	2002	2001	2002	
Agriculture, forestry and fisheries	29.65	31.42	39.49	43.17	
Mining and quarrying	19.93	18.91	36.55	26.94	
Manufacturing	38.33	38.29	27.92	27.41	
Water, electricity and gas	49.57	45.26	66.72	62.97	
Construction	50.89	51.23	42.74	43.64	
Wholesale, retail and restaurant	62.82	48.63	36.52	37.53	
Transportation, warehousing and communications	45.42	44.73	46.80	42.52	
Finance, insurance and real estate	42.68	40.48	36.01	36.15	
Business services	49.94	50.10	45.41	37.43	
Social and personal services	46.75	45.81	38.61	36.79	
Average for all industries	50.01	44.59	36.24	36.07	

Note: Operating costs include both business costs and operating expenses. Source: Ministry of Finance Tax Data Center, Business Income Tax Data.

3. Average Working Hours per Week Remain More or Less the Same in All Industries

2003 saw little change in the average number of hours worked per week in all industries. By and large, average working hours per week still tend to be higher in SMEs than in large enterprises or government agencies, although there are exceptions, such as SMEs in the agriculture, forestry and fisheries sector, the manufacturing sector and the construction industry. As can be seen from Table 4-2-3, service industries tend to have longer working hours per week than the agricultural and manufacturing sectors. For SMEs, the highest average number of working hours per week is found in the hotel and restaurant industry (49.61 hours), followed by the wholesale and retail industry (48.32 hours).

				Un	it: nours p	per week
Size	SM	Es	Large Enterprises		Government	
Industry	2002	2003	2002	2003	2002	2003
Agriculture, forestry and fisheries	40.46	40.46	44.14	44.24	41.51	41.17
Mining and quarrying	45.05	45.14	-	40.00	38.28	40.78
Manufacturing	43.17	43.10	43.31	43.58	41.70	41.15
Water, electricity and gas	45.13	44.39	42.61	43.65	40.17	41.56
Construction	40.02	40.82	43.36	43.68	40.68	40.98
Wholesale and retail	47.99	48.32	44.78	44.19	40.24	42.25
Hotel and restaurant	49.51	49.61	45.46	45.86	42.29	46.62
Transportation, warehousing and communications	46.54	45.98	44.71	45.19	40.04	41.00
Finance and insurance	45.28	44.34	42.38	42.98	40.24	39.84
Real estate and rental	46.46	47.00	46.72	45.73	41.20	41.01
Specialist, scientific and technical services	43.11	43.40	42.69	43.15	40.11	40.09
Educational services	39.36	40.85	35.27	36.49	37.22	37.00
Medical, healthcare and social services	46.97	46.95	44.13	44.66	42.10	41.95
Cultural, sporting and leisure services	47.65	47.31	46.17	44.52	41.62	41.11
Other service industries	48.01	47.39	46.86	45.92	41.58	42.01
Public administration	40.36	43.33	-	44.00	41.03	41.22

Table 4-2-3 Working Hours per Week by Industry, 2002 –2003

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, Monthly Bulletin of Manpower Statistics, Taiwan Area, original data, 2002 and 2003.

In the private sector, average working hours for SME employees decline with age (Table 4-2-4). Those educated to vocational high school level have the longest working hours, averaging 44.35 hours per week. For other educational levels, both above and below vocational high school level, average working hours per week are lower. Among the employees of large enterprises, those educated to senior high school level or below have longer working hours than those with higher education level.

Unit: hours per week							
Size	SM	Es	Large Enterprises				
Item	2002	2003	2002	2003			
Average working hours	43.37	43.32	43.44	43.46			
Age							
15~24	44.01	44.14	43.94	42.84			
25~40	43.79	43.70	43.98	44.31			
41~55	43.30	43.55	43.09	43.95			
56~65	42.43	42.13	42.62	42.07			
65 or over	43.03	41.84	43.09	37.97			
Sex							
Male	43.81	43.74	44.09	43.79			
Female	42.89	42.87	42.71	43.11			
Education							
Illiterate	40.74	41.83	46.20	44.05			
Self-taught	42.66	39.07	51.02	46.79			
Primary school	43.07	42.80	44.56	44.29			
Junior high school	44.58	44.17	45.57	45.46			
Senior high school	44.58	44.19	43.91	45.05			
Senior vocational school	44.36	44.35	44.26	44.51			
Junior college	43.85	43.88	43.22	42.94			
University	41.35	42.11	41.71	41.42			
Masters	41.77	42.08	40.39	40.90			
Ph.D.	38.47	41.11	37.64	38.17			

Table 4-2-4Weekly Working Hours for Employees in the
Private Sector, 2002 –2003

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, Monthly Bulletin of Manpower Statistics, Taiwan Area, original data, 2002 and 2003.

4. A Dramatic Fall in the Number of Labor Disputes

In 2003 the number of labor disputes reported to government agencies fell dramatically compared to 2002. The number of disputes declined by 4,546, and the number of people involved fell by 17,012. The number of disputes reported to private arbitration organizations increased compared to 2002, but the number of people involved fell slightly (Table 4-2-5). For

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SMEs, both the number of labor disputes reported to private arbitration organizations and the number of people involved in such disputes rose, but the number of disputes reported to government agencies and the number of people involved in such disputes was substantially lower than in 2002. It appears

Table 4-2-5Number of Labor Disputes and Number of Persons
Involved, 1997 –2003

Units: disputes ; persons ; %										
Size	Disputes Re	ported to the	Government	Disputes Reported to Private Arbi Organizations						
Year	Total	Large enterprises	SMEs	Total	Large enterprises	SMEs				
No. of Labor Disputes										
1997	2,532	478 (18.88)	2,054 (81.12)	68	13 (19.12)	55 (80.88)				
1998	4,043	813 (20.11)	3,230 (79.89)	95	3 (3.16)	92 (96.84)				
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)				
		No. of	Persons Invo	lved						
1997	80,816	76,196 (94.28)	4,620 (5.72)	188	91 (48.40)	97 (51.60)				
1998	103,206	96,548 (93.55)	6,658 (6.45)	362	192 (53.04)	170 (46.96)				
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)				

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 cases or persons.

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

that enterprises and workers may have become more receptive to the idea of resorting to private arbitration.

III Personnel Training in SMEs

1. Fewer SME Employees Participating in Professional Training

In 2002, the total number of instances of participation in professional training in Taiwan declined by approximately 21,000 compared to 2001. The number of instances of participation in professional training by employees of public and private business enterprises with 200 or more employees declined by over 43,000 (Table 4-3-1), while the number of instances of participation by employees of public and private business enterprises with fewer than 200 employees fell by only 3,000.

2. Enterprise Spending on Professional Training Remains Very Low

As a rule, employee salaries account for a higher percentage of operating expenses and operating costs in SMEs than they do in large enterprises. However, the amount spent on training does not necessarily correlate with enterprise size. For SMEs as a whole, on average training expenses account for 0.21%of operating costs, whereas for large enterprises the figure is only 0.1%oViewed as a percentage of operating expenses, on the other hand, the figures are 1.13%for SMEs and 2.03%for large enterprises (Table 4-3-2). For SMEs in the transportation, warehousing and communications industry, finance, insurance and real estate industry and business services industry, training

expenses account for a higher percentage of operating costs than they do for large enterprises in the same industries. In other industries the percentage is lower for large enterprises than for SMEs. In terms of operating expenses, however, with the exception of the agriculture, forestry and fisheries industry and the mining and quarrying industry, training expenses account for a lower share of operating expenses among SMEs than they do among large enterprises in the same industry.

Table 4-3-1The Number of Employees Participating in
Professional Training, 1996 –2002

Unit: instances of participation in trai							
ltem Year	Total Instances of Participation in Professional Training	Employees of public or private companies/ agencies with less than 200 employees	Employees of public or private companies/ agencies with 200 or more employees				
1996	610,898	101,630	414,058				
1997	631,764	133,977	413,479				
1998	623,495	139,376	392,753				
1999	669,561	113,038	429,880				
2000	757,670	155,153	464,555				
2001	759,142	163,698	442,490				
2002	738,580	160,498	399,128				

Notes: 1. The category "public or private companies/agencies with 200 or more employees" includes training organized by public and private companies and agencies with 200 or more employees or staff.

- 2. The category "public or private companies/agencies with less than 200 employees" includes training organized by public and private companies and agencies with less than 200 employees or staff; it also includes training provided by training facilities attached to universities, foundations, public training institutions, etc.
- 3. The category "total instances of participation in professional training" includes the above two categories and also 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.

Table 4-3-2 Expenditure on Training as Percentage of Operating Costs and Operating Expenses in 2002

				01111. /0		
	SM	IEs	Large Enterprises			
Industry	Expenditure on Training as % of Operating Costs	Expenditure on Training as % of Operating Expenses	Expenditure on Training as % of Operating Costs	Expenditure on Training as % of Operating Expenses		
Agriculture, forestry and fisheries	0.08	0.65	0.05	0.40		
Mining and quarrying	0.05	0.23	0.00	0.00		
Manufacturing	0.19	1.35	0.18	1.78		
Water, electricity and gas	0.12	0.51	0.78	7.21		
Construction	0.12	0.95	0.12	2.44		
Wholesale, retail and restaurant	0.16	0.76	0.20	1.62		
Transportation, warehousing and communications	0.31	0.91	0.25	1.54		
Finance, insurance and real estate	0.45	1.80	0.06	2.41		
Business services	1.15	2.21	0.63	2.97		
Social and personal services	0.42	0.90	0.58	1.58		
Average for all industries	0.21	1.13	0.10	2.03		

Source: Ministry of Finance Tax Data Center, Business Income Tax Data for 2002.

3. The Main Motivation for Organizing Training is to Meet the Organization's Development Needs

SMEs in Central Taiwan felt that the main reasons for organizing training were, meeting the organization's development needs, cultivating first-rate managers, and raising overall employee quality (Table 4-3-3). Clearly, the main focus in education and training is the needs of the company; meeting employees' needs and boosting their morale is not a very SMEs organize important consideration. When training programs, they are oriented towards the company's development objectives; if employees want to enhance their own skills and abilities they are expected to register for courses themselves outside the company.

Table 4-3-3The Main Factors Motivating SMEs to Organize
Training for Employees

Ranking	Motivating Factor	Percentage of Effective Sample Reporting this Motivation
1	To meet the organization's development needs	24.9
2	To cultivate first-rate managerial talent	23.0
3	To enhance employee quality	21.6
4	To improve working efficiency	18.3
5	To meet employees' personal needs	8.0
6	To improve employee morale	4.2

Source: Wang Pen-Cheng, Survey of Manpower Cultivation Needs – Report on Training Needs Among SMEs in Central Taiwan in 2003, SME Training Center (Northern Region), College of Business, National Chengchi University, October 25, 2003.

4. e-Learning Continues to Present Problems

Promotion of e-learning in Taiwan has been underway for at least three years now, but the results so far have been only a limited success. According to interviews and surveys conducted by the Southern Taiwan SME Training Center, e-learning implementation in most SMEs is still limited to the adoption of electronic methods for data exchange. Some SMEs were under the impression that establishing an internal database was an example of e-learning adoption, while in most cases the flow of information in e-learning is still one-way; enterprises have failed to adopt bi-directional interaction methods. The main limiting factors here are inadequate bandwidth and IT hardware and software. In addition, the cost of establishing a bi-directional interactive platform is too high for many SMEs.

The Southern Taiwan SME Training Center undertook a survey of SMEs' motivation for promoting e-learning within their enterprise, and found that the main emphasis was on integrating internal company data, ensuring that this data could be accessed quickly, and reducing the costs that result from duplicated action. SMEs did not emphasize the utilization of e-learning to upgrade the quality of human resources. As a result, 30% of SME employees were dissatisfied with their company's internal e-learning culture, mainly because most employees were still unwilling to share their knowledge with others.

The Central Taiwan SME Training Center discovered that 76% of the SMEs surveyed had yet to adopt e-learning. 73.8% had yet to draw up a plan for e-learning adoption, and 24.8% felt that the establishment of an e-learning platform would present difficulties.

5. Emphasis on Cultivating the Professional Expertise of SME Employees

A survey of SMEs' manpower cultivation needs undertaken by the North Taiwan SME Training Center found that the area that SMEs felt was most in need of cultivation was employees' specialist skills. In 42.4% of cases, SMEs believed that this was an area on which special emphasis should be placed (Table 4-3-4); it has consistently ranked higher than any other manpower cultivation area in this respect, reflecting a more or less unanimous recognition among SMEs of the importance of cultivating specialist expertise.

Besides specialist skills, communications skills were another area where SMEs felt that there was a need for active

Unit[.] %

cultivation. However, there was a big gap between the perceived importance of communication skills and that of specialist expertise, and this gap has shown little sign of narrowing in the last three years. There is thus a well-established consensus among SMEs as to the priority for cultivating skills.

Areas to be Strengthening	2003		2002		2001		2000	
Areas to be Otterigitiering	%	Ranking	%	Ranking	%	Ranking	%	Ranking
Specialist skills	42.4	1	40.3	1	35.6	1	50.1	1
Leadership ability	5.5	6	4.6	6	3.1	7	6.4	4
Teamwork	9.5	5	11.4	5	6.4	6	17.5	3
Self-management	9.6	4	11.9	4	8.2	5	21.7	2
Communication skills	10.0	3	12.0	3	10.2	3	-	-
None	16.4	2	13.4	2	27.9	2	1.9	5
Other	2.9	8	2.8	8	0.1	8	1.3	-
Don't know / No response	3.7	7	3.6	7	8.5	4	1.1	6
Total	100	—	100	_	100	-	100	

Table 4-3-4 SME Manpower Cultivation Needs, 2000 –2003

Source: Yu Chuo-Min, *Survey of SME Manpower Cultivation Needs in 2003*, SME Training Center (Northern Region), College of Business, National Chengchi University, October 25, 2003.

6. Specialist Talent Will be the Greatest Need for SMEs in the Future

Nearly 50% of SMES reported that, in the future, specialist talent would continue to be in greatest demand, followed by managerial talent at 18.2% (Table 4-3-5). As for 'ancillary" talent in the areas of administrative services and e-business services, demand for these categories of human talent among SMEs is far lower than the level of demand for specialist and managerial talent. The government should therefore continue to

Administrative

services talent

services talent

Don't know /

No response

None

Other

5.5

6.4

15.8

0.6

4.3

100

5

4

3

7

6

place the main emphasis in its cultivation of human resources on specialist expertise and managerial expertise.

SMEs in the Future									
								Unit: %	
Types	2003		2002		2001		2000		
турез	%	Ranking	%	Ranking	%	Ranking	%	Ranking	
Specialist talent	49.2	1	49.2	1	43.9	1	51.1	1	
Managerial talent	18.2	2	25.1	2	15.7	3	19.3	2	

5

3

6

7

4

4.2

11.6

4.8

19.8

100

6

4

5

_

2

3.7

15.4

3.0

1.2

6.3

100

5

3

6

7

4

4.9

9.5

2.5

2.1

6.7

100

Table 4-3-5The Types of Human Talent Needed the Most by
SMEs in the Future

Source: Yu Chuo-Min, *Survey of SME Manpower Cultivation Needs in 2003*, SME Training Center (Northern Region), College of Business, National Chengchi University, October 25, 2003.

Chapter 5

The Internationalization of Taiwan's SMEs

SMEs have played a very important part in Taiwan's economic development; their strength has been the foundation for over 40 years of prosperity and growth. Many leading Taiwanese trading companies started out as SMEs, and these companies can be thought of as the forerunners in the internationalization of Taiwan's SMEs. However, since 1986 there have been major changes in the macroeconomic environment in Taiwan. The appreciation of the NT Dollar destroyed the price advantage that Taiwan's exports had previously enjoyed, wages rose, and the environmental protection and labor movements grew in strength. With production costs rising, Taiwanese products were no longer as competitive as those of Southeast Asian nations, mainland China and other Third World countries. Large numbers of Taiwanese SMEs moved their operations overseas to low-cost production destinations. This trend was not confined to manufacturing enterprises; trading companies also began to establish sourcing, purchasing and distribution facilities overseas as they adopted a trans-national marketing model. This chapter will examine the motivation for internationalization among Taiwan's SMEs; it will analyze the current state of their overseas operations, their levels of internationalization, the business models adopted to develop overseas markets, and the problems encountered in trans-national marketing and management.

In the broad sense, "internationalization" refers to the expansion of an enterprise's products or activities into overse as markets. The term can thus be applied to exports, licensing,

agency operations, export processing, etc. It does not necessarily involve foreign direct investment (FDI). According to the definition used by the United Nations Conference on Trade and Development (UNCTAD), for an enterprise to be classed as a transnational corporation it must have established an entity overseas, and that entity must operate within the same decision-making system as the parent company. In other words, to be a transnational corporation one must be engaged in FDI activity; this is internationalization in the narrow sense.

For the purposes of this chapter, the broad definition of internationalization is used. The first section of the chapter examines the motivation for internationalization among Taiwan's SMEs and the current state of internationalization. Most large transnational corporations started off as SMEs, so there is a clear model for SMEs to follow in this respect; this issue is discussed in Section II. Due to the impact of economic globalization, both SMEs in the manufacturing sector and those in the service sector are faced with an unprecedented intensity of competition; at the same time, however, they also enjoy easier access to overseas markets than they did in the past. The key factor is how competitive the individual enterprise is. Enterprises' management capabilities and market development capabilities are thus worth investigation; these managerial issues are considered in the third section.

I The Internationalization of Taiwan's SMEs – Motivation and Current Status

Taiwan's domestic market is quite small, so Taiwan has for many years relied on exports to drive economic growth. Most of the companies involved in the provision of import/export
trade services are SMEs; using the term 'internationalization" in the broad sense, these trading companies can be thought of as having led the way in the process of SME internationalization. As noted above, there was no significant overseas investment by SMEs until the late 1980s.

On the import/export trade side, from a very early stage Taiwan's SMEs were collaborating with leading international trading companies, foreign IPOs and chains in a vertical division of labor. Taiwanese companies handled production, while the foreign companies dealt with marketing and distribution. Although the profits that Taiwanese enterprises were able to make under this arrangement were not particularly high, it did make a significant contribution to Taiwan's economic development. In the last few years, European, US and Japanese multinationals have been focusing on developing their core competitiveness and trying to reduce costs. They have been outsourcing part of their production to low-cost suppliers in other countries, leading to the establishment of a large number of contract manufacturing relationships; this has become the most common form of international strategic alliance. Original Equipment Manufacturing (OEM) and Original Design Manufacturing (ODM) orders from foreign companies have helped many Taiwanese SMEs to grow into large enterprises.

Beginning in the late 1980s, large numbers of Taiwanese SMEs began to invest in Southeast Asia, particularly in Thailand and Malaysia. In the 1990s the main focus of Taiwan's outward investment shifted to Vietnam and mainland China, with most of this investment going into labor-intensive industries such as textiles and shoe manufacturing. The

industries in which Taiwanese companies were investing were, for the most part, mature industries that had failed to upgrade themselves. The decision as to where to locate production was normally based on the availability of low-cost production factors (e.g., low wages, cheap land for factory construction, and the provision of incentives by the government of the country in question); there was also a tendency to invest in countries where the ethnic Chinese business network was strong, especially Southeast Asia and mainland China, which felt closer to 'home" for Taiwanese entrepreneurs. Mainland China, with its vast and rapidly growing domestic market, was a particularly attractive target for Taiwanese investment.

Taking the textile and shoe industries (which had very high concentrations of SMEs) as an example, as early as the late 1980s rising labor and land costs in Taiwan were pushing some textile SMEs to move production to mainland China or Southeast Asia. The governments of the countries concerned welcomed this investment, and Taiwanese firms found that they were able to make considerable savings on costs. Other companies, which had been in better financial condition to begin with, kept production in Taiwan. By the early 1990s, however, labor costs in Taiwan were rising even more rapidly than before, and companies that had previously decided to stay in Taiwan were now forced to shift production offshore too. However, by this time mainland China and Malaysia had ceased to encourage investment in the textile industry, so Vietnam, which had only recently started to open up its markets, became the new focus of investment. As companies in the upstream segment of the textile industry moved their operations offshore, their downstream customers were forced to follow suit, leading to a comprehensive internationalization

of the Taiwanese textile industry.

As for the shoe manufacturing industry, this industry was characterized by a large number of companies focusing on a wide variety of niche markets. It was common practice to collaborate with other manufacturers in order to be able to process large orders. This mixture of competition and collaboration, coupled with the importance of economies of scope, resulted in a situation where more or less the whole industry moved production overseas en masse, establishing clusters industry in other countries. Contract new manufacturing had played a very important role in the development of the Taiwanese shoe industry; individual manufacturers usually had a close relationship with a particular foreign partner. This situation encouraged "co-opetition," with different companies working together to establish new business models that everyone in the industry could adopt. Companies in the shoe industry were already used to working as a team, so when the business environment in Taiwan started to change the shoe industry network that had existed in Taiwan was able to replicate itself in mainland China and Vietnam.

Regardless of whether a Taiwanese company invested in Southeast Asia or Vietnam, the motivation was the same: the desire to reduce labor costs, increase production capacity, comply with customers' requirements, achieve competitive advantage on cost, develop new markets, spread risk, gain access to new sources of production resources, expand into other industries, etc. For those Taiwanese companies that invested in Europe or the US, the motivation was the opportunity to keep up to date with the latest developments in technology, achieve segmentation through the development of

unique products, and spread risk.

Comparing data for 2002 and 2003 included in the Survey on Overseas Investment by Manufacturing Industry published by the Ministry of Economic Affairs in October 2003, it can be seen that, whereas in 2002 small enterprises accounted for 64.84% of wholly-owned subsidiaries established bv Taiwanese SMEs overseas, by 2003 this figure had risen to 67.33%; the share held by medium-sized enterprises fell from 35.16% to 32.67% (Table 5-1-1). Meanwhile, 87.47% of SME overseas investment projects involved cash investment (more than 90% for medium-sized enterprises) (Table 5-1-2), with around 50% of SMEs providing machinery and equipment as part of their investment, and 25.43% providing raw materials, components, semi-finished products or finished products. The provision of patents or technology accounted for part of the investment in less than 10% of cases.

II The Process of Internationalization

For an enterprise, internationalization is a gradual process. The literature on this subject generally holds that there is a very close relationship between the level of internationalization that an enterprise has achieved and the level of experiential knowledge that it has managed to build up. That is to say, there are both internal and external factors encouraging the process of internationalization. Besides the environmental and economic factors that all companies have to deal with, the level of experience that the enterprise has accumulated in international markets will also have a major impact on its decision-making.

Table 5-1-1 The Form Taken by Taiwanese SMEs' Overseas Investment Investment

								Unit: %
Sizo		2002 S	urvey			2003 8	Survey	
Item	Total	Small enterprises	Medium enterprises	Large enterprises	Total	Small enterprises	Medium enterprises	Large enterprises
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Wholly-owned Subsidiary	64.84	61.39	65.80	69.81	67.33	65.00	66.99	72.63
Joint Venture	35.16	38.61	34.20	30.19	32.67	35.00	33.01	27.37

Source: Statistics Department, Ministry of Economic Affairs, *Survey on Overseas Investment by Manufacturing Industry*, 2003.

Table 5-1-2 The Methods Used for Overseas Investment, 2003

					Unit: %
Methods Size	Cash	Machinery and Equipment	Provision of Raw Materials, Components, Semi-finished Products and Finished Products	Provision of Patents or Technology	Other
Total	87.47	50.00	25.43	4.86	0.86
Small enterprises	82.45	55.09	33.02	5.09	0.47
Medium enterprises	94.12	47.39	17.97	3.59	0.98
Large enterprises	94.24	40.53	13.58	5.14	1.65

Note: Individual enterprises may have used more than one method of investment.

Source: Statistics Department, Ministry of Economic Affairs, Survey on Overseas Investment by Manufacturing Industry, 2003.

As a rule, enterprises prefer to adopt a gradual, progressive approach to internationalization in their main markets. The initial entry into a new market will be made through a foreign agent. As the volume of sales gradually increased, direct sales by the enterprise itself will come to account for a higher share of total sales. A company that is marketing its own brand overseas will normally want to establish its own distribution network in key markets, investing directly in overseas subsidiaries; in secondary markets it is more likely to work through the distribution network of an agent. In the case of companies engaged in contract manufacturing, if the company has positioned its products as high-quality, medium- to high-price products, the company might also want to establish overseas subsidiaries, either to be able to provide better logistics service to its foreign customers or to exploit low production costs in an overseas production location. As a company gains more experience in overseas markets, its willingness to undertake further investment in those markets will increase, and so will the amount that it invests. It will move away from working through agents (where the degree of control that can be exercised is very limited) toward joint ventures, and ultimately towards the establishment of a wholly-owned subsidiary, either by acquiring an existing company or by setting up a new one.

Taiwan is an open economy heavily dependent on foreign trade. To remain competitive, Taiwanese industry relies on the utilization of industry networks to develop technology and knowledge. When seeking to expand their scale of operations, Taiwanese firms will normally try to leverage the complex division of labor and high level of flexibility that characterize Taiwanese business enterprises. The cross-company and cross-industry networks that are formed in this way are the of competitive advantage for Taiwanese main source enterprises in international markets. Network linkages thus tend to encourage internationalization among companies within the industry network; these linkages are often one of the key motivating factors that lead a Taiwanese SME to embark on the process of internationalization. As noted above, the Taiwanese shoe industry relied on networks to reduce the level of uncertainty and risk in its business environment (including the opportunity cost attached to changing business partners, information sharing, etc.), and it was natural for shoe

manufacturers to want to use the same model when developing overseas markets. In order to minimize risk and overcome the uncertainties and problems relating to the special characteristics of overseas markets, different ways of doing business and decision-making issues, when investing overseas companies often choose to adopt the low-risk strategy of extending existing industry networks or moving production overseas en masse. In this way, they were able to make effective use of the intra-industry division of labor and of their enterprise's own internal resources. The adoption of this strategy tends to result in improved operational performance, whether viewed subjectively or objectively.

Now that both Taiwan and mainland China are members of the World Trade Organization (WTO), Chinese enterprises beginning to participate actively in the global are manufacturing/purchasing system. In this new era of globalized competition, collaborating with multinationals provides SMEs with a shortcut to internationalization. Taiwan still occupies an important place in the global supply chain. Not only does Taiwan possess a first-rate manufacturing capability, its OEM and ODM providers have already achieved a high level of e-adoption and e-enablement. With the dawning of the Internet era, the international division of labor is already starting to change; from the point of view of Taiwan's SMEs, this transformation presents both opportunities and threats. China's enterprises already working vigorously larger are to internationalize themselves. Those Taiwanese SMEs that have yet to complete the process of internationalization may need to focus more on leveraging the advantages that Taiwan's industry networks give them, using these networks of relationships to learn from the large enterprises; in this way,

they should be able to build up more experience in internationalization.

As noted above, although SMEs can make use of industry networks to overcome those entry barriers related to economies of scale, if SMEs are unable to increase their e-business capabilities so as to meet the needs of the first-tier manufacturers and vendors, they may find it very difficult to secure opportunities to collaborate with such companies. Foreign customers tend to be very demanding when it comes to delivery time. If one examines the division of labor within the IT industry's global logistics system, it can be seen that the multinationals are insisting that goods be delivered from sites close to the final market in order to keep inventory levels down. On-line materials flow, cash flow and information flow management capability has thus become of great importance for companies seeking to establish themselves within the supply chain. Hon Hai, Taiwan's largest international private-sector manufacturing enterprise, is a good example. Having started out as an SME engaging in OEM production, today Hon Hai is the third largest Electronic Manufacturing Service (EMS) provider in the world.

Another example is Test-Rite, one of Taiwan's leading trading companies. Established in 1978, Test-Rite has collaborated with numerous foreign corporations, accumulating both extensive experience of international markets in the process and a wide range of managerial knowledge. Having acquired retailing knowledge from Wal-Mart, Test-Rite has expanded the scope of its business activities to include distribution. In international trade, rapid access to information is of key importance; it is necessary to be aware of the changes taking place in different parts of the world as quickly as possible. Today, Test-Rite is more than just a trading company; it manages international distribution channels through the provision of an integrated range of services. Test-Rite has offices and facilities in more than 20 countries throughout the world, and is gradually diversifying its operations; it provides a marvelous example of how an SME can internationalize successfully.

III Problems Relating to Trans-national Management

1. Overseas Marketing Issues

The main source of competitive advantage that Taiwanese companies benefit from in international competition is the industry networks that take shape through the division of labor between SMEs and the flexibility that SMEs display in complementing one another's strengths. These closely-knit networks make it possible to integrate technology and capital and to respond quickly to changes in market demand. However, Taiwanese SMEs are usually prevented by their small scale of operation and lack of overseas bases from keeping up to date with changes in consumer behavior in overseas markets, and their knowledge of the structure of the distribution networks in overseas markets is often limited too.

As can be seen from the Survey on Overseas Investment by Manufacturing Industry published by the Ministry of Economic Affairs in 2003, with the gradual increase in overseas investment, around 60% of Taiwan's SMEs are now marketing their products in overseas markets through their own

subsidiaries or affiliates, and this percentage continues to rise, having increased from 58.41% in 2000 to 61.78% in 2003 (Table 5-3-1). In around 50% of cases, the Taiwan parent company markets its products overseas itself, a percentage that has not fluctuated a great deal. The percentage of SMEs using indirect exportation (where products are marketed through another Taiwanese company, such as a trading company, or through an enterprises based in a third country) is lower than that using direct exportation. In reality, SMEs that rely on other companies to distribute their products in foreign markets and obtain market information tend to find that they suffer from a lack of both breadth and depth in their efforts to develop overseas markets. Surveys undertaken by the Ministry of Economic Affairs in three consecutive years show that the percentage of SMEs using direct exportation has remained flat,

						Unit: %
Methods Year/Size	Direct marketing by overseas operation	Marketing handled by Taiwan parent company	Marketing undertaken through a local enterprise	Marketing undertaken through another Taiwanese enterprise	Marketing undertaken through a third-country enterprise	Marketing undertaken through a subsidiary in another region
2000 survey	58.41	51.89	17.12	9.57	7.92	5.95
2002 survey	60.34	49.37	15.07	7.46	7.66	3.56
2003 survey	61.78	51.69	15.90	7.16	6.88	4.23
		By ente	erprise size (20	003)		
Small enterprises	60.37	52.52	14.92	9.21	7.36	3.68
Medium-sized enterprises	60.98	48.43	19.16	6.62	6.97	5.57
Large enterprises	65.49	51.87	16.04	2.86	5.71	4.62

Table 5-3-1 Marketing Methods for Main Overseas Operations

Note: Respondents were allowed to select more than one type of marketing.

Source: Statistics Department, Ministry of Economic Affairs, *Survey on Overseas Investment* by *Manufacturing Industry*, 2003.

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while the percentage employing indirect exportation has fallen slightly. In other words, there has thus been little change in the overseas marketing channels used by Taiwan's SMEs over the past three years.

As can be seen from Table 5-3-2, the share of total sales held by local sales has increased dramatically for the overseas operations of Taiwanese SMEs. Between 2001 and 2002, more than 50% of SMEs experienced an increase in local sales, while over 40% reported an increase in exports to another region; less than 20% of SMEs reported a decrease in both local sales and exports to other regions. That is to say, for both those SMEs selling their products in the local market and those exporting them to other regions, the share of SMEs experiencing an increase in sales was much greater than those

Table 5-3-2Sales by Overseas Operations of Taiwanese
Enterprises in 2002 Compared to 2001

									Unit. 70
Destination	Shipped back to Taiwan			Sold locally			Exported to other regions		
Size	Rose	Flat	Fell	Rose	Flat	Fell	Rose	Flat	Fell
All enterprises	28.81	40.85	30.34	54.52	32.71	12.77	45.96	38.62	15.42
Small enterprises	24.86	39.50	35.64	50.22	36.10	13.68	42.97	37.97	19.06
Medium enterprises	30.59	42.97	26.44	59.26	25.93	14.81	46.38	37.96	15.66
Large enterprises	37.69	42.99	19.32	60.49	29.79	9.73	52.33	40.50	7.17

Note: Respondents were allowed to select more than one type of sales.

Source: Statistics Department, Ministry of Economic Affairs, *Survey on Overseas Investment* by *Manufacturing Industry*, 2003.

experiencing a decrease. By contrast, among those enterprises shipping their products back to Taiwan, the percentage of

companies reporting a decrease in sales was larger than the percentage reporting an increase. Clearly, Taiwan's SMEs have achieved impressive results in their recent efforts to develop overseas production and overseas marketing.

2. Human Resources

It is a widely recognized fact that SMEs tend to suffer from a shortage of human resources, and this problem is particularly acute when trying to develop overseas markets. When an SME establishes an overseas office or facility, besides assigning managers from Taiwan to work there it will also need to recruit local employees; personnel management is thus a key issue affecting the internationalization of SMEs. The *Survey on Overseas Investment by Manufacturing Industry* published by the Ministry of Economic Affairs in 2003 showed that, for two years in succession, the uneven quality of local employees was the biggest problem that Taiwanese SMEs had to deal with in this area, and that the problem was especially serious for small enterprises. The next biggest problem was the difficulty in recruiting specialist and technical personnel locally (Table 5-3-3).

3. Management of Overseas Subsidiaries

The period since 1990 has seen dramatic changes in the business environment both in Taiwan and overseas. With the cost of production factors rising dramatically in Taiwan and with the impact of the ongoing liberalization of world trade, overseas expansion and internationalization on the part of Taiwanese companies has become a major trend. When investing overseas, Taiwanese companies need to establish overseas subsidiaries. To be able to deal with the peculiarities

Table 5-3-3Problems Experienced by the Overseas
Operations of Taiwanese Enterprises in the Area
of Human Resources

					Unit: %	
Year/Size	2002	2003				
Problem	All	All	Small enterprises	Medium enterprises	Large enterprises	
Uneven quality of local employees	40.46	45.68	48.40	41.18	42.59	
Difficulty in recruiting specialist and technical personnel locally	39.54	36.99	38.96	39.22	31.28	
High personnel turnover rate	23.18	29.37	31.23	26.47	27.16	
Rising wages	22.17	22.46	22.74	22.22	22.02	
Rigorous labor legislation	14.75	17.01	16.13	19.93	17.08	
Low productivity of local employees	12.53	14.20	15.66	13.73	11.32	
Difficulty in adapting to new production processes	10.69	11.77	13.96	9.80	8.23	
Personnel assigned to the overseas operation from the Taiwan parent company unable to adapt well	11.71	11.61	12.45	10.46	10.49	
Labor disputes	2.03	2.70	2.64	1.96	3.29	
Other	2.76	2.38	1.60	3.92	3.09	
No problems experienced	22.90	18.90	17.74	20.26	20.58	

Note: Respondents were allowed to select more than one answer.

Source: Statistics Department, Ministry of Economic Affairs, Survey on Overseas Investment by Manufacturing Industry, 2003.

of the local market and different ways of doing things, and to be able to cope with the high level of uncertainty in decision-making, the entrepreneurs establishing these overseas operations must be totally committed and capable of withstanding high levels of stress. Once an overseas operation has been established, the division of labor between the overseas operation and the parent company and the issues relating to transnational management will have a direct impact on the types of international marketing methods used.

Firstly, there is the question of product line segmentation. As can be seen from Table 5-3-4, the finished products produced in Taiwan tend to be high-level products, and come in a wide variety. However, in 14.47% of SMEs the products manufactured by the overseas subsidiary and the products manufactured in Taiwan are exactly the same. However, more common is a horizontal division of labor, in which the products manufactured in Taiwan and those manufactured overseas are similar, but those produced in Taiwan tend to be better quality (this is true in 18.47% of cases). Where a vertical division of labor is used, in most cases components and semi-finished products are manufactured in Taiwan, with the final assembly of the finished products being performed overseas (12.20% of SMEs use this model).

Regarding the interaction between parent company and overseas subsidiary, it can be seen from Table 5-3-5 that, in the 2003 survey, overseas subsidiaries were reported as having a relatively high level of autonomy in personnel matters, with 46.76% being allowed to make important decisions for themselves in this area. However, this percentage represented a pronounced decline compared to the 2002 figure of 53.18%. The next highest level of autonomy was found on the marketing side, where the percentage of overseas subsidiaries enjoying autonomy in price setting and sales strategy formulation was 36.23% and 38.44% respectively. Here again, these figures represented a decline compared to 2002. Financial matters were generally handled on a centralized basis; only 29.37% of overseas subsidiaries enjoyed autonomy in this area.

Overall, it can be seen from the survey results for the three consecutive years that the share of SMEs where decision-making is undertaken jointly by the Taiwan parent

Table 5-3-4The Relationship between the Main Overseas
Operation and the Taiwan Parent Company in
Terms of Products

				Unit: %
Size	Total	Small enterprises	Medium enterprises	Large enterprises
Finished products are manufactured in both locations, but those manufactured in Taiwan are better quality	18.47	17.74	16.67	21.19
The quality of the products manufactured in the two locations is the same, but the Taiwan parent company manufactures a wider variety of products	14.47	11.70	13.40	21.19
The products manufactured in the two locations are different; those manufactured in Taiwan have higher value added	9.50	7.83	13.73	10.49
The products manufactured in the two locations are the same in terms of both product types and product quality	10.64	12.36	8.50	8.23
The Taiwan parent company manufactures components and semi-finished products; the overseas operation undertake final assembly to produce finished products	12.20	10.19	12.75	16.26
The quality of the products manufactured in the two locations is the same, but the overseas operation manufacturers a wider variety of products	8.26	10.19	7.84	4.32
The overseas operation manufactures components and semi-finished products; the Taiwan parent company undertakes final assembly to produce finished products	5.02	5.28	4.25	4.94
Both production locations manufacture components, but the product types are different	4.00	3.96	7.19	2.06
The products manufactured in the two locations are different; those manufactured in the overseas production location have higher value added	1.57	2.08	0.98	0.82
The products manufactured in the two locations are similar, but those manufactured in the overseas production location are higher-level	0.49	0.47	0.00	0.82

Note: Respondents were allowed to select more than one answer.

Source: Statistics Department, Ministry of Economic Affairs, Survey on Overseas Investment by Manufacturing Industry, 2003.

Table 5-3-5The Relationship between Taiwan Parent
Companies and Their Overseas Subsidiaries

						Unit: %
Year/Size	2001	2002	2003			
Decision	All	All	All	Small enterprises	Medium enterprises	Large enterprises
Overall strategy for ove	rseas sub	sidiary				
Decided by Taiwan parent company	56.81	55.39	56.43	53.58	55.88	62.96
Decided jointly	20.52	23.23	24.03	24.25	25.82	22.43
Decided by overseas subsidiary	22.67	21.38	19.55	22.17	18.30	14.61
Local pricing strategy						
Decided by Taiwan parent company	38.59	35.21	34.02	34.53	33.33	33.33
Decided jointly	23.19	23.50	29.75	28.40	32.03	32.28
Decided by overseas subsidiary	38.22	41.29	36.23	37.08	34.64	35.39
Local marketing strateg	у					
Decided by Taiwan parent company	36.65	33.73	32.56	32.92	32.03	32.10
Decided jointly	24.24	23.59	29.00	28.30	28.43	30.86
Decided by overseas subsidiary	39.11	42.67	38.44	38.77	39.54	37.04
Local personnel decision	ons					
Decided by Taiwan parent company	30.16	24.70	27.05	27.26	2549	27.57
Decided jointly	20.26	22.12	26.19	23.49	27.45	31.28
Decided by overseas subsidiary	49.58	53.18	46.76	49.25	47.06	41.15
Local financial manage	ment					
Decided by Taiwan parent company	44.76	41.52	42.71	44.62	38.56	41.15
Decided jointly	23.09	26.41	27.92	25.47	29.41	32.30
Decided by overseas subsidiary	32.15	32.07	29.37	29.91	32.03	26.54

Source: Statistics Department, Ministry of Economic Affairs, Survey on Overseas Investment by Manufacturing Industry, 2003. company and the overseas subsidiary is gradually rising, while the share where the overseas subsidiary enjoys autonomy in decision-making is falling; this is true even in personnel matters, where overseas subsidiaries have traditionally enjoyed the highest level of autonomy. The level of control that Taiwanese SMEs exercise over their overseas operations is thus increasing, with a corresponding fall in the degree of autonomy that the overseas subsidiaries enjoy. This is a significant development. As regards the profitability of subsidiaries, medium-sized enterprises overseas have performed better than small enterprises in this respect; nevertheless, even among medium-sized enterprises around one third of overseas operations have been making a loss, with only a third making a profit (Table 5-3-6). However, comparison of the data for the two consecutive years suggests that the profitability of Taiwanese SMEs' overseas subsidiaries may be improving.

Table 5-3-6 The Profitability of the Overseas Subsidiaries of Taiwanese SMEs

							Unit: %
Profitability Profitability of all overseas subsidiaries			Profitability of the main overseas subsidiary				
Ye	ar/Size	Made a loss	Broke even	Made a profit	Made a loss	Broke even	Made a profit
20	01 All	40.83	25.17	34.00	39.76	24.39	35.85
	All	36.30	25.93	37.77	36.47	25.31	38.22
2 0	Small enterprises	34.59	31.88	33.53	35.08	31.30	33.62
0 2	Medium enterprises	38.33	22.65	39.02	36.93	20.56	42.51
	Large enterprises	38.90	14.51	46.59	39.34	14.73	45.93

Source: Statistics Department, Ministry of Economic Affairs, *Survey on Overseas Investment by Manufacturing Industry*, 2003.

Chapter 6

The Development of the Cultural and Creative Industries in Taiwan and Its Significance for SMEs

With the cost of production factors rising and developing nations catching up fast, Taiwan's manufacturing sector has found itself in a difficult situation. Large-scale manufacturing operations no longer enjoy competitive advantage in Taiwan; in order to create new sources of competitive advantage Taiwanese industry needs to adopt the new concepts of the knowledge economy, developing new areas of production where innovative design is the core element. Only then will it possible for Taiwanese companies to differentiate be themselves from their overseas competitors and create more value added. If the cultural industries can strengthen their creativity and design capabilities and adopt effective business management methods, then they should have great potential. Their development will stimulate the growth of related peripheral industries, thereby boosting overall domestic demand and contributing to export growth. At the same time, if fair, reasonable pricing and licensing methods can be adopted in the cultural industries and the art world, and if they can be integrated effectively with consumer goods industries (for example through the laser printing of famous paintings onto scarves and cups), applying digital content technology to culture and creativity, then not only will this be a shot in the arm to the competitiveness of Taiwanese industry, but the resulting growth in exports will stimulate the ongoing development of the Taiwanese economy as a whole. While

helping traditional industries to upgrade and transform themselves, the adoption of new information technology will also facilitate the development of new industries and the creation of new employment opportunities, breathing new life into Taiwanese industry.

The development of the cultural and creative industry, which encompasses culture, art, technology and local traditions, has been prioritized by the government's Challenge 2008 National Development Plan. The objective of this chapter is to provide an overview of the industry's current state of development. Case studies of successful enterprises in the cultural and creative industry are presented so that their experience in terms of products and commercialization strategies can be of benefit to other SMEs, in the hope that this will lead to the creation of new business opportunities and new jobs. Finally, some policy recommendations for the promotion of the cultural and creative industry are put forward.

I The Current State of Taiwan's Cultural and Creative Industry

What is meant by the term 'cultural and creative industry'? Put simply, it is those industries that have their origins in innovation or cultural accretion, and which have the potential to create wealth or create jobs through the production and utilization of intellectual property, and which can help to enhance the living environment for society as a whole. Table 6-1-1 shows the scope covered by the cultural and creative industry and the regulatory authorities that have responsibility for each segment.

Table 6-1-1The Scope of the Cultural and Creative Industry
and the Relevant Regulatory Authorities

Segment	Industry	Regulatory Authority	Scope
1	Visual arts industry	Council for Cultural Affairs	This includes all enterprises engaged in: painting, sculpture and the creation of other works of art; the auction and retail sale of works of art; art gallery operation; the exhibition of works of art; art dealership operation; authentication and appraisal of works of art; the repair of works of art, etc.
2	Music and performing arts industry	Council for Cultural Affairs	This includes all enterprises engaged in: the performance and writing of plays (script-writing, drama training, performance, etc.), musicals and opera (composing, performance training, performance, etc.); design and production of clothing for use in performances; design of scenery; stage lighting design; management of venues (large theaters, small theaters, concert halls, open-air stages, etc.); performing arts agency operations; performing arts hardware services (production and management of props, stage preparation, lighting equipment, sound equipment, etc.), arts festival organization, etc.
3	Cultural exhibition facilities industry	Council for Cultural Affairs	This includes all enterprises engaged in the management of and provision of services by art museums, other types of museum, arts centers (including artist villages), concert halls, performance venues, etc.
4	Handicrafts industry	Council for Cultural Affairs	This includes all enterprises engaged in the production of handicrafts, handicraft design, handicraft sales, handicraft authentication, etc.
5	Film industry	Government Information Office	This includes all enterprises engaged in film making, distribution, and performance, along with enterprises providing ancillary services to the film industry.
6	Broadcasting industry	Government Information Office	This includes all enterprises engaged in the operation of terrestrial television, cable television, satellite television and radio, as well as the production and supply of programs for these operations.
7	Publishing industry	Government Information Office	This includes all enterprises engaged in the publication of news, periodicals and magazines, books, records, cassette tapes and other products on which copyright exists. Enterprises engaged in the distribution of films fall under Industry 8520 (film distribution industry); enterprises engaged in the distribution of television and radio programs fall under Industry 8630 (radio and television program supply industry).
8	Advertising industry	Ministry of Economic Affairs	This includes all enterprises engaged in the design, drawing, photographing, modeling, production and installation of advertising and publicity materials. Enterprises engaged in the distribution of advertisements and the canvassing of advertising business also fall under this category.

Table 6-1-1The Scope of the Cultural and Creative Industry
and the Relevant Regulatory Authorities
(continued)

Segment	Industry	Regulatory Authority	Scope
9	Design industry	Ministry of Economic Affairs	This includes all enterprises engaged in product planning, product industrial design, structural design, prototype and model production, fashion design, trademark design, brand visual design, two-dimensional visual design, packaging design, Web page and multimedia design, design consulting services, etc.
10	Designer brand and fashion industry	Ministry of Economic Affairs	This includes all enterprises engaged in clothing design, consulting, manufacturing and distribution where the designers are the core element in the brand.
11	Architectural design industry	Ministry of the Interior	This includes all enterprises engaged in architectural design, interior design, display design, store layout design, signage design, garden and park design, scenic design and landscaping.
12	Innovative lifestyle industry	Ministry of Economic Affairs	 This includes all enterprises conforming to the following definition: 1. Enterprises that take creativity or cultural accretion as the basis for providing useful products or services in the areas of food, clothing, accommodation, travel, sport or entertainment using innovative methods. 2. Enterprises that employ compound management, using innovative methods to achieve a re-production capability, and providing learning experience activities.
13	Digital leisure and entertainment industry	Ministry of Economic Affairs	 This includes all enterprises engaged in the provision of digital leisure and entertainment facilities, environmental and ecological leisure services, social activity leisure services, etc.: 1. Digital leisure and entertainment equipment, including 3DVR equipment, exercise equipment, game equipment, navigation systems, electronic vending machines, virtual reality equipment, etc. 2. Environmental and ecological leisure services, including digital multimedia theme parks, animation theme parks, museums, etc. 3. Social activity leisure services, including digital entertainment centers, cyber-cafes, children's entertainment and learning centers, daycare centers and schools, etc.

Note: This list was approved at the Third Meeting of the Ministry of Economic Affairs' Cultural and Creative Industry Promotion Team, July 9, 2003.

Source: Cultural and Creative Industry Promotion Team, Ministry of Economic Affairs.

Just how large is Taiwan's cultural and creative industry? According to data produced by the Ministry of Finance Tax Data Center, in 2002 the total operating revenue of the cultural and creative industry came to approximately NT\$523.24 billion. If one subtracts the value of intermediates, overall production value came to around NT\$302.62 billion; the industry included just over 47,800 enterprises, employing more than 325,500 people (Table 6-1-2). On-site interviews would be needed to determine the production value of the designer brand and fashion industry; the innovative lifestyle industry is a 'compound industry' which extends over the food, clothing, accommodation, travel, sport and entertainment sectors. By assuming that 5% of the total production value of these sectors displays a high level of creativity, a rough estimate of production value can be made.

The four industries with the highest production value are the construction design industry, broadcasting industry, publishing industry and handicrafts industry. The industries employing the largest number of people are the design industry, digital leisure industry, advertising industry and publishing industry.

The UK has the most highly developed cultural and creative industry of any country in the world. In 2000 the cultural and creative industry accounted for around 7.9% of Britain's GDP. With total exports of £8.7 billion, the industry held a 3.3% share of Britain's total exports (Table 6-1-3), while accounting for 4.1% of the employed population. In Hong Kong, the cultural and creative industry accounts for 2.0% of GDP, and 3.7% of the employed population; in Australia it accounts for 3.3% of GDP; in New Zealand the industry

accounts for around 3.1% of GDP and 3.6% of the employed population. In Taiwan, the cultural and creative industry has total production value of NT\$302.62 billion; it accounts for approximately 2.9% of GDP, and employs about 325,500 people, 3.47% of the employed population.

			Unit	ts: NT\$ millio	ns ; enterpris	ses ; persons
Industry No.	Cultural and Creative Industry Category	Production Value	Operating Revenue	No. of Enterprises	No. of Employees	Intermediate input
1	Visual arts industry	4,777	5,308	473	28,863	0.10
2	Music and performing arts industry	1,254	1,818	422	-	0.31
3	Cultural exhibition facilities industry	2,139	3,100	304	-	0.31
4	Handicrafts industry	41,971	60,828	8,947	-	0.31
5	Film industry	8,085	14,185	703	4,706	0.43
6	Broadcasting industry	50,411	88,441	1,811	31,375	0.43
7	Publishing industry	46,667	66,667	3,035	40,462	0.30
8	Advertising industry	24,664	107,236	10,170	41,850	0.77
9	Design industry	15,421	22,030	1,624	76,921	0.30
10	Designer brand and fashion industry	-	-	-	-	-
11	Architectural design industry	86,041	122,915	8,855	30,027	0.30
12	Innovative lifestyle industry	12,420	18,000	5,820	-	0.31
13	Digital leisure and entertainment industry	10,622	15,394	6,180	71,342	0.31
	Total	302,624	523,243	47,865	325,546	

Table 6-1-2The Size of Taiwan's Cultural and Creative Industry
and the Number of People Employed

Notes: 1. Production value ={operating revenue \times (1-intermediates)}.

2. It is assumed that the intermediate value for the visual arts industry is 0.1.

Source: Ministry of Finance Tax Data Center.

It can thus be seen that the share of GDP held by the cultural and creative industry in Taiwan is slightly higher than in Hong Kong, but lower than in Australia and New Zealand, and much lower than in the UK. Clearly, Taiwan still has considerable room for growth in the development of the

Table 6-1-3The Economic Significance of the Cultural and
Creative Industry in Taiwan, the UK, Australia, New
Zealand and Hong Kong

		Unit: %
Indicator Country	Production Value as Percentage of GDP	No. of People Employed as Percentage of the Total Employed Population
Hong Kong	2.0	3.70
New Zealand	3.1	3.60
Australia	3.3	3.70
UK	7.9	4.10
Taiwan	2.9	3.47

Sources: 1. Hong Kong Trade Development Council, 2000, *Creative Industries in Hong Kong.* 2. Chung-Hua Institution for Economic Research.

cultural and creative industry. Regarding the percentage of the total employed population who are working in the cultural and creative industry, the figure for Taiwan is slightly lower than those for Hong Kong, Australia and New Zealand, and much ower than the figure for the UK. In Britain, the cultural and creative industry has created around 1.32 million jobs, a testimony to the important role that this industry can play in stimulating the appearance of new employment opportunities and in reducing income disparities within society.

II Case Studies –Successful Enterprises in the Cultural and Creative Industry

This section examines three case studies in the cultural and creative industry. Liuli Gongfang grew from a small workshop into one of the world's leading glassware makers; the Seagull Group has been very successful in marketing its 'Franz'' own-brand products in international markets; PiLi International Multimedia successfully transformed itself from a traditional *budaihsi* puppet theatre troupe into a diversified enterprise.

1. Liuli Gongfang –Development and Strategies

Liuli Gongfang was established by Yi Chang and Hui-Shang Yang in 1987. The company began life as a small workshop located in Tanshui, Taipei County. Initially, Chang and Yang had just seven employees, and they had to develop their production technology more or less from scratch. Glassware manufacturing is an R&D-intensive industry, but one involving small-volume production of a large number of different products, and it was difficult to find experts who were interested in, or had the capabilities needed for, working in this industry. Liuli Gongfang had to feel its way by trial and error, and, spending a large amount of money on R&D, the company found itself heavily in debt. However, through sheer perseverance and constant willingness to learn, the Liuli Gongfang gradually found its feet. Yang and Chang developed a comprehensive production process based on methods that they had developed themselves. In late 1990, Liuli Gongfang held its first exhibition in the Eslite art gallery. This exhibition marked the first step in the company's efforts to promote the art of glass-making in Taiwan and develop a local market for its products; at around the same time, Liuli Gongfang also began to market its glassware overseas.

After more than a decade of effort, in 2001 Liuli Gongfang had combined domestic and overseas sales of more than NT\$700 million. By the end of 2002, the company had over 50 outlets and two factories, its capitalization exceeded NT\$150 million, and it had more than 800 employees, including 12-14 R&D personnel. Liuli Gongfang had been invited to exhibit its products in Japan, the US, the UK, Italy, Germany and South Africa, and several of its pieces had been acquired by leading international museums to form part of their permanent collections. The company had played a leading role in the development of modern Chinese glassware making, and had succeeded in developing its own distinctive brand image.

In considering the factors behind Liuli Gongfang's success, it is necessary to focus on four areas: production, marketing, human resources and strategies.

(1) Production

On the production side, the key factors were the lead that Liuli Gongfang established over its competitors in the area of technology, and the lower production costs that resulted from locating production in mainland China.

a. The Core Technology - Lost-wax Casting

Due to the restrictions imposed by the equipment available to them, in the early days Liuli Gongfang had to rely on glass-blowing technology. However, using this technology they found it very difficult to increase their production capacity. Another consideration was that glass-blowing technology had been in existence for several hundred years in many countries around the world, and as a late entrant, it seemed unlikely that Liuli Gongfang would be able to achieve any real success in this area. Furthermore, glass-blowing techniques were not suited to the uniquely Chinese style that Yi Chang was trying to develop. Liuli Gongfang therefore began to look for new ways of making glass. The method the company ultimately adopted – "*patte-de-verre*" lost-wax casting – provided

maximum malleability and made it possible to achieve a high level of precision in replication and mass production. Using this new method, the company was able to produce glassware of exquisite beauty that conformed to the Liuli Gongfang ideal of reviving the art of Chinese glass making.

b. Reducing Production Costs by Establishing a Factory in Mainland China

In 1995, Liuli Gongfang established its second factory, located in the Qibao Industrial Park in the Minxing District of Shanghai. The lower production costs of this new production facility had a significant positive impact on the company's operational performance.

(2) Marketing

The main focus in Liuli Gongfang's marketing strategy has been on building name recognition and overall brand image. The company's products, which are distinctively 'Chinese," are produced in limited editions; in addition, Liuli Gongfang has worked hard to develop international distribution channels.

a. Building Up Name Recognition and Overall Brand Image

The fame that both Hui-Shan Yang and Yi Chang enjoyed in Taiwan helped Liuli Gongfang to secure media exposure when the company was first getting off the ground. The media and the general public rapidly became familiar with the concept of 'artistic glassware'; this was an important factor in the company's early development. Liuli Gongfang was well aware of the importance of overall brand image; its marketing concepts, strategies and implementation displayed a high level of consistency. At both the company's own direct outlets and department store outlets, Liuli Gongfang personnel handle the sales operations themselves. Detailed rules govern everything from store layout and product packaging through to customer reception and product presentation.

b. Products with a Distinctly "Chinese" Character

Liuli Gongfang's ultimate objective has always been to create glassware with a unique "ethnic" style. With Chinese cultural coordinates as the foundation, Liuli Gongfang has developed its own modern artistic vocabulary to express the essence of Chinese culture, and their products thus have a distinct "cultural" aspect to them that has proved extremely attractive on both domestic and international markets.

In positioning the products, Yi Chang has tried to focus on the philosophy and the emotions they evoke, rather than on the objects themselves. With this in mind, he developed Liuli Gongfang's 'product explanations." The idea is to express what inspired each piece in a few succinct sentences. For glassware enthusiasts from a different cultural background, these explanations help to give the pieces a whole new level of meaning.

c. Limited Editions

In line with the emphasis that Liuli Gongfang's corporate culture places on 'integrity," the company has never gone in for large-volume production or efforts to maximize profits. Instead, its products are all issued in limited editions. Before production begins, each step in the production process is rated for difficulty; these scores are then added together to provide a

basis for calculating the unit price, and the total amount being invested in that particular piece is divided by the unit price to determine the number of pieces that will be produced. Once the agreed number of pieces has been made, production is terminated and the molds are destroyed. Each piece has engraved on its base the serial number of that particular piece and the total number that were produced. This limited edition strategy helps to maintain the value of Liuli Gongfang glassware, creating the potential for pieces to increase in value after purchase; it also encourages constant innovation by the Liuli Gongfang team.

d. Developing International Distribution Channels

Liuli Gongfang held its first overseas exhibition in 1992, at the Mitsukoshi Art Gallery in the Ginza district of Tokyo. Since then, the company has held exhibitions in Italy, the US, Germany, Singapore, Switzerland, South Africa, the Czech Republic and the UK.

Today, besides the company's 20 outlets in Taiwan, Liuli Gongfang has a distribution network that covers mainland China, Singapore, Europe and the US. In mainland China, there are now more than 20 Liuli Gongfang galleries in Shanghai, Beijing, Hangzhou, Dalian and Harbin. These mainland China outlets now account for more than 50% of total sales revenues, and sales are continuing to grow rapidly.

(3) Human Resources

Luili Gongfang attaches great importance to the cultivation of human talent. In order to boost the capabilities of its employees, Liuli Gongfang employs experts to collect and collate the latest information on new glassware-making developments from all over the world and to study the latest pieces by leading designers. Liuli Gongfang spent a considerable sum of money to establish a library (open to the general public) on the third floor of its Tanshui production facility, containing several hundred books relating to the arts, culture and philosophy. In order to give company employees the opportunity to learn new skills and to achieve a higher level of interaction with the international glass-making community, Liuli Gongfang also sends employees to study overseas on a regular basis.

(4) Strategy

In order to integrate the art of glassware into people's everyday lives, Liuli Gongfang has begun to expand into architecture, interior design and lifestyle products (such as sets of glasses and light fittings). Towards the end of 2001, Liuli Gongfang opened the TMSK restaurant, the first restaurant of its kind in Shanghai, in Xin Tiandi luxury shopping center. TMSK uses glassware for all of its interior furnishings, and features a glass lotus pond, glass lamps and a glass-embellished dome, etc.

With its unique atmosphere, TMSK has become a favorite meeting place for Shanghai trendsetters, particularly foreigners. By making glassware part of the lives of Shanghai's elite, Liuli Gongfang has succeeded in raising the visibility of its products, and has created a new source of revenue.

2. Franz – Development and Strategies

Franz is a brand launched by the Seagull Group in 2001. The parent company, Seagull Décor Co., Ltd., was established by Francis Chen in 1984. It started out as a trading company

handling the exportation of wood and leather products, gifts, etc., and undertaking ODM/OEM production for a large number of leading foreign corporations.

With the downturn in the global economy of the last few years, the level of demand in the European and North American gift markets has shrunk. At the same time, mainland Chinese companies have gradually developed the capability to manufacture similar products at low cost, making it harder for the Taiwanese ODM/OEM makers to stay in business. In 2001 the Seagull Group launched its 'Franz' brand, seeking to exploit the technical knowledge and network of contacts that the company had built up over the years to expand outwards from the R&D and manufacturing segments of the value chain into brand management and marketing. In that same year Seagull established Franz Collection, Inc. in the US, making the US its main target market while still thinking in global terms. Currently, Franz has its R&D and design facilities in Taipei, with production being located in Taiwan and mainland China. The US headquarters is in San Francisco, with agents in Europe, New Zealand and Australia. Franz (Taipei) handles the brand's operations in the Greater China region.

As of August 2003, the Seagull Group had more than employees 6.000 located all over the world. with approximately 800 in Taiwan. Franz (Taipei) has four main divisions - administration, products, operations and business development. In 2003 the Seagull Group as a whole had total operating revenue of US\$5-6 million, with OEM/ODM business accounting for 80-90% of this. How has the Seagull Group managed to develop its own brand successfully in international markets in just three years? To answer this

question, it is necessary to focus on its design and R&D, production, marketing, human resources and finance.

(1) Design and R&D

In the area of design and R&D, Franz has adopted the following measures:

a. Establishment of a First-rate Design Team

Besides cultivating its own design team in-house, Franz has also recruited master ceramists from Yingko and Miaoli to undertake design work. As a result, the company now possesses an outstanding design capability. As regards the types of design work undertaken, besides continuing to launch new ranges of products such as its Butterfly Dance, Green Frog and Dragonfly series, Franz also uses the market data and forecasts produced by the marketing department to add new items to those ranges that have proved particularly popular with consumers; Franz has proved very successful at giving the market what it wants.

b. Aggressive R&D

Since 1997, the Seagull Group has invested hundreds of millions of NT dollars into the development of its ceramics R&D and production capabilities. As a result, the group now possesses one of the world's finest ceramics technology development teams, and is actively involved in various aspects of materials research and product R&D. Besides the Poly materials in which Seagull already excelled, Franz is now able to achieve effective integration of ceramics, metal, lapis and bullet-proof glass, combining these materials in innovative

ways.

c. Making Effective Use of High Technology to Produce Better, More Efficient Designs

Besides traditional hand-drawn designs, Franz now also uses hi-tech software and hardware equipment; the precision and accuracy of these new methods complements the traditional design techniques. Franz has also set up a database to store the knowledge accumulated by its designers, making it easy for employees to access the information they need. Effective application of high technology enables Franz to achieve a higher level of perfection in its designs and to improve overall efficiency.

d. Recruiting Ceramics Experts to Serve as Consultants

Franz's artistic consultant is Mr. Shao Sun, who received the National Award for the Arts in 1988. Mr. Sun spent many years at the National Palace Museum studying the firing techniques that have been used to produce Chinese ceramics over the centuries. In a career spanning more than 30 years, his own artistic creations (which integrate crystal glaze techniques and woodblock printing techniques) have won plaudits from the world's leading museums. Mr. Sun's supervision ensures that Franz pieces maintain a high level of artistic quality; with his assistance, Franz is able to use the advanced techniques and processes to create pieces of great beauty with a modernistic feel.

(2) Production

The Seagull Group's extensive experience in ODM/OEM

production provides a solid foundation for the commercialization of Franz's designs. Franz enjoys a definite advantage over its competitors in the area of production.

a. Mastery of Complex Techniques

Underglaze decoration is the most important technique employed by Franz. The production processes include the sculpting of the basic form, the production of the plaster mold, pouring in the clay, biscuit firing, and the addition of colors and glazes; in all, there are around 100 procedures that have to be completed, and every detail has to be perfect. For example, when producing the initial prototype, great care must be taken to ensure that the designer's original concept is faithfully reflected in the prototype. When making the mold, mold lines must be kept to a minimum, and the individual mold segments must fit together properly in such a way that the piece retains its original shape. The introduction of the clay into the mold must be performed at the right speed so as to prevent bubbles from forming, and the biscuit must be given a smooth finish. During firing, care must be taken to prevent deformation, and when applying the decoration every individual brushstroke must be controlled with the utmost precision. Finally, the glaze must be applied evenly to ensure that the finished piece is without blemish.

b. Efficient Management to Satisfy the Needs of the Market

Once the sample has been made by hand, it is shipped to the factory for mass production. However, the color decoration must still be applied by hand. Franz attaches great importance to efficient factory management; as a result, the company is able to produce large quantities of pieces with uniform quality

that conform to market needs.

c. Establishing Factories in Mainland China to Reduce Production Cost

Besides its factory in the Neihu Technology Park, the Seagull Group also has factories at Xiamen, Shenzhen and Dongguan in mainland China, and is currently constructing an additional production facility at Jingdezhen in Jiangxi Province. The establishment of these production facilities in mainland China has made an important contribution towards bringing production costs down.

(3) Marketing

Measures adopted by Franz to strengthen its marketing activities include the following:

a. Taking Subjects from Nature to Make One's Products Stand Out and Create Market Segmentation

Nature is a common language shared by every part of the world. In order to be more distinctive and achieve market segmentation, Franz products take their subject matter from nature; their bright colors and bold decoration create a warm, intimate feeling, while at the same time the products are full of life, and are highly diversified. Franz products include porcelain collector's pieces, porcelain vessels for everyday use (cups, vases, plates, etc.), furnishings and jewelry.

b. Active Participation in Exhibitions to Build Up an International Brand Image

In order to build up its brand recognition as quickly as possible,
Franz has participated actively in exhibitions and competitions both in Taiwan and overseas. In 2002, Franz was selected from among more than 10,000 competing brands to receive the Award for the Best Gift Collector's Items at the New York International Gift Fair. This award has been a great help to Franz in developing international marketing channels, and since receiving it, Franz has enjoyed rapid growth in overseas markets. In Taiwan, 2003 saw Franz receiving both the Most Fashionable Ceramic Decorations Award and Award for Excellence in the annual evaluation of ceramic products conducted jointly by the Council for Cultural Affairs and the Taiwan Handicrafts Research Institute; Franz products have proved consistently popular with consumers in Taiwan.

c. Establishing a Global Marketing Network

Building on the Seagull Group's network of contacts and international marketing know-how, Franz has been very successful in developing international markets. Currently, marketing in the US and Taiwan markets is handled directly by the Seagull Group, while marketing in Europe, New Zealand and Australia is handled through agents. Seagull has thus succeeded in establishing a marketing network that extends throughout the world. Distribution is mainly through prestigious department store outlets such as Harrods, Neiman Marcus, David Jones and Lane Crawford. As of February 2004, Franz had more than 4,000 sales outlets all over the world.

(4) Human Resources

The cultivation of human talent, knowledge management and innovation play an important part in the Seagull Group's management philosophy, and the group attaches great

importance to the training and cultivation of design and technical personnel over the long-term. Several of Franz's designers had been cultivated by Seagull over a period of many years.

(5) Finance

OEM and ODM business is the main source of revenue for the Seagull Group. This revenue source has made the group financially strong enough to be able to support the development of its own brand, and has given it the resources needed for market development. Currently, ODM and OEM still account for around 80-90% of the Seagull Group's total operating revenue.

3. PiLi International Multimedia –Successful Integration of Traditional Budaihsi Puppet Theater with Multimedia

PiLi International Multimedia has brought together traditional puppet theater and multimedia technology. Through intensive R&D and innovation, it has succeeded in fusing a traditional performing art with modern culture, breathing new life into Taiwan's traditional arts. Taking *budaihsi* puppet theater as its starting point, PiLi has expanded into other segments of the entertainment sector. Combining cultural value with entertainment value, PiLi has become a dominant force in Taiwanese culture.

PiLi was founded in 1970. In 1991 the company began to produce the 'PiLi *Budaihsi*'' videos, which even today are still the most-rented items in Taiwan's video and VCD rental shops. By 1995 PiLi had established the PiLi Satellite TV Channel,

the first TV channel to focus on one of Taiwan's traditional arts.

In recent years PiLi has been collaborating with the Art Alliance to develop a wide variety of peripheral products, including comic books, martial arts novels, collections of photographs, music CDs, VCDs, PC games, on-line games, etc. The high sales achieved by these products led PiLi to establish Ju Bang International Marketing Co., Ltd. in 1999. Working through Ju Bang, PiLi has implemented a systematic promotion strategy to develop the peripheral product and character licensing markets; this strategy has included the development of new types of characters to appeal to different age groups.

Throughout its existence, PiLi has remained true to the original *Budaihsi* philosophy and culture, while at the same time working to integrate the *Budaihsi* tradition with modern culture and the contemporary environment. The company has been so successful in this endeavor that it has become a pathfinder for the Taiwanese cultural and creative industry as a whole, and a model for the successful commercialization of traditional culture. In 2002, PiLi received a certificate from the Government Information Office formally acknowledging its status as a member of an 'important emerging industry." The following sections will examine PiLi's operations in the areas of marketing, finance, operational management and overall business strategy.

(1) Marketing

In the area of marketing, the methods adopted by the PiLi Group include the following:

a. Logo Licensing

The characters from PiLi *Budaihsi* programs are now being used in a wide range of industries, including the financial sector, telecommunications, the textile industry, manufacturing and the food industry, and on an enormous range of products, including household goods, stationery, gifts, stamps, credit cards, phone cards, T-shirts, models, toys, on-line games, snack foods, etc.

b. Product Licensing

PiLi has been forming cross-industry alliances and licensing the rights to manufacture products based on its characters to other companies. The most important licensed products include comic books, card games, on-line games, credit cards and phone cards.

(2) Finance

Currently, the PiLi Group has four main revenue sources: video rental sales, satellite TV channel revenue, sales of peripheral products, and overseas licensing revenue. The ratio between sales of peripheral products and PiLi's core business is roughly 1:10.

(3) Operational Management

PiLi Multimedia has become a model for other companies in the cultural and creative industry. Business promotion is aggressive, the potential for future market growth is strong, and the scope of PiLi's products and services is broad. PiLi enjoys competitive advantage in the following areas:

a. Unique Product Technology

PiLi possesses expertise in both traditional *budaihsi* puppet theater and television and film production; this combination creates entry barriers that are very difficult for any would-be competitor to surmount. To achieve perfection in *budaihsi* performance, one needs an in-depth knowledge of Chinese culture, along with the necessary performance skills; new entrants will find these skills hard to acquire.

b. Brand Advantage

PiLi is the market leader, and many of its characters have acquired 'star" status. Over the years, PiLi has built up a clo se relationship with its customers, and has become synonymous with *Budaihsi* performance in Taiwan.

c. Control Over Media Distribution

PiLi has its own TV channel, and produces its own publications and videos. In Taiwan, 99% of households with cable television can receive PiLi's programs. Not only does this advantage create a formidable barrier to competitors, it also gives PiLi a strong foundation on which to build in the future.

(4) Overall Business Strategy

PiLi's success can be attributed to the following key strategies:

- a. Making adjustments to the company's strategy in line with the changes taking place in society as a whole.
- b. Making effective use of innovation to develop new customer

target groups.

- c. Keeping a finger on the pulse of the market and undertaking careful analysis of consumer psychology.
- d. A precise division of labor to enhance production efficiency and increase production capacity.
- e. Adoption of new management systems to make management more systematic.
- f. Diversification and development of peripheral products to boost operating revenue.

PiLi has constantly striven for innovation and improvement to keep apace with change in the market and in society as a whole. It has been able to keep developing new markets and to achieve a high level of efficiency within the company. PiLi's business continues to grow, and it has already made an important contribution to the development of the cultural and creative industry in Taiwan.

III Strategies for the Future

The cultural and creative industry can be divided into the handicraft industry, where commercialization is relatively easy to implement, and the "cultural economy" where this is less true. The following section examines ways in which the government and private-sector companies can work together to promote the development of the cultural and creative industry.

1. Commercialization in the Handicrafts Industry

If a maker of handicrafts wishes to transform their business from a small-scale workshop into a fully-fledged company, first of all they need to start thinking about costs and profits. If the gross profit margin is less than 50%, then the company may find that it is unable to bear the cost of R&D and distribution channel development. One also needs to consider whether the company's products are sufficiently innovative and distinctive for brand development to be successful, or whether the company possesses some particular edge in terms of technology, or has a niche market that it can develop. The transformation from workshop into company is bound to upheavals in terms of personnel involve maior and management, and if external funding sources are tapped then the company will find itself under heavy pressure with respect to profitability and market development.

If a company feels that establishing its own brand right away is too risky, then an alternative strategy would be that adopted by Seagull –undertaking ODM/OEM work for leading vendors, or licensing one's products to other companies while insisting that they continue to bear your trademark. In this way, companies can maintain a steady flow of profits while slowly building up brand recognition and waiting until the time is ripe to move into branded manufacturing.

2. The 'Industrialization of Culture'

The process whereby culture becomes industrialized can be divided into several stages: The 'briginal idea stage," the 'innovation formation stage," the 'start-up stage," and the fin al 'industrialization stage." The requirements imposed by these

stages, and the restrictions relating to the provision of assistance by the government result in a situation where the 'industrialization of culture" is best suited to those companie s that possess innovation, originality, their own brands, and the capabilities needed for successful commercialization.

At the 'original idea stage," private-sector enterprises are involved in the establishment of 'innovation brain trusts," stimulating creativity and innovation, and playing an important role as intermediary. As for the government, besides encouraging the cultivation of human talent, its role also embraces the maintenance of contact and interaction with the 'brain trusts" established in the private sector, as well as helping Taiwan to access international talent and ensuring that Taiwan stays abreast of developments in other parts of the world.

At the 'innovation formation stage," assistance is needed (in terms of capital, human talent and industry cluster formation) to ensure effective integration of innovation and applications and encourage the involvement of the venture capital industry. The main role for the government at this stage is to focus on the establishment of an innovation network platform. This platform must include overseas agents, buyers and venture capital firms, together with companies in Taiwan's cultural industry. Government assistance can reduce the cost of accessing venture capital, and can facilitate the development of industry clusters. In more concrete terms, the government might want to consider developing cultural and creative industrial parks into a type of cultural platform. These parks could become a venue for interaction between cultural and artistic organizations and the formation of cross-industry alliances, and would have an important publicity effect.

At the "start-up stage," the process of industrialization needs to be speeded up. In addition to the protection of intellectual property rights, attention must also be paid to appraising the value of intangible assets, and to the establishment of brands, intermediary organizations and distribution channels. As for the government's role, the government can leverage the 'brain trusts' that will have been established by this stage to select projects that can serve as models for other companies, and then concentrate resources to help in the implementation of these projects. By providing assistance in the areas of talent, funding and land (for factory building), the government can help to ensure the success of projects that will lead the way for others, turning the industrialization of the innovative and cultural sector into an unstoppable trend.

3. Government Assistance

There are several areas in which the government can provide assistance. They include:

- (1) Focusing on particular cultural and creative industries that have strong development potential, and positioning them as 'flagship industries." The government can then coordinate to concentrate resources on these industries to provide assistance in the areas of talent, funding, technology and business environment.
- (2) Making companies' business plans one of the criteria on which the provision of government subsidies is based. A company's business plan would then play an important part

in the process of securing venture capital funding.

- (3) By canvassing the views of experts and overseeing the establishment of effective peripheral and supporting systems for Taiwan's cultural and creative industrial parks, the government can stimulate the development of an industry cluster effect.
- (4) An SME innovation subsidiary plan could be used to provide small amounts of funding for entrepreneurs with innovative ideas.
- (5) The establishment of special funds and the effective utilization of the Reserve Officer Training Program for National Defense system can be used to foster the growth of companies that can serve as models for the cultural and creative industry as a whole.

Part Two

Development Issues Facing SMEs in Taiwan

Chapter 7

The Impact of the SARS Epidemic on Taiwan's SMEs and Industry in General

The Severe Acute Respiratory Syndrome (SARS) epidemic began at Foshan in Guangdong Province, mainland China, in November 2002. By the end of May 2003, the disease had spread to more than 30 countries throughout the world, and its impact on mainland China, Hong Kong, Singapore and Taiwan was particularly heavy. Considerable research has been undertaken regarding the impact of SARS on Taiwanese industry and on the Taiwanese economy as a whole. However, the forecasts produced while the epidemic was still underway and the various questionnaire surveys implemented during this period are considered of limited value for this study. Instead, section I of this chapter uses business tax data to examine the impact of SARS on sales performance in various industries; Section II uses data obtained in a survey conducted in the second quarter of 2004 to analyze the impact of SARS on Taiwan's SMEs, so as to gain a clearer picture of the SARS epidemic's effects.

I The Impact of SARS on Sales Performance

The impact of SARS was felt in almost every industry. This section uses the changes in sales performance in individual industries to analyze the effect that SARS had on Taiwanese industry in 2003. Business tax data is used for this purpose, based on periods of two months.

As can be seen from Table 7-1-1 and Table 7-1-2, although overall sales for Taiwanese industry as a whole fell by 0.38% year-on-year in the period May-June 2003, in every other two-month period sales continued to grow, both consecutively and year-on-year. The impact of SARS on Taiwanese industry as a whole was thus relatively limited. Nevertheless, if one examines the changes in the sales performance achieved by individual industries, it is apparent that a significant number of industries experienced a decline in sales during the periods March-April and May-June 2003. In terms of year-on-year comparison with 2002, the number of industries experiencing a decline in sales was 31 in March-April and 36 in May-June; both these figures are substantially higher than those for the other two-month periods. If one compares sales performance with that in the previous two-month period, 20 industries can be seen to have experienced a decline in March-April, 21 in May-June, and 21 in July-August. May-June was thus the period for declining sales performance, peak with approximately half of Taiwan's industries seeing their sales fall off during these two months. The industries that experienced a decline in sales in March-April and May-June were mainly in the service sector; May-June was the only two-month period in which a significant number of manufacturing industries experienced a falling off in sales.

There are various other factors that may have had an impact on sales performance in 2003, including the state of the global economy, the war in Iraq, the business cycle, seasonal factors, etc. Nevertheless, following its sudden outbreak the SARS epidemic spread with great rapidity, and its impact was pronounced. Some industries providing specialist products and services did experience an increase in demand due to the

Table 7-1-1Sales Performance of Taiwanese Industries,
January –August 2003

							Unit: %
Industry	Year-on-year Growth Rate (A)			Sequential Growth Rate (B)			
	March – April	May – June	July – Aug	Jan – Feb	March – April	May – June	July – Aug
Total ¹	6.83	-0.38	6.03	13.70	5.72	4.67	10.11
Agriculture, Forestry and Fisheries	8.21	24.33	-6.71	-9.68	-14.55	10.83	1.80
Agriculture (arable and pastoral)	1.01	25.02	-25.13	-10.59	-19.85	12.83	-15.76
Forestry and logging	61.54	38.78	-0.74	-13.74	15.29	21.79	8.29
Fisheries	18.39	18.98	38.85	-5.97	-5.98	3.15	40.57
Mining and Quarrying	20.90	-12.52	7.74	-8.60	8.78	-2.24	3.93
Mining (fuels)	11.73	-12.43	13.33	-33.06	7.98	-4.88	-0.28
Other mining	9.95	-4.57	3.67	16.58	-8.78	2.40	0.49
Quarrying	27.95	-14.60	6.84	-0.06	14.71	-2.50	6.72
Manufacturing	12.44	-2.39	8.39	13.05	4.21	1.92	11.09
Food and beverage manufacturing	2.19	1.61	7.58	4.07	-0.66	2.42	-0.76
Tobacco products manufacturing	-2.60	-10.16	-30.36	300.00	152.70	60.00	-19.31
Textiles	3.92	-0.94	5.91	17.08	-11.39	-5.82	3.70
Garment, apparel and other textile product manufacturing	5.40	4.16	11.32	1.73	-9.34	-11.17	-2.82
Leather, fur, and leather and fur product manufacturing	32.30	-11.73	-9.83	134.39	94.43	81.52	89.98
Wood and bamboo products manufacturing	13.11	-3.91	6.26	-2.36	-7.86	-9.69	-1.03
Furniture and furnishings manufacturing	12.14	-10.62	-1.96	0.35	-1.36	-0.83	-0.16
Paper pulp, paper and paper products manufacturing	9.03	-5.16	4.11	18.76	4.67	-0.89	3.61
Printing and ancillary industries	15.71	-10.68	15.17	5.86	2.41	-4.75	7.05
Chemical Materials Manufacturing	0.44	1.87	8.07	34.31	10.56	9.71	17.91
Chemical products manufacturing	4.72	-0.52	2.33	19.41	1.77	7.78	5.17

Table 7-1-1Sales Performance of Taiwanese Industries,
January –August 2003 (continued)

Unit:							
	Year-on-year Growth Rate (A)		Sequential Growth Rate			(B)	
Industry	March – April	May – June	July – Aug	Jan – Feb	March – April	May – June	July – Aug
Petroleum and coal products manufacturing	-3.23	-5.84	24.00	62.27	34.62	18.00	38.24
Rubber products manufacturing	18.30	5.63	-15.66	-21.59	-29.66	-21.31	-30.40
Plastic products manufacturing	18.34	0.16	-0.87	0.80	-9.45	-1.47	-1.10
Non-metal mineral products manufacturing	7.51	-2.24	7.94	21.40	2.06	6.78	20.62
Basic metals industry	10.74	-4.49	4.61	31.50	19.19	10.41	11.91
Metal products manufacturing	20.01	-7.00	6.29	-6.85	-10.44	-17.55	-14.33
Machinery manufacturing and repair	22.54	-3.36	7.18	45.35	42.57	32.38	40.65
Computer, communications and audiovisual product manufacturing	20.35	-6.29	8.06	-14.69	-9.83	-13.14	-5.41
Electronic component manufacturing	12.26	-0.38	18.12	8.92	1.33	5.01	22.93
Electric power machinery and equipment manufacturing and repair	18.23	-2.26	9.80	23.17	17.10	13.30	27.46
Transportation equipment manufacturing and repair	15.78	3.77	-1.06	10.65	5.62	-3.31	10.05
Precision, optical and medical instruments and timepiece manufacturing	15.25	2.19	11.18	21.02	5.16	-9.22	26.04
Other industrial product manufacturing	24.11	-7.32	2.26	6.88	1.61	-2.34	0.29
Water, Electricity and Gas	-1.87	12.94	24.33	10.41	17.36	7.34	6.57
Electric power supply	-2.26	15.68	28.78	10.28	16.01	7.82	6.04
Gas fuel supply	0.83	3.62	5.24	33.05	72.90	32.11	26.14
Thermal energy supply	6.51	-1.31	4.87	-10.42	-10.55	-16.30	-1.25
Water supply	-3.04	2.08	8.21	-14.27	-20.15	-23.51	-12.35
Construction	10.66	4.61	1.05	1.41	2.71	5.66	2.47
Civil engineering	9.70	4.06	-1.03	-0.14	-2.63	-0.50	-5.95
Building industry	31.22	10.83	-7.02	-7.91	-4.53	13.35	5.61
Electromechanical, telecommunications, electric circuit and pipeline engineering	6.25	-0.07	6.26	-3.25	5.31	3.53	3.94
Building renovation and decoration	15.27	4.88	2.74	1.31	8.80	4.47	6.36
Other construction-related industries	-0.33	7.74	9.56	32.71	34.46	35.95	38.08
Wholesale and Retail	7.51	-0.72	8.64	-3.30	-8.59	-10.06	-2.99

Table 7-1-1Sales Performance of Taiwanese Industries,
January –August 2003 (continued)

				Unit				
	Year-on-year Growth Rate (A)			Sequential Growth Rate			e (B)	
Industry	March – April	May – June	July – Aug	Jan – Feb	March – April	May – June	July – Aug	
Wholesale	13.46	-0.78	7.58	-6.88	-10.63	-11.30	-5.05	
Retail	-0.64	-0.63	10.29	2.08	-5.21	-8.05	0.32	
Hotel and Restaurant	-12.83	-7.65	28.98	7.2	-1.0	-15.06	5.03	
Hotel industry	-17.62	-25.73	82.79	8.40	-11.55	-39.59	14.11	
Restaurant industry	-11.37	-2.54	17.37	6.86	2.49	-6.91	2.30	
Transportation, Warehousing and Communications	-36.27	-4.28	14.43	109.14	17.66	13.94	28.90	
Land transportation	1.93	0.41	2.36	25.78	14.78	14.40	15.87	
Marine transportation	0.22	-14.30	26.90	1.14	-27.50	-24.68	0.77	
Air transportation	-14.42	-18.68	108.25	-1.37	-29.11	-39.79	27.68	
Logistics industry ²	-84.02	-71.63	1.98	12,218.3	1,639.53	332.03	234.99	
Transportation-related ancillary industries	13.68	0.01	5.29	9.91	8.19	1.48	11.68	
Warehousing	-0.79	7.83	35.69	7.50	-3.23	6.57	37.58	
Posts and express delivery ²	4.77	13.49	-2.17					
Telecommunications	8.82	29.66	10.73	8.66	19.37	59.80	57.64	
Finance and Insurance	-7.93	14.71	-14.44	27.73	11.05	33.62	10.19	
Finance and related industries	-9.51	-5.15	-22.80	31.72	16.52	13.31	-11.61	
Securities and futures	21.82	176.15	-3.38	-9.54	2.00	266.17	158.82	
Insurance	-15.88	-2.48	5.40	36.99	-6.39	-7.52	-8.18	
Real Estate and Rental	13.12	3.45	-2.90	5.77	-5.72	-4.50	9.33	
Real estate	13.67	6.86	-3.37	3.86	-10.53	-2.74	10.88	
Rental	11.33	-7.88	-1.08	12.48	14.80	-10.74	3.89	
Specialist, Scientific and Technical Services	3.85	3.80	8.23	10.46	8.10	5.42	13.05	
Legal and accounting services	19.95	10.79	-6.29	1.09	9.34	0.00	7.44	
Construction and engineering services	-19.98	32.24	-22.91	89.16	13.55	11.17	13.73	
Specialist design services	26.05	3.50	24.72	-24.97	-23.49	-15.10	25.04	
Computer system design services	16.61	-6.60	15.40	-3.07	7.42	-3.28	14.79	
Data processing and information services	-2.37	-3.97	21.21					
Consulting services	5.21	9.07	1.04	88.67	81.55	83.91	75.89	
R&D services	-4.17	-28.97	124.20	6.10	2.13	30.57	6.64	
Advertising	4.20	1.93	13.36	16.50	14.31	7.07	13.86	

Table 7-1-1Sales Performance of Taiwanese Industries,
January –August 2003 (continued)

			- (·		Unit: %
	Year-on-y	ear Growth	Rate (A)	Sequential Growth Rate			B)
Industry	March – April	May – June	July – Aug	Jan – Feb	March – April	May – June	July – Aug
Other specialist, scientific and technical service industries	2.73	9.34	-13.66	-77.39	-76.75	-75.76	-80.40
Educational services	-29.43	47.00	-10.58	203.79	59.89	84.07	27.40
Medical, Healthcare and Social Services	8.65	-31.73	44.03	-38.60	-38.24	-56.96	-43.61
Medical and healthcare services	9.02	-32.16	44.30	10.82	10.83	-26.63	0.00
Social services	5.00	-23.81	35.94	-92.82	-92.95	-94.22	-93.16
Cultural, Sporting and Leisure Services	8.41	1.28	13.12	1.29	4.01	2.75	11.06
Publishing	21.57	-13.20	12.10	4.09	9.89	0.34	9.81
Film industry	-8.38	5.30	23.72	-10.80	-14.20	-19.69	-21.97
Broadcasting	9.18	15.10	0.64	-3.54	-0.18	9.31	9.71
Artistic and sporting services	9.09	2.34	15.04	339.44	316.79	248.53	358.45
Library and archive industry ²	-80.00	0.00	0.00				
Museums, historical sites and related institutions ²	-	-	-				
Leisure services	-6.06	-3.13	40.58	-14.38	-17.30	-22.84	-1.65
Other Service Industries	12.25	-0.86	80.24	32.97	36.85	29.56	125.45
Supporting services	6.01	6.00	390.57	-	-	-	-
Environmental health and pollution prevention industry	30.99	-19.48	11.96	-3.21	14.79	-17.62	-9.43
Religious, professional and other organizations	-6.74	35.94	-11.00	98.84	53.45	73.49	66.87
Maintenance services	4.89	5.13	4.09	-8.04	-7.78	-4.35	-8.82
Other service industries	13.66	-1.95	-2.71	16.60	19.75	21.08	15.48

Notes: 1. The totals for this data set also included public administration and various industries that did not fall into any of the industry categories; however, these industries are not included in the 78 industries into which the data has been broken down.

2. The industrial classification has been changed in 2003. In this study, the 2003 classification system is adopted. Meanwhile necessary adjustment is done on the 2002 data to make it consistent with the 2003 classification. Posts and express delivery, library and archive industry, museums, historical sites and related institutions, supporting services are new categories in 2003 industrial classification; therefore, there are no matches in 2002 data. Besides, the data on transportation, warehousing and communications are tremendously different in 2002 and 2003, which is because new sub-items are included in this category in 2003.

Source: Ministry of Finance, Monthly Bulletin of Financial Statistics, 2003.

Table 7-1-2 Summary on Sales Performance of Taiwanese Industries, January –August 2003

	Year-on-year Growth Rate (A)			Sequential Growth Rate (B)			
Item	March – April	May – June	July – Aug	Jan – Feb	March – April	May – June	July – Aug
No. of industries experiencing declining sales	20	41	21	26	31	36	23
Industries experiencing declining sales as percentage of all industries ¹	25.64	52.56	26.92	33.33	39.74	46.15	29.49
No. of manufacturing industries experiencing declining sales	3	17	6	4	9	13	9
No. of service industries experiencing declining sales	16	19	11	12	15	18	9
No. of industries experiencing both a year-on-year (A) and sequential (B) decline in sales	7	25	7				
No. of service industries experiencing a decline in both A and B	7	14	2				
Industries experiencing a decline in both A and B as a percentage of all industries ¹	8.97	32.05	8.97				
No. of manufacturing industries experiencing a decline in both A and B	0	8	3				

Notes: See Table 7-1-1.

Source: See Table 7-1-1.

epidemic, but for most industries in the commercial sector and those involved in the production of consumer goods or the provision of leisure-related services, the impact on sales was a negative one. Looking at sequential and year-on-year changes in sales performance, it can be seen that:

- (1) Seven industries experienced both a sequential and a year-on-year decline in sales in the period March-April, with all of these industries being in the service sector;
- (2) In May-June the number of industries experiencing both a sequential and a year-on-year decline in sales rose to 25

(roughly one third of all industries), of which 14 were service sector industries and eight were manufacturing industries;

(3) In July-August the number of industries experiencing both a sequential and year-on-year decline fell to seven, of which two were in the service sector and three were manufacturing industries.

As far as the extent of the SARS epidemic's impact is concerned, therefore, around one third to one half of Taiwan's industries appear to have experienced a decline in sales due to SARS; the impact of the epidemic was thus quite extensive. The service sector industries were the first to feel its effects: during the periods March-April and May-June 2003 the retail industry, hotel industry, restaurant industry, air transportation industry, insurance industry and leisure industry all experienced a decline in sales in both sequential and year-on-year terms, whereas in the manufacturing sector there was no pronounced decline in sales until May-June, and even then it was short-lived.

As regards the 'depth" of the impact, industries that experienced a decline in sales (either sequential or year-on-year) of 10% or higher included the hotel industry (March-June), the air transportation industry (March-June), the marine transportation industry and the medical and healthcare industry (May-June), the social services industry (May-June), and the environmental health and pollution prevention services industry (May-June).

II The SARS Questionnaire Survey

The analysis in the previous section showed that, although the impact of SARS was felt across a wide range of industries, in most cases its impact was short-lived. Only a minority of industries suffered heavily, or for an extended period. The questionnaire survey undertaken for this study targeted SMEs in these more seriously affected industries.

The survey was conducted over the period April 1-15, 2004. Five industries were included in the survey: the pharmaceuticals and medical instruments industry, the textile and garment industry, the travel industry, the hotel industry, and the medical services industry (hospitals and clinics). The survey results are outlined below.

1. The Impact of SARS on Operating Revenue

(1) The Period in Which the Impact of SARS was Felt

For the respondents as a whole, the impact of SARS was basically limited to the period April-June 2003, with the impact being at its most severe in May. The period in which the impact was felt and the percentage of companies experiencing the impact was more or less the same for enterprises of different sizes; between different industries, however, there was some variation. In May, when the epidemic was at its height, 94% of travel agencies, 78% of hotels and 76% of medical service providers were affected. These figures were far higher than the equivalent percentages for the textile the pharmaceutical industry (48%) and and medical instruments manufacturing industry (48%); however, in the case of the textile industry the percentage of enterprises that were affected did not start to fall significantly until July, a relatively late date.

(2) The Severity of the Impact

For the five industries as a whole, 75% of enterprises reported a reduction in operating revenue due to SARS (of these, 31% reported a reduction of more than 50%, 26% reported a reduction of less than 30%, and 13% reported a reduction in the range of 30–50%). 21% of enterprises reported that SARS had no impact on their operating revenue, and only 4% reported an increase in operating revenue as a result of the epidemic (of which approximately 3% reported an increase of 30% or less).

If one breaks the data down by enterprise size, it can be seen that 80% of micro-enterprises (those with 5 or fewer employees), 72% of SMEs and 78% of large enterprises reported a fall in operating revenue. Micro-enterprises were thus the least badly affected, followed by SMEs; the decline in the operating revenue of large enterprises was not very pronounced. 6% of large enterprises, 4% of SMEs and 2% of micro-enterprises reported an increase in operating revenue.

Of the five industries included in the survey, the travel industry was worst hit. 96% of travel agencies reported a decline in operating revenue; for 79% the decline was in excess of 50%. In the hotel industry, 40% of hotel operators reported a fall in revenue of 50% or more. In the medical services industry, although 80% of service providers reported a fall in operating revenue, in most cases revenue fell by less than 30%. The fall in revenue was also usually less than 30% in the textile and garment industry and in the pharmaceuticals and medical instruments industry. Seventeen percent of pharmaceuticals and medical equipment makers reported an increase in operating revenue due to SARS, although in most cases it was an increase of less than 30%. In the other four industries, less than 5% of enterprises reported an increase in operating revenue.

(3) Was the Impact of SARS on Operating Revenue Still Being Felt One Year after the Epidemic?

The survey results indicated that as of April 2002 (one year on from the SARS epidemic), for the five industries as a whole 12% of enterprises felt that their operating revenue was still being affected by the aftereffects of SARS. For larger enterprises, SMEs and micro-enterprises the percentages were 16%, 11% and 14%, respectively. Eighteen percent of travel agencies and 15% of hotel operators reported that they were still being affected by SARS; these figures were significantly higher than those for the medical services industry (9%), textile and garment industry (9%) and pharmaceuticals and medical instruments industry (8%).

2. Strategies Adopted by Taiwanese Enterprises in Response to the SARS Crisis

The main strategies adopted by business enterprises in response to SARS were to strengthen sanitation (45% of enterprises), introduce cost-cutting measures (21%), adapt marketing methods (13%), and make adjustments to produce or service contents (7%). 34% of enterprises did not adopt any special response measures.

For SMEs and micro-enterprises, the percentages of enterprises that did not adopt any special response measures

were 36% and 35% respectively; these figures are significantly higher than the percentage for large enterprises (20%). Among those enterprises that did adopt special measures in response to SARS, regardless of the size of the enterprise he two main measures adopted were improved sanitation and cost-cutting. In addition, many SMEs made changes to their marketing and promotional methods, and nearly 20% of large enterprises made adjustments to marketing and promotional methods and to product and service content. Large enterprises were thus not only more likely to adopt response measures, they were more likely to adopt more than one measure.

In the medical services industry the main focus was on improving sanitation (66% of enterprises). However, 30% of service providers in this industry did not make any special effort to improve sanitation. In the hotel industry 66% of operators tried to improve sanitation, and 17% made adjustments to their marketing and promotional methods. The main response strategy adopted by travel agencies was to cut costs (58%). In the pharmaceuticals and medical instruments manufacturing industry and the textile and garment industry the main measure adopted was to improve sanitation (38% and 29%, respectively), but these percentages were lower than the percentage of enterprises in these industries that did not make any changes (46% and 59%, respectively).

3. Payment for Employees Placed in Isolation due to SARS

The Council of Labor Affairs stipulated that where employees had to be placed in isolation (confined to their homes) because there was a danger that they might have contracted SARS, the employer was still required to pay that employee their full salary. The survey results showed that, of the enterprises covered by the survey, 64% paid such employees their full salary for the period spent in isolation, 10% paid the employees only part of their regular salary, and 7% did not pay them any salary. Nineteen percent of respondents stated that they did not know how these employees were paid.

The smaller the enterprise, the more likely it was that that respondent did not know how payment was made for time spent in isolation, and the more likely it was that no payment was made. Large enterprises were more likely to have continued to pay the employee's full salary; the combined total of large enterprises that paid only part of the regular salary or paid no salary at all was only around 8%, significantly lower than the equivalent percentage for SMEs and micro-enterprises (nearly 20%).

As regards the situation in individual industries, in the manufacturing pharmaceuticals medical and instruments industries (both of which fall under the category of manufacturing industries), over 70% of enterprises continued to pay employees placed in isolation their full salary; this figure was higher than those for the other three (service) industries. Among the service sector industries, the percentage of enterprises paying the full salary was highest in the medical services industry, at nearly 70%; however, the percentage of enterprises reporting that they did not know how payment was made was also higher than in any of the other four industries, at 24%. In the travel industry and hotel industry only half of enterprises reported paying the full salary to employees in isolation; these two industries had the highest percentage of enterprises paying either only part of the regular salary or no salary at all. This may be related to the fact that both of these

industries were severely affected by the SARS epidemic, which would have made them inclined to reduce expenditure on salaries as much as possible. It may also be related to the fact that many employees in these industries are not regular, full-time employees; it would be easier for employers to get away with paying either a partial salary or no salary at all to such employees.

4. Establishment of Response Mechanisms

Following the SARS epidemic, 61% of respondents established standard operating procedures to deal with similar crises in the future, but the remaining 39% did not establish standard operating procedures of this sort. The percentage of enterprises that had established standard operating procedures was 87% for large enterprises, 62% for micro-enterprises and 54% for SMEs. For the five industries covered by the survey the figures were as follows: medical services industry, 80%; pharmaceutical and medical instruments manufacturing industry, 68%; hotel industry, 64%; travel industry, 48%; textile and garment industry, 44%. These figures suggest that, following SARS, most enterprises have realized the importance of having an effective crisis management capability, and that this is particularly true among large enterprises and in those industries whose activities are directly related to human life.

5. The Impact of SARS on Willingness to Invest in Taiwan

Has SARS and frequent outbreaks of other infectious diseases in Taiwan affected investor confidence? Fifty-seven percent of respondents stated that SARS had not affected their confidence, 25% said that it had reduced their confidence, and 17% said that it had increased their confidence. Reduced investor confidence was most apparent in the travel industry and hotel industry, where 37.5% of travel agencies and 34% of hotel operators reported a reduction in confidence, compared to 19% in the textile and garment industry, 17% in the medical services industry, and 15% in the pharmaceuticals and medical equipment manufacturing industry.

The size of an enterprise made little difference here; as in all differing size categories, around 50-60% of enterprises reported that their confidence had not been affected by SARS, 20-30% reported a reduction in confidence and 10-20% reported that their confidence had been boosted. However, it did appear that SARS was marginally more likely to have had a negative impact on confidence in the case of smaller enterprises.

6. The Impact of SARS on Willingness to Invest in Mainland China

Has Taiwanese enterprises' enthusiasm for investing in mainland China been dampened by SARS and other epidemics? In the survey, 50% of respondents reported a reduction in confidence, while 47% stated that their confidence had not been affected and 3% said that it had been boosted.

In the textile industry, 40% of enterprises reported a reduction in confidence; for all of the other four industries the figure was in excess of 50%. Textile and garment makers thus appear to be more confident of their ability to make a success of their mainland China operations.

Fifty-seven percent of large enterprises reported a

reduction in confidence, compared to 50% for SMEs and 46% for micro-enterprises. It thus appears that, the larger the enterprise, the more enthusiasm for investment in mainland China has been negatively impacted by SARS.

Chapter 8

Women's Entrepreneurial Activity in Taiwan and Government Policies to Promote It

Not only does helping women to improve their economic circumstances benefit families, regional economies and the national economy as a whole, it also constitutes a direct, immediate way of overcoming the problem of poverty. For this reason, international organizations such as the United Nations, the World Bank and the Asian Development Bank, along with the Organization for Economic Cooperation and Development (OECD), the World Trade Organization (WTO) and Asia Pacific Economic Cooperation (APEC), have all been aggressively promoting women's entrepreneurial activity.

In Asia, organizations such as the Asian Development Bank and the Association of Southeast Asian Nations (ASEAN) have for many years been promoting a range of activities to help women combat poverty and secure economic independence. However, it was not until after the Asian Financial Crisis of 1997 that women's entrepreneurial activity became a major focus of attention for APEC. Today, the number of SMEs in Asia that are owned or run by women is significantly higher than it was before the crisis, and the number is continuing to grow rapidly.

In Taiwan, with the emergence of a more open society and the development of the knowledge economy, women have come to account for an increasingly large percentage of entrepreneurs. Of all the new enterprises that were established in 2003, 37.57% had a woman as the 'responsible person'

(chairperson or business owner), higher than almost any other country in the world. In 1978, women accounted for just 10.15% of business owners and 15.79% of the self-employed; by 2003 these figures had risen to 15.14% and 22.00% respectively. As women come to account for a higher percentage of Taiwan's entrepreneurs, the importance of female entrepreneurs within the economic system is increasing.

This chapter will examine the forms taken by women's entrepreneurial activity in Taiwan and the key issues relating to this topic. It will also consider ways to improve the entrepreneurial environment for women and increase the percentage of female start-ups that are successful, with the aim of encouraging more women to establish their own businesses.

I The Factors Affecting Women's Entrepreneurial Activity

For the purposes of this chapter, the term "women's entrepreneurial activity" is used to refer to cases where women establish new business enterprises, either alone or in partnership with others (such as friends, relatives, their spouses, etc.). As women come to account for a growing number of Taiwan's entrepreneurs, women's entrepreneurial activity has become an important issue for Taiwan.

The main factors affecting women's entrepreneurial activity can be summarized as follows:

1. Higher Income Levels

In traditional society, the social status of women was much

lower than that of men, and it was widely felt that women should stay in the home. The only socially acceptable functions for women were bringing up children and other homemaking chores. After the Second World War, however, Taiwan began to experience rapid economic growth. The opportunity to achieve higher income levels and secure a better quality of life provided stimulus for the entry of women into the workplace. At the same time the promotion of family planning brought about a lessening of women's childcare responsibilities, and the diffusion of new types of home appliances made housework less onerous, giving women more time to participate in formal employment.

2. Increased Availability of Educational Opportunities Has Given Women More Options

Following the introduction of nine-year compulsory education in Taiwan in 1968, women's educational opportunities were significantly enhanced. This gave them more options in the workplace, and made it possible for them for them to demonstrate what they were capable of doing. At the same time, Taiwan's industrial structure was being transformed, with hi-tech industries becoming increasingly important. While increasing the potential for growth in Taiwan's manufacturing sector, this trend also gave women greater opportunities to perform work of a technology-intensive nature. The continuing development of the service sector gave women in Taiwan even more opportunities to work outside the home, and even to set up their own businesses.

3. Gradual Acceptance of the Need for Equality between the Sexes

As educational levels in Taiwan have risen, it has become less easy to deliberately restrict the roles that women can play in society or to ignore their contributions. The more highly-educated they are, the more independent-minded women become, and the more likely they are to insist on receiving equal treatment with men. Women's right to compete on an equal footing with men has gradually come to be accepted by society as a whole, and women have been able to fight for higher status in the political, economic and social spheres. This reflects a universal trend; as attitudes in a country become more liberal and as that country's systems become more democratic, the opportunity for women to compete with men in terms of work and productivity increases.

4. The Service Sector has Provided Women with Significant Opportunities for Entrepreneurial Activity

Unlike the manufacturing sector, the service sector emphasizes the provision of physical and mental services. With the expansion of the service sector and the growth in demand for specialist services, the opportunities available to women (whose physical characteristics tend to put them at a disadvantage compared to men in the manufacturing sector) have grown. Women tend to be considerate of others, be effective communicators and display great attention to detail; these characteristics make them ideally suited to working in the service sector. If one examines the experience of other countries in this regard it can be seen that, as a country becomes more advanced, the importance of the service sector within that country's economic structure increases, and so do women's working opportunities and the incentives for entrepreneurial activity by women.

5. The Emergence of the Knowledge Economy Has Created New Opportunities for Women

The development of the knowledge economy had led to the transformation of traditional forms of production, favoring mental output over physical labor. Women have been able to leverage their managerial and interpersonal-relations skills. At the same time, with the rapid development of computer and information technology and the growth of the Internet, there is increasingly less need for work to be performed in a fixed workplace. This makes it easier for women to achieve a satisfactory balance between family and work, and offers greater flexibility for women trying to start their own business enterprises.

6. The Growth of Franchise Operations

The traditional attitude that it is 'better to be the head of a chicken than the back end of an ox" is reflected in the strong entrepreneurial spirit of the Taiwanese people. As the industrial and commercial sectors have developed and income levels have risen, the popularity of the franchise concept has grown. With franchise store operation know-how and techniques becoming increasingly mature, franchise store operation has become an attractive option for would-be entrepreneurs who feel that it offers a greater chance of success. The development of franchise store operations has been a major catalyst for women's entrepreneurial activity in Taiwan.

7. Promotion by the Government

Since 1968 the Taiwan government has been providing special loans to young entrepreneurs so to encourage the as SMEs. establishment of new promote the economic development of Taiwan and create new jobs. These loans do not specifically target women. Nevertheless, as of the end of 2003 the loan program had helped nearly 30,000 individuals, many of them women, to start their own businesses; the loans have thus made a significant contribution towards promoting entrepreneurial activity by women. In recent years, the government has also organized special incubator facilities and guidance programs for female entrepreneurs; these measures have helped women to strengthen their business capabilities and undertake effective business development planning.

II Women's Entrepreneurial Activity in Taiwan Today

Human resources surveys can provide us with some information about the characteristics of female entrepreneurs in Taiwan. The operational performance data presented in this chapter is based on the Ministry of Finance Tax Data Center's business tax data, which note the sex of business owners. The following section examines the current state of women's entrepreneurial activity in Taiwan from the point of view of operational performance and human resources.

1. Enterprise Operational Performance

In 2003 there were 1,164,121 natural persons heading business enterprises in Taiwan, of which 394,245 (33.87% of the total)

were women (Table 8-2-1). By comparison, in 2002 women accounted for 46% of the owners of unlisted companies in the US; the figure for mainland China was only around 12.6%.

Table 8-2-1The Operational Performance of Enterprises in
Taiwan in 2003 –by Enterprise Size and Sex of
Owner

Units: enterprises ; NT\$ billions ; %									
		Male		Female					
Item	SMEs Large Total		Total	SMEs Large Enterprises		Total			
Values									
No. of Enterprises	749,829	20,047	769,876	390,443	3,802	394,245			
Operating revenue	65,926	152,697	218,623	18,549	14,317	32,866			
Export sales	10,264	47,887	58,151	2,203	3,281	5,484			
Domestic sales	55,662	104,810	160,473	16,347	11,036	27,382			
		Percer	ntages						
No. of Enterprises	97.40	2.60	66.13	99.04	0.96	33.87			
Operating revenue	30.16	69.84	86.93	56.44	43.56	13.07			
Export sales	17.65	82.35	91.38	40.16	59.84	8.62			
Domestic sales	34.69	65.31	85.42	59.70	40.30	14.58			

Note: SMEs are defined as enterprises in the mining and quarrying industry, manufacturing sector and construction industry with capitalization of NT\$80 million or less, and enterprises in other industries with annual operating revenue of NT\$100 million or less.

Source: Ministry of Finance Tax Data Center.

Using capitalization or operating revenue as the standard for determining SME status, it can be seen that, of the 394,245 business owners in Taiwan, only 3,802 are the heads of large enterprises. Female owners of Taiwan's 390,443 SMEs account for 99.04% of all female business owners in Taiwan. The percentage of business owners running SMEs as opposed to large enterprises is thus higher for women than for men.

The combined operating revenue of businesses run by women in Taiwan is NT\$3,287 billion, or 13.07% of the combined operating revenue of all enterprises in Taiwan. SMEs account for NT\$1,855 billion, and large enterprises for NT\$1,432 billion. The average operating revenue for a female-owned large enterprise is NT\$376.56 million, roughly 79 times the figure for SMEs (NT\$4.75 million). For those businesses owned by men, the average operating revenue of a large enterprise is 86 times that of an SME. However, the average operating revenue of female-owned businesses is only around 30% that of male-owned businesses; the overall size of female-owned businesses thus still tends to be quite small compared with those businesses owned by men.

For those enterprises owned by women, domestic sales account for 83.31% of total sales, while export sales account for 16.69%; the equivalent percentages for male-owned businesses are 73.40% and 26.60% respectively. In other words, although both male-owned and female-owned enterprises are more likely to be oriented towards the domestic market, this trend is more pronounced among female-owned enterprises.

As regards the form of organization, sole proprietorships are the largest single group of female-owned businesses (66.37% of the total), followed by limited corporations (24.29%) and corporations limited by shares (6.67%). However, corporations limited by shares have the highest combined operating revenue (NT\$1,368.1 billion), followed by limited corporations (NT\$1,215.8 billion); the combined operating revenue of all female-owned sole proprietorships in Taiwan is only NT\$431 billion, reflecting the fact that average size of these businesses is quite small. The service sector accounts for 86.42% of all female-owned businesses in Taiwan, and 73.82% of the total operating revenue of all female-owned businesses. The industry with the largest number of female-owned businesses is the wholesale and retail industry, with 225,247 businesses and combined operating revenue of NT\$1,747.9 billion.

In terms of the ages of the enterprises, those that have been in existence for less than 5 years account for the largest share of both the total number of enterprises and total operating revenue. The total number of these enterprises is 154,725 units (about 39.25% in share) and their total operating revenue amounts to NT\$965.7 billion (about 29.37%). In 2003 a total of 41.864 new female-owned businesses were established in accounting for 10.62% of all female-owned Taiwan. enterprises, and 37.56% of all newly-established enterprises. However, these new businesses accounted for only 4.01% of the total operating revenue of all female-owned businesses combined, and only 17.57% of the total operating revenue of all new enterprises. At first glance, these figures suggest that operational performance of newly-established the female-owned enterprises tends to be relatively weak. However, newly-established male-owned enterprises account for only 2.83% of the total operating revenue of all male-owned enterprises in Taiwan, so from this point of view the operational performance of newly-established female-owned enterprises is actually superior to that of newly-established male-owned enterprises.

Female-owned businesses in Taiwan are highly concentrated in the major metropolitan areas of Taipei City (69,110 enterprises), Taipei County (52,426 enterprises) and
Kaohsiung City (30,070 enterprises). These three districts combined account for 38.46% of all female-owned enterprises in Taiwan, and 55.93% of the total operating revenue of all female-owned enterprises in Taiwan.

2. Human Resources

Although the human resources data available for female business-owners does have some value, it does not derive from the same source as the operational performance data referred to above; it is thus not possible to make direct comparisons between the two sets of data.

Business owners can be divided into employers and the self-employed depending on whether or not they employ other people. As of 2003 there were 409,180 female business owners in Taiwan, accounting for 20.66% of the total number of business owners (1.98 million). Of these 409,180, 81,880 were employers and 327,300 were self-employed (Table 8-2-2). Women accounted for 16.50% of all employers and 22.05% of the self-employed.

Table 8-2-2	The Size of Female-owned Enterprises
	in Taiwan in 2003
	Units: thousand parsons : %

Offits: illousariu persons, /								
Size	Employer		Self-employed		Total			
	No. of persons	Percentage	No. of persons	Percentage	No. of persons	Percentage		
SMEs	81.59	99.65	327.30	100.00	408.89	99.93		
Large enterprises	0.29	0.35	0.00	0.00	0.29	0.07		
Total	81.88	100.00	327.30	100.00	409.18	100.00		

Note: SMEs are defined as enterprises in the mining and quarrying industry, manufacturing sector and construction industry with 200 or fewer employees, and enterprises in other industries with 50 or fewer employees.

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, 2003.

If the definition of SMEs is based on the number of employees, then almost all of the businesses owned by female employers were SMEs; only 0.29% were large enterprises. If the definition is based on capitalization or operating revenue, then 0.96% of businesses owned by female employers could be classed as large enterprises.

In 2003 the vast majority of female business owners were aged between 25 and 65, with nearly 40,000 (43.41% of the total) in the 35-44 age range, and 27,000 (30.14%) in the 45-54 age range. Self-employed women were mostly aged 35 or older. These figures reflect the need to accumulate experience and know-how.

Around 58,000 (70.55%) of female employers had a spouse or partner in 2003; for self-employed women, the percentage was 70.13%.

As regards the level of education, those educated to senior vocational school level account for the largest share of female employers, followed by those educated to junior college level. Those educated to primary school level account for the largest share of the self-employed, followed by those educated to junior high school level. The average educational level of employers is thus higher than that of the self-employed.

Those female business owners educated to senior vocational school level or above had usually majored in business or management (about 107,000 people). This was true for both employers and the self-employed, suggesting that those who possess specialist knowledge in the fields of business or management are more likely to become entrepreneurs.

III The Forms Taken by Women's Entrepreneurial Activity in Taiwan

1. Forms Taken by Women's Entrepreneurial Activity

In order to gain a better understanding of the forms taken by women's entrepreneurial activity in Taiwan, interviews were conducted with 30 female entrepreneurs. The interview questions focused on their reasons for setting up the business, their technical capabilities, market and product positioning, funding sources, brand management, sales channels, etc. so as to isolate the different models of female entrepreneurial activity.

(1) Motivation for Setting up the Business

Broadly speaking, there are two main types of motivation for establishing a new business – self-motivated and externally motivated.

a. Self-motivated

Self-motivated entrepreneurial activity may be the product of economic factors; alternatively, it may derive from a woman's desire to combine homemaking with work, to pursue her own ideals and interests, to gain a sense of achievement, or to be one's own boss. O'Girl Trading Corporation's President Ho founded the business because she wanted to be able to work from home, and making women's clothing allowed her to do this. In the case of Ms. Hsu and Ms. Cheng, the founders of Otoro.com, it was realizing the enormous business opportunities that existed in the black tuna market that led them to establish their business.

b. Externally motivated

Women that undertake externally motivated entrepreneurial activity have usually already built up a certain amount of work experience; however, the idea for the business is not theirs, and they received assistance from relatives or friends when establishing the enterprise. When Ms. Chien established L'orangerie International Art Consultant Co., Ltd., although she already had considerable familiarity with the art world, possessed an extensive network of contacts and was herself an expert on art, she received funding assistance from another company. Similarly, the founding of Soho International Service Inc. (Taiwan Soho Association) by Ms. Chang occurred after a friend who knew that she had worked for many years in the consulting business offered her some money to start her own business.

(2) Technical Capabilities

With respect to technical capabilities, entrepreneurial activity by women can be divided into "technology-oriented businesses" and "hon-technology-oriented businesses." Technology-oriented businesses are those where the business founder had a background in the field in question before establishing the enterprise; non-technology-oriented businesses are those where this was not the case.

a. Technology-oriented Businesses

In the case of technology-oriented businesses, the business founder had accumulated relevant work experience or specialist expertise prior to founding the business. Ms. Chang, Chairperson of Chiu Ta Stationery, was born into a family that

had been in the stationery business for several generations, and had previously been involved in the stationery wholesaling business with her husband; this experience provided her with a solid foundation for the establishment of Chiu Ta Stationery. Similarly, the founder of O'Girl Trading Corp. leveraged her expertise in tailoring to set up the business.

b. Non-technology-oriented Businesses

Non-technology-oriented businesses are those where the entrepreneur did not possess relevant work experience or specialist expertise before founding the business. In the case of Ms. Liu, the founder of Taohuayuan Workshop, it was reading books about nutrition and health and realizing that there was growing demand for a simpler, back-to-nature lifestyle in Taiwan that inspired her to set up her own business enterprise. Ms. Li, the founder of Family-Life Co., tried drinking Mini Juice because she and her children all suffered from a weak constitution. Despite having no background in nutrition or food manufacturing, she was inspired to promote the consumption of health food in Taiwan, which in turn led her to establish Family-Life Co.

(3) Market and Product Positioning

Female entrepreneurs may decide to establish a business in a market that has been in existence for many years, or in an emerging market; they may also decide to focus on the production of existing products, or on the development of new products. There are thus four main combinations of market and product positioning: selling existing products in a traditional market; selling new products in a traditional market; selling existing products in a new market; selling new products in a new market.

a. Selling Existing Products in a New Market

When Ms. Ho first established O'Girl Trading Corp., she initially produced a wide range of then current styles of men's, women's and children's clothing. Subsequently, as the Taiwanese textile and garment industry began to move production to mainland China, she began to focus on the women's clothing market, which had the highest unit prices.

Ms. Lu, the owner of Feeling Beauty & Hair, had worked as a hair stylist before taking a course designed to teach hair stylists how to set up on their own in business. In 1999 she became a shareholder in, and manager of, Feeling Beauty & Hair; one year later, she bought out the other shareholders using her savings and money raised by mortgaging her house.

b. Selling New Products in a Traditional Market

Ms. Hung, the founder of Tomato House, started out selling glutinous rice dumplings before establishing a fashionable restaurant where the main ingredient in the dishes is tomatoes. Constantly working to develop new tomato recipes, she has created her own unique niche in the restaurant business.

Shoutienpin Community Foods adheres to a management philosophy emphasizing environmental protection, health and natural ingredients. The cakes that the company makes are produced using only the purest natural raw materials, with no artificial color or flavoring. As a result, Shoutienpin was able to pass appraisal by the Products Division of the Housewives League, enabling its products to be sold through the League's

joint purchasing system. This enabled the company to keep its marketing expenses down in the early days, and was one of the key factors behind its success.

c. Selling Existing Products in a New Market

Ms. Huang noticed that Sunmore Healthtech Ltd. had no ISO9000 and GMP-certified agent in Taiwan. She therefore traveled to Canada, underwent an intensive training course at Sunmore Healthtech, and was appointed Sunmore Healthtech's Taiwan agent. The retail outlet which she established became Taiwan's first flagship store for Sunmore Healthtech products.

Ms. Li, the founder of Herbcare had 10 years clinical nursing experience. A strong interest in scented oils led her to experiment with different brands and products from different countries. Realized the potential of the scented oil market, she leveraged her expertise in nursing to establish a scented oil website through which to market scented oils.

d. Selling New Products in a New Market

Ms. Chang noticed that the number of people in Taiwan starting their own businesses was rising all the time, and realized that providing guidance to such people could be a profitable activity. She ceased publication of the magazine *SOHO* that she had been running and established SOHO International Service Inc. (Taiwan SOHO Association) as a specialist provider of guidance to entrepreneurs. Ms. Chang's new company has a wide range of courses, and provides a specialist consulting and networking platform for entrepreneurs. Having been involved in the planning for the National Youth Commission's Flying Swallow Program for four years in a row,

Ms. Chang had built up an extensive network of contacts and had established a high reputation through word of mouth. Effectively, her company has become an on-line incubator center.

(4) Funding Sources

In terms of funding, there are three main models for women's entrepreneurial activity: using one's own capital to start the business, establishing the business as a joint venture with friends or relatives, or investing in the business as a shareholder.

a. Using One's Own Capital

In 1990, Ms. Chiou was employed as head nurse in the outpatients department at Chang Gung Memorial Hospital. The despairing eyes of a child that she saw one day while doing her rounds inspired her to dedicate her life to children's emotional health; soon afterwards, she began work in this area. After returning to Taiwan in 1995, Ms. Chiou began an intensive study of the Montessori system; she then mortgaged her house to raise funds to set up the Montessori & Bilingual Children's Day Care Center. Today, whenever the Montessori Foundation arranges for overseas delegations to visit Taiwan, Ms. Chiou's day care center is always on the list of places to visit; it is also an examination center for the international Montessori license.

Ms. Huang had, more or less by chance, found herself working in the cardboard tube (packaging materials) industry. As a sales manager, her work brought her into contact with many people in the food and tea industries. Partly because she wanted to diversify her company's operations, but also because

she wanted to be able to combine work with her homemaking responsibilities, she used her own capital (around NT\$1-2 million) to establish the Ku Yi Tang Teahouse. Since then, Ms. Huang has provided guidance to 14 other women, helping them establish their own businesses.

b. Joint Ventures with Friends or Relatives

When she first started out, O'Girl Trading Corporation's President Ho used NT\$30,000 that she had saved by doing piecework at home to purchase fabric, and then outsourced the work of producing the clothes to other tailors. Her profit as a middleman was very small. Subsequently, she used NT\$50,000 that she had saved up, along with NT\$150,000 provided by friends and NT\$200,000 provided by her elder brother, to purchase eight sewing machines; she was then able to expand into contract manufacturing on a larger scale. This led to the establishment of the first O'Girl store in Chiayi as a joint venture with her brother.

Ms. Hsu was able to leverage the experience that she had built up while helping her husband to establish a trading company. Having already acquired an in-depth knowledge of trading company operations and of the overall business environment, she used NT\$100,000 provided by her father and another NT\$100,000 provided by her mother to set up her own trading company, Hua Ke International.

c. Shareholder Investment

Ms. Chien, the founder of L'orangerie International Art Consultant Co., Ltd., had many years of experience working in newspapers and other branches of the media and in private art galleries. She also possessed a strong love of art and an extensive network of contacts in the art world. With financial support from a company and with contributions from friends, in 1999 she was able to establish L'orangerie International Art Consultant Co., Ltd., Taiwan's only formally registered art exhibition planning and consulting firm.

Similarly, in the case of Ms. Chang of SOHO International Service Inc. (Taiwan SOHO Association), her interest in starting up a business received support from an unprompted offer of seed capital by a friend. Ms. Chang originally managed the Chinese-language version of *Success* magazine, before founding *SOHO* magazine. However, she was unable to make a profit on these magazine operations, and therefore decided to establish SOHO International Service Inc. (Taiwan SOHO Association) as a specialist provider of guidance to women entrepreneurs.

(5) Brand Management

From the point of view of brand management, entrepreneurial activity by women can be broken down into three basic models: establishment of one's own brand, serving as agent for an existing brand, or becoming a franchisee.

a. Establishing One's Own Brand

O'Girl's President Ho started out as a contract manufacturer of clothing. She later began to develop her own designs, contracting out the manufacturing to others, and eventually she established her own 'O'Girl' brand. O'Girl now has 40 retail outlets in Taiwan and 30 in mainland China. Ms. Hung positioned her Tomato House as a 'tomato restaurant'; Tomato

House now has, by restaurant industry standards, a very strong brand.

Ms. Chen, who majored in Chinese literature in college, displayed impressive willpower and creativity in her entrepreneurial activity. She spent hours poring over books on bleaching, dyeing, decay prevention and desiccation prevention. Using this knowledge, she gradually built up Nature Flower Materials Co. over a 10-year period. Today, Ms. Chen's company has established an international reputation. On one occasion, a group of 20 Japanese designers paid their own expenses to come to Taiwan to study with her, and she has also received visits from representatives of foreign museums.

b. Obtaining Agency Rights

Ms. Huang's business serves as the agent for Canadian company Sunmore Healthtech Ltd.'s health food products; it was the first flagship store for Sunmore Healthtech products to be established in Taiwan. The store has also developed several new low-priced health food products that make use of Sunmore Healthtech products.

Ms. Kuo started out as the Taiwan agent for US company Bodycology's skincare products. After careful study of the Asian climate and Asian people's skin types and skincare preferences, she convinced Bodycology's US headquarters to launch a new series of products, entitled 'Bodywave" that were specially designed to meet the needs of consumers in Asia. To market these Bodywave products, Ms. Kuo established a company of the same name.

c. Franchise Operations

As a result of the economic downturn that Taiwan has experienced in the last few years, franchise operations, where the amount of capital that an entrepreneur needs to raise is relatively limited, have become a popular choice for many middle-aged or retired people looking to start a new career, as well as for married couples who want to start a business together. Survey results show that franchisees in Taiwan are split roughly 50-50 between men and women. 45% are aged between 25 and 30, but there are another 33% aged between 36 and 50. The single group of franchisees are those who had already been working in the service sector, but who wanted to be their own boss. In the majority of cases, franchisees were able to open their store with capital of just NT\$500,000-1,000,000. Of the companies discussed in this chapter, O'Girl, Tomato House and Bodywave all have franchise stores.

(6) Sales Channels

The two main types of sales channel employed by female entrepreneurs are bricks-and-mortar stores and on-line marketing.

a. Bricks-and-mortar Stores

Marie International Co., Ltd. started out selling PIYO baby products; eventually, the company had a total of 18 direct-owned outlets and franchise stores. Marie International subsequently established its own Bugu brand, and set up retail outlets to sell more than 130 different Bugu and Kuboo products. The innovative layout of these stores won Marie International the Ministry of Economic Affairs SME Innovation Award.

Chiu Ta Stationery, the company established by Ms. Shang, was originally based in Kaohsiung. The idea was to create a stationery 'supermarket' where consumers could satisfy all their stationery needs with one-stop shopping. In a spacious, comfortable environment, Chiu Ta sold a wide range of stationery products including office supplies, student supplies, optical drawing equipment, calligraphy equipment, art supplies, leisure goods, paper, pens, pencils, gifts, etc. Chiu Ta was subsequently transformed into the IN Stationery Concept Store in order to meet the special requirements of the Taiwan market.

b. On-line Sales

Otoro.com was established by Ms. Hsu and Ms. Cheng; the performance of this on-line business has been highly impressive. Otoro.com started out selling black tuna (very popular with gourmets in Taiwan) online. By maintaining high quality standards and reasonable prices, they were able to make a success of this business model. Ms. Li founded the 'What the Doctor Can't be Bothered to Tell You'' e-paper, providing consumers with healthcare knowledge, with the help of her husband. She later established Herbcare and the Herbcare website, using the Internet to market high-quality perfumed oils.

Family Life International Co., Ltd., founded by another Ms. Li, initially focused on selling Mini Juice. It subsequently joined the SOHOMALL on-line shopping mall, and set up a health food website. By utilizing online sales, Family Life was able to keep advertising costs down and avoided the need to open bricks-and-mortar stores. When Ms. Huang established her store to sell Sunmore Healthtech products, she too joined the SOHOMALL on-line shopping mall platform, while also making use of Sunmore Healthtech's own global on-line shopping network to market Sunmore Healthtech products and the derivative products that Ms. Huang had developed in Taiwan.

With PC and Internet penetration rates continuing to rise, and with on-line transaction mechanisms now having reached a high level of maturity, on-line marketing has become an attractive choice for companies looking to keep marketing costs down. However, on-line transaction platforms do still compared deficiencies traditional have their to bricks-and-mortar stores. For example, it is difficult to gain a clear picture of the exact number of people visiting the website or of their age structure, and there are still problems relating to on-line transaction security, etc. From the point of view of the entrepreneur, on-line marketing offers an effective way to build up brand recognition in the early stages of business development. However, if a company is to maintain its operations over the long term, it needs to switch over to a 'clicks and mortar' strategy that combines on-line marketing with traditional store outlets.

2. Problems Encountered by Female Entrepreneurs

The problems that female entrepreneurs experience can be divided broadly into two groups – problems encountered starting up a business, and problems experienced once the business is already up and running. Starting up an enterprise, entrepreneurs may suffer due to inadequate knowledge of the market environment; they may find it difficult to access funding sources; they may be unclear about the procedures for obtaining loans; they may not be aware of all the potential

sources of assistance (such as free consulting services). Access to information can also be a problem.

The main problems encountered after a business has been established can be summarized as follows:

(1) Under-capitalization

The most commonly-observed problem for women entrepreneurs is under-capitalization. This puts business owners in a situation where they do not have sufficient funds to purchase land for factories, and where the speed at which they can improve quality and expand their business is reduced. In some cases, female entrepreneurs who possess technology that could easily be patented end up selling the technology to others because they do not have sufficient capital to commercialize it themselves.

(2) Lack of Managerial Expertise

In some cases, female entrepreneurs find that all their time is taken up with securing financing, marketing, product promotion, etc. They do not have enough time to direct the operations of their employees in person, but they find it difficult to recruit capable managers. This can result in a situation where sales are growing rapidly, but internal management is not keeping up with the growth, causing profit margins to be depressed and restricting further expansion. Female entrepreneurs are often unfamiliar with computerized management systems, which makes it difficult to achieve significant improvements in the efficiency of inventory management, delivery and sales. Production processes are too slow, there is insufficient flexibility in production scheduling, and store display planning suffers.

(3) Poor Marketing Skills and Insufficient Brand Recognition

Some female entrepreneurs experience difficulties when trying to establish sales channels; they find that they are unable to promote their products effectively, and fail to strengthen the brand image, which in turn prevents them from attracting enough customers. Given that women entrepreneurs usually suffer from a shortage of capital in the early stages, they usually do not have sufficient funds to pay to have their products sold through department stores or mass merchandisers, or to have a website designed for them by an expert. As a result, they often find it difficult to break even. Many female-owned start-ups experience this problem of insufficient brand recognition leading to unsatisfactory operational performance in the early stages.

(4) Difficulty in Recruiting Enough Employees

Some service industries are characterized by abnormally long working hours, and in others the work is physically very demanding. Young people today are usually less interested in how much a job pays than in how long the working hours are; as a result, businesses in some of the industries that have high concentrations of female entrepreneurs (such as hairdressing and the restaurant business) are finding it more and more difficult to recruit suitable employees.

It can be seen from this overview of the problems experience by female entrepreneurs that most of the common problems can occur in any type of business model. When

planning measures to help women entrepreneurs, therefore, the government should restrict its efforts to particular business models; rather, it should think in terms of providing solutions for the problems that are common to many or all business models.

IV Government Policy with Regard to Women's Entrepreneurial Activity

The government in Taiwan currently provides various forms of assistance for entrepreneurial activity. These include the provision of consulting services, guidance and training programs (covering both general entrepreneurial skills and specialist skills), the establishment of incubator centers, the provision of funding, etc. However, with the exception of the low-interest loans available to women under the *Statute on Assisting the Families of Women in Difficult Circumstances*, the Flying Swallow Plan and the Flying Phoenix Plan, all of which do specifically target women, the other forms of government assistance are not gender-specific. This discussion of government assistance for women entrepreneurs therefore covers all forms of assistance from which women can benefit, not just those specifically targeting women.

1. Training Courses and Consulting Services for Entrepreneurs

(1) Female Entrepreneur Cultivation Activities Under the Flying Swallow Program

In order to help meet the needs of female entrepreneurs, in 2000 the National Youth Commission began planning new

measures to provide guidance to such entrepreneurs, focusing particularly on those women who were interested in starting their own businesses but who lacked some of the skills needed to do so. A series of training courses have gradually been introduced, covering the preparations that need to be made prior to establishing a new business, market surveys and evaluations, administrative procedures, and the practical business of running an enterprise. These courses include visits to existing companies, so as to integrate theory with practice.

The National Youth Commission has also organized the Taiwan Region Female Entrepreneur Forum, which holds consultative meetings and organizes on-line study groups. Female Entrepreneur Guidance Activities are held in northern, central, southern and eastern Taiwan; these activities include conferences to exchange views and experience, advanced training courses in the practical aspects of business management, conferences on franchise opportunities for women, and opportunities to visit enterprises that have demonstrated first-class operational management. The Forum also provides information on important emerging industries, so that young female entrepreneurs can keep up to date with the latest industry developments and make informed investment decisions rather than rushing blindly into the market.

(2) The SME Entrepreneurship and Innovation College

The Small and Medium Enterprise Administration of the Ministry of Economic Affairs has been promoting the 'Making Entrepreneurial Dreams Come True Project." The aim of this project is to provide consulting services that meet new enterprises' needs during the three stages of preparation, establishment and growth, while also setting up an SME

Entrepreneurship and Innovation College and establishing entrepreneurship workshops. The consulting services plan is based around the appointment of "entrepreneurship mentors" who will help entrepreneurs to solve their problems (e.g., problems relating to funding, marketing, drawing up business plans, etc.) over the phone, on-line or through face-to-face meetings. The availability of these mentors should help would-be entrepreneurs to develop their ideas in more concrete form.

The SME Entrepreneurship and Innovation College provides practical training courses for the cultivation of entrepreneurs. The areas covered include: how to draw up a business plan; financial planning; marketing; discussion of case-studies, etc. Beginning in 2004, 200 new businesses will be selected each year and given the opportunity to locate themselves in an 'entrepreneurship workshop," where follow-up guidance can be provided. In this way, entrepreneurs will be able to receive practical, meaningful assistance during the period in which they are getting their business off the ground.

(3) The Bureau of Employment and Vocational Training, Council of Labor Affairs, Executive Yuan

The Bureau of Employment and Vocational Training of the Council of Labor Affairs has also initiated various services to assist entrepreneurs. Besides consulting and guidance services, these also include entrepreneurship training courses to give members of the public who are interested in setting up their own businesses a better understanding of the legal framework for entrepreneurial activity, marketing, store establishment, human resources management and training, etc., and to teach them how to write their own business plan.

A series of special women's entrepreneurship training courses have been planned for women who are interested in setting up their own business and who possess expertise in a particular area (including women who have previously participated in training programs organized or commissioned by the government, or who hold professional certification in a relevant area). These courses cover market analysis, marketing channels, operational management, government incentive programs and other available resources such as customer development; the aim is to give the women participating the skills they need to start their own businesses.

2. Specialist Training

The Council of Labor Affairs has designed a comprehensive range of training courses in entrepreneurship and specialist skills for female would-be entrepreneurs, and the content of these courses is adjusted as necessary according to women's actual needs. In order to increase the percentage of women who make a success of their entrepreneurial efforts, starting in the third guarter of 2003 the council began implementation of an 'On-the-job Entrepreneurship Training" activity for women. This activity is available to those women who have submitted an application for entrepreneurship consulting services and who it is felt would benefit from the training. The women are assigned to a collaborating enterprise in an industry related to the field in which they hope to set up their own business (there are approximately 10 collaborating enterprises, in the leisure and travel industry, the restaurant business, the medical instruments industry, the design industry, the Internet sector, the clothing accessories and jewelry industry, etc.) for

on-the-job training (without pay) for a period of seven working days, so that they can gain a clearer understanding of how companies in that industry actually operate and of the form taken by interpersonal relationships in the workplace. This program gives women access to useful market information, thereby increasing the likelihood that their own entrepreneurial venture will be a success.

In order to meet the needs of female entrepreneurs living in rural areas, the Council of Agriculture has organized "Ancillary Occupation Classes for Women in Farming Communities," with the aim of creating new opportunities for ancillary or sideline occupations including homemaking, care services, agricultural work, bed and breakfast operation, agricultural products processing, local handicrafts, etc. for women in rural areas. This scheme could be a model, for other programs that aim to provide guidance to female entrepreneurs.

3. Incubator Centers

In order to encourage the growth of more healthy, competitive SMEs, and to help those SMEs that have already got on their feet to upgrade and transform themselves, in 1996 the Small and Medium Enterprise Administration of the Ministry of Economic Affairs began to establish SME incubator centers to serve as hothouses for new businesses, new products and new technology, and to help enterprises to upgrade and transform themselves. These incubator centers provide space and facilities, as well as consulting services and support in the areas of technology, funding, management and general business knowledge. The aim is to reduce the level of risk (and cost) that enterprises have to bear when starting out, and to increase the percentage of new businesses that survive and grow. So far, the Ministry of Economic Affairs has provided guidance for the establishment of 61 incubator centers. For those female entrepreneurs who need R&D guidance over an extended period and who also have special needs with regard to technology innovation, incubator centers can provide space, facilities, and guidance with regard to technology, human resources, information and operations. By locating themselves in an incubator center, entrepreneurs can reduce the level of risk and uncertainty that they have to deal with in the early stages of new business establishment.

4. Funding Assistance – Loans for Business Start-up

Currently, the types of preferential loans that the government provides for new business establishment include Young Entrepreneur Loans, Worker Entrepreneur Loans, Loans for Women in Difficult Circumstances, Loans for Micro-enterprise Entrepreneurs, Loans for Young Entrepreneurs in Rural Areas, Loans for Young Aboriginal Entrepreneurs, and Loans for Physically and Mentally Handicapped Entrepreneurs. With the exception of the Loans for Women in Difficult Circumstances, which are available only to women, all of the other types of loan are available to entrepreneurs of both sexes.

Applications for Loans for Women in Difficult Circumstances can be made by all women aged 20-65 whose total household income is no more than 2.5 times the poverty line. Women who conform to these requirements can submit their loan application to the Council of Labor Affairs; the ceiling on individual loans is set at NT\$1 million.

V Major Developments in the Government's Strategy for the Provision of Guidance to Female Entrepreneurs

Today, more and more women in Taiwan are starting their own businesses. In the future, government policy regarding the promotion of entrepreneurial activity by women will need to emphasize the exchange and sharing of experience, and on strengthening entrepreneurs' knowledge in the areas of operational management, financial planning, technology and other specialized fields. The government will need to focus on building a suitable environment for entrepreneurial activity, the establishment of female entrepreneurial activity funds, and enhancing the visibility of female-owned businesses.

1. Establishment of a Knowledge-sharing Platform for Female Entrepreneurs

There are many examples of successful female entrepreneurs in Taiwan. However, there has in the past been a lack of suitable channels whereby their valuable experience and the secrets of their success can be shared with other female entrepreneurs or would-be entrepreneurs. If ways were found whereby successful female entrepreneurs could serve as models for others, this would reduce the amount of time that new entrepreneurs spend feeling their way or reinventing the wheel; it would also reduce the percentage of new businesses that fail. With the raising of women's average educational level and the rapid development of information technology, there has been a dramatic increase in the opportunities for women to establish new businesses in knowledge-intensive industries. What this means is that the main emphasis in the government's planning of its promotional efforts needs to be on helping to create opportunities for would-be entrepreneurs to interact with others. If, in the future, the government is able to establish clubs and societies related to female entrepreneurial activity and female entrepreneur associations, and if it can build a platform that female entrepreneurs can utilize to share knowledge with one another (so that it serves as a medium for the exchange of information and the sharing of experience), this should help to encourage cross-industry collaboration between female entrepreneurs.

2. Continuing to Try to Meet the Full Range of Female Entrepreneurs' Needs

Since 2001, the National Youth Commission has organized Female Entrepreneur Guidance System Activities on an annual basis. These activities have been warmly received by the participants; in fact, the number of people applying to take part has grown so quickly that the Commission has often had to lay on extra classes to meet demand. There is thus a high level of interest in entrepreneurial activity among women in Taiwan. Currently, the National Youth Commission's activities are held in rotation in Northern, Central, Southern and Eastern Taiwan. If it were possible to hold these activities on a more regular basis in all of these locations, it would be possible to help an even larger number of female would-be entrepreneurs.

Shortage of funds is another key factor making it difficult to provide effective assistance to female entrepreneurs. In the future, the government should try to allocate a sufficiently large budget appropriation to provide guidance for women's entrepreneurial activity, so that the various activities (including training courses and seminars) can be held on a regular basis. It

will then be possible to provide women business owners with the training courses and support they need in the areas of operational management, financial planning and specialist skills, thereby increasing the percentage of female-owned start-ups that are successful, and minimizing the negative impact on society resulting from failed businesses.

3. Establishing Incubator Centers for Female Entrepreneurs throughout the Country

All over the world, entrepreneurial activity by women tends to be concentrated in the service sector, and Taiwan is no exception. However, there are currently very few incubator centers in Taiwan that are designed to meet the needs of the service sector, and there are no incubator centers whatsoever specifically designed to meet the needs of female entrepreneurs. In order to encourage more women to start their own businesses, there is a real need to set up incubator centers for women throughout Taiwnan. Not only would incubator centers of this kind be able to provide female entrepreneurs with the latest business knowledge and effective training programs, they would also constitute a comprehensive guidance mechanism that could assist women with the evaluation of market opportunities before they set up their business and with operational management once the business is up and running. Incubator centers could also show female entrepreneurs how to secure funding, provide them with management guidance, arrange for collaboration between female-owned businesses and academic institutions, provide guidance in how to go about applying for preferential loans, offer courses in the computerization of operational processes, and undertake follow-up regarding the achievements of female-owned

businesses. Given the difficulty in establishing large numbers of new incubator centers, some could take the form of 'virtual incubators," with assistance being provided over the Internet. This would help to eliminate restrictions in terms of space and time on the provision of guidance, and would enhance the level of practical support that incubator centers could provide to women business owners.

4. Establishment of Special Funds to Promote Female Entrepreneurial Activity, and Easing of the Repayment Terms Applying to Loans to Female Entrepreneurs

When their business is just getting off the ground, many women entrepreneurs experience problems with under-capitalization. The establishment of special venture capital funds or loan guarantee funds would help to ensure that female entrepreneurs can secure the funds they need. Another problem that affects many female entrepreneurs is excessively tight repayment schedules; if these could be relaxed, it would make life significantly easier for them.

5. Helping to Raise the Visibility of Female Entrepreneurs

Women-owned businesses often suffer from weak marketing capability and a lack of visibility. The government might want to consider making more effort to publicize the achievements of the various guidance programs for female entrepreneurs over the Internet, or holding more exhibitions and presentations (including international exhibitions) of the products of the more successful female-owned businesses, focusing particularly on products that have the potential to be highly competitive in international markets. The government should also seek to leverage female entrepreneur organizations and

knowledge-sharing platforms, encourage academic research into entrepreneurial activity by women, and promote contacts and exchange between relevant organizations in Taiwan and overseas, so as to stimulate an across-the-board, comprehensive promotion of female entrepreneurial activity and strengthen the visibility of female-owned Taiwanese businesses throughout the world.

Part Three Government SME Guidance Policy and Its prospects

Chapter 9

SME Guidance Policy and Measures

In the last year, the overall state of Taiwan's SMEs has gradually started to improve, after two years in which Taiwan's economy was severely depressed. In the spring of 2003 a new infectious disease - Severe Acute Respiratory Syndrome (SARS) -suddenly erupted out of mainland China, spreading via Hong Kong and Macao to other parts of the world. Taiwan is geographically very close to mainland China, Hong Kong and Macao, and has close trading links with all three of these regions; it was thus almost inevitable that SARS would spread to Taiwan too. Despite the response measures taken by government agencies and by Taiwan's hospitals, panic and loss of confidence were widespread. The number of business travelers and tourists visiting Taiwan fell off dramatically, which had a serious negative impact on the tourism and transportation industries. Overall market demand fell off, and many SMEs experienced a serious deterioration in their operational performance. Although, after peaking in May, the SARS epidemic was eventually brought under control, it left a scar on the collective psyche of the Taiwanese people, and caused serious damage to Taiwanese industry.

SMEs in Taiwan today have to deal with the increased pressure resulting from the market opening that Taiwan has had to implement in accordance with its WTO pre-accession agreements, and with fierce competition emanating from mainland China. At the same time, however, the steady increase in the size of the markets available to Taiwanese firms and the benefits deriving from the international division of

labor are creating new opportunities. If Taiwan's SMEs can leverage the experience they have built up over the years, while at the same time working to upgrade, transform themselves and innovate, it should be possible for them to develop into enterprises that are truly competitive in global terms, with their own unique advantages.

In line with its underlying philosophy for providing guidance to SMEs and in accordance with the provisions of the Small and Medium-sized Enterprise Development Statute, the SMEA of the Ministry of Economic Affairs has been working to improve the overall business environment for SMEs, encouraging SMEs to collaborate with each other, and providing guidance to help SMEs achieve self-strengthening. The overall aim of these activities is to facilitate the development of Taiwan's SMEs along healthy lines. In the area of policy formulation, in order to be able to provide additional assistance to help Taiwan's SMEs survive and thrive, the overall vision is based on developing Taiwan into an 'ideal location for the establishment, growth and development of SMEs." This chapter will provide a retrospective of the measures adopted in 2003 to provide guidance for SMEs, and the results achieved.

I Implementation of the SME Guidance and Service Mechanism

Due to their small size, it is difficult for SMEs to make effective use of the endogenous growth model; in most cases, they are forced to make use of the exogenous growth model. One of the main emphases in the government's efforts to help SMEs strengthen their own capabilities has therefore been the provision of various types of resources, along with attempts to ensure effective integration of external networks.

1. Strengthening the Functions of the SME Service Network

(1) Expanding the Operations of the SME Troubleshooting Center

The SME Troubleshooting Center was established on May 1996. Whether in terms of helping SMEs to solve their operational difficulties or in terms of upgrading the overall level of performance in the provision of services to SMEs, the performance of the SME Troubleshooting Center has won plaudits from SMEs in all sectors. Besides handling inquiries and petitions from SMEs, the Center also undertakes work relating to SME investment, upgrading and transformation, including matters relating to the acquisition of land for factory construction, helping SMEs to obtain information relating to markets and new technology, taxation (including import and export duty), etc. Over the last eight years, the SME Troubleshooting Center has served more than 20,000 SMEs. SMEs tend to be small, and have difficulty in securing financing. As a result, more than 80% of the problems that the Center deals with relate to financial matters, financing, etc. More than 500 enterprises that had been in severe financial difficulties were able to remain in business thanks to the assistance provided by the Center; around 30,000 workers were able to keep their jobs as a result. The SME Troubleshooting Center has thus made a major contribution towards helping Taiwanese SMEs to maintain normal operation.

In addition, in order to help SMEs secure the financing they need, the Credit Guarantee Fund and Joint Guidance

Center have been working together to create a dual-track system for SME financing. Under this system, while SMEs can continue to secure financing through the Credit Guarantee Fund, in cases where an SME is experiencing particularly severe difficulties, the SME Troubleshooting Center can coordinate the provision of financing through the Credit Guarantee Fund and Joint Guidance Center. In cases where an SME has already been refused a bank loan, the Center will coordinate with the Credit Guarantee Fund, the Joint Guidance Center and the bank. The first step in cases of this kind is to help the SME to establish effective financial systems and to upgrade its quality; once this has been achieved a new application for bank financing can be made.

When the SARS epidemic spread to Taiwan in April 2003, SMEs in many industries found themselves experiencing a serious operational crisis. The SME Troubleshooting Center played an important role during this period, collaborating with other government agencies in the implementation of various special measures and helping companies to overcome their cashflow problems.

As regards the achievements of the SME Troubleshooting Center in 2003, besides handling 10,656 inquiries, the Center also helped 137 SMEs to secure loans (totaling over NT\$385 million), secured an easing of repayment terms in another 34 cases (involving loans worth over NT\$15,175 million). In addition, the Center helped with the implementation of the measures adopted by the government in response to the SARS epidemic. This assistance included helping 50 SMEs to secure financing (totaling NT\$1,390 million), and arranging for easier repayment terms in four cases. In addition, in line with the implementation of the dual-track financing systems, the Center was involved in joint diagnostics for the provision of financing in 52 cases (with the total amount of financing involved being NT\$1,111 million).

(2) Effective Utilization of SME Service Resources at the Local Level

a. Strengthening the Performance of Local SME Service Centers

In order to achieve a deepening and broadening of SME service work, and to ensure that local resources are utilized effectively, since 1992 SME service centers have been established in every county and city in Taiwan through the auspices of the local industrial development and investment promotion committees. These local SME service centers provide SMEs with immediate and effective services with respect in the areas of training courses, seminars, hands-on training, guidance, referrals and consultation (both over the telephone and face-to-face). During the period January-December 2003 the SME service centers in the metropolitan areas of Taipei and Kaohsiung and in Taiwan's 21 other counties and cities organized a total of 970 lectures (attended by 65,630 persons), provided a telephone consulting service on 39,796 occasions, provided referrals to more than 2,355 SMEs, implemented on-site diagnostics for 1,284 SMEs, made 5,302 visits to SMEs, provided information of various types on 1,364,090 occasions, and provided coordination services on 14,283 occasions.

b. Ongoing Promotion of the SME Honorary Instructor System

In order to help SMEs to improve their operational management and enhance their competitiveness, in 1996 the

government began promotion of the SME Honorary Instructor system, based on the SME Diagnostician system employed in Japan. The government selected business owners who had achieved success in their own activities and who had demonstrated a general enthusiasm for helping others, along with retired managers, government officials and other experts, and encouraged them to assist in the provision of consulting services to local enterprises on a volunteer basis. In 2003 an additional 396 persons were chosen to serve as SME Honorary Instructors, bringing the total of registered Instructors to 2,668.

(3) Continuing Promotion of the 'Industrial Upgrading Train"Activity

In order to encourage enterprises to work to strengthen product innovation and increase the level of value added provided in their services, the SMEA of the Ministry of Economic Affairs has for five years now been organizing the 'Industrial Upgrading Train' activities, the aim of which is to promote innovation, R&D, upgrading and transformation, thereby contributing to the survival and growth of Taiwan's SMEs. In 2003, Industrial Upgrading Train events were held on three occasions in each of three locations – Taipei, Taichung and Tainan. The 'Business Opportunities from New Products and New Technologies – Presentation and Exhibition'' held in Taipei on July 29, 2003 was attended by representatives of 40 companies, with 8 companies giving presentations, and 43 contracts were signed as a result of the activity, with a total value of over NT\$120 million.

2. Strengthening the Publicization of SME Success Stories

Besides the upgrading of the SME service network, another

important aspect of SME service work is the organizing of activities through the various SME related organizations and associations, so as to publicize the government's new policy measures with respect to SMEs. It is also necessary to make use of both electronic and print media to provide various types of information, so that SMEs are aware of the resources available from the government and can access and make effective use of these resources. In addition, in order to encourage SMEs to focus on innovation, R&D, upgrading and transformation, and to ensure recognition for those groups and individuals that have provided assistance to SMEs, the government has instituted various types of Awards to SMEs. The main publicization activities implemented in 2003, and the results achieved, are outlined below:

- (1) The holding of the Sixth Annual Little Giant Award: 17 SMEs that had displayed particularly impressive performance in their respective fields were selected for commendation.
- (2) The holding of the Twelfth Annual National Awards for SMEs: 12 SMEs were selected to receive awards, with the awards being presented by President Chen Shui-bian. In addition, four visits to award-winning SMEs were arranged.
- (3) The Minister of Economic Affairs presented awards to 12 individuals who had displayed outstanding performance in the provision of guidance and service to SMEs.
- (4) A total of 218 radio programs for SMEs were produced. These programs, which were broadcast on Monday-Friday in the 9:00-10:00 a.m. timeslot, provided SMEs with

information about the government's industrial policy and guidance measures for SMEs.

- (5) A comprehensive "policy marketing" plan was implemented. This involved the holding of three summit along with two conferences, sessions in which representatives of the media had the opportunity to interview the owners of outstanding SMEs. Three interviews with the Director General of the SMEA were published in various media, in addition to three interviews with the owners of successful SMEs, and two in-depth reports on SMEs.
- (6) The government provided funding to help the Chinese National Federation of Industries and the National Association of Small and Medium Enterprises hold various activities including lectures, conferences and seminars. A total of 130 such activities were held, with 5,321 people participating.
- (7) The government provided funding to help 32 SME-related organizations to organize a total of 32 lectures, conferences and seminars; these activities were attended by a total of approximately 1,500 people. Funding was also provided for two special exhibitions organized by the chambers of commerce of Taichung City and Kaohsiung City; a total of around 70,000 people attended these exhibitions.
- (8) The '2003 Golden Book Awards" were presented to 17 outstanding books on the subject of SME management and which it was felt would be of particular value to SME owners and employees.
(9) Ten issues of the SME Service Bulletin were published, to help keep SMEs up to date with guidance policy and other important information.

II Establishment of an SME Start-up and Incubation Platform

1. Aggressive Establishment of an SME Start-up and Innovation Information Platform

With the rapid advances that have taken place in information technology in the last few years and the emergence of the knowledge economy, more and more attention has come to be attached to the question of how SMEs can make effective use of technology and innovation, integrating information and knowledge so as to constantly develop new products and transform themselves into knowledge-intensive enterprises. This type of strategy gives SMEs the best chance of survival and growth; in the future, technology and information will play a vital role in SME start-up. The process of creating new products and developing new business areas not only requires enterprises to bear high levels of risk, it also presents complex operations problems.

In the last few years, the economy, society and consumers' needs have all become more diversified. There has been a significant increase in the number of new service industries coming into being, and in the number of Small Office / Home Office (SOHO) type businesses. There is thus a real need for a comprehensive enterprise cultivation mechanism, so that those people interested in establishing their own business have a learning platform available to them that

can increase the chance of success. The most important measures taken by the government in 2003 to establish new mechanisms to encourage SME start-up were as follows:

(1) Provision of Start-up Information and Inquiry Services

In order to help new enterprises to survive and thrive, the government has established an SME Start-up Knowledge and Information Service Network. Start-up inquiry service centers and a start-up service network help individuals to access the information they need in preparation for starting their own business, thereby increasing the likelihood that the new business will be successful. The network also provides new businesses with the inquiry services they need when the enterprise is just getting off the ground, which helps to ensure robust growth. In 2003 the start-up inquiry service centers provided inquiry services for 14,354 newly-established SMEs, which included the provision of telephone inquiry services on 6,793 occasions, the provision of joint consulting services on 3.215 occasions, the provision of one-to-one consulting services on 4,022 occasions, and the provision of on-line consulting services on 324 occasions.

(2) Establishment of Entrepreneurship and Innovation Colleges

Entrepreneurs may possess innovative ideas and technology, but they often lack experience in new business establishment; as a result, they may be unable to survive in the intense competition that characterizes the business world. The Entrepreneurship and Innovation Colleges provide a range of courses on the practical aspects of new business start-up, and help new enterprises to obtain the knowledge and technology they need. This in turn increases the likelihood that the new business will survive.

(3) Organizing Entrepreneurship and Innovation Fairs

In order to create synergy in the area of new business establishment, the government holds regional and international entrepreneurship and innovation fairs on a regular basis, giving SMEs an opportunity to exchange experience and learn from one another, and to develop a more international outlook. These fairs also help newly-established enterprises to obtain new technology and develop new business opportunities, thereby helping Taiwan to develop into an important center for the cultivation of new hi-tech industries. The entrepreneurship and innovation fair held in 2003 had a total of 138 stands, with 153 different items of new technology on display. Some 1,295 business deals were negotiated, with the information and communications industry, software industry, optoelectronics industry, metals industry and machinery industry accounting for over 80% of these.

(4) Holding of the National New Enterprise Award Competition

In order to encourage innovation and publicize the achievements of innovative SMEs that have demonstrated high value added and technology-oriented operation, the National New Enterprise Award competition has been held on a regular basis. The aim is to provide a platform for the development of new markets, new technologies, new designs, new products, new services and new business models by newly-established enterprises. The competition also helps new businesses to secure access to venture capital funding, thereby encouraging

entrepreneurial activity in society as a whole. The Second Annual National New Enterprise Award, held in 2003, involved an initial presentation, a competitors' presentation, and a three-stage judging process. A total of 193 teams entered the competition, with 20 being selected to receive awards.

(5) Organizing Experience Exchanges between Entrepreneurs

In 2003 conferences were held in northern, central and southern Taiwan to provide representatives of industry, government and the academic community with the opportunity to exchange experience on the subject of 'the management philosophy of entrepreneurs." A total of 383 entrepreneurs participated in these conferences.

(6) Manpower Cultivation for Entrepreneurial Activity

The following activities were organized in 2003 to encourage participation in entrepreneurial activity by innovative, creative persons with strong entrepreneurial drive:

- a. Twenty-two entrepreneurship classes were organized for young entrepreneurs, female entrepreneurs, entrepreneurs in traditional local industries and entrepreneurs who required training in business plan formulation. The total number of persons trained was 1,226.
- b. Eight 'Entrepreneurship and Innovation Forums' were held in Northern, Central and Southern Taiwan, with discussions focusing on the tourism and leisure industry, the knowledgeintensive industries and e-business establishment.
- c. Thirteen lectures on entrepreneurship-related issues were

held, with a total of 1,163 people attending.

2. Strengthening the SME Incubation Function

(1) Ongoing Financial Assistance for Public and Private Incubator Centers Serving SMEs

Every year since 1997 funding has been provided from the SME Development Fund to assist in the establishment of SME incubator centers by both public and private agencies. These incubator centers offer a wide range of services for SMEs; they provide space, shared laboratory facilities, and support services in the areas of technology, manpower, commercial operations, information, financing and administration. In 2003 a total of more than NT\$190 million in subsidies was provided to incubator centers attached to 52 institutions. These incubator centers were home to a total of 1,051 enterprises; the total amount of investment created as a result of these subsidies was over NT\$4.93 billion.

The information and electronics industry accounted for the largest share of enterprises; more than one third of the SMEs housed in these incubator centers belonged to the information and electronics sector. The automation industry held the second largest share of enterprises, at around 20%.

(2) Promoting the Establishment of an SME Incubator Center within the Tainan Science-based Industrial Park

In coordination with the development of the Tainan Science-based Industrial Park, the Ministry of Economic Affairs has allocated funds from the SME Development Fund to establish an incubator building (located on a 1,983m² site, with a total floor area of 11,900m²) within the Tainan

Science-based Industrial Park. The development of this new incubator center will involve the integration of the R&D capabilities of the National Science Council, the Industrial Technology Research Institute, and the Tainan Science-based Industrial Park itself. It is anticipated that the Tainan Science-based Industrial Park incubator center will develop into the main center for hi-tech R&D in Southern Taiwan. As of the end of 2003, five companies had already secured approval to locate themselves in the incubator center.

(3) Promoting the Development of the Nankang Software Industry Incubator Center

Taiwan's information industry has grown rapidly in the last few years, and has been selected as one of the key development items for the Challenge 2008 National Development Plan. In order to stimulate the growth of the software industry, the government has invested in the establishment of a 'Nankang Software Industry Incubator Center'' within the Nankang Software Park. The Institute for Information Industry has been commissioned to manage the incubator center, which will provide both 'software'' and 'hardware'' facilities with the aim of cultivating SMEs that have significant growth potential. The Nankang Software Industry Incubator Center began operations in July 2000; by the end of 2003 a total of 29 companies had located themselves in the facility, representing an occupancy rate of 89%.

(4) Promotion of Other Incubator Center Related Work

The following work items have been implemented with the aim of improving incubator center performance:

- a. Two joint incubator center presentations were held, and attended by more than 400 SME owners and managers. In addition, a joint incubator center exhibition was held in Hall Two of the World Trade Center in Taipei City; the exhibition received more than 8,500 visitors.
- b. Special training courses were arranged for incubator center managers. Courses were held in northern, central and southern Taiwan, with a total of 112 trainees participating, of which 102 completed the courses.
- c. An incubator yearbook has been published, along with a bimonthly periodical and incubator center operations manual, with the aim of publicizing incubator center activities and related information.
- d. Planning has already begun for the establishment of a 'Nankang Biotech Incubator Center," so as to meet the needs of Taiwan's biotech industry.

3. Helping SME Start-ups to Obtain Working Capital

In order to stimulate investment in SME start-ups with strong development potential and upgrade the overall level of Taiwanese industry, funds have been allocated from the SME Development Fund to establish an 'SME Incubation Trust Investment Account." In addition, the government has leveraged the platforms provided by the National New Enterprise Award competition and the Entrepreneurship and Innovation Fair to establish indices for seed fund investment, with the aim of encouraging exchange in the area of new business establishment and encouraging venture capital firms (both domestic and international) to invest more in new businesses in Taiwan. The main achievements in this respect in 2003 were as follows:

(1) More Funds Will be Invested by SME Incubation Trust Investment Account

It is anticipated that the SME Incubation Trust Investment Account will invest a total of NT\$2 billion over a period of four years. Investment began in October 2003; as of the end of 2003 a total of more than NT\$440 million had been invested in eleven newly-established SMEs that displayed particularly strong potential.

(2) SMEs Have Been Helped to Apply for Relevant Government Subsidies, Including:

- a. Guidance was given to 37 SMEs to help them apply for SBIR funding. Twelve of these companies applied for SBIR funding for 'preliminary research'; 25 applied for funding for 'tesearch and development."
- b. April 4, 2003 saw the holding of the 'Experience-sharing Seminar for Assisting SMEs to Apply for Government Subsidies."
- c. Regular maintenance has been performed on the SBIR information network system, to ensure that SMEs have access to the latest information.

4. Attaching Due Importance to SME Human Resources Development and Training

In the last few years, Taiwan has experienced major changes in its economy and a transformation of its industrial structure.

replaced Information technology has traditional. production methods, knowledge-intensive labor-intensive industries have replaced capital-intensive industries, and lifelong learning has become the key factor that can help SMEs to boost their core competitiveness. SME employees account for nearly 80% of the employed population, but most of them are educated only to senior high school level (or senior vocational level) or below; at the same time, SMEs' small scale of operation and high employee turnover make it difficult to improve manpower quality. There is therefore a need to strengthen SME talent cultivation, and to help SME owners upgrade the quality of their employees so as to meet the challenge of the new era of knowledge-intensive industries and the new economy.

The following section examines some of the important measures taken in 2003 to help Taiwan's SMEs upgrade their manpower quality and improve their manpower structure:

(1) Organizing Training for Specialist Talent

The courses provided in 2003 included: two introductory classes, two advanced classes and two consultant training classes in the area of financial management, with a total of 228 trainees; 10 seminars on important trends in SME development and 50 lectures on trends in SME development, with a total of 6,641 people attending; four classes to train managerial talent for SMEs, involving a total of 17 groups of trainees and a special audiovisual presentation at the end of the course, with a total of 656 trainees; three management strategy courses held in northern, central and southern Taiwan, with a total of 120 trainees. There were also various international conferences and other manpower cultivation activities.

(2) Cultivation of SME Guidance Personnel

In order to improve the overall level of managerial expertise in Taiwan, so as to help strengthen the management of Taiwan's SMEs, cultivation activities have been organized for consultants and for managerial diagnostics guidance personnel. In 2003 two classes were organized for managerial consultants, with a total of 100 people being trained. In addition, 20 lectures were held for guidance and service personnel, with a total of 1,368 people participating.

(3) Ongoing Provision of Subsidies for the SME Training Centers

Every year, subsidies are provided from the SME Development Fund to the SME Training Centers in northern Taiwan, central Taiwan and southern Taiwan. The training centers, working in collaboration with neighboring universities and colleges, undertake surveys of the manpower cultivation needs of SMEs in their region; the survey results are then used as the basis for the production of teaching materials and for instructor training.

(4) Ongoing Promotion of the Lifelong Learning System

Beginning in January 2000 the SME Training Centers, working in collaboration with other SME training organizations, have been commissioned by SMEA to issue training records that constitute a comprehensive record of the training that individual SME employees have undergone. As of the end of 1993 a cumulative total of more than 76,000 such records had been issued, with 18,759 being issued in 2003 alone.

5. Active Participation in International SME Activities

In the last few years, in line with the trend towards economic globalization and the internationalization of industry, the government has been actively helping SMEs to participate in international economic and trade organizations and related activities, thereby facilitating the establishment of international networks and the development of global markets. International business activities, strategic alliances and collaboration on the establishment of international brands now constitute an important element in the government's SME guidance strategy. made to encourage SME participation The efforts in international economic and trade activities in 2003 included the following:

(1) Attendance at the 10th APEC SME Ministerial Meeting

As part of Taiwan's efforts to participate actively in Asia Pacific Economic Cooperation (APEC), in August 2003 Vice Minister Shih Yen-shiang of the Ministry of Economic Affairs led a delegation to attend the 10th APEC SME Ministerial Meeting in Chiang Mai, Thailand. During the meeting, Vice Minister Shih read a paper entitled "Taiwan's Experience with Policies for Developing Entrepreneurial Spirit." The meeting gave a joint declaration of support for the hosting of a second Incubator Center Forum by Taiwan. Following the meeting, the Taiwan delegation held bilateral talks with representatives of nine countries, including Thailand, Vietnam, Russia and Chile.

(2) Attendance at the 2003 APEC SME Forum

In order to encourage Taiwanese SMEs to participate in international activities, it was arranged for a group of 27 SMEs

to attend the APEC SME Forum. This was followed by the holding of discussion meetings relating to technology and business opportunities in Bangkok and Chiang Mai, which were attended by a total of 248 representatives of local SMEs and Taiwanese companies operating in Thailand. The total value of contracts signed was around US\$4.4 million, with follow-up business opportunities totaling US\$14 million. Overall, participation in these activities had impressive results.

(3) Attendance at Other Relevant APEC Meetings

- a. Attendance at meetings of the 16th and 17th APEC SME Working Group.
- b. Attendance at the 1st and 2nd meetings of the Exporters Community.
- c. Attendance at the Conference on Entrepreneurial Spirit.
- d. Attendance at meetings of the Level Two Micro-enterprise Working Groups.

(4) Attendance at Other SME-related Activities

- a. Delegations from Taiwan attended the 48th Annual World Conference of the International Council for Small Business (ICSB) held in Ireland, and the 30th International Small Business Congress held in Singapore.
- b. Delegations from Taiwan attended the 'Conference on the Role of the Entrepreneurial Spirit in the Global Economy – Strategic Issues and Policies' held in Hungary, and the 'Conference on the Relationship Between Promoting Statistical Management in SMEs and the Entrepreneurial

Spirit" held in France, along with various relevant OECD conferences.

c. Delegations from Taiwan attended the "Taiwan-Vietnam SME Conference" and "Conference on Business Opportunities in Vietnam and APEC" held in Vietnam, along with the "Conference on Bilateral Trade Between Taiwan and Russia Under the WTO Framework" held in Moscow, and the "UN Information Summit" held in Geneva. These conferences provided an opportunity for the Taiwan representatives to give presentations on Taiwan's experience with SME development and strategies, and to contribute to the development of international collaboration.

(5) Organizing International Conferences and Other Exchange Activities for SMEs

While participation in the international conferences and meetings described above provided an opportunity for the Taiwan representatives to describe Taiwan's experience with SME development and the prospects for future development, Taiwan itself hosted various international conferences and meetings relating to SME issues in 2003. These included:

a. The Holding of the 1st APEC Incubator Center Forum

The 1st APEC Incubator Center Forum was held over the period July 30-August 1 at the Grand Hotel in Taipei. The participants included 41 delegates from 18 APEC member economies, along with more than 160 Taiwanese participants, with a total of around 200 people participating in the event. This was the first time that a wireless, paperless international conference had been held in Taiwan. Overall, the forum was a

great success, garnering praise from the representatives of other APEC member economies who attended.

b. Organizing International Collaboration and Exchange Activities

Bilateral ministerial-level meetings and economic cooperation meetings provided a venue for discussing SME collaboration issues with Malaysia, Singapore, the Philippines, France and South Africa. Several SME-related collaboration agreements were reached at these meetings, thereby contributing to the development of bilateral trade links.

c. Reception of Foreign Dignitaries

As part of the implementation of the Memorandum on Collaboration between Taiwanese and Russian SMEs, towards the end of October 2003 a Deputy Minister of Russia's Ministry for Anti-Monopoly Policy and Enterprise Guidance led a delegation to visit Taiwan. The delegation, which visited the entrepreneurship fair, made a significant contribution towards the promotion of exchange and collaboration between SMEs in Taiwan and Russia. In addition, more than 20 other groups of foreign dignitaries visited the SMEA in 2003, where the Administration's officials were able to explain Taiwan's SME policy and guidance measures.

III Upgrading SMEs' Technology and IT Capabilities

1. Strengthening the Information Management Capabilities of SMEs

The rapid advances in information technology that have taken place in the last few years have placed Taiwan's SMEs in a situation where they have to speed up the computerization of their internal management and develop on-line marketing capabilities if they are to survive the intense competition in both the domestic market and international markets. The SMEA has been actively providing guidance to help SMEs upgrade their technology and IT capabilities.

The main measures implemented by the SME Information Management Guidance System in 2003 to help upgrade the IT application capabilities of Taiwan's SMEs included the following:

(1) Continuing Provision of Guidance to Help SMEs Establish Industry-specific On-line Databases and e-Commerce Systems

To strengthen their overall capabilities and become more competitive, SMEs will need to speed up the process of computerization and e-adoption. With this in mind, in July 1999 the SME Information Management Guidance System began promoting the establishment of e-commerce systems by SMEs. As of the end of 2002, these efforts had led to the establishment of on-line databases for 48 industries, including: the foundry industry; shoe manufacturing; silk weaving; woven fabrics; cotton fabric printing, dyeing and finishing; the food

processing and pharmaceuticals manufacturing machinery; the wire and cable industry; publishing; ornamental plants; plastics manufacturing; the art products and gift industry; the industry: the multimedia industry: rubber hand-tools manufacturing; architectural design; the electronics and electromechanical industry; the clothing accessories industry (hats, gloves, stockings, etc.); the printing industry; Chinese traditional medicine; printed circuit boards; garment manufacturing; medical instruments; environmental engineering; non-woven fabric; gauze; bicycle manufacturing; mold-making; frozen foods; the candy, confectionery and pasta industry; the stone industry; the paper products industry; the electronic engineering industry; the baking industry; the compound materials industry; the paper-making industry; and the hotel industry. In 2003 this project continued the provision of assistance for the establishment of on-line databases and e-commerce systems in 10 more industries, along with the establishment of an Enterprise Resource Planning (ERP) model, and the provision of assistance to three individual SMEs to help them set up their own e-commerce systems. In this way, the government has been helping SMEs to make use of information technology to bring down their operating costs and develop new markets.

(2) Establishment of e-Enablement Service Teams

In order to encourage e-adoption among SMEs, in 2003 the government established nine industry-specific 'e-Enablement Service Teams." Besides visiting SMEs to provide on-site diagnostics and guidance, these teams also formulate processes and guidelines for e-adoption and assist with e-adoption appraisal, thereby developing a clearer picture of the level of e-adoption achieved before and after the provision of guidance. The Teams have also publicized the government's e-adoption policy to 1,000 companies, and held 15 presentations to publicize the results achieved, thereby making SMEs more aware of the benefits of e-adoption.

(3) Stepping Up the Cultivation of e-Adoption Talent

So as to speed up the process of e-adoption among Taiwan's SMEs, in 2003 e-adoption talent cultivation training and guidance work was implemented for a total of 1,900 individuals. These activities were accompanied by the establishment of on-line courses and a synchronous learning system. In addition, the government encouraged private enterprises and academic institutions to develop e-learning materials, and worked with e-learning companies in the private sector to create on-line course content and materials, thereby strengthening the on-line learning environment in Taiwan. The underlying goal here is to build a first-class environment for on-line learning and interaction.

(4) Establishment of Electronic Marketplaces and Appraisal of their Effectiveness

The government has helped in the establishment of an electronic marketplace system, and has completed evaluation of the utilization of this system by SMEs.

(5) Promotion of On-line Learning

The main work items implemented in this area in 2003 included: planning the establishment of on-line learning platforms; selection of 26 sets of on-line teaching materials; getting a total of 21,000 individuals to make use of on-line learning; the establishment of a grade-specific, function-

specific training module; the holding of one promotional activity.

(6) Promoting the Adoption of Broadband Internet Access by SMEs

- a. Completion of a market survey on broadband adoption by SMEs, along with the formulation of a five-year work plan to serve as the basis for promotion work in the coming years.
- b. Holding of a work plan presentation and conference to discuss case studies, along with a presentation of the results achieved.
- c. Printing of 2,000 booklets outlining broadband e-adoption solutions.
- d. Helping 1,125 SMEs to complete the adoption of basic broadband e-adoption applications.

(7) Promotion of SME Information Management Applications

- a. The government expanded the provision of ongoing guidance for the establishment and maintenance of 48 on-line information systems.
- b. Remote learning equipment was used to provide 75 hours of training on IT applications.
- c. Short-term diagnostic guidance and consulting services were provided to 100 enterprises.
- d. Two presentations were held on the results achieved

(mid-term and final).

2. Strengthening the Provision of SME Information Management Guidance Service

With the rapid advances that have been made in information technology and the growth of the knowledge economy, it has become increasingly important to strengthen SMEs' awareness and utilization of knowledge management, thereby enhancing their overall management capability. With this in mind, in 2003 the government undertook planning of shared platforms for knowledge management, along with the formulation of regulations to govern their use for the reference of SMEs. In addition, information was collected on 56 issues of key importance to SMEs, and three conferences and seminars were held on the subject of knowledge management, with the aim of encouraging SMEs to make more effective use of knowledge management so as to boost their competitiveness.

3. Provision of Guidance for the Enhancement of SMEs' Quality Management Capability

In coordination with the operations of the SME Quality Upgrading Guidance System, efforts have been made to speed up the promotion of industrial upgrading and transformation, and to strengthen the competitiveness of SME products. The main tasks implemented in 2003 were as follows:

(1) Expanded Publication and Promotion of Quality Concepts

In order to make SMEs more aware of the importance of quality improvement to the enhancement of overall operational

performance, besides printing posters, slogans and handbooks, the government has also published three ISO 9000 promotion handbooks and held three ISO 9000 presentations.

(2) Promotion of ISO 9000 Standards

As part of the efforts to ensure that SMEs implement quality management in an appropriate manner, in 2003 the government undertook the drawing up of one industry-specific ISO 9000 standard, one set of quality management internal auditing standards (and accompanying handbook), and one set of industry-specific ISO 9000 KPI indicators (and accompanying handbook). In addition, the government promoted ISO 9000 environmental research analysis and ISO 9000 surveys, and provided guidance for five enterprises in the establishment of quality indicator self-assessment modules and for another five enterprises in the establishment of customer satisfaction measurement modules.

(3) Organizing Education and Training, and Working to Improve Service Provision

To help SMEs keep up to date with the latest developments in quality management, the government organized one regular training program and six advanced training programs. In addition, quality management related consulting services were provided on 120 occasions, and diagnostic service was administered to 30 companies.

(4) Implementation of Consumer Protection

In coordination with the government's efforts to get consumers to pay more attention to product quality, various activities were implemented in 2003, including:

- a. The holding of three presentations in northern Taiwan, two in central Taiwan, three in southern Taiwan and one in Hualien.
- b. The printing of 1,000 copies of The Consumer Protection Law and SMEs (Volume Four).

IV Strengthening SME Management

1. Improving the Quality of SME Management and Promoting SME Upgrading and Transformation

Following the establishment of the SME guidance systems in 1992, the various agencies responsible for the provision of guidance to SMEs have carried out various programs to enhance SME management efficiency on an annual basis. The main results achieved in this guidance work in 2003 are outlined below:

- (1) Implementation of the Guidance Plan for Strengthening SME Management. The implementation of this plan involved the provision of consulting services to 1,774 enterprises, the provision of short-term diagnostic service to 157 enterprises, the provision of regular individual guidance to 22 enterprises, the provision of guidance to 14 model SMEs, and the holding of 50 presentations.
- (2) Four new product and new business opportunity presentations were held, involving a total of 30 enterprises, along with three presentations to highlight the achievements of enterprises that had been particularly successful in upgrading and transforming themselves,

involving a total of 10 enterprises.

- (3) Implementation of the Plan for Helping SMEs to Upgrade Technology Their Application Capabilities. The implementation of this plan included setting up data bank system for registering technical demand and supply information (http://www.technomart.org.tw). More than 400 technical suppliers and more than 900 demanders have registered with the system. In addition, technology and investment seminars, overseas technology exchange activities, hi-tech enterprise matching projects, feasibility appraisals of technology, etc. have also been implemented.
- (4) Having the Technology Adoption Team assist with the adjustment of enterprise technology, commercialization of R&D results and technology adoption, provision of guidance for SME transformation, and the holding of an industrial upgrading and transformation presentation which it is estimated led to the signing of 10 contracts.
- (5) Provision of factory migration guidance. This involved the provision of consulting service and business opportunity diagnostics to 23 companies, three instances of helping companies to develop new markets, and arranging 11 meetings at which companies could share their experience of factory migration (with a total 675 people participating), as part of the government's efforts to encourage collaboration between government and industry.
- (6) Publication of the SME Marketing Compendium and the Chain Store and Franchise Industry Handbook, along with the provision of assistance to help SMEs participate in exchange activities with overseas companies.

2. Helping SMEs to Strengthen Their Financial and Accounting Systems and to Ensure Them Adequate Financing

For many years, the main problems that Taiwan's SMEs have experienced in their operations have been difficulty in securing financing and the limited range of channels available to them for this. SMEs' small size puts them at an inherent disadvantage in this respect. Furthermore, the majority of SMEs are run as family businesses, and in many cases their rudimentary accounting systems make it impossible for them to produce detailed financial statements or evidence of debt repayment ability. Besides helping SMEs to obtain financing from the financial system, therefore, the government has always attached great importance to the employment of policy tools to help SMEs obtain the funds they need. The main measures adopted to help SMEs in the areas of investment and financing in 2003, and the results achieved, are outlined below:

(1) Using the SME Financial Guidance System to Help SMEs Secure the Financing

Following the establishment of the SME Financial Guidance System in July 1992, various agencies became involved in the provision of financing guidance to SMEs. In the last few years, on average, financing diagnostic service has been provided to around 300 SMEs a year. Financing recommendations are issued in around one third of cases, with the total amount of recommended financing exceeding NT\$1 billion per year.

The main achievements in the provision of investment and financing assistance to SMEs in 2003 were as follows:

- a. Financial institutions were encouraged to establish financing service windows to expand the service that they provide to SMEs. In addition, 12 financing promotion activities were held, and various financing handbooks were compiled to help SMEs access new financing channels.
- b. SMEs were given assistance in matters relating to credit guarantees and mutual assistance. 10 meetings were held to promote SME mutual assistance circles, along with 12 mutual assistance circle presentations, 100 visits to mutual assistance circle members, and other related activities.
- c. Short-term diagnostic service was provided to 40 SMEs to help them strengthen their financial management, internal controls, accounting operations and billing systems.

(2) Provision of Financing via Special Purpose Loans

With special purpose SME loans, SMEs are helped to secure financing, either directly through a special fund or via the banking system. What makes these special purpose loans different from regular SME financing is that the funding is earmarked for specific purposes, and usually there is a preferential interest rate. The different types of special purpose loan are described below:

a. SME Loans Involving the Executive Yuan Development Fund

(i) SME Upgrading Loans (Phase Eight)

In order to help Taiwan's SMEs to strengthen themselves, the Executive Yuan Development Fund and the SMEA of the Ministry of Economic Affairs joined forces to launch the Plan for the Provision of Guidance for SME Upgrading.

Implementation of Phase One of the project began in August 1989, with 29 public and private banks being commissioned to provide various types of loans, including loans for the purchase of automation equipment, loans for the purchase of office equipment, loans for the development of new production technology and the manufacturing of new products, loans for the computerization of management operations, loans for the purchase of land in industrial districts, etc. For each loan, the Executive Yuan Development Fund paid the bank providing the loan a handling charge based on the amount outstanding; for any individual enterprise, the total amount of loans was capped at NT\$60 million, although there was no limit on the number of loan applications that could be made. This loan program is now entering Phase Eight; in Phase Seven an additional NT\$50 billion in loans was granted as part of the reconstruction efforts following the major earthquake that took place in Taiwan on September 21, 1999. Implementation of Phase Eight (for which funding of NT\$30 billion was made available) began in April 2000. As of the end of December 2003, a total of 26,348 loans had been granted, with a total value of NT\$164,913 million. As the funding allocated for SME loans under Phase Eight will soon be used up, implementation of Phase Nine of the SME Upgrading Loans was due to begin in December 2003. The amount of funding allocated for Phase Nine is NT\$30 billion; the upper limit on the size of individual loans has been raised to NT\$80 million.

(ii) Loans for the Purchase of Automation Equipment

So as to speed up the replacement of old machinery and equipment, the Executive Yuan Development Fund offers special loans with preferential interest rates. Loans to individual enterprises are capped at NT\$400 million. These

loans are available for the purchase of automation equipment by both state-owned and private-sector enterprises; they can be used to purchase automated machinery, office automation equipment, construction automation equipment, computer software and hardware, etc. Implementation of this program began in late 2002. By the end of December 2003, a total of 5,039 loan applications had been approved, with loans totaling NT\$325.75 billion.

(iii) NT\$50 Billion of Reconstruction Loans Following the Major Earthquake of September 21, 1999

On September 21, 1999, Taiwan experienced a major earthquake that caused serious damage. Subsequently, special loans were made available to help SMEs in the affected areas get back on their feet again. Implementation of this program began in October 1999. As of the end of December 2003, a total of 1,770 loan applications had been approved, with loans totaling NT\$14.46 billion.

(iv) Loans for the Revitalization of Traditional Industries

In the last few years, the government has been working to help Taiwan's traditional industries raise their productivity, thereby boosting overall competitiveness. Since December 1999 the Executive Yuan Development Fund has provided NT\$30 billion for medium and long-term loans to assist in the revitalization of traditional industries. Of this, NT\$5 billion has been made available to help enterprises in traditional industries purchase land in industrial districts (with individual loans being limited to NT\$60 million per enterprise, or 80% of the total value of the upgrading plan). These loans are available to both large enterprises and SMEs, with the maximum term for each

loan being 10 yeas. As of the end of December 2003, a total of 2,994 loans of this kind had been granted, with a total value of NT\$28.20 billion.

b. Special Loans Provided by the Ministry of Economic Affairs SME Development Fund

Following the promulgation of the Statute for the Development of Small and Medium Enterprises by the president in February 1991, in September that same year the Regulations Governing SME Development Fund Receipts, Expenses, Custody and Utilization were approved. The SME Development Fund was established to facilitate the healthy development of Taiwan's SMEs, to meet their financing needs, and to provide special loans for the following purposes: to boost competitiveness; to move factories to new locations in accordance with government policy; to help SMEs recover from natural develop exports; implement disasters; to to overseas investment or overseas construction projects, etc. As of December 2003 a total of 3,256 loan applications had been approved, with loans totaling NT\$46.48 billion.

c. Special Loans for SMEs Provided by the Council for Economic Planning and Development Medium and Long-term Development Fund

In order to help SMEs strengthen their operations and boost their competitiveness, since August 1996 the Council for Economic Planning and Development Medium and Long-term Development Fund has provided funding to make special project loans available to SMEs by 29 state-run and private-sector banks. So far, five phases of this special loan project have been implemented; a total of 10,130 loans have

been approved, with the amount of loans granted totaling NT\$136.78 billion. Implementation of the Phase Five with funding of NT\$50 billion commenced in the end of 2002. By the end of December 2003 Phase Five had also been implemented, with a total of 808 loans totaling NT\$9.17 billion being granted.

d. Convenient Small Loans for SMEs

By simplifying the credit approval procedures, this project makes it possible for SMEs to secure the funding they need rapidly, thereby helping them to overcome shortages of working capital. The scheme, implementation of which began in March 1999, has proved very popular with SMEs. As of the end of December 2003, a total of 80,255 loans worth NT\$48.26 billion had been approved.

e. Young Entrepreneur Loans Provided through Collaboration with the Executive Yuan Sino-American Fund

In order to help young entrepreneurs overcome their financing difficulties, since February 1968 the National Youth Commission of the Executive Yuan has commissioned the Taiwan Business Bank and five other banks to provide loans to young entrepreneurs at a ratio of one to two. As of the end of June 2003, a total of 16,006 loan applications had been approved for 22,454 loan recipients, with the total amount of financing being NT\$20.32 billion.

f. Special Loans to Traditional Industries

Operating costs have risen dramatically in Taiwan in the last few years, causing Taiwan's traditional industries to lose the competitive advantage that they enjoyed before. In order to help traditional industries speed up the process of upgrading, in October 2000 the Ministry of Finance and the Central Bank formulated the *Principles Governing the Provision of Special Project Loans and Credit Guarantees to Traditional Industries by Financial Institutions*. The aim was to provide companies in traditional industries with financing to meet both medium and long-term capital expenditure needs and short-term working capital needs; the interest rates on these loans are 1.15–1.65% higher than the interest paid on a two-year Post Office deposit account. These loans are available to both SMEs and large enterprises. As of the end of December 2003, the 32 participating banks had received applications for loans totaling NT\$1.4 trillion, of which 147,754 loans worth a total of NT\$1.25 trillion had been approved.

g. Loans to Micro-enterprise Entrepreneurs

As part of the government's efforts to help the middle-aged unemployed build new careers, on January 22, 2003, the implementation 'Loans SMEA began of the to Micro-enterprise Entrepreneurs" program. The loans are available to entrepreneurs aged 45-65 who have had a micro-enterprise employing less than five persons registered for a period of not more than one year at the time of applying for the loan. If the entrepreneur has insufficient collateral the SME Credit Guarantee Fund can provide a guarantee for up to 80% of the value of the loan.

Besides these efforts to provide funding for the establishment of business enterprises by the middle-aged unemployed, in order to strengthen the entrepreneurial capabilities of the middle-aged unemployed, the SMEA has

been coordinating the provision of guidance by relevant agencies, before, during and after the granting of the loans. The Administration has also provided a start-up consulting service, training in entrepreneurial skills, operational management guidance and other services, to help ensure that businesses established by middle-aged entrepreneurs are a success. As of the end of December 2003 a total of 2,494 loan applications had been approved, with a total value of NT\$2.03 billion.

(3) Helping SMEs to Obtain Financing through the Provision of Loan Guarantees through the SME Credit Guarantee Fund

In 1974 the government established the SME Credit Guarantee Fund to help SMEs overcome the problems they experience due to having insufficient collateral and being unable to find guarantors. To be eligible to receive a loan guarantee from the fund, an SME must have significant growth potential, be operating normally, be able to demonstrate clearly how the loan will be used, be capable of repaying the loan, and have a good debt repayment record; its problems must be limited to inability to provide collateral or find guarantors. The SME Credit Guarantee Fund thus helps SMEs to obtain the financing they need to grow.

While those SMEs that merely lack collateral or guarantors can obtain loan guarantees through the SME Credit Guarantee Fund, in cases where the handling bank feels that the SME in question does not meet the requirements for loan approval, the SME Joint Guidance Center can provide the SME with financial diagnostic service, thereby making full use of an all-round financing function that incorporates financing, guarantees and guidance.

a. The Functions and Special Characteristics of the SME Credit Guarantee Fund

The SME Credit Guarantee Fund serves as an intermediary, helping SMEs to obtain financing from banks; its loan guarantees help those SMEs that have insufficient collateral to obtain the loans they need. Many enterprises that were granted loans because of credit guarantees provided by the fund and which also received guidance from the fund were subsequently able to strengthen themselves to the point where (with a satisfactory credit record) they were able to secure bank loans without the Fund's assistance. Some of the main characteristics of the fund's operations are as follows:

(i) The Enterprises to Which Credit Guarantees are Provided Tend to be Very Small

According to statistics published by the SME Credit Guarantee Fund, as of the end of 2003, 73.67% of the credit guarantees provided to SMEs by the Fund were to a value of NT\$2 million or less, 90.67% were for NT\$5 million or less, and 97.24% were for NT\$10 million or less. Viewed in terms of capitalization, 96.16% of the enterprises receiving credit guarantees from the fund had capitalization of NT\$30 million or less. On average, the amount of financing received through the provision of credit guarantees by the fund was just over NT\$3 million per enterprise. It can thus be seen that, for the most part, the enterprises to which the fund provides credit guarantees are still small enterprises.

(ii) The Recipients of Credit Guarantees are Mostly in Traditional Industries

Credit guarantees are mainly provided to SMEs, and the data indicates that around 90% of these enterprises are in traditional industries.

(iii) In Geographical Terms, Credit Guarantee Recipients are Widely Distributed

Currently, a total of 46 state-owned and private-sector banks in Taiwan (not including life insurance companies, credit cooperatives and the credit divisions of farmers' associations) have signed contracts with the SME Credit Guarantee Fund. Between them, these financial institutions have more than 2,500 branches in locations throughout Taiwan, all of which are authorized to receive applications for credit guarantees; loans can be approved by the individual branches with the credit guarantees being issued retroactively by the fund. The scope of operation of the SME Credit Guarantee Fund thus extends over the whole of Taiwan, including offshore islands such as Penghu, Kinmen, etc. SMEs in all of these regions can obtain credit guarantees through the banks participating in the scheme. In 2003 Taipei County accounted for the largest number of credit guarantees, at 49,042; in terms of the combined value of the guarantees, however, Taipei City was in first place, with NT\$48.77 billion.

(iv) The Recipients of Credit Guarantees Belong to a Wide Range of Different Industries

With the exception of enterprises in the finance and insurance industry, mining and quarrying industry, real estate industry and entertainment industry, enterprises in all other industries may apply for credit guarantees. As of the end of 2003, the manufacturing sector accounted for the largest share of loan guarantees granted (43.30% of the total value of all guarantees granted), followed by the wholesale and retail sector with 35.71%.

b. Provision of Guarantees by the Credit Guarantee Fund

The SME Credit Guarantee Fund began operation in July 1974. By the end of December 2003 credit guarantees had been provided on a total of 2,333,015 occasions, with a total value of more than NT\$2.685.8 billion. These guarantees helped SMEs to secure financing worth over NT\$3,770.7 billion from financial institution. The number of credit guarantees granted in 2003 was 199,783, with the combined value of the guarantees being NT\$205.18 billion. These credit guarantees helped 100,287 enterprises to secure loans to the value of NT\$347.85 billion. It is worth noting that more than 3,000 past recipients of credit guarantees have now grown large enough to be classed as large enterprises, making them ineligible for further SME credit guarantees. One-hundred-and-ninety-three companies that had in the past received credit guarantees from the fund have been listed on the stock market, and 202 have been listed on the OTC exchange. Furthermore, over the years around 70% of the winners of the National Awards for SMEs. the Little Giant Award and the SME Innovation and Research Award have been former recipients of credit guarantees.

c. Developing New Types of Credit Guarantee Service on the Government's Behalf

Besides handling regular credit guarantees for SMEs, the SME Credit Guarantee Fund has also been commissioned by the government to develop various new types of credit guarantee business, including the following:

(i) Credit Guarantees for Young Entrepreneur Loans

In order to help young entrepreneurs start their own businesses, thereby creating new jobs and promoting overall national economic development, the SME Credit Guarantee Fund has been providing special credit guarantees to young entrepreneurs since October 1986. As of the end of December 2003, a total of 6,134 credit guarantees of this kind had been provided, with the total amount of financing exceeding NT\$3.72 billion.

(ii) Credit Guarantees for Brand Development Loans

The SME Credit Guarantee Fund began providing credit guarantees for own brand development loans in October 1990, with the aim of helping Taiwanese enterprises to establish and develop their own brands in international markets. These credit guarantees are available to large enterprises as well as SMEs. As of the end of December 2003, 88 credit guarantees of this kind had been provided, with the total amount of financing being more than NT\$1.94 billion.

(iii) Credit Guarantees for NT\$1.4 Trillion in Special Loans for Traditional Industries

In line with the government's efforts to speed up the upgrading and transformation of traditional industries, in October 1990 the SME Credit Guarantee Fund began providing credit guarantees for special loans to enterprises in traditional industries (with preferential interest rates). The reaction to this new initiative has been very positive, and as a result it has been steadily expanded, to a scale of NT\$1.4 trillion. The types of financing provided include short and medium-term working capital financing, and financing for capital expenditure. As of the end of December 2003, a total of 26,019 credit guarantees of this kind had been approved, with the total amount of financing coming to NT\$100.18 billion. Of this, 8,234 credit guarantees (for financing totaling NT\$39,913 million) went to large enterprises.

(iv) Credit Guarantees for Reconstruction Loans Following Natural Disasters

handling credit guarantees for the Besides special reconstruction loans granted following the major earthquake which took place in Taiwan on September 21, 1999, beginning in June 2001 the SME Credit Guarantee Fund also began to provide credit guarantees for special loans to enterprises affected by the earthquakes, so as to help them rebuild their productivity and competitiveness. These credit guarantees were available to both large enterprises and SMEs; the Ministry of Economic Affairs allocated a budget appropriation to cover the risk involved in providing the guarantees. As of the end of December 2003 a total of 252 loan guarantees of this kind had been approved, with the total amount of financing coming to NT\$1.55 billion.

(v) Credit Guarantees for Special Loans to Micro-enterprises

In order to boost employment among the middle-aged and help middle-aged workers and unemployed persons to build new careers (thereby creating new jobs for others in addition to themselves), in January 2003 the SME Credit Guarantee Fund began to provide credit guarantees for special loans for the establishment of micro-enterprises. By December 2003, a total of 24,947 of these credit guarantees had been approved, with the total amount of financing provided exceeding NT\$2.06 billion.

3. Promoting Collaboration among SMEs to Establish Enterprise Networks

The overall business environment in Taiwan has been changing rapidly. Faced with this rapid pace of change, teamwork is needed to help SMEs leverage their strengths. This teamwork may take the form of strategic alliances, intra-industry collaboration, cross-industry collaboration, etc. By working together, SMEs can achieve greater economies of scale; by resources (including sharing operational technology. production, sales and information resources). SMEs can compensate for the lack of resources that affects them as individual enterprises, thereby enhancing their overall competitiveness. The main areas in which the government provided guidance for SME collaboration in 2003 were as follows:

(1) Provision of Guidance for 'Collaboration and Exchange Meetings"

The objective of this work item is to encourage SMEs to take the sharing of resources, complementarity and mutual benefit as the basis for exchanging experience and learning from one another, thereby building a foundation for further collaboration of a more practical nature in the future. In 2003 the government provided guidance for the holding of 44 'Collaboration and Exchange Meetings.''

(2) Provision of Guidance for 'Practical Collaboration Meetings"
The aim of this work item is to foster collaboration of a more practical nature among SMEs. This type of collaboration covers a wide range of areas, including collaboration on PR work, technology transfer, joint production, joint marketing, collaboration on the development of new business areas, etc. Eight 'Practical Collaboration Meetings'' of this kind were held in 2003.

(3) Industry Cluster Guidance

The government is seeking to encourage the formation of industry clusters consisting of 12 or more enterprises located in the same district and collaborating on production, R&D, design, purchasing, marketing, delivery, etc. The aim of these efforts is to promote the development of the local economy and strengthen the overall capabilities of the enterprises concerned. In 2003, guidance was provided for the development of two clusters of this kind.

(4) Publicizing the Importance of Mutual Assistance and Collaboration

To achieve effective promotion of mutual assistance and collaboration, the government has printed 1,000 brochures and 500 books outlining the results achieved in the government's guidance efforts, so that people in all walks of life can gain a better understanding of what the government is attempting to do in this area.

4. Expansion of the Government's Efforts to Promote the Development of Traditional Local Industries

Many of the small enterprises have clustered together to form local industries, either for historical reasons or in order to make effective use of local resources; others fall under the category of "community enterprises" that are closely integrated into the daily life of the people of that locality. The scale of operation of these enterprises tends to be very small, and their combined sales account for only a very small percentage of total SME sales; nevertheless, these enterprises make an important contribution to job creation in local communities and to the maintenance of social stability. Every year since 1989 the SMEA has commissioned SME guidance organizations to provide guidance for these local industries and community enterprises, with the aim of helping them to upgrade and transform themselves, thereby boosting their overall competitiveness. This work continued in 2003, with the following results being achieved:

(1) Providing Guidance for Traditional Local Industries

As noted above, the government provides guidance to local industries in order to boost local economic development and the industrial development of the country as a whole. Guidance is provided to individual industries over a three-year period. The main achievements in 2003 were as follows:

a. Guidance was provided to 13 local industries that were making efforts to innovate. These included: the 'coconut culture industry" in Laochuangchiao, Pingtung County; the vegetable dyes industry in Chungliao Rural Township, Nantou County; the hot springs industry in Hsin Peitou, Taipei City; the lotus farm (tourist farm) industry in Kuanyin Rural Township, Taoyuan County; the taro industry in Tachia, Taichung County; the stone-carving industry in Hualien County; the lemongrass industry in Kuohsing Rural Township; the hot springs industry in Ssuchunghsi, Ch'e-ch'eng Rural Township, Pingtung County; the traditional Hakka food industry in Shancheng, Taichung County; the stocking-weaving industry in Shetou Rural Township, Changhua County; the model local industries project in Hsinpu Township, Hsinchu County; the Local Industries and Local Products Innovation Production and Marketing Project; the Lanyang River Valley Strategic Alliance Guidance Program. The guidance provided included assisting enterprises in the following areas: new product R&D, strategic alliances, enterprise diagnostics, manpower cultivation, resource surveys, tourism planning, image building, product display and sales promotion, etc.

- b. Two-hundred local enterprises were given assistance in strengthening their operations.
- c. Visits were arranged to 10 model local enterprises.

(2) Provision of Guidance to Small 'Community Enterprises"

The government has also been working to improve the business environment for small "community enterprises," and to help in the building of consensus among these enterprises. The aim is to make effective use of local resources (taking local circumstances into consideration) to strengthen the vitality of the community as a whole. The main achievements in this area in 2003 were as follows:

a. Implementation of 8 guidance projects for the establishment of community industries. These included: the Economic Development Project in Wutai Rural Township, Pingtung County; the eco-tourism tourist farm project in the Shihlin

District of Taipei City; the tourism industry in Mataian Community, Kuangfu Rural Township, Hualien County; the traditional handicrafts industry in Lukang Township, Changhua County; the 'East Fukien Culture' industry in Lienchiang County (Matsu); the Jinkuashi Community Industry guidance project; the Tapaohsi Eco-tourism Industry guidance project in Sanhsia; the 'organic eco-art village" guidance project in Wanpao Community, Miaoli County; the community guidance project in Hsinkang Rural Township, Chiavi County; the Lichia Forest Highway guidance project: the local culture and tourism development guidance project in Hohsing Community. The areas covered by this guidance include: resource surveys, establishment of relevant organizations, the education and training. diagnostics, product display management and sales promotion, etc.

- b. Promotion of eight local festivals.
- c. Provision of guidance for the establishment of community industry 'self-government' in three communities.
- d. Provision of guidance to strengthen the operations of local industries on 220 occasions.
- e. Assisting in the creation of 770 new jobs, cultivation of 50 training personnel, and cultivation of 330 community industry managers.
- f. Holding of six seminars to share the experience acquired by outstanding community enterprises.

V Building a First-class Environment for SME Development

The enactment of the *SME Development Statute* in 1991 heralded the beginning of a new era in the provision of guidance to SMEs by the government, in which SME guidance work was promoting in an ongoing, systematic manner. This section provides an overview of the policies and measures implemented by the government in 2003 to improve the overall business environment for SMEs.

1. Ensuring that SMEs' Legal Rights are Protected

The existence of a fair, equitable legal environment has a major impact on SMEs' ability to participate fully in the market, and on their ability to survive and grow. To ensure that Taiwan's SMEs receive fair treatment under the legal system, the government undertakes regular review of the formulation and revision of legislation relating to SMEs and relevant government authorities. It also commissions academic research into the legal issues that affect SMEs, and invites academics and other experts to hold coordination meetings and public hearings in this area. The results of these meetings are included in the reports submitted to the executive branch of government, to provide a reference for the formulation and revision of laws and regulations.

The main work items implemented in this area in 2003 were as follows:

(1) Research on SMEs and the Law, and Efforts to Ensure that SMEs' Legal Rights are Protected

- a. Research on bills relating to SMEs: 2003 saw the completion of research on three statutes the statue relating to investment by the SME Development Fund, the statute relating to SME participation in industry supply chains, and the implementation regulations for the SME Development Statute (along with the relevant sub-statutes).
- b. Production of 5,000 copies of a questionnaire on SME-related legislation, and the holding of 12 conferences, public hearings and coordination meetings.
- c. The holding of the 29th and 30th meetings of the Legislative Yuan SME Development Promotion Committee, and the arranging of two visits to SMEs by legislators. In addition, a coordination meeting was held regarding the revision of the legislation relating to special project financing for SMEs.
- d. A conference on SME-related legislation was held, along with three forums. The total number of people participating in these events was approximately 700.
- e. Publication of the 2003 edition of *The Report on SMEs and the Legal Framework.*

(2) Helping SMEs to Establish Legal Affairs Systems, and Organizing Related Education and Training Activities

a. The government organized the holding of three meetings of the Association of Legal Affairs Personnel, five legal affairs training courses, three courses on the regulations governing international trade, and three courses on the legal system in mainland China. A total of approximately 1,500 people participated in these activities. b. The government helped 50 SMEs to appoint legal affairs personnel, and provided short-term legal affairs guidance for 20 SMEs.

(3) Provision of Information on Laws and Regulations, along with Related Consulting Services, to SMEs

- a. The government completed the updating of the on-line listings of attorneys willing to provide legal affairs assistance to SMEs. In addition, the content of the legal affairs website and related promotional brochures was finalized, along with the direct marketing materials for the attorney service and the website. The content of new research projects was also finalized, and the on-line legal dictionary and its hyperlinks were updated, with the addition of new graphics.
- b. The government has continued to recruit 'SME attorneys." In 2003, an 'Annual SME Attorney Licensing and Awards Ceremony" was held, and a list of 500 'SME attorneys" was produced.
- c. Explanatory booklets were published for various issues relating to SMEs, including SMEs and Corporate Governance and SMEs and SARS (1,000 copies each). In addition, three meetings of the 'SME Attorneys Association'' were held in order to expand the provision of service by the 'SME attorneys.''

2. Helping SMEs to Secure Government Procurement Opportunities

While some of the government's annual budget goes on

personnel expenses, a very high percentage (over 40%) goes towards construction, materials and labor procurement. When SMEs try to participate in government procurement, they often find that they are handicapped by unfamiliarity with the relevant laws and procedures, that they are unable to secure the necessary bidding information, and that they are subjected to unfair, unequal treatment. The question of how to help SMEs secure some of the business opportunities deriving from government purchasing has been a key issue for some time now.

Articles 37 and 38 of the *SME Development Statute* relate specifically to SME participation in public construction and government purchasing; they thus provide a legal basis for promotion of SME participation in these areas. When the Constitution was revised in July 1997, a special provision was included requiring the government to ensure that the interests of SMEs are protected. Furthermore, Article 97 of the *Government Procurement Law* that came into effect in May 1999 clearly stipulates that the regulatory authorities may take appropriate measures to help SMEs bid for government purchasing opportunities.

However, as noted above, because SMEs are small and have limited access to information, most of them have only limited knowledge of the laws and procedures relating to government purchasing; this makes it difficult for them to secure government purchasing business opportunities. Furthermore, when SMEs do try to secure government purchasing opportunities, they often run into difficulties because they do not know how to ensure that their interests are protected when they find themselves involved in disputes. With these problems in mind, the government implemented various measures in 2003 to help SMEs participate in government purchasing:

(1) Provision of Information Relating to Government Procurement Opportunities and Provision of Consulting Services Relating to the Government Procurement Law

The Ministry of Economic Affairs Service Center for Assisting SMEs to Participate in Government Purchasing, which was established in 1999, has won plaudits in many quarters. The Service Center's main responsibilities include providing consulting services relating to the legislation that governs SME participation in government purchasing, helping to solve disputes relating to government tenders, and providing information services relating to government purchasing. The Service Center's achievements in 2003 included the following: provision of government purchasing consulting services to 242 enterprises; handling 10 requests for assistance in settling tender-related disputes; printing 1,200 copies of Manual for SME Participation in Government Purchasing; helping SMEs to gain a better understanding of the points to watch out for when participating in government purchasing; updating of the contents of the 'Information Site for SME Participation in Government Purchasing" website; helping SMEs to secure the information they need about purchasing opportunities of various types as rapidly and comprehensively as possible. The Service Center also invited experts to provide on-site consulting services, offering companies concrete suggestions to solve the complex problems with which they are faced.

(2) Ongoing Statistical Analysis of the Share of Government Procurement Opportunities Secured by SMEs

In order to help SMEs secure government procurement business opportunities (either directly or as subcontractors to other companies), besides continuing to implement statistical surveys of the actual amount of business opportunities secured by SMEs, the government has also established a new database covering large enterprises.

(3) Seminars to Help SMEs Participate in Government Procurement

In light of the revision of the Government Procurement Law and of some of its sub-statutes, along with the trend for government purchasing to take place on-line, 15 'Seminars on SME Participation in Tendering Operations for Government Purchasing" were held in 2003, giving more than 993 SMEs the opportunity to gain a clearer understanding of the legal framework governing government purchasing and of the relevant bidding procedures.

VI The Resources Allocated to SME Development by the Government

Item 3 of Article 4 of the *SME Development Statute* stipulates that the regulatory authority for SMEs should stipulate in the annual *White Paper on Small and Medium Enterprises in Taiwan* all the resources that the government allocates to SME development. As a result, since 2001 the *White Paper* has included a section that explains the allocation of government resources to SME development. However, in previous years this section has not given a clear definition of the scope of SME-related resource allocation. For the purposes of this section, the scope of 'government resources allocated to SME development''is limited to the resources that Level One central government agencies allocate to this purpose, including: government subsidies, guidance and incentive measures targeting SMEs; government purchasing of goods, construction work or labor from SMEs; provision of special project loans to SMEs by the government. Calculations are based on the actual amount spent.

In 2003, the total amount spent on SMEs came to NT\$690.6 billion. The resources allocated to SME development for different purposes are described below.

1. The Government Purchased Goods and Services Worth NT\$653 Billion from SMEs in 2003

According to the tender award statistics produced by the System for the Announcement of Government Procurement Information, in 2003 SMEs sold to the government goods and services worth a total of NT\$653 billion (either directly or as sub-contractors of companies from which the government purchased goods or services). This represented an increase compared to the 2002 total of NT\$643.2 billion. However, SMEs' share of total government procurement declined from 79.29% in 2002 to 60.92% in 2003. The System for the Announcement of Government Procurement covers all levels of government, so this data includes purchasing by both central government agencies and local government.

2. The Ministry of Economic Affairs Provided Guidance to SMEs Worth a Total of NT\$18.98 Billion

The main government agencies involved in the operations of the 10 Major Guidance Systems, which play a major role in the provision of guidance to SMEs, include the SMEA, the Industrial Development Bureau, the Board of Foreign Trade, the Commerce Department, the Department of Industrial Technology and the Industrial Development and Investment Center (all of which fall under the Ministry of Economic Affairs). The budget results for each of these agencies in 2003 are shown in Table 9-6-1; the combined expenditure for all of these agencies put together was NT\$29.48 billion, of which NT\$18.72 billion was allocated to SMEs.

The amount allocated to SMEs thus accounted for 63.51% of total spending. The Department of Industrial Technology spent the largest amount on SME guidance (NT\$10.1 billion), followed by the SMEA (NT\$4.37 billion) and the Industrial Development Bureau (NT\$2.2 billion). As for the amount spent on SME guidance as a percentage of that agency's total expenditure, apart from the SMEA (100%), the agency spending the highest percentage of total expenditure on SMEs was the Board of Foreign Trade (96%).

Total expenditure by the SMEA was significantly higher in 2003 than in 2002. The main reason for this increase was the government's implementation of the SME Manpower Assistance Plan in 2003, with a total budget appropriation of NT\$3.33 billion. At the Commerce Department, the percentage of total expenditure going on SME guidance fell from 54.94% in 2002 to 21.47% in 2003. This was mainly because the allocation of NT\$398 million for three new projects –Public Key Infrastructure Promotion, the Global Logistics e-Enablement Project and the Commercial Services Network Plan – caused SMEs' share of total spending by the Department to decline.

Table 9-6-1Funds Allocated by the Ministry of Economic
Affairs to SME Guidance in 2003

	Units: NT\$ thousands ; %			
Annual Expenditure Name of Agency	Final Budget Result	Amount Spent on SME Guidance		
SMEA (including the SME Development Fund)	4,365,676	4,365,676 (100.00)		
Industrial Development Bureau (Industrial Technology Upgrading Guidance and Industrial Development Zone Management Fund)	4,300,729	2,206,482 (51.30)		
Board of Foreign Trade (Overseas Market Development Guidance and Trade Promotion Fund)	1,665,372	1,598,757 (96.00)		
Commerce Department (Promotion of the Modernization of Commerce and Technology Development)	1,794,459	385,347 (21.47)		
Department of Industrial Technology	17,187,907	10,113,802 (58.84)		
Industrial Development and Investment Center (Overseas Investment Guidance and Recruitment of Overseas Experts)	163,305	52,248 (31.99)		
Total	29,477,448	18,722,312 (63.51)		

Note: Figures in parentheses are percentages of the total expenditure for that agency. Source: The respective agencies.

Besides, training subsidies for SME personnel provided by the Bureau of Employment and Vocational Training of the Council of Labor Affairs totaled NT\$262 million, making the guidance provided by the government worth an amount of NT\$ 18.98 billion.

3. Special Project Loans for SMEs Totaling around NT\$18.61 Billion

The funds used to provide special project loans to SMEs derive from a variety of sources, including the Sino-American Fund, the Executive Yuan Development Fund, the SME Development Fund, the Agricultural Development Fund, the Council of Indigenous Peoples and individual banks. In some cases banks provide all the funding themselves, with the government's role being limited to subsidizing the preferential interest rates. In the case of SME Development Fund Project Loans, SME Root Establishment Project Loans and the Loans for Indigenous Peoples, the loans are provided mainly from the relevant Funds. Provision of funding for the National Youth Commission Young Entrepreneur Loans and SME Upgrading Loans is shared by the government and the banks, while in the case of the Agricultural Development Fund Agricultural Machinery Loans and the Micro-enterprise Loans the funding is provided by the banks, with the government compensating the banks for the preferential interest rates.

Those special project loans available to both SMEs and large enterprises have generally not been included. However, in the case of special loans for farmers, fishermen and aborigines, although these loans are available to enterprises of any size, in reality the recipients are almost all small enterprises, so these loans have been included in the calculations. In total, the amount of loans to SMEs provided by the government in 2003 came to approximately NT\$13.27 billion (Table 9-6-2).

In addition, the SME Credit Guarantee Fund paid out a total of NT\$5.34 billion in compensation to banks for SMEs failing to repay loans for which credit guarantees had been

provided. In total, government's funding for special project loans for SMEs were around NT18.61 billion.

Table 9-6-2 Government-funded SME Project Loans

Unit: NT\$ billions					
Loan Type Type of Applicant Targeted Funding Unit	Type of Applicant	Eunding Unit	Terms of Funding	Operating Status in 2003	
	Forme of Funding	Total Amount of Loans	Government Funding		
SME Upgrading Loans	SMEs	Development Fund, Executive Yuan	25% of the value of each loan is provided by the Development Fund, with the handling bank providing 75%	6.62	1.66
National Youth Commission Young Entrepreneur Loans	Young entrepreneurs	Council for Economic Planning and Development, Executive Yuan	50% of the value of each loan is provided by the Sino-American Fund, with the handling bank providing the other 50%	0.85	0.43
SME Development Fund Project Loans	SMEs	SME Development Fund	Financing provided from the SME Development Fund	1.12	1.12
Agricultural Development Fund Agricultural Machinery Loans	Individual farmers or fishermen engaged in farming or fisheries activity, along with organizations engaged in the provision of farming services or equipment rental	Farmers Bank	Financed by the handling agency, with the Agricultural Development Fund compensating the handling agency for the preferential interest rate offered	0.32 (January– June 2003)	0.05 (January– June 2003)
SME Root Establishment Project Loan	SMEs	Post Office	The Council for Economic Planning and Development provides funding support from mid-term and long-term funds.	9.18	9.18
Loans for Indigenous Peoples	Indigenous peoples	Council of Indigenous Peoples	All financing provided by the Council of Indigenous Peoples	0.81	0.81
Micro-enterprise Loans	The middle-aged unemployed who started their own business less than one year ago	Bureau of Employment and Vocational Training, Council of Labor Affairs	Preferential interest rates subsidized by the Council of Labor Affairs	2	0.04
Total				20.90	13.27

Source: The respective agencies.

Chapter 10

A Review of Current SME Guidance Policy and the Prospects in the Future

Chapter 9 described the main features of SME guidance policy in 2003. In recent years, the vision underlying the government's SME guidance activities has been the desire to turn Taiwan into an ideal location for the establishment and growth of SMEs. There is thus clearly a need to review the mechanisms employed by the government in the last few years in the areas of new business establishment, incubation, financing, etc., as well as the government's planning for SME guidance policy in the future. At the same time, the legal framework is one of the most important elements in the overall environment for SME development. The SME Development Statute constitutes the ultimate legal foundation for the provision of guidance to SMEs. Following the discussion in Section I of the changes taking place in the overall business environment, Section II will point out areas where the Statute may need revising in future, and will put forward suggestions for revisions of the relevant sub-statutes. Section III considers the form that the government's SME guidance policy can be expected to take in the future.

I An Examination of the Government's Current SME Guidance Policy

With the trend towards economic globalization and the development of the knowledge economy, the key factors affecting SME operations today are innovation, speed and

markets. These three factors are of course closely inter-related. Innovation derives from creativity, which has its origins in democracy, social organization, commercial experience and proximity to markets. Speed derives from the development of the Internet and the rapid pace of change in technology. As for markets, they need to be customer-oriented. In the past, the assistance that the Taiwan government has provided to SMEs in these three areas has taken many different forms. These have included the establishment of incubator centers and other start-up mechanisms, financing assistance, etc. There has thus been a wide range of external resources available for SMEs to use. However, although these measures are perfectly sound in theory, in practice several problems have been encountered, and there are several areas in which improvements are needed.

1. Guidance for Business Establishment

SMEs account for the vast majority of enterprises in Taiwan; on average, nearly 100,000 new SMEs are established every year. However, in the past seven years Taiwan's incubator centers have provided guidance for only a little over 1,000 enterprises. There is thus still considerable room for improvement in the provision of guidance to start-ups.

2. Innovation and Cultivation

(1) Making Adjustments to the Relevant Laws and Regulations

Currently, 83% of Taiwan's incubator centers are located on university campuses. In the past, the law has tended to treat university professors as government employees, and has not attached sufficient importance to the need for university professors to be able to transfer the results of their research to industry. As a result, there is still a need for further strengthening of the linkages between academia and industry. Another problem is that the *Statute Governing University Funds* places onerous restrictions on fund utilization. These problems make it difficult for universities to play as large a role as they should in innovation and R&D.

The tax laws have also thrown obstacles in the way of the development of incubator centers. For example, universities and other non-profit institutions are exempt from house tax and land tax. However, if an SME is registered within a university incubator center, the university is at risk of having its tax-exempt status abolished by the Ministry of Finance. This has created a situation where universities have to ask the SMEs that locate themselves in the university's incubator center to register themselves as being located elsewhere, which may put the SME in violation of Article 9 of Company Law (which falsification prohibits of the location of company establishment). To ensure the healthy development of Taiwan's incubator centers in the future, revisions will need to be made to these laws.

(2) Collaboration and Provision of Support by Relevant Agencies

The regulatory authority for incubator centers varies depending on the type of incubator; incubator centers' achievements are directly affected by the level of support that they receive from the regulatory authority. In the case of incubator centers attached to universities, the attitude taken by the Ministry of Education and the National Science Council has a major impact on the effectiveness of the guidance that the incubator

center is able to provide. There is also a definite need for the Ministry of Economic Affairs and the Ministry of Finance to reach consensus on the tax issues relating to incubator centers. If the areas on which incubator centers focus are closely related to important local industries, then incubator centers can help to direct the development of local industry, but only there is sufficient support from local chambers of commerce and local government authorities.

(3) The Development of Private Incubator Centers

Currently, most incubator centers in Taiwan are located on university campuses; incubator centers attached to universities account for 83% of all incubator centers established with government guidance. Apart from the incubator centers attached to universities, there are just six incubator centers attached to research institutes, three attached to government agencies and one private incubator center. There are also several private incubator centers that were established without government guidance, including the Mingshui Peissu Incubator Center, the Hung Yuan Incubator Center, the Acer Kewang Innovation Center, etc. Possibly because the profits that can be made on incubator center operation are too low, the private sector has shown little enthusiasm for incubator center establishment. In the future, efforts will need to be made to create an environment conducive to the development of the incubator center industry, so that incubator centers can thrive on their own without the need for government funding support.

3. Guidance System Establishment

Currently, the legal basis for the SME guidance system is the *SME Development Statute* promulgated in February 1993.

Article 1 of this statute clearly stipulates that there is a need to improve the overall business environment for SMEs, promote collaboration, and provide guidance so that SMEs can achieve growth through their own efforts, thereby promoting the healthy development of Taiwan's SMEs.

The plans for the establishment of the SME guidance system and the relevant guidance methods were drawn up by the Ministry of Economic Affairs and submitted to the Executive Yuan for approval, which was granted in November 1991. In December of that same year, the government announced the establishment of guidance systems for finance, operational management, production technology, R&D. information management, industrial safety. pollution prevention, and marketing. Guidance methods were also promulgated. Following the revision of the SME Development Statute in December 2000 and the approval of these revisions by the Executive Yuan in 2001, the Regulations Governing the SME Guidance Systems and Guidance Methods were revised in June 2001, with the addition of new guidance systems for mutual assistance and quality upgrading.

Although the establishment of a closely-knit service network by the Ten Major Guidance Systems did result in significant achievements in the provision of guidance to SMEs, it was found that this system did have its limitations. The *SME Development Statute* had been formulated to meet the needs of the 1980s. Today, with the business environment changing rapidly both in Taiwan and overseas, and with new industries coming into being, not only is the SME guidance system in need of overhauling, the government needs to make sure that it has the flexibility to make adjustments to the system as needed.

There is also a need for a communication and coordination mechanism that would link the different guidance systems more closely together, and for the implementation of an appraisal system. It will thus be necessary to make revisions to both the *SME Development Statute* and the *Regulations Governing the SME Guidance Systems and Guidance Methods*, to ensure that the legal basis for the new measures is sound.

4. Credit Guarantees

(1) The Functions of Credit Guarantee Fund

The SME Credit Guarantee Fund was established in 1974 with the aim of helping SMEs to secure financing. The Fund's main function is to make financial institutions more willing to lend to SMEs by overcoming the problem that SMEs tend to have insufficient assets that can be used for collateral. On May 15, 2003 the Ministry of Economic Affairs replaced the Ministry of Finance as the regulatory authority for the SME Credit Guarantee Fund. Guidance, financing and credit guarantees were thus integrated into the Joint Diagnostics Guidance dual-track system, making it possible to achieve effective coordination with the Ministry's overall policy for SME development.

(2) The Challenges Faced by the Credit Guarantee Fund

The SME Guarantee Fund is currently experiencing several problems. These include the need to make the securing of funding sources more systematic, the need to improve credit quality, the need to achieve more effective risk control and the need to achieve a better balance between receipts and expenses. With regard to funding sources, the higher the Fund's credit guarantee multiple the higher the level of risk it must absorb. The government is encouraging the fund to provide more guarantees; the establishment of stable funding sources is thus an urgent priority if the net worth of the fund is not to decline.

a. Stabilization of Funding Sources and Adjustment of the Loan Guarantee Multiple

On December 17, 2003 the government promulgated several revisions to the *SME Development Statute*. Items 2 and 3 of Article 13 were revised as follows:

In order to ensure adequate funding for the SME credit guarantee mechanism, the regulatory authority will be required to allocate a budget appropriation for the mechanism in question, to ensure that it is able to continue providing a suitable volume of credit guarantees. The financial institutions that have signed contracts with the mechanism in question will be expected to make donations; the regulatory authority may also collect donations from the private sector.

The donations from financial institutions referred to above may be gradually increased as necessary to a maximum of 35% of all donations. The exact level shall be determined by the regulatory authority in light of the total amount of funds provided, the delinquent loan ratio, the total amount of subrogated repayment, the amount of loans outstanding, the net value of these loans, overall profit and loss status and the amount of donations already made, etc.

During the first meeting of the President's Economic Advisory Team, held on July 10, 2003, President Chen Shui-bian said that he hoped that the size of the SME Credit Guarantee Fund could be increased by NT\$10 billion a year over the next five years, for a total of NT\$50 billion, so as to strengthen the fund's performance.

With the economy starting to pick up again, the SME Credit Guarantee Fund has an important role to play, and the amount of loan guarantees that it provides should be increased. However, as of the end of 2003, the total of NT\$169.2 billion in loan guarantees that the fund had provided to SMEs was equivalent to 19.39 times the fund's net value of NT\$8.73 billion. More money will need to be allocated to the fund if its operations are to be maintained over the long term.

b. Ensuring Effective Control of the Delinquent Loan Ratio

In the last few years the SME Credit Guarantee Fund has become more aggressive in its implementation of risk control measures, while at the same time trying to keep the negative impact on SME financing to a minimum. These efforts to reduce the level of risk have already started to pay off. In the past, the delinquent loan ratio had generally been around 4.53%; in 2003 it was just 2.75%, representing a significant improvement compared to the 2002 figure of 4.97% (Table 10-1-1).

As a rule, banks require collateral when granting loans. The SME Credit Guarantee Fund focuses on providing credit guarantees for SMEs that are unable to put up sufficient collateral; the level of risk that the fund has to bear is thus inherently higher than that borne by banks in their regular lending operations. Nevertheless, in order to ensure that its funds are used efficiently, the SME Credit Guarantee Fund will need to work closely with financial institutions to try to improve the quality of the credit provided through its efforts.

	Unit:		
Year	Ratio of New Delinquent Loans	Year	Ratio of New Delinquent Loans
1975	14.79	1990	3.03
1976	4.21	1991	2.46
1977	2.68	1992	2.87
1978	1.64	1993	4.51
1979	2.00	1994	4.42
1980	1.06	1995	6.13
1981	1.34	1996	6.48
1982	2.98	1997	4.83
1983	3.46	1998	5.41
1984	3.05	1999	5.97
1985	6.06	2000	4.92
1986	3.64	2001	7.25
1987	2.77	2002	4.97
1988	2.01	2003	2.75
1989	2.32	Average	4.53

Table 10-1-1Delinquent Loan Ratios, 1975 – 2003

Notes: 1. The ratio of new delinquent loans = the amount of new delinquent guaranteed loans / the total amount of loans which have come due.

2. The Credit Guarantee Fund classifies as delinquent loans those which have not yet been repaid two months after becoming due; this is different from the method used by most banks, which classify as delinquent loans those which have not yet been repaid three months after becoming due. The basis for calculation of delinquent loans used by the fund and by the banks is thus different.

Source: SME Credit Guarantee Fund.

II Revision of Relevant Sub-statutes of the SME Development Statute

The business environment is constantly changing. The *SME Development Statute* needs to be adjusted as necessary in line with the changes taking place in the overall environment. This section will put forward some suggestions for revision of the relevant laws and regulations. The survey conducted for the 2003 Examination of the Possibilities for Revision of the Laws and Regulations Governing SMEs has shown that there is a widespread feeling in the private sector that the SME Development Fund should invest directly in SME operations. This section will examine the legal problems relating to direct investment, and put forward suggestions for their solution.

1. Regulations Governing the Provision of Guidance for SME Start-up

In order to ensure the effective provision of guidance for SME start-up, the guidance principles and objectives must be clarified, and the guidance content must be comprehensive. The regulations governing the provision of guidance for SME start-up should take the form of general principles, with the regulatory authorities being allowed to draw up detailed regulations according to actual needs. The main contents for inclusion in any future 'Regulations Governing the Provision of Guidance for SME Start-up'should be as follows:

(1) Start-up Guidance Principles

The main emphasis in provision of guidance for SME start-up should be on the creation of an appropriate environment for business start-up and on the strengthening of entrepreneurial capabilities, with the aim of encouraging the establishment of new SMEs, creating jobs and contributing to the economic growth of the nation as a whole. When providing guidance for business start-up, the regulatory authorities should base their activities on the principle of meeting entrepreneurs' needs, while making use of the resources of government agencies, private companies and other organizations to ensure that new enterprises can obtain the assistance they require.

(2) Guidance Content

The regulatory authorities should provide start-ups with assistance in the following areas in line with entrepreneurs' needs with respect to technology, information, funds, management, market development, manpower and other needs:

- a. Using the SME Development Fund to provide loans for business start-up.
- b. Coordinating the provision of loan guarantees by the SME Credit Guarantee Fund.
- c. Coordinating investment in start-ups by the SME Development Corporations, the Venture Capital Industry Association and other relevant organizations.
- d. Coordinating the provision of technology transfer, training and information management assistance by specialist agencies and universities.
- e. Provision of start-up consulting service, market information and training, or arranging for these services to be provided by other agencies or organizations.

- f. Helping and encouraging local government authorities and enterprises to establish business start-up guidance centers.
- g. Establishment of mechanisms whereby retired managers can provide consulting services to new businesses.
- h. The regulatory authorities can draw up individual guidance plans (and related operational guidelines) to meet the needs of female entrepreneurs, handicapped entrepreneurs, aboriginal entrepreneurs and micro-enterprises.

(3) Establishment of Mechanisms for the Cultivation of Entrepreneurial Talent

In order to further the cultivation of entrepreneurial talent, the regulatory authorities may help public and private universities and colleges to establish organizations for academic research into entrepreneurial activity, and may coordinate the handling of related activities by the relevant agencies.

(4) Establishment of a Performance Appraisal Mechanism

So as to ensure the effective implementation of guidance policy and the appropriate exercise of the guidance function, the regulations governing the provision of guidance for SME start-up should clearly stipulate the need for the establishment of a performance appraisal mechanism, to ensure that resources can be used with maximum efficiency.

2. Regulations Governing the Management of Incubator Centers and Venture Capital Firms

In order to stimulate the development of SME start-up and R&D activity, the regulatory authorities may establish or

provide guidance for the establishment of incubator centers and venture capital firms, and may provide guidance to such enterprises as necessary. The main content of these regulations should be as follows:

(1) Management Principles and Performance Appraisal System

So as to ensure effective management and guidance of incubator centers and venture capital firms, the objectives on which the measures are based should take the form of general principles, and should be supported by the establishment of a performance appraisal system.

(2) The Scope of Operation of Public and Private Agencies

The scope of operation of public and private agencies should be clearly stipulated, and regulations should be laid down covering the establishment of incubator centers by private sector enterprises and applications for tax exempt status and tax credits for investment; such incentives should be available only to corporations limited by shares.

(3) Incubator Center Infrastructure and Service Items

Incubator centers should be required to possess certain basic infrastructure and full-time personnel. They should be able to provide both specialist and general services to SMEs, including laboratory research and inspection and testing services, technology transfer and technology development consulting services, business management consulting services, computer-related consulting services, specialist knowledge and general business knowledge cultivation services, and other general services.

(4) Incubator Center Guidance and Management

The regulatory authorities should be authorized to undertake all necessary guidance and management of incubator centers. When necessary, they should be authorized to conduct audits of incubator center operations. Incubator centers should be required to submit an operations report and statement of receipts and expenses to the regulatory authority within three months after the end of each year, to ensure that incubator center management and guidance can be conducted effectively.

(5) Provision of Subsidies

Provided that incubator centers conform to the stipulations contained in these regulations, they may submit applications for subsidies. Items for which subsidies could be made available would include the addition of new facilities, and the purchase of machinery, equipment, testing and inspection materials, etc.

3. SME Guidance Measures

The Regulations Governing the Establishment of the SME Guidance System and the Guidance Measures to be adopted were drawn up in accordance with the SME Development Statute. However, the content of the SME Development Statute was based largely on Taiwan's industrial structure as it was in the 1980s. In order to adapt to the changes that have taken place in the overall economic environment and ensure that the SME guidance mechanism can be implemented effectively, it would appear that the Regulations may need to be adjusted. Some suggestions as to ways in which they should be revised are given below:

(1) Formulation of Guidance Objectives and Guidance Principles

To ensure that the regulatory authorities have clear guidance principles and objectives to follow when implementing SME guidance, regulations governing guidance objectives and principles should be drawn up in accordance with the provisions of the *SME Development Statute* and with the experience of the advanced nations.

(2) Guidance Plan and Guidance System Establishment

In order to meet the needs of Taiwan's various emerging industries, and to further the growth of business enterprises establishment by members of disadvantaged minorities, it may be necessary for the regulatory authorities to undertake an overhaul of guidance planning and guidance systems. The regulatory authorities should be able to make adjustments to the guidance systems and mechanisms as necessary in line with the changes taking place in the macroeconomic environment.

(3) Establishment of Mechanisms for Communication and Coordination

To ensure that the different guidance systems support one another effectively, the regulatory authorities should set about establishing mechanisms for communication and coordination.

(4) Establishment of a Performance Appraisal System

So as to be able to appraise the level of success achieved in different areas of guidance work, the regulatory authorities should implement regular performance appraisal for each area; revisions should be made to the *Regulations* requiring them to

do so.

(5) Publication of Business Environment Indicators for SMEs

The regulatory authorities should be authorized to publish business environment indicators for SMEs on a regular basis; these would serve as a reference for SMEs in their operational planning, while also providing the relevant government agencies with a basis for policy formulation.

4. Direct Investment by the SME Development Fund

The purpose of the SME Development Fund established in accordance with Article 9 of the *SME Development Statute* is to promote the healthy development of Taiwan's SMEs. Currently, the fund's main responsibilities include the provision of support and guidance, implementation of policy loans, provision of credit guarantees, investment and development, incubation of new start-ups, provision of subsidies and establishment of awards to encourage SMEs to undertake R&D work.

There are currently two ways in which the SME Development Fund invests in SMEs. The first is to invest in SME Development Corporations, which then invest in SMEs. The second method is to establish trust investment accounts through the SME Development Corporations, financial institutions or approved investment agencies; the SME Development Corporation, financial institution or approved investment agency can then invest in SMEs as the fund's agent. Given the need to make the fund's investment activities more efficient and for the fund to accumulate sufficient funds to continue its operations, it might be advisable to allow the fund to invest directly in SMEs in a similar manner to the direct investment in start-ups by the Executive Yuan Development Fund.

According to the 109 questionnaires collected from SMEs for the 2003 Examination of the Possibilities for Revision of the Laws and Regulations Governing SMEs, it appears that around 85% of SMEs feel that it is 'important" or 'very important" for the SME Development Fund to be allowed to invest directly in SMEs. Clearly, there is a real demand for direct investment by the government among Taiwan's SMEs.

Currently, although Paragraph 5, Item 1, Article 9 of the SME Development Statute contains a general provision regarding 'other uses relating to the promotion of the healthy development of SMEs and the provisions of this Statute,"if the SME Development Fund is to be allowed to invest directly in SMEs it would be advisable to undertake a formal revision of the laws governing the fund's scope of operation so that a clear legal basis can be established. However, bearing in mind the cost of implementing this kind of systemic transformation, it is proposed that the regulatory authority should be authorized to formulate the various ancillary regulations (governing the restrictions on investment methods and targets, adherence to the principles upon which investment is undertaken. requirements relating to the rate of return on investment, monitoring mechanisms, exit mechanisms, etc.) in the form of executive orders. An addition would need to be made to Item 1, Article 9 of the SME Development Statute authorizing the SME Development Fund to invest directly in SMEs; Item 3 would also need to be revised to authorize the regulatory authority to

issue executive orders.

III The Future of SME Guidance Policy

1. Guidance for Enterprise Start-up

The Small and Medium Enterprise Administration of the Ministry of Economic Affairs has been implementing the 'SME Start-up Consulting Service Plan," which involves the establishment of an SME Start-up Guidance Service Center and the proactive provision of regular interactive consulting service to SMEs that have been in existence for less than five years. Newly-established enterprises can also submit applications for diagnostic guidance service. The aim of these measures is to make newly-established enterprises more competitive and raise their chances of survival. The SMEA has also set up an SME Start-up Service Network to provide entrepreneurs with the information they need. The SMEA aims to provide 'one-stop service" with each request for assistance being handled by the same official from beginning to end. Where the SMEA staffer is unable to provide the information needed immediately, the SME making the request for information is assured of a reply within 72 hours.

Since implementation of this program began, SMEs have been highly impressed by the government's concern for their welfare. Around 63% of the requests for consulting service relate to financing issues; clearly, financing is still the issue of greatest concern to most entrepreneurs. Other issues include tax law, management, etc. It appears that obtaining information about relevant laws and regulations is still a major challenge for SMEs. Looking ahead to the future, the SME Start-up Guidance Service Center should continue to provide 'bne-stop service" by the same staffers. At the same time, it should strive to achieve an effective division of labor between itself and other agencies providing similar services. In particular, the activities of the SME Start-up Guidance Service Center need to be integrated with those of the Instant Solution Center, and with those of the 'Dual-track Financing System" being promoted by the Instant Solution Center, the SME Credit Guarantee Fund and the Joint Guidance Center, so as to keep the cost of communication and coordination to a minimum.

2. Innovation and Incubation

(1) Relaxation of the Legal Framework and Clarifying the Status of Persons Working in the Academic Sector

There have been repeated complaints, both from industry and from academia, that the classifying of university professors and other academic personnel as government employees affects their willingness to collaborate with industry, and that this is one of the main reasons for the relatively poor performance of those incubator centers attached to universities and colleges. To encourage academics to display greater enthusiasm for collaboration with industry, it is felt that the status of academics needs to be clarified, and that academic institutions need to be allowed greater flexibility in their operations, for example by relaxing the restrictions that limit the amount of outside work academics can perform and restrict their compensation for this work.

The government has started to listen to these calls for reform. The Executive Yuan has already decided to relax the

restrictions on academics' activities; the areas covered include payment, performance bonuses, compensation for projects involving collaboration with industry, easing of the restrictions on the amount of time that may be allocated to such projects, etc. The aim is to provide incentives for the academic sector to offer greater support to enterprises engaged in high technology research. The measures being adopted will give universities and colleges greater flexibility, and should lead to a significant improvement in the performance of Taiwan's incubator centers.

(2) Strengthening the Cultivation of SMEs in the Service Sector

On average, around 100,000 new businesses are created in Taiwan every year, most of which are in the service sector. Of 112,157 new enterprises established in 2003, 99,183 (88.43% of the total) were in the service sector. This gives some idea of the importance that the service sector has in terms of job creation. Creating new jobs is part of the mission of Taiwan's incubator centers; the role that these centers are expected to play should therefore be repositioned so that they can contribute more to the cultivation of new SMEs in the service sector.

In the advanced nations, more and more leading companies that in the past were usually thought of as manufacturers are starting to think more carefully about how the consumer perceives their company; they are beginning to re-position themselves as providers of services rather than manufacturers of products. One example of this trend is Ford, which now positions itself as a provider of automobile travel services, car purchase loans, insurance, maintenance service,
in-car communications, second hand car purchase and sales services, etc. At the same time, in an era of mass consumption "image" is coming to play a more important role in the competition amongst leading manufacturers. With this new emphasis on service and image, the distinction between service providers and manufacturers is becoming blurred. In the future, incubator centers will need to focus on the new types of service industry that are now emerging.

(3) New Technology –Access and Applications

The trend towards economic globalization has stimulated rapid transnational flows of technology, trade, investment and manpower, leading to changes in population structure, social structure and the structure of the job market. These changes have in turn had a major impact on the prospects for maintaining sustainable development in the economy as a whole. In their allocation of R&D resources and their innovation policies, the OECD member nations have been focusing heavily on three main areas -information technology, biotechnology and nanotechnology. In line with developments in society as a whole, the range of applications of new technology is being expanded to cover industries with significant future growth potential, such as providing services for the elderly, the leisure industry, "green" industries and education. It is anticipated that this will help to inject new vitality into Taiwanese industry, and create new value. Taiwan needs to leverage the advantages that its existing industries confer on it to develop a strategy for globalization that takes into consideration the rapid pace of change in the area of technology.

3. The SME Credit Guarantee Fund –Focusing on Diversification

The new century has presented the SME Credit Guarantee Fund with an environment characterized by rapid change, intense competition and customer diversification; there is also the impact of the emerging 'knowledge-based economy." The fund will need to adjust to this new environment; it will need to formulate strategies for its own transformation so that it can provide a credit guarantee mechanism that more closely matches the real needs of SMEs, while creating the maximum degree of synergy with other guidance activities. The new strategy should emphasize strengthening the overall provision of SME financing, making it easier for SMEs to secure access to financing, implementing the government's industrial policy goals, coordinating the full range of guidance resources, leveraging the information available to the fund, and developing first-rate credit risk management techniques. The five main areas on which the fund will need to focus are as follows:

(1) Expansion of the Direct Credit Guarantee Mechanism

In the case of SMEs that have significant growth potential but which are unable to secure bank loans through the market mechanism as it operates as present, besides continuing to provide credit guarantees directly through the dual-track 'Join t Diagnostic Guidance'' system, the government should also make it possible for such SMEs to submit applications for credit guarantees directly to the SME Credit Guarantee Fund.

(2) Promotion of a New Enterprise Appraisal System

The government will need to make adjustments to the existing appraisal standards. This will involve enterprise the establishment of new financing standards, and expanding the scope of appraisal to cover the enterprise's financial structure, management team, intangible assets, customer relationships, the prospects for the growth of the industry to which the enterprise belongs, etc. The new appraisal system should make it easier for those enterprises that have strong R&D capabilities and whose products have strong market potential, but which have not yet built up a credit record and performance record, to obtain the funding they need. At the same time, the fund should gradually be building up a database holding information on the enterprises to which it has provided credit guarantees. Through the accumulation and analysis of this data the fund will be able to establish its own internal creditworthiness evaluation system, which would provide an important reference when deciding whether the Fund should grant a credit guarantee to a particular enterprise.

(3) Diversification of Credit Guarantee Operations

In order to meet SMEs' increasingly diverse financing needs, the SME Credit Guarantee Fund will need to increase new types of credit guarantee service. By developing new financing channels, the fund will make it easier for SMEs to secure loans.

a. Batch-type Credit Guarantees

By working with financial institutions to provide batch-type credit guarantees – an innovative new financing channel for SMEs' medium-term funding needs – the SME Credit Guarantee Fund will be able to help meet industry's development needs and to build an environment conducive to

the growth of knowledge-intensive industries.

b. Differentiation of Credit Guarantee Handling Charges

To ensure that applicants are treated fairly, the handling charges for the provision of credit guarantees should vary depending on the level of credit risk. This new system should be implemented in stages. In the first stage, differentiated handling charges would apply only to those credit guarantees provided directly by the fund or using the new enterprise appraisal systems. In the second stage, the new system would be extended to cover all applicants. In the third stage, handling charges would be determined on the basis of the new enterprise credit evaluation system.

c. Securitization

By securitizing credit guarantee risk, the Fund could help SMEs to secure interest-free financing, creating a situation where the credit risk and the rate of return on investment offset one another.

(4) Strengthening the Financial Health of the Fund

There is a high level of risk involved in providing financing to SMEs. To be able to provide credit guarantees for this kind of financing over the long term, an institution needs to possess ample funds and stable funding sources. Besides ensuring that the government, banks and private enterprises provide a steady flow of funding for the SME Credit Guarantee Fund in accordance with the provisions of the *SME Development Statute*, the fund also needs to adopt advanced financial management techniques so as to achieve security and stability

in fund utilization. At the same time, the fund will need to strengthen its debt collection operations, possibly by outsourcing these operations or offering incentives for debt collection to the banks.

(5) Efficient Service

The steps that the SME Credit Guarantee Fund could take to enhance the efficiency of the service that it provides would include: making adjustments to the fund's organizational structure, personnel changes, improved training, improved operational procedures and the further computerization of fund operations.



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Industry Year/Size	Total	Agriculture, Forestry and Fisheries	Mining and Quarrying	Manufacturing	Water, Electricity and Gas	Construction
1994						
All enterprises	969,094	7,015	1,587	157,005	365	57,352
SMEs	932,852	6,945	1,546	153,473	329	56,527
SMEs' share (%)	96.26	99.00	97.42	97.75	90.14	98.56
1995						
All enterprises	1,012,212	11,760	1,568	157,187	403	63,662
SMEs	991,615	11,702	1,541	154,367	376	62,899
SMEs' share (%)	97.97	99.51	98.28	98.21	93.30	98.80
1996						
All enterprises	1,024,360	11,503	1,501	153,845	428	65,784
SMEs	1,003,325	11,444	1,474	150,806	394	64,911
SMEs' share (%)	97.95	99.48	98.20	98.02	92.05	98.67
1997						
All enterprises	1,043,286	12,887	1,447	150,855	455	67,673
SMEs	1,020,435	12,833	1,418	147,507	420	66,619
SMEs' share (%)	97.81	99.58	98.00	97.78	92.31	98.44
1998						
All enterprises	1,069,116	12,979	1,440	148,990	599	72,232
SMEs	1,045,117	12,933	1,406	145,281	566	70,988
SMEs' share (%)	97.76	99.65	97.64	97.51	94.49	98.28
1999						
All enterprises	1,085,430	12,876	1,427	146,719	662	75,717
SMEs	1,060,738	12,823	1,392	142,686	624	74,282
SMEs' share (%)	97.73	99.59	97.55	97.25	94.26	98.10
2000						
All enterprises	1,091,245	10,722	1,381	144,912	673	78,408
SMEs	1,070,310	10,686	1,362	141,340	629	77,093
SMEs' share (%)	98.08	99.66	98.62	97.54	93.46	98.32
2001						
All enterprises	1,098,185	10,650	1,325	141,287	736	78,210
SMEs	1,078,162	10,622	1,307	137,551	690	76,670
SMEs' share (%)	98.18	99.74	98.64	97.36	93.75	98.03
2002						
All enterprises	1,130,525	10,677	1,416	138,288	1,275	77,772
SMEs	1,104,706	10,649	1,350	133,684	1,131	75,840
SMEs' share (%)	97.72	99.74	95.34	96.67	88.71	97.52

Table A-1Number of Enterprises by Industry, 1994 – 2002

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			U	nits: number of	enterprises; %
Industry Year/Size	Commerce	Transportation and Communi- cations	Finance, Insurance and Real Estate	Business Services	Public and Personal Services
1994					
All enterprises	571,987	34,070	21,299	36,840	81,574
SMEs	548,150	32,207	17,463	35,357	80,855
SMEs' share (%)	95.83	94.53	81.99	95.97	99.12
1995					
All enterprises	598,171	34,523	22,103	38,472	84,363
SMEs	585,445	33,793	19,844	37,698	83,950
SMEs' share (%)	97.87	97.89	89.78	97.99	99.51
1996					
All enterprises	611,251	34,850	21,323	39,612	84,263
SMEs	598,266	34,174	19,249	38,822	83,785
SMEs' share (%)	97.87	98.06	90.27	98.00	99.43
1997					
All enterprises	629,617	32,973	21,535	42,227	83,617
SMEs	615,506	32,218	19,529	41,309	83,076
SMES Share (%)	97.76	97.71	90.68	97.83	99.35
1998	646.040	00 770	00.000	45 405	00.057
All enterprises	646,842	32,773	22,099	45,105	80,057
SIVIES	032,444	31,935	20,031	44,100	00,420
1000	91.11	97.44	90.04	97.79	99.21
All optorprises	656 882	33 030	21 230	47 701	88 075
SMEe	6/2 196	32 /15	10 362	47,701	88 318
SMEs' share (%)	97 76	97 54	91 16	97 78	99.26
2000	01.10	01.01	01.10	01.10	00.20
All enterprises	658,501	32,129	20.647	52,266	91,606
SMEs	646.312	31.441	19,163	51.279	91.005
SMEs' share (%)	98.15	97.86	92.81	98.11	99.34
2001					
All enterprises	662,936	32,195	20,301	55,764	94,781
SMEs	651,841	31,530	18,967	54,783	94,201
SMEs' share (%)	98.33	97.93	93.43	98.24	99.39
2002					
All enterprises	687,372	31,960	24,957	58,804	98,004
SMEs	674,364	31,104	21,585	57,705	97,294
SMEs' share (%)	98.11	97.32	86.49	98.13	99.28

Note: Definition of SMEs changed in 1995 and 2000, please refer to Appendix Table B for the evolution of SME definition.

Source: Calculated based on value added tax registration data from Ministry of Finance Taxation Data Center.

Table A-2Total Employment by Industry, 2000 – 2003

			Units: thou	sand persons; %
Year	0000	0004	0000	0000
Industry/Size	2000	2001	2002	2003
Total	9,491	9.383	9.454	9.573
Government	955	961	946	988
Large firms	1.126	1.134	1.147	1.159
SMEs	7.410	7.288	7.361	7.425
SMEs' share (%)	78.06	77.67	77.86	77.56
Agriculture, Forestry and Fisher	ies			
Government	7	6	5	6
Large firms	2	2	1	2
SMEs	729	698	703	688
SMEs' share (%)	98.75	98.87	99.08	98.94
Mining and Quarrying				
Government	2	2	1	1
Large firms	0	-	-	-
SMEs	9	8	8	7
SMEs' share (%)	80.44	80.31	84.06	84.61
Manufacturing				
Government	42	42	39	31
Large firms	489	477	490	508
SMEs	2,124	2,067	2,035	5,051
SMEs' share (%)	80.01	79.92	79.38	79.18
Water, Electricity and Gas	00	20	04	00
Government	33	32	31	30
	2	2	2	3
SMES SMEs' share (%)	ے 1 10	2 5.67	6 30	2 5 91
Construction	4.15	5.07	0.00	5.51
Government	14	13	14	13
Large firms	7	6	8	8
SMEs	812	727	703	681
SMEs' share (%)	97.54	97.48	96.99	97.01
Whole Sale and Retail services				
Government	10	10	10	9
Large firms	105	108	97	92
SMEs	1,586	1,561	1,585	1,596
SMEs' share (%)	93.24	92.97	93.65	94.03
Hotel and Food Services				
Government	1	0	0	0
Large firms	24	27	28	24
SMEs	475	500	546	561
SMEs' share (%)	. 95.00	94.70	95.09	95.85
Communication and Deliver Serv	/ices	00	04	00
Government	102	99	91	88
Large firms	74	00	/9	84
SIVIES SMEs' share (%)	504 63.20	63.24	64.33	61.67
Sivila Silare (70)	03.20	00.24	04.00	04.07

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			Units: thou	sand persons; %				
Year	2000	2004	2002	2002				
Industry/Size	2000	2001	2002	2003				
Finance and Insurance Services		<u>-</u>	<u>-</u>					
Government	35	32	30	30				
Large firms	157	156	153	145				
SMEs	176	182	195	201				
SMEs' share (%)	47.96	49.06	51.54	53.49				
Real Estates and Leasing/Rental Services								
Government	1	2	1	2				
Large firms	5	4	3	4				
SMEs	59	55	56	60				
SMEs' share (%)	89.39	90.16	92.78	91.17				
Professional, Scientist and Tech	nical Services							
Government	11	11	11	13				
Large firms	38	44	48	46				
SMEs	201	213	226	226				
SMEs' share (%)	80.40	79.78	79.34	79.20				
Education Services								
Government	278	274	272	282				
Large firms	65	65	67	69				
SMEs	137	143	148	161				
SMEs' share (%)	28.60	29.61	30.49	31.52				
Medical and Social Welfare Serv	rices							
Government	57	59	62	62				
Large firms	83	82	88	94				
SMEs	112	126	129	133				
SMEs' share (%)	44.44	47.37	46.27	45.86				
Culture, Sport and Recreational	Services							
Government	10	10	9	11				
Large firms	47	48	50	48				
SMEs	108	111	125	128				
SMEs' share (%)	65.45	65.68	67.55	68.46				
Other Business Services								
Government	38	42	40	43				
Large firms	29	33	33	32				
SMEs	576	585	593	617				
SMEs' share (%)	89.58	88.64	89.07	89.15				
Public Administration								
Government	315	327	329	369				
Large firms	0	0	0	0				
SMEs	0	0	0	0				
SMEs' share (%)	0.00	0.00	0.00	0.00				

Table A-2 Total Employment by Industry, 2000 – 2003 (continued)

Source: Annual Human Resources Survey Statistics Report, 1999-2002, Directorate General of Budget, Accounting and Statistics, Executive Yuan.

Table A-3	Number of Paid Employees by Industry, 2000 – 200)3
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			Units: thou	isand persons; %
Year	2000	2001	2002	2002
Industry/Size	2000	2001	2002	2003
Total	6,746	6,727	6,771	6,898
Government	955	961	946	988
Large firms	1,121	1,129	1,143	1,156
SMEs	4,668	4,636	4,682	4,754
SMEs' share (%)	69.19	68.93	69.15	68.92
Agriculture, Forestry and Fis	sheries			
Government	7	6	5	6
Large firms	2	2	1	2
SMEs	73	69	69	71
SMEs' share (%)	89.01	89.89	91.36	90.63
Mining and Quarrying				
Government	2	2	1	6
Large firms	0	0	0	0
SMEs	8	7	7	6
SMEs' share (%)	78.64	79.13	83.01	83.45
Manufacturing	10	10	20	04
Government	42	42	39	31
	487	470	489	507
SMES	1,798	1,/05	1,/4/	1,703
Sivies Share (%)	11.20	11.31	10.02	/0.03
Water, Electricity and Gas	22	20	21	20
Government	33	32	21	30
SME	2 1	2	2	2
SMEs' share (%)	3 97	5 38	6 30	5.86
Construction	0.51	0.00	0.00	0.00
Government	14	13	14	13
Large firms	7	6	8	8
SMEs	680	603	578	565
SMEs' share (%)	97.08	96.99	96.37	96.42
Whole Sale and Retail Service	ces			
Government	10	10	10	9
Large firms	104	108	96	91
SMEs	736	745	769	785
SMEs' share (%)	86.59	86.33	87.83	88.65
Hotel and Food Services				
Government	1	0	0	0
Large firms	24	27	28	24
SMEs	219	231	252	252
SMEs' share (%)	89.75	89.53	89.94	91.29
Communication and Deliver	Services			
Government	102	99	91	88
Large firms	74	79	78	83
SMEs	175	184	182	192
SMEs' share (%)	49.72	50.97	51.71	52.93

Table A-3Number of Paid Employees by Industry, 2000 – 2003
(continued)

			Units: tho	usand persons; %					
Year Industry/Size	2000	2001	2002	2003					
Finance and Insurance Serv	vices								
Government	35	32	30	30					
Large firms	156	156	153	145					
SMEs	173	180	191	197					
SMEs' share (%)	47.53	48.91	51.16	53.02					
Real Estates and Leasing/Real Estates and Leasing/Real Estates and Leasing/Real Real Real Real Real Real Real Real	Real Estates and Leasing/Rental Services								
Government	1	2	1	2					
Large firms	5	4	3	4					
SMEs	39	37	38	42					
SMEs' share (%)	86.67	86.05	89.78	87.93					
Professional, Scientist and	Technical Services								
Government	11	11	11	13					
Large firms	38	43	47	46					
SMEs	140	152	161	162					
SMEs' share (%)	74.07	73.79	73.38	73.29					
Education Services									
Government	278	274	272	281					
Large firms	65	65	66	69					
SMEs	115	121	126	135					
SMEs' share (%)	25.16	26.30	27.17	27.76					
Medical and Social Welfare	Services								
Government	57	59	62	62					
Large firms	82	82	88	94					
SMEs	76	88	90	93					
SMEs' share (%)	35.19	38.43	37.36	37.36					
Culture, Sport and Recreation	onal Services								
Government	10	10	9	11					
Large firms	46	48	50	48					
SMEs	89	93	100	101					
SMEs' share (%)	60.96	61.59	62.69	63.26					
Other Business Services	00	40	40	40					
Government	38	42	40	43					
	28	33	32	32					
SMEs' share (%)	340	00 70	02.61	300 92 76					
Swies share (%)	03.94	02.12	03.01	03.70					
Covernment	315	307	320	360					
	315	321	329	309					
SME	0	0	0	0					
SMEs' share (%)	0.00	0.00	0.00	0.00					
SIVILS SIIGLE (70)	0.00	0.00	0.00	0.00					

Source: Annual Human Resources Survey Statistics Report, 1999~2002, Directorate General of Budget, Accounting and Statistics, Executive Yuan.

Industry Year/Size	Total	Agriculture, Forestry and Fisheries	Mining and Quarrying	Manufacturing	Water, Electricity and Gas	Construction
1994						
All enterprises SMEs SMEs' share (%)	17,149,479 5,521,333 32.20	39,515 24,654 62.39	30,282 22,273 73.22	5,641,154 2,086,144 36.98	256,808 2,285 0.89	1,335,615 944,374 70.71
1995						
All enterprises SMEs SMEs' share (%)	19,020,899 6,842,026 35.97	45,613 15,033 32.96	30,333 23,482 77.42	6,457,430 2,331,457 36.11	274,805 3,249 1.18	1,368,832 954,649 69.74
1996						
All enterprises SMEs SMEs' share (%)	19,596,537 6,719,181 34.29	47,511 14,721 30.98	27,836 21,912 78.72	6,760,440 2,327,610 34.43	291,758 3,544 1.21	1,250,137 835,241 66.81
1997						
All enterprises SMEs SMEs' share (%)	21,376,972 6,864,061 32.11	42,302 15,614 36.91	31,308 24,413 77.98	7,290,830 2,386,780 32.74	308,022 3,592 1.17	1,270,822 791,562 62.29
1998						
All enterprises SMEs SMEs' share (%)	22,753,848 6,907,781 30.36	39,051 14,541 37,24	31,456 25,218 80,17	7,645,953 2,323,943 30,39	331,722 4,126 1,24	1,325,728 808,729 61.00
1999						
All enterprises SMEs SMEs' share (%)	23,850,935 6,905,112 28.95	42,708 13,429 31.44	35,073 28,214 80.44	8,067,771 2,292,294 28.41	342,066 4,422 1.29	1,400,801 805,767 57.52
2000						
All enterprises SMEs SMEs' share (%)	26,112,489 7,566,617 28.98	39,580 14,319 36.18	31,257 24,924 79.74	9,269,165 2,539,884 27.40	376,015 4,812 1.28	1,348,976 803,983 59.60
2001						
All enterprises SMEs SMEs' share (%)	24,108,790 6,841,565 28.38	32,064 13,080 40.79	28,524 21,456 75.22	7,897,968 2,185,656 27.67	442,267 4,836 1.09	1,274,568 690,659 54.19
2002						
All enterprises SMEs SMEs' share (%)	25,395,635 7,495,287 29.51	29,419 13,300 45.21	39,686 23,192 58.44	8,467,013 2,280,401 26.93	417,165 10,576 2.54	1,353,234 687,090 50.77

Table A-4Sales Value by Industry, 1994 – 2002

				Units: I	NT\$ millions; %
Industry Year/Size	Commerce	Transportation and Communications	Finance, Insurance and Real Estate	Business Services	Public and Personal Services
1994					
All enterprises SMEs SMEs' share (%)	6,586,198 1,953,653 29.66	566,877 127,750 22.54	1,854,474 99,160 5.35	516,110 135,051 26.17	322,453 125,995 39.07
1995					
All enterprises SMEs SMEs' share (%)	7,376,638 2,800,258 37.96	589,578 193,966 32.90	1,974,054 183,274 9.28	533,035 174,784 32.79	370,581 161,872 43.68
1996					
All enterprises SMEs SMEs' share (%)	7,618,647 2,835,752 37.22	680,043 186,960 27.49	1,989,712 157,673 7.92	551,465 172,881 31.35	378,988 162,887 42.98
1997					
All enterprises SMEs SMEs' share (%)	8,401,240 2,947,797 35.09	813,686 189,687 23.31	2,189,144 143,914 6.57	621,493 187,888 30.23	408,125 172,814 42.34
1998					
All enterprises SMEs SMEs' share (%)	8,909,781 3,026,549 33.97	988,759 190,060 19.22	2,374,994 134,735 5.67	642,693 198,504 30.89	463,712 181,376 39.11
1999					
All enterprises SMEs SMEs' share (%)	9,312,945 3,043,698 32.68	1,037,080 200,006 19.29	2,401,895 128,006 5.33	722,850 203,470 28.15	487,748 185,806 38.09
2000					
All enterprises SMEs SMEs' share (%)	10,115,451 3,378,772 33.40	1,096,090 215,923 19.70	2,464,110 140,842 5.72	852,622 240,314 28.19	519,224 202,844 39.07
2001					
All enterprises SMEs SMEs' share (%)	9,695,642 3,165,663 32.65	1,017,937 196,756 19.33	2,281,300 125,787 5.51	907,112 237,830 26.22	531,410 199,842 37.61
2002					
All enterprises SMEs SMEs' share (%)	10,583,096 3,558,683 33.63	951,095 216,801 22.79	2,005,124 227,449 11.34	981,482 255,696 26.05	568,320 222,099 39.08

Note: Definition of SMEs changed in 1995 and 2000, please refer to Appendix Table B for the evolution of SME definition. Source: Calculated based on value added tax registration data from Ministry of Finance Taxation

Data Center.

Industry Year/Size	Total	Agriculture, Forestry and Fisheries	Mining and Quarrying	Manufacturing	Water, Electricity and Gas	Construction
1997						
All enterprises	4,735,044	5,659	1,074	2,390,019	604	10,189
SMEs	1,250,915	1,981	562	558,291	241	6,468
SMEs' share (%)	26.42	35.00	52.32	23.36	39.85	63.48
1998						
All enterprises	5,183,873	4,971	951	2,638,482	346	8,365
SMEs	1,233,136	2,023	510	539,774	131	5,256
SMEs' share (%)	23.79	40.68	53.64	20.46	37.94	62.83
1999						
All enterprises	5,675,461	4,781	1,068	2,919,679	364	8,097
SMEs	1,197,820	1,979	620	507,826	161	4,894
SMEs' share (%)	21.11	41.38	58.03	17.39	44.24	60.45
2000						
All enterprises	6,840,552	4,612	1,189	3,738,816	1,059	11,555
SMEs	1,369,937	2,177	595	592,095	175	5,378
SMEs' share (%)	20.03	47.21	49.99	15.84	16.51	46.54
2001						
All enterprises	6,296,729	3,539	840	3,202,516	2,083	14,085
SMEs	1,300,385	2,002	445	531,848	226	5,654
SMEs' share (%)	20.65	56.58	52.90	16.61	10.85	40.14
2002						
All enterprises	7,008,076	4,273	986	3,648,396	4,953	22,143
SMEs	1,350,884	2,056	459	560,302	279	7,864
SMEs' share (%)	19.28	48.12	46.55	15.36	5.63	35.51

Table A-5Export Sales Value by Industry, 1997 – 2002

Appendix 337

				Units: N	IT\$ millions ; %			
Industry Year/ Size	Commerce	Transportation and communications	Finance, Insurance and Real Estate	Business Services	Public and Personal Services			
1997								
All enterprises	1,941,299	248,601	5,564	77,185	54,849			
SMEs	602,565	15,803	1,724	18,294	44,986			
SMEs' share (%)	31.04	6.36	30.98	23.70	82.02			
1998								
All enterprises	2,098,641	287,021	3,545	79,051	62,499			
SMEs	604,555	13,830	1,734	18,233	47,089			
SMEs' share (%)	28.81	4.82	48.91	23.06	75.34			
1999								
All enterprises	2,276,414	305,135	5,280	96,116	58,527			
SMEs	601,913	12,701	1,752	17,969	48,006			
SMEs' share (%)	26.44	4.16	33.18	18.69	82.02			
2000								
All enterprises	2,558,218	333,368	7,000	123,051	61,683			
SMEs	678,994	15,392	2,019	22,290	50,823			
SMEs' share (%)	26.54	4.62	28.84	18.11	82.39			
2001								
All enterprises	2,545,236	333,103	7,844	122,878	64,606			
SMEs	667,265	13,570	2,118	23,385	53,872			
SMEs' share (%)	26.22	4.07	27.01	19.03	83.39			
2002								
All enterprises	2,831,566	282,094	15,207	129,649	68,810			
SMEs	681,450	14,110	2,221	25,287	56,856			
SMEs' share (%)	24.07	5.00	14.61	19.50	82.63			

Note: Definition of SMEs changed in 1995 and 2000, please refer to Appendix Table B for the evolution of SME definition.

Source: Calculated based on value added tax registration data from Ministry of Finance Taxation Data Center.

Industry Year/Size	Total	Agriculture, Forestry and Fisheries	Mining and Quarrying	Manufacturing	Water, Electricity and Gas	Construction
1997						
All enterprises	16,485,427	36,643	30,234	4,900,811	307,418	1,260,633
SMEs	5,456,646	13,633	23,851	1,828,489	3,351	785,094
SMEs' share (%)	33.10	37.21	78.89	37.31	1.09	62.28
1998						
All enterprises	17,569,974	34,079	30,504	5,007,471	331,376	1,317,363
SMEs	5,674,645	12,519	24,708	1,784,169	3,995	803,472
SMEs' share (%)	32.30	36.73	81.00	35.63	1.21	60.99
1999						
All enterprises	18,175,474	37,927	34,005	5,148,092	341,702	1,392,704
SMEs	5,707,292	11,450	27,594	1,784,468	4,261	800,873
SMEs' share (%)	31.40	30.19	81.15	34.66	1.25	57.50
2000						
All enterprises	19,271,937	34,968	30,067	5,530,349	374,956	1,337,421
SMEs	6,196,680	12,142	24,329	1,947,789	4,637	798,604
SMEs' share (%)	32.15	34.72	80.92	35.22	1.24	59.71
2001						
All enterprises	17,812,606	28,525	27,684	4,695,739	440,184	1,260,490
SMEs	5,541,613	11,078	21,011	1,654,062	4,610	685,009
SMEs' share (%)	31.11	38.84	75.90	35.22	1.05	54.34
2002						
All enterprises	18,387,558	25,146	38,701	4,818,617	412,212	1,331,092
SMEs	6,144,404	11,244	22,732	1,720,099	10,298	679,226
SMEs' share (%)	33.42	44.71	58.74	35.70	2.50	51.03

Table A-6Domestic Sales Value by Industry, 1997 – 2002

Appendix 339

				Units: N	IT\$ millions ; %
Industry Year/Size	Commerce	Transportation and communications	Finance, Insurance, Real Estate	Business Services	Public and Personal Services
1997					
All enterprises	6,459,940	408,585	2,183,580	544,307	353,276
SMEs	2,345,232	17,384	142,190	169,594	127,828
SMEs' share (%)	36.30	4.25	6.51	31.16	36.18
1998					
All enterprises	6,811,140	701,738	2,371,449	563,642	407,213
SMEs	2,421,993	176,230	133,001	180,271	134,287
SMEs' share (%)	35.56	25.11	5.61	31.98	33.47
1999					
All enterprises	7,036,530	731,945	2,396,614	626,734	429,221
SMEs	2,441,786	187,305	126,254	185,501	137,800
SMEs' share (%)	34.70	25.59	5.27	29.60	32.10
2000					
All enterprises	7,557,232	762,722	2,457,110	729,571	457,541
SMEs	2,699,778	200,531	138,823	218,025	152,021
SMEs' share (%)	35.72	26.29	5.65	29.88	33.23
2001					
All enterprises	7,150,609	684,840	2,273,462	784,265	466,808
SMEs	2,498,555	183,192	123,669	214,456	145,970
SMEs' share (%)	34.94	26.75	5.44	27.34	31.27
2002					
All enterprises	7,751,530	669,001	1,989,916	851,833	499,510
SMEs	2,877,232	202,692	225,228	230,409	165,243
SMEs' share (%)	37.12	30.30	11.32	27.05	33.08

Note: Definition of SMEs changed in 1995 and 2000, please refer to Appendix Table B for the evolution of SME definition.

Source: Calculated based on value added tax registration data from Ministry of Finance Taxation Data Center.

Units: number of enterprises ; NT\$ millions					
Industry/Size	Item	Number of Enterprises	Sales Value	Domestic Sales Value	Export Sales Value
Total	All Enterprises Large Enterprises SMEs SME's share (%)	1,171,780 25,428 1,146,352 97.83	27,670,606 18,963,546 8,707,060 31.47	20,337,864 12,958,640 7,379,224 36.28	7,332,742 6,004,906 1,327,836 18.11
Agriculture, Forestry and Fisheries	All Enterprises Large Enterprises SMEs SME's share (%)	10,751 33 10,718 99.69	26,013 12,514 13,499 51.89	22,359 10,707 11,651 52.11	3,654 1,807 1,847 50.55
Mining and Quarrying	All Enterprises Large Enterprises SMEs SME's share (%)	1,414 21 1,393 98.51	38,526 4,878 33,648 87.34	37,680 4,445 33,235 88.20	846 434 413 48.76
Manufacturing	All Enterprises Large Enterprises SMEs SME's share (%)	137,681 4,121 133,560 97.01	9,247,779 6,101,656 3,146,123 34.02	5,001,269 2,696,856 2,304,413 46.08	4,246,510 3,404,800 841,710 19.82
Water, Electricity and Gas	All Enterprises Large Enterprises SMEs SME's share (%)	718 125 593 82.59	384,154 376,436 7,718 2.01	378,704 371,119 7,585 2.00	5,450 5,317 133 2.45
Construction	All Enterprises Large Enterprises SMEs SME's share (%)	77,494 1,633 75,861 97.89	1,391,166 540,241 850,925 61.17	1,372,039 533,103 838,936 61.15	19,127 7,138 11,989 62.68
Wholesale and Retail	All Enterprises Large Enterprises SMEs SME's share (%)	624,234 12,895 611,339 97.93	10,199,072 6,817,168 3,381,904 33.16	7,739,365 4,763,463 2,975,902 38.45	2,459,707 2,053,705 406,002 16.51
Hotel and Restaurant	All Enterprises Large Enterprises SMEs SME's share (%)	85,300 239 85,061 99.72	262,682 85,475 177,207 67.46	254,277 79,239 175,038 68.84	8,405 6,235 2,169 25.81

Table A-7 Major Indicators by Industry, 2003

Appendix 341

			Units: numbe	r of enterprises	; NT\$ millions
Industry/Size	Item	Number of Enterprises	Sales Value	Domestic Sales Value	Export Sales Value
Transportation	All Enterprises	46,288	1,915,987	1,490,508	425,479
Warehousing	Large Enterprises	1,567	1,558,947	1,181,685	377,262
and	SMEs	44,721	357,039	308,823	48,217
Communications	SME's share (%)	96.61	18.63	20.72	11.33
	All Enterprises	12,853	1,823,436	1,810,190	13,245
Finance and	Large Enterprises	2,340	1,658,392	1,645,362	13,030
Insurance	SMEs	10,513	165,044	164,828	216
	SME's share (%)	81.79	9.05	9.11	1.63
	All Enterprises	23,603	518,608	499,260	19,348
Real Estate and	Large Enterprises	800	395,633	377,094	18,539
Rental	SMEs	22,803	122,976	122,166	809
	SME's share (%)	96.61	23.71	24.47	4.18
Specialist.	All Enterprises	45,171	814,878	699,139	115,740
Scientific and	Large Enterprises	873	605,148	501,194	103,954
Technical	SMEs	44,298	209,731	197,945	11,786
061 11065	SME's share (%)	98.07	25.74	28.31	10.18
	All Enterprises	465	4,362	4,247	115
Educational	Large Enterprises	6	2,470	2,404	67
Services	SMEs	459	1,891	1,843	48
	SME's share (%)	98.71	43.36	43.40	41.99
	All Enterprises	378	11,448	11,331	117
Medical, Healthcare and	Large Enterprises	11	10,229	10,119	110
Social Services	SMEs	367	1,220	1,212	7
	SME's share (%)	97.09	10.65	10.70	6.04
	All Enterprises	26,971	481,164	477,493	3,671
Cultural, Sporting and Leisure	Large Enterprises	359	405,319	402,432	2,888
Services	SMEs	26,612	75,844	75,061	783
	SME's share (%)	98.67	15.76	15.72	21.33
	All Enterprises	78,459	551,331	540,004	11,327
Other Service	Large Enterprises	405	389,040	379,419	9,621
Industries	SMEs	78,054	162,291	160,585	1,706
	SME's share (%)	99.48	29.44	29.74	15.06

Table A-7 Major Indicators by Industry, 2003 (continued)

Note: The 16 sub-sectors are divided in the 7th revision of Standard Industrial Classification System which started to be applied in 2003 data.

Source: Calculated based on value added tax registration data from Ministry of Finance Taxation Data Center.

Industry Year of Modification	Manufacturing	Construc- tion	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 extendin industry terms into construction	g	No change	No change
September 1995	Paid-in capital not exceeds NTS not exceed 200 persons.	\$ 60 millior	n; or regular employees	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 NTS not exceed 200 persons.	\$ 80 millior	n; or regular employees	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).

Table B The Evolving Definition of SMEs in Taiwan

Source: Small and Medium Enterprise Administration, Ministry of Economic Affairs.



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