

**White Paper
on Small and Medium
Enterprises in Taiwan,
2005**



**Small and Medium Enterprise Administration
Ministry of Economic Affairs
September, 2005**

White Paper on Small and Medium Enterprises in Taiwan, 2005

Copyright© 2005 by Small and Medium Enterprise Administration, Ministry of Economic Affairs. All rights reserved. No part of this publication may be reproduced, stored in retrieval system or transmitted in any form or by any means, electronic, mechanical or photocopying, recording, otherwise without the prior permission of the publisher.

Published by

Small and Medium Enterprise Administration, Ministry of Economic Affairs
95, 3fl, Section 2, Roosevelt Road,
Taipei, Taiwan, ROC, 106

Edited by

Chung-Hua Institution for Economic Research
75 Chang Hsing Street,
Taipei, Taiwan, ROC, 106

Editors:

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

Proof Reader:

Chih-Yun Chen

Designed and Printed by :

HONBO PRINTING CO., LTD.
No. 10, 7th Fl., Lane 366, Sec. 2, Chung San Rd., Chung Ho City,
Taipei County, Taiwan, ROC, 235

GPN: 1009402715

ISBN: 986-00-2167-8



Foreword


Small and medium enterprises (SMEs), which have over the years provided the foundation for Taiwan's economic development, account for 97.8% of all enterprises in Taiwan, and 77.2% of all employed persons in 2004. In the past, SME business owners traveled throughout the world. Speaking English with a strong Taiwanese accent, and never admitting defeat, they demonstrated the energy and persistence of the Taiwanese. The Taiwanese SMEs of the future will not only retain these qualities, but will also be enterprises characterized by innovative thinking that are able to meet the challenges of the New Economy. SMEs are more than just the creators of Taiwan's economic miracle; they have become the ultimate symbol of the Taiwanese spirit.

Taiwan's SMEs recovered from the global economic downturn that began in 2001 even stronger than before. As of 2004, the number of SMEs in Taiwan had risen to 1,164,000, up 1.54%. These enterprises employed 7,553,000 people, representing an increase of 1.72% compared to 2003, and their combined sales in 2004 exceeded NT\$9.35 trillion, up 7.4%. Not only do SMEs continue to function as the foundation for Taiwan's economic development, they also play an important role in the maintenance of social stability.

In the future, Taiwan's SMEs will need to build on the strengths that they have developed in the past, to achieve the vision of "a high-value-added Taiwan with global logistics capabilities that span the globe." The government will be helping business enterprises by ensuring that the necessary resources are available and that the overall business environment is conducive; SMEs will find that the government is behind them every step of the way.

In this volume of the *White Paper on SMEs*, Part One describes the development of SMEs from all perspectives in 2004, which includes 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 is also provided.

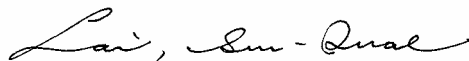
In Part Two, three special topics are tackled through in-depth analysis. They are the guidance policy for the development of traditional and special local industries, the



development of SME supply chains to the target market, and a review of SMEs' opportunities in service industries.

In Part Three, the major government policies and measures relating to SMEs are discussed, along with their resulting effects over the past year. This section concludes with an examination and discussion of the prospects for future SME policies. The Appendix to this volume also provides, for reference purposes, important SME statistics covering the last decade.

Providing guidance to support the development of SMEs is a long-term effort. To witness the development of SMEs in Taiwan, since 1992, the Small and Medium Enterprise Administration has published the *White Paper on Small and Medium Enterprises in Taiwan* on an annual basis, with an English version being published since 1998. It is hoped that the *White Paper* gives readers both in Taiwan and overseas a better understanding of Taiwan's SMEs, while at the same time providing a useful reference work to assist SME managers in their decision-making. Your comments on the content of the *White Paper* would be most welcome.



Lai, Sun-Quae

Director General

Small and Medium Enterprise Administration

Ministry of Economic Affairs

September 2005

Contents

Foreword

Tables	iv
Figures.....	ix
Summary.....	xi

Part One Recent Development of SMEs

Chapter 1 The Macroeconomic Environment..... 1

I Changes in the International Economic Environment in 2004.....	1
II Economic Trends and Major Issues in China	8
III Changes in Taiwan's Economic Environment and its Economic Reliance on Mainland China.....	13

Chapter 2 An Overview of SME Development..... 21

I SMEs' Role in the Economy.....	22
II The Structure of the SME Sector	28
III Overview of the Employment.....	34
IV Sales Performance and Sales Structure	39
V Newly-Established Enterprises	45
VI International Comparison.....	48

Chapter 3 Financial Status of SMEs 53

I Overall Financial Status of SMEs.....	54
II Financial Analysis by Industry	63
III Sources of Funding for Manufacturing Industry and Reasons for Difficulty in Acquiring Funds	72
IV Financial Institutions and SME Financing.....	75

Chapter 4 The Current Status of SMEs' Labor Utilization..... 83

- I Labor Usage in SMEs 83
- II Labor Conditions in SMEs..... 96
- III Manpower Cultivation in SMEs 101

Chapter 5 Internationalization Activities of Taiwan's SMEs 109

- I Internationalization of Taiwan's SMEs – Current Status..... 110
- II The Relationship between a Company's Strategic Intent and Internationalization.... 116
- III Analysis of SME Marketing Models and Resources 124

**Chapter 6 The Changes in the Export Contribution of
Taiwan's SMEs 129**

- I SMEs' Export Contribution 129
- II Types of Exportation among Manufacturing Sector SMEs 141

Part Two Special Topics on SMEs

**Chapter 7 Guidance and Development Policy for
Traditional and Special Local Industries..... 149**

- I Traditional and Special Local Industries – Definitions and Categories 150
- II Guidance Mechanisms for Traditional and Special Local Industries..... 153
- III Results Achieved in the Provision of Guidance to Local Industries 161
- IV Problems Encountered in the Development of Local Industries 167
- V Guidance Policy with Respect to Traditional and Special Local Industries
– the Future 170

**Chapter 8 Helping SME Supply Chains to Develop Their
Target Markets..... 179**

- I The Significance of the Supply Chain in SMEs' Development of Their
Target Markets 179
- II Integrated Marketing Services 181

III	Integrated Manufacturing Services	194
IV	Integrated Manufacturing and Marketing Services Strategy	206
V	Strengthening the Role of SMEs as Enablers within the Supply Chain.....	210

Chapter 9 SMEs in Service Industries – Development Opportunities and Strategies 213

I	The Scope of the Service Sector, and the Availability of Government Resources	214
II	The Current State of SMEs in Taiwan’s Service Sector	219
III	Challenges Facing the Taiwanese Service Sector	228
IV	The Prospects for Service Sector SME Development.....	236

Part Three Government SME Policies and Prospects

Chapter 10 SME Guidance Policy and Measures 241

I	Creating an Environment Conducive to SME Development	242
II	Building Up the SME Start-up Incubation Platform.....	244
III	Upgrading SMEs’ IT Capabilities.....	247
IV	Strengthening SME Management	253
V	Integration of SME Financing Mechanisms	256
VI	The Resources Allocated by the Government to SME Development	263

Chapter 11 An Appraisal of the Government’s SME Policy and the Prospects in the Future 267

I	An Appraisal of the Government’s SME Policy	267
II	SME Policy in Taiwan – the Future.....	287

Appendix 295

Index 309

Tables

Table 1-1-1	Global Economic Performance	2
Table 1-1-2	Rising Consumer Prices in Major Countries	6
Table 1-1-3	Exchange Rates between one US Dollar and Major Currencies	7
Table 1-3-1	Major Indicators of Taiwan's Economy, 2002–2005	14
Table 1-3-2	Taiwan's Exports and Imports, 2000–2004	14
Table 1-3-3	Trade between Taiwan and Mainland China, 2001–2004	18
Table 1-3-4	Taiwan's Exports to the U.S., Japan, and China, 2001–2004	19
Table 2-1-1	Enterprise Performance in 2004 – by Size	23
Table 2-1-2	Overview of Enterprise Development in Taiwan, 2000–2004	23
Table 2-1-3	Overview of SME Development, 2000–2004	25
Table 2-2-1	The Number of Enterprises in 2003 and 2004, by Sector	29
Table 2-2-2	The Number of Enterprises in 2004 – by Enterprise Age	30
Table 2-2-3	The Number of Enterprises in 2004 – by Form of Organization	31
Table 2-2-4	The Number of SMEs in 2003 and 2004 – by Industry	32
Table 2-3-1	The Number of Employed Persons Working in SMEs in 2003 and 2004 – by Industry	36
Table 2-4-1	Total Sales, Domestic Sales and Export Sales in 2004	39
Table 2-4-2	SME Sales Performance By Sector in 2003 and 2004	40
Table 2-4-3	SMEs' Total Sales in 2003 and 2004 – by Industry	42
Table 2-4-4	SMEs' Export Sales in 2003 and 2004 – by Industry	44
Table 2-5-1	Domestic Sales and Export Sales of Newly-Established Enterprises in 2004	45
Table 2-5-2	Comparison of Newly-Established SMEs with SMEs as a Whole, 2000–2004	47
Table 2-5-3	Overview of Newly-Established SMEs in 2004 – by Industry	48
Table 2-4-1	International Comparison of SMEs	50
Table 3-1-1	Consolidated Financial Data of Taiwanese Enterprises, 2001–2003	55
Table 3-1-2	Profit and Loss of Taiwanese Enterprises, 2001–2003	58
Table 3-2-1	Financial Status of Enterprises by Industry, 2003	64
Table 3-2-2	SMEs' Consolidated Balance Sheet by Industry in 2003	66
Table 3-2-3	Large Enterprises' Consolidated Balance Sheet by Industry in 2003	67

Table 3-2-4	Profit and Loss Structure by Industry, 2003	70
Table 3-2-5	Financial Ratios for Individual Industries in 2003	71
Table 3-3-1	Sources of Funds for the Operation or Investment of Manufacturers in 2004	73
Table 3-3-2	Reasons for Difficulty in Acquiring Funds by Manufacturers in 2004	74
Table 3-4-1	Top 10 Banks by Amount of Loans to SMEs, End of 2004.....	77
Table 3-4-2	Top 10 Banks by Percentage and Amount of Loans to SMEs in 2003 and 2004.....	78
Table 3-4-3	Loans Outstanding and Percentage of Loans to SMEs by Banking Subsidiaries of Financial Holding Companies in 2003 and 2004	79
Table 4-1-1	Characteristics of Persons in Work, 2003–2004	84
Table 4-1-2	Characteristics of Hired Employees, 2003–2004	86
Table 4-1-3	Characteristics of Employers, 2004–2005	87
Table 4-1-4	Characteristics of Those Working in Hi-tech and Knowledge-intensive Industries, 2003–2004.....	88
Table 4-1-5	Characteristics of Self-employed Persons, 2003–2004	89
Table 4-1-6	Characteristics of Those Working in Important Emerging Industries, 2003–2004.....	90
Table 4-1-7	Characteristics of Those Working in the Cultural and Creative Industries, 2003–2004.....	92
Table 4-1-8	Characteristics of the Unemployed, 2003–2004	93
Table 4-1-9	Choice of New Employer by Former SME Employees	94
Table 4-1-10	Number of Foreign Laborers Employed by Large Enterprises and SMEs, 2001–2004.....	95
Table 4-2-1	Average Monthly Salary by Industry, 2003–2004	96
Table 4-2-2	Personnel Costs as a Percentage of Operating Costs and Operating Expenses in 2003	97
Table 4-2-3	Working Hours per Week by Industry, 2003–2004	98
Table 4-2-4	Weekly Working Hours for Employees in the Private Sector, 2003–2004...	99
Table 4-2-5	Number of Labor Disputes and Number of Persons Involved, 1997–2004.....	100
Table 4-3-1	Number of Employees Participating in Professional Training, 1996–2003.....	101
Table 4-3-2	Results of Training Integration, 2001–2004	102

Table 4-3-3	Expenditure on Training as a Percentage of Operating Costs and Operating Expenses in 2003.....	103
Table 4-3-4	SMEs' Motivation for Implementing Professional Training in 2004.....	104
Table 4-3-5	Main Types of Professional Training Course Implemented by SMEs in 2004	105
Table 4-3-6	Types of Human Talent for which SMEs Expect to Experience the Highest Level of Demand in the Future	105
Table 4-3-7	Main Training and Manpower Cultivation Methods Used by SMEs in 2004	106
Table 4-3-8	Reasons Given by SMEs in 2004 for Not Using e-Learning	106
Table 4-3-9	Types of External Training that SMEs Most Wished to Participate in during 2004	107
Table 4-3-10	Training Activities that SMEs Felt to be Most Effective in 2004	108
Table 5-1-1	Export Inclination of SMEs by Sector, 2001–2004	111
Table 5-1-2	The Main Forms of Investment Used by Taiwanese Manufacturing Enterprises Investing Overseas	112
Table 5-1-3	The Main Forms of Ownership Arrangement Taken by the Overseas Operations of Taiwanese Manufacturing Enterprises	114
Table 5-1-4	Vitality of Taiwanese SMEs with Respect to Internationalization Activity According to 2004 Survey Data	115
Table 5-2-1	The Decision-making Matrix for the Formation of Entry Strategy	117
Table 5-2-2	Relationship between Globalization Pressure and Multinational Strategy	117
Table 5-2-3	Difficulties Faced by the Primary Overseas Operation of Taiwanese Manufacturing Enterprises	118
Table 5-2-4	Motivation for Overseas Investment by Taiwanese Manufacturing Enterprises, 2004.....	121
Table 5-2-5	The Relationship between the Products of Taiwanese Parent Companies and Those of Their Overseas Operations	123
Table 5-2-6	Marketing Methods Used by the Main Overseas Businesses of Taiwanese Manufacturing Enterprises in 2004	124
Table 5-3-1	Taiwan's Top Ten International Brands as of 2004	125
Table 5-3-2	Strategies Adopted by Business Enterprises in Response to the Changing Business Environment	126
Table 5-3-3	Sales Strategies Emphasized by Taiwanese Manufacturing Enterprises.....	127

Table 5-3-4	Comparison of the Sales of Taiwanese Manufacturing Enterprises' Overseas Operations in 2004 as Compared to 2003.....	127
Table 6-1-1	The Export Contribution and Export Orientation of Taiwanese SMEs in the Manufacturing Sector as Calculated Using Different Sets of Survey Data.....	131
Table 6-1-2	Analysis of Export Contribution Ratios for Individual Industries within the Manufacturing Sector.....	133
Table 6-1-3	Analysis of Export Orientation Ratios for Individual Industries within the Manufacturing Sector.....	134
Table 6-1-4	Structural Change in Manufacturing Sector Exports, 1991–2001.....	136
Table 6-1-5	Changes in Manufacturing Sector Export Contribution Ratios, 1997–2004.....	137
Table 6-1-6	Analysis of Export Contribution Ratios for Individual Industries within the Manufacturing Sector.....	139
Table 6-2-1	Changes in the Shares of Manufacturing Sector SMEs' Total Sales Accounted for by Direct Exports, Exports via Trading Companies and Sales to Other Producers by Industry, 1996–2001	143
Table 6-2-2	Indirect Export Estimates for 2001–2003 (Scenario 1).....	146
Table 6-2-3	Indirect Export Estimates for 2001–2003 (Scenario 2).....	147
Table 6-2-4	Indirect Export Estimates for 2001–2003 (Scenario 3).....	147
Table 7-1-1	Types of Industries on Which Government Agencies Have Focused in their Promotion of Traditional and Special Local Industries	151
Table 7-3-1	Results of Local Industry Guidance Provision by the SMEA, Ministry of Economic Affairs	163
Table 8-2-1	Integrated Marketing Services Models	192
Table 8-2-2	Strategic Alliance Models	192
Table 8-2-3	Integrated Manufacturing Services Models	193
Table 8-2-4	Comparison of the Supply Chain Models Adopted by WalMart and Carrefour	194
Table 8-3-1	Integrated Manufacturing Services – Content and Models	195
Table 8-5-1	Helping SME Supply Chains Develop Their Target Markets – Key Supporting Companies/Institutions and the Roles They are Expected to Play.....	210
Table 9-1-1	The Definitions of Service Industries Adopted by Individual Government Agencies in Taiwan.....	216

Table 9-2-1	Overview of Taiwan's Service Sector in 2004.....	220
Table 9-2-2	Employment Structure in the Service Sector as a Whole and in Emerging Service Industries in 2004	222
Table 9-2-3	The Status of SMEs in Individual Service Industries in 2004.....	224
Table 9-2-4	The Comparison of SMEs in Service Sector and in Emerging Service Industries.....	225
Table 9-2-5	The Status of SMEs in Taiwan's Strategic Service Industries in 2004	226
Table 9-3-1	SWOT Analysis for Taiwan's Service Sector.....	230
Table 9-3-2	The Importance to Taiwan of Developing the Service Sector	231
Table 10-1-1	Research and Analysis Focusing on the Economic Activity of SMEs in 2004 – Work Items and Implementation Results	243
Table 10-2-1	Taiwan's Participation in International SME Activities in 2004	246
Table 10-3-1	SME e-Enablement – Objectives and Results in 2004.....	248
Table 10-3-2	SME e-Learning Promotion – Objectives and Results in 2004.....	249
Table 10-3-3	Raising the Broadband Penetration Rate among SMEs – Objectives and Results in 2004	250
Table 10-3-4	Promoting the Adoption of Information Management Applications among SMEs in 2004 – Objectives and Results.....	250
Table 10-3-5	Major Enterprise Management Related “e-Land” Project Work Items and Results Achieved in 2004.....	251
Table 10-3-6	2004 SME Knowledge Management Plan Work Items and Implementation Results.....	252
Table 10-5-1	SME Project Loan Financing Cases and Loan Amounts as of the End of 2004	258
Table 10-5-2	The Functions of Taiwan's SME Credit Guarantee Fund.....	260
Table 10-5-3	Types of Credit Guarantee in Taiwan	261
Table 10-5-4	Cases and Value of Individual Types of Credit Guarantee as of the End of 2004	262
Table 10-6-1	Resources Allocated to SME Guidance by the MOEA.....	264
Table 10-6-2	Government Spending on SME Project Financing Loans in 2004.....	266
Table 11-1-1	Cases and Value of Credit Guarantees Provided by the SME Credit Guarantee Fund in Recent Years.....	285
Table 11-1-2	Delinquent Loan Ratios for Loans Obtained through Credit Guarantees Provided by the SME Credit Guarantee Fund.....	286

Figures

Figure 2-1-1	Number of SMEs from 2000 to 2004, and Annual Growth Rate	25
Figure 2-1-2	Number of Persons Working in SMEs from 2000 to 2004, and Annual Growth Rate.....	26
Figure 2-1-3	Total Annual Sales of SMEs from 2000 to 2004, and Annual Growth Rate.....	26
Figure 2-1-4	Annual Export Values of SMEs from 2000 to 2004, and Annual Growth Rates	27
Figure 2-2-1	Number of Enterprises, 2001–2004	28
Figure 2-2-2	Geographical Distribution of SMEs in 2004.....	33
Figure 2-2-3	Counties and Cities with the Largest Numbers of SMEs in 2004.....	34
Figure 2-3-1	Number of Employed Persons in Taiwan, 2001–2004.....	35
Figure 2-3-2	Individual Sectors’ Shares of the Total Number of Employed Persons in Taiwan, 1995–2004.....	38
Figure 2-3-3	Individual Sectors’ Shares of the Total Number of Employed Persons in Taiwan Working in SMEs, 1995–2004.....	38
Figure 2-4-1	Business Enterprises’ Total Sales, 2000–2004.....	41
Figure 2-4-2	Taiwanese Enterprises’ Domestic Sales, 2000–2004.....	43
Figure 2-4-3	Taiwanese Enterprises’ Export Sales, 2000–2004	44
Figure 2-5-1	Newly-Established Enterprises in 2004 – by Size.....	46
Figure 3-1-1	Short-term Liquidity of Enterprises, 2002–2003	60
Figure 3-1-2	Long-term Stability of Enterprises, 2002–2003	61
Figure 3-1-3	Operating Capability of Enterprises, 2002–2003	62
Figure 3-1-4	Profitability of Enterprises, 2002–2003	63
Figure 3-4-1	Shares Held by Direct and Indirect Financing, 1993–2004	76
Figure 3-4-2	Business Financing Channels, 1993–2004.....	76
Figure 3-4-3	Bank Loans to SMEs over the Years	80
Figure 3-4-4	Average Interest Rates on New Loans Extended by Five Leading Banks from 1995 to 2004.....	82
Figure 6-2-1	Shares of Total SME Sales Accounted for by Direct Exports, Exports via Trading Companies, and Sales to Producers, 1996–2001	142
Figure 8-3-1	Relationship between the Supply Chain and the Value Chain	203

Figure 8-3-2	Strategic Model for Supply Chain Integration	205
Figure 9-2-1	SMEs in the Strategic Service Industries – Share of All Service Industry SMEs, and Annual Rate of Increase	227

Summary

The Macroeconomic Environment

Having bottomed out in the second half of 2003, the global economy then began to recover. However, by the second half of 2004, rising oil prices and rising interest rates in the US were causing global economic growth to slacken again. Nevertheless, global economic performance over the whole of 2004 was still superior to that in 2003.

The state of the global economy has a major impact on economic growth in Taiwan. The upturn in the global economy in the second half of 2003 was echoed in Taiwan, and by May 2004 there were signs that the economy might be overheating. Subsequently, as global economic growth slowed, so did growth in Taiwan, and by the end of 2004 Taiwan was experiencing slow but steady “green light” growth once again.

It was anticipated that the slackening in growth in both the global economy and the Taiwanese economy would continue into the first half of 2005, but that growth would start to pick up again in the second half of the year. The political and economic situation in China could have a major impact on Taiwan’s economic performance. Taiwan will need to keep an eye out for a possible revaluation of the Yuan, and for changes in the measures being implemented by the Chinese government to stop the economy from overheating. For small and medium enterprises (SMEs) in particular, these developments could be of great importance.

An Overview of SME Development

In 2004, the major indicators for SME development all displayed positive growth compared to 2003. The number of SMEs in Taiwan increased by 1.54%, the number of employed persons and paid employees rose by 1.72% and 3.13% respectively, and total sales, domestic sales and export sales increased by 7.41%, 7.41% and 7.42%, respectively.

The key statistical data for Taiwanese SMEs in 2004 were as follows:

1. Number of Enterprises:

- (1) In recent years, the number of SMEs in Taiwan has continued to rise. The rate of increase has been greater in the service sector than in the manufacturing and agricultural sectors.
- (2) 42% of SMEs have been in existence for over 10 years; 9.30% have been in existence for less than one year.
- (3) 59.20% of SMEs are sole proprietorships.
- (4) The wholesale and retail sector has seen the largest increase in the number of SMEs; this sector accounts for the largest share of Taiwanese SMEs, at 53.22%.
- (5) Northern Taiwan has the largest concentration of SMEs, with 46.63% of all SMEs in Taiwan being located in the north.

2. Employment:

With both the Taiwanese economy and the global economy as a whole growing steadily in 2004, while at the same time the government has been implementing a series of measures to boost employment, the unemployment situation in Taiwan has improved. The rates of increase in the number of employed persons and paid employees working in SMEs – 1.72% and 3.13% respectively – were the highest for several years.

3. Sales:

- (1) Domestic sales accounted for 84.75% of Taiwanese SMEs' total sales in 2004, while export sales held a 15.25% share; there was thus a 69.5 percentage point disparity between the two.
- (2) Manufacturing industry and the wholesale and retail sector accounted for almost the whole of Taiwanese SMEs' exports; the shares of total exports held by these two sectors were 65.67% and 29.29%, respectively.

Financial Status of SMEs

The financial status of Taiwanese SMEs in 2003 displayed some improvement over

2002. Examination of the profit and loss data for the whole sample showed that annual revenue was a positive value for 190,573 enterprises, indicating that 36.22% of SMEs failed to make a profit, as compared to 37.19% in 2002. Among large enterprises, 23.04% of enterprises failed to make a profit, down from 25.36% in 2002; for SMEs, the figure was 36.90%, compared to 37.74% in 2002.

As regards utilization of funds, 2003 saw a slight increase in SMEs' current assets compared to 2002. There was a pronounced decline in funds and long-term investments, a slight fall in investment in machinery, and a slight increase in fixed assets as a whole. With regard to funding sources, current liabilities fell compared to 2002, while long-term liabilities increased; reserves and operating surplus was a negative value. In terms of profit and loss structure, operating costs' share of net operating income fell compared to 2002; operating expenses' share of SMEs' net operating income also fell, but remained high compared to large enterprises. As a result of these high operating expenses, net operating profit (as a share of net operating income) was very low; however, current profit and loss was a positive value.

In 2003, SMEs' current ratio, quick ratio and inventory ratio remained at around the same level as in 2002. The ratio of total liabilities to net worth rose, while the long-term fund ratio fell. The receivables turnover ratio declined slightly, while the other turnover ratios all displayed small increases. Profitability indicators were all positive values.

As of the end of 2004, the total outstanding loan balance for regular Taiwanese banks (excluding overseas loans) was 6.26% up on the end of 2003. However, outstanding loans to SMEs fell by 1.42%, from NT\$2.81 trillion to NT\$2.77 trillion, and SMEs' share of total loans fell by 1.45 percentage points, from 20.02% to 18.57%.

Exploration of the reasons for the difficulty that manufacturing enterprises experience in securing financing shows that, for both large enterprises and SMEs, the three main problems are the tendency for financial institutions to become more cautious about extending credit, the more rigorous credit application screening processes that financial institutions have adopted, and high interest rates.

The Current Status of SME Labor Utilization

2004 saw a significant increase in the number of SME employers compared to 2003; the total number of SME employers rose by just under 14,000, to 507,000. The share of SME employers who are women increased slightly, climbing to 17.21%. This percentage has been rising steadily for some years now, reflecting an increase in entrepreneurial activity among women.

Implementation of the SME Manpower Assistance Plan began on June 18, 2003. As of December 31, 2004, funding had been approved for the recruitment of 58,859 additional employees by 13,543 enterprises. 51,488 individuals took up the positions offered to them, representing an average of 4.35 per enterprise.

With the pronounced upturn in the Taiwanese economy in 2004, average salaries rose in most industries compared to 2003. However, average wages fell in SMEs in the agriculture, forestry fishing and animal husbandry industry, the finance and insurance industry, the medical, healthcare and social services industry, and the cultural, sporting and leisure services industry. Most industries saw a slight increase in the number of hours worked each week; SME employees continue to work longer hours on average than the employees of large enterprises. Examination of personnel costs as a percentage of total costs shows that these are highest in the medical, healthcare and social services industry, at 59.82%.

Internationalization Activities of Taiwan's SMEs and Their Marketing Strategies

SME internationalization activity is reflected in the various international participation indicators. A survey of manufacturing industry showed that, in 2004, there was a fall in the number of wholly-owned subsidiaries established overseas by Taiwanese SMEs, while the number of licensees and joint ventures increased. Domestic sales and export sales both rose, but with no significant change in export orientation. Overall, 2004 saw a slight increase in globalization activity among Taiwanese SMEs.

Analysis of the problems experienced by Taiwanese SMEs investing overseas (which can shed light on the pressures affecting SMEs when seeking to globalize) shows that, besides intense market competition, the most commonly reported

problems were rising local labor costs and cash-flow problems. There was a general feeling that differences in social customs and business practices were a major obstacle; this was particularly true of enterprises investing in the US, Western Europe and Japan, three regions that are all characterized by a high level of globalization. This suggests that there is still some room for improvement in Taiwanese enterprises' attitudes towards globalization and in their cross-cultural management capabilities.

In recent years, manufacturing enterprises have been steadily shifting the main focus of their operations towards marketing; this reflects growing awareness of the impact that marketing activities have on corporate earnings.

The Changes in the Export Contribution of Taiwan's SMEs

As the process of economic globalization has continued, in recent years the export orientation of large enterprises has tended to increase. In most industries, the export growth of large enterprises has been quite impressive, and yet their export contribution has fallen; the main reason for this situation is the growing concentration of Taiwan's exports in the electronics industry. In 1991, the exports of large enterprises in the electronics industry accounted for 25.69% of total manufacturing sector exports. By 1996, this percentage had risen to 40.64%, and in 2001 it increased to 53.58%. The increase in this percentage every five years is almost exactly the same as the decline in the export contribution rate of all other industries combined.

In the last 10 years, the share of total manufacturing sector exports held by large enterprises in the electronics industry has risen by 27.89 percentage points, while the share of total exports held by enterprises in all other industries combined (including both large enterprises and SMEs) has fallen by 27.14 percentage points. The last 10 years have seen little change in the export contribution of electronics industry SMEs – a decline of 0.75 percentage points. The key factor behind the decline in SMEs' export contribution during the periods 1996–2001 and 1991–2001 was thus not a falling off in exports (SME exports continued to increase over these periods), but rather the advances in technology and the rapid growth of the “3C” market that have contributed to dramatic export growth for Taiwan's electronics industry, creating a situation where a single industry accounts for an excessively high share of Taiwan's total exports. The successful development by large electronics manufacturers of business models based

on contract manufacturing has enabled these large enterprises to achieve particularly impressive export performance, hence the relative decline in SMEs' export contribution.

Guidance and Development Policy for Traditional and Special Local Industries

Local industries are the foundation on which regional economic development is built. They contribute to job creation, help to enhance the availability of resources within the region, contribute to the accumulation of industrial technology knowledge, help to bring people in the local community together, build up mutual trust, provide a foundation for mutual assistance, and help to create a unique cultural environment. More than just a support for the livelihoods of local people, local industries contribute to the maintenance of social stability and symbolize the “spirit” of the area.

Back in 1989, the Small and Medium Enterprise Administration (SMEA) began to provide guidance for the restructuring of traditional and special local industries, while at the same time encouraging the involvement of other government agencies. The Executive Yuan incorporated a “New Home Community Development Plan” sub-plan into the Challenge 2008 National Development Plan. The goals of this sub-plan include the commercial revitalization of local communities and promoting the development of innovative new local industries and “village industries,” so as to stimulate the building of consensus with local communities, facilitate the transformation of existing industries, and enable local industries to leverage their unique strengths, thereby creating new opportunities for entrepreneurial activity and job creation.

Local industries can thus make a significant contribution to local economic development and community development. However, there are several problems that can hinder the development of local industries. These include: (1) The need for ongoing product innovation. (2) The difficulty in ensuring that industrial techniques continue to be transferred from one generation to the next. (3) Excessive duplication can lead to the loss of the distinctiveness and uniqueness that are such important characteristics of local industries. (4) Local political factions and interest groups can obstruct the development of local industries. (5) Guidance projects often fail to root

the provision of guidance firmly in the local community.

The areas on which local industry guidance policy needs to focus are: (1) Promoting innovation and quality upgrading in local industries' products. (2) Expanding the range of marketing channels available to local industries. (3) Aggressive cultivation of the human talent needed by local industries. (4) Promoting R&D activity to enhance product quality. (5) Encouraging the development of local guidance teams. (6) Building consensus regarding the need for sustainable development. Focusing on these goals will help Taiwan's local industries to develop into the cornerstone of a new way of life that integrates knowledge, culture, innovation, aesthetics, industrial development and quality of life.

Helping SME Supply Chains to Develop Their Target Markets

There is a growing trend for Taiwan's SMEs to leverage industry clustering – involving the close integration of upstream and downstream segments of the same industry – in the development of overseas markets. The key issue for the government is how to help SMEs to achieve even closer integration and build up their competitiveness so as to be able to develop their target markets successfully and establish themselves as an important link in global supply chains. Areas that will require particular attention include the integration of upstream and downstream segments of individual supply chains, integration of center enterprises and satellite firms in “center-satellite” systems, and building up linkages with the supply chains of Taiwanese enterprises operating overseas and with international supply chains.

From the point of view of the division of labor and of integration, Taiwan's SMEs should be focusing on building up supply chains that can create high levels of value-added, and on participating in the international division of labor. They will need to develop new strategies for this involvement in the international division of labor.

The key strategies available to Taiwanese SMEs in the integration of manufacturing and marketing will be as follows:

1. Expanding the creation of value under existing domestic supply chains, focusing on the promotion of the Plans A, B, C, D and E supply chain development plans, thereby furthering the integration of value chain activities

that will include certification, intellectual property, training, etc.

2. Expanding the scope of supply chain integration, integrating marketing activities and mechanisms into the supply chain to enhance the marketing capabilities of trading companies, center companies (in center-satellite systems) and design teams.
3. Leveraging supply chain integration in the development of international markets, using the concepts embodied in Plans A, B, C, D and E to collaborate with leading international corporations on the establishment of e-enabled supply chain relationships for international procurement.
4. Developing bottom-up supply chain integration models, and strengthening the development of linkages with new customers.
5. Gradual expansion of service platforms to include not only vertical supply chains but also horizontal service platforms, thereby facilitating the establishment of specialist functions.

SMEs in Service Industries – Development Opportunities and Strategies

With the changes that have been taking place in the global economic environment, the structure of the Taiwanese economy has been transformed. The impact has been most severe in the service sector, and particularly for service sector SMEs. Faced with the global trend towards new forms of service sector integration emphasizing the creation of high value-added and the formation of new models of competition, Taiwan's SMEs will need to speed up the process of upgrading and transformation, emphasize innovation, develop distinctive products and exploit new niches. The emphasis in the government's policy initiatives with respect to emerging service industries, including the Challenge 2008 National Development Plan and Guidelines and Action Plans for Service Industry Development promulgated in 2004, is on turning Taiwan into an "earthly paradise" in which all of Taiwan's citizens will be able to enjoy a prosperous, contented existence.

To help people in other parts of the world to understand, appreciate and consume Taiwanese culture, the products of Taiwanese innovation and Taiwan's tourism resources, Taiwan will need to make effective use of e-marketing and foreign

language skills. At the same time, the emphasis on corporate social responsibility (CSR) that now characterizes so many European and US enterprises is gradually spreading to Asia. Adoption of CSR is becoming a prerequisite for securing orders and attracting investment; in the future, this will be one of the most important standards by which an enterprise is judged. Taiwanese companies already recognize the importance of innovation in creating value-added; they now need to pay more attention to the value that CSR can create.

SME Guidance Policy and Measures

With the emergence of the global knowledge economy, innovation and speed have become the two main foundations for creating value and achieving perpetual operation. Faced with an array of new challenges, besides restructuring its operations and strengthening its overall structure, Taiwanese industry needs to focus on developing high-value-added products and upgrading service quality. Developments that will have a particularly significant impact include the market opening that Taiwan has been required to implement following accession to the World Trade Organization (WTO), the magnetic attraction of the China market and the possible establishment of new free trade agreements in the East Asia region. Only by developing the mechanisms needed for constant learning, transformation, upgrading and innovation can Taiwanese SMEs hope to differentiate themselves from their rivals and remain competitive in global terms.

To help build Taiwan into an ideal location for SME start-up, the SMEA of the Ministry of Economic Affairs has been focusing (in accordance with the requirements laid down by the *SME Development Statute*) on the following five areas: building an environment conducive to SME development; establishing start-up incubation platforms; encouraging SMEs to develop their IT capabilities; strengthening the Administration's managerial guidance functions; integrating the operations of the various financing mechanisms available to SMEs. In its policy formulation, the Administration aims to take into consideration the changes in both the domestic and global economic situation, and business enterprises' current and future needs. In revising the government's SME development strategy, the Administration devises ancillary measures that it is anticipated will help SMEs to strengthen their competitiveness and leverage the full potential of mutual assistance, and help Taiwan

to achieve steady progress in the area of industrial development.

An Appraisal of the Government's SME Policy, and Anticipated Future Trends

Today, SMEs in Taiwan are faced with a rapidly changing business environment. The changes include the dramatic growth in both regional and bilateral trade, the implementation of the New Basel Capital Accord, the growth in environmental awareness throughout the world, the rapid growth achieved by the emerging economies, and the changes in the forms taken by global competition. Taiwan needs to consider how the existing SME guidance system can be leveraged to strengthen SMEs' ability to achieve perpetual operation. In this section of the *White Paper*, the form that the government's SME policy can be expected to take in the future is examined, focusing on the following five aspects: the business environment, business start-up and incubation, industry clusters, marketing and financing.

Part One

Recent Development of SMEs



Chapter 1

The Macroeconomic Environment

The global economic rebound that began in the second half of 2003 continued on into the first half of 2004. However, the recovery lost momentum in the latter half of 2004 amid escalating crude oil prices and rising interest rates in the U.S. Nevertheless, the global economy in the year 2004 as a whole performed significantly better than for 2003.

Taiwan's economy, which is closely related to the performance of the global economy, similarly underwent a recovery in the second half of 2003 and even flashed a "red light" signal in May 2004 which indicates an overheated economy. The economy eventually cooled down its pace since and returned to the steady "green light" status by end-2004. What are the prospects for the global economy and Taiwan's economy in 2005? Below are discussions of changes in the economic environments of the world, mainland China, and Taiwan in 2004, as well as the outlooks in 2005.

I Changes in the International Economic Environment in 2004

1. The Global Economy Rose, then Fell

The global economy in 2004 performed far better than in 2003 in terms of growth (rising from 2.6% to 4.1%), but it did show signs of a slowdown in the second half of the year. The global economic growth was 4.4% for both Q1 and Q2 2004, but reduced to 3.8% and 3.5% for Q3 and Q4, respectively, and this slowdown trend is expected to extend into 2005. The growth forecast for 2005 is 3.1% (Table 1-1-1).

Table 1-1-1 Global Economic Performance

Unit: %

Year \ Region/ Country	World	Taiwan	U.S.	Japan	EU-15	China	Asia (excluding Japan)
2003	2.6	3.3	3.0	1.4	0.9	9.3	6.5
2004	4.1	5.7	4.4	2.7	2.1	9.5	7.3
Q1	4.4	6.7	5.0	4.1	1.9	9.8	7.7
Q2	4.4	7.9	4.8	3.1	2.5	9.6	8.1
Q3	3.8	5.3	4.0	2.3	2.1	9.1	7.0
Q4	3.5	3.3	3.9	1.0	1.9	9.5	6.6
2005	3.1	3.6	3.4	1.3	1.6	8.4	6.2

Sources: 1. Global Insight, May 2005.

2. Directorate General of Budget, Accounting and Statistics, Executive Yuan, May 19, 2005.

Under the influence of regional and inter-regional factors, not all regions of the world turned out with equally impressive performances in 2004. To avoid inconsistency between regional and global data, the data (except for cruel oil-related data) used in this section are practically quoted entirely from Global Insight, and unless it is otherwise stated, growth rates are figures compared with the same period of the previous year. Below is a brief analysis of the economic performance of a few leading nations and regions.

(1) The U.S. Economy Boomed, then Faltered

Spurred by strong private consumption and investment in the domestic market, the U.S. economy grew 5.0% in Q1 2004, but the growth momentum faltered starting in Q2. The U.S. Federal Reserve (Fed) adopted a stricter monetary policy by raising interest rates by a quarter point at the end of Q2 2004, and then again in August and September respectively. The Fed succeeded in warding off inflation, but its actions also dampened the force for economic growth, bringing about a continuous downturn in Q3. The Fed raised interest rates a fourth time in the year in November. The negative impact brought about by a succession of interest rate hikes is expected to materialize. Thus, the U.S. economy continued its downward trend in Q4 and saw 4.4% growth for the whole year (Table 1-1-1).

The widening fiscal deficit and trade deficit remained as two thorny problems faced by the U.S. government in 2004 and have kept the US dollar low against major currencies. At the G7 Finance Minister's Meeting, other nations consensually hoped that the U.S. government would halt the continuing devaluation of the dollar, and the

U.S. government promised to adopt a stronger dollar policy. It is fairly unlikely for the US dollar to bounce back as long as the dual-deficits problem persists.

(2) Japan's Economy Continued to Growth in 2004

Japan's economic growth of 2.7% in 2004 trumped its performance of 1.4% in 2003 (Table 1-1-1) with a boost from its gigantic trade surplus and improved private consumption and investment. Japan can be said to have recovered healthily from the days of its bubble economy in the 1990s.

The Japanese government likes to hold fast to its long-awaited economic recovery. Thus, its central bank indicated firmly and unequivocally in November 2004 in the midst of the U.S. raising interest rates and significant appreciation of the Yen that it would not raise interest rates unless the country's state of deflation had abated. To preserve its hard-won economic growth, the central bank also intends to intervene when the appreciation of the Yen against the Dollar breaks the 103 mark to keep the affected exports from stifling its economic performance.

(3) Economic Upturn of EU-15 Countries

Bolstered by strong external demand, the EU-15 economies turned for the better in 2004 as compared to 2003, but the growth momentum was relatively weak and echoed that of the global economy. That is, the economies heated up in the first half of the year, and then slowed down starting Q3. The EU-15 is expected to see 2.1% growth in 2004 (Table 1-1-1), whereas the 12 Eurozone member states averaged only 1.9% growth and are outperformed by the 3 non-Eurozone countries. The UK, a non-Eurozone country, achieved a relatively impressive growth of 3.2%.

The negligible growth of the Eurozone economies in 2004 is a reflection of their weak domestic demands and stubborn high employment rates.

(4) Continuous High Growth of the East Asian Economies (excluding Japan)

The most dominant economy in East Asia excluding Japan is mainland China. Despite its aggressive macro-control measures that were able to check its robust domestic demands somewhat, mainland China continued to record a high growth of 9.5% in

2004 as its trade continues to expand.

As all the important elections in the region ended peacefully, all Southeast Asian countries experienced steady economic growth in 2004 under the support of strong exports, of which, Singapore gave the most brilliant performance. However, Southeast Asian countries did not fare the same in attracting foreign investments. Singapore and Thailand offered a better investment environment, while Indonesia is ranked by the World Bank as one of the worst in the world in terms of business climate. Indonesia's economy is also adversely impacted by the threat of terrorist attack, and was hit by a calamitous tsunami and earthquake at the end of 2004.

Bolstered by a record-breaking trade surplus, South Korea's economy jumped 4.6% in 2004 from 3.1% in the year before, but the country is saddled with weak domestic demand, lackluster private investment, and a sharply rising won against the US dollar (Won devalued 0.3% against the US dollar in 2003, but appreciated 12.2% in 2004 as of the end of November). To stimulate its economy, South Korea's central bank dropped its interbank overnight rate by a quarter point in November 2004, suggesting the stern challenge faced by its economy.

(5) India, the Rising Star

Goldman Sachs published a "BRIC Report" in October 2003, in which it predicted that Brazil, Russia, India, and China, termed the "four bricks," would become a much larger force in the global economy by 2050, of which, India is the most noteworthy.

Prior to its economic reform that began in 1991, India was not only viewed as a socialist country, but also as a country with the strongest planned economy and the most restrictions on its private economy in the world.

After going through a currency crisis, the Indian government underwent economic reforms in July 1991 and promulgated a succession of new industrial, trade, investment, and foreign exchange policies. In the past decade, India was able to post impressive economic growth disregarding a global recession. Its real economic growth averaged 5.4% a year from 1998 to 2003, went up to as high as 8.2% in 2003, and held onto a 6% level in 2004. Despite the enormous wealth gap between the rich and the poor and between cities and countryside, India is estimated to have a 300 million

strong middle class with spending power out of a population of 1 billion people.

India is known for its IT and software industries. It is the second largest software exporting country in the world, and its software exports account for 22% of total exports. The emergence and development of IT-based high technology in India are largely credited to the government policies and the outsourcing strategy of multinational corporations, in particular American firms.

Another feature of India's industrial development that warrants attention is the trend of multinational corporations setting up R&D center there. This trend goes hand in hand with the country's strength in software development.

2. The End of Lax Monetary Policy

The U.S. economy recorded 5.0% growth in Q1 2004, which slowed down in Q2, but still gained 4.8%. Over the same period of time, consumer prices in the U.S. rose by 1.8% in Q1 and 2.8% in Q2, prompting the Fed to increase the federal funds rate by a quarter point on June 30. By December, the Fed had raised the rate five times, for a total of one percentage point. The U.S. economy (expressed by real GDP) accounts for 30% of the world. Its rate hike put considerable pressure on other countries to follow suit. It could also spell the end for this round of lax monetary policy, which has been ongoing in the past three years.

Before the U.S. began to raise its interest rate, the UK had taken the same action as early as February to harness its overheated real estate market and increased the rate four times, a quarter point each time, by November. Japan and the Eurozone countries elected to keep their interest rates unchanged in consideration of their own economic situations. Nevertheless, the central banks of Japan and Europe are under tremendous pressure to raise their interest rates.

3. Escalating World Oil Prices

By monthly averages, the per barrel crude oil prices of OPEC, Brent, WTI, and Dubai's Fateh climbed throughout 2004. Even when the rising trend came to a halt for periods of one month, the prices always bounced back the following month.

Skyrocketing oil prices were the least expected development on the world scene in 2004. The underlying causes include: (1) higher-than-expected demands – the global oil demand in 2004 grew 3.4%, higher than the level estimated by the International Energy Agency, thereby driving global demand to new heights; mainland China's surging demand growth of 14.6% was the main reason; (2) production problems of oil producing countries – a strike in Venezuela, Russia's Yukos was plagued with tax problems, unrest in Nigeria, and the U.S. was hit by Hurricane Ivan which affected the steady production and supply of crude oil and drove up oil prices; (3) instability in the Middle East – Iraqi insurgents kept attacking the U.S. army and targeted oil pipelines; (4) oil speculators.

High oil prices led to rising consumer prices worldwide and dampened global economic growth. Practically all economic forecast institutions pointed to surging oil prices as the main culprit for global economic slowdown that surfaced in Q3 2004. (Table 1-1-2)

Table 1-1-2 Growth Rate of Consumer Price Index in Major Countries

Unit: %

Year \ Region/ Country	World	Taiwan	U.S.	UK	Eurozone	EU	China	Japan	South Korea
2000	3.4	1.3	3.4	2.1	2.1	2.1	0.4	-0.7	2.2
2001	3.1	-0.0	2.8	2.1	2.5	2.4	0.7	-0.7	4.0
2002	2.6	-0.2	1.6	2.2	2.1	2.1	-0.8	-0.9	2.8
2003	2.9	-0.3	2.3	2.8	2.0	2.1	1.2	-0.3	3.5
2004	2.7	1.6	2.7	2.2	2.0	2.0	3.9	-0.0	3.6
Q1	2.2	0.5	1.8	2.3	1.6	1.7	2.8	0.2	3.2
Q2	2.7	1.2	2.8	2.2	2.2	2.1	4.4	-0.3	3.4
Q3	2.8	2.9	2.7	2.1	2.2	2.1	5.3	-0.1	4.3
Q4	3.0	1.9	3.4	2.3	2.1	2.1	3.2	0.5	3.4
2005	2.7	1.7	2.6	2.5	1.8	1.9	3.4	-0.1	3.6

Sources: 1. Global Insight, May 2005.

2. Directorate General of Budget, Accounting and Statistics, Executive Yuan.

4. The US Dollar Staying Low

The US dollar fell broadly against major currencies in 2003, depreciating by 15.8%, 10.2%, and 11.3% against the Euro, Japanese Yen, and the Pound Sterling

respectively. The US dollar continued its decline in 2004, but by a smaller percentage of 4.8%, 2.4%, and 3.3% up to the end the year. Thus, it continued to stay at low levels throughout 2004. (Table 1-1-3)

Table 1-1-3 Exchange Rates between one US Dollar and Major Currencies

Unit: %

Time	Yen	Euro	Pound	NTD	Won
End of 2002	119.90	0.95	0.62	34.75	1,197.20
End of 2003	107.10	0.79	0.56	33.98	1,197.80
End of 2004	104.12	0.73	0.52	31.91	1,035.60

Source: /www.imf.org/external /np/fin/rates/param_rms_mth.cfm/

The U.S. largely opts for a laissez-faire attitude towards a weak currency in light of its dual-deficits problem. The Japanese government on the other hand takes all possible actions to prevent a halt to its genuine but moderate economic recovery from the bubble. That means Japan's central bank is prepared to intervene in the foreign exchange market at any time and there is little room for more appreciation of the Yen. The European Central Bank, reined in by the varying economic situations of the twelve member states of the Euro, has limited intervening power. Thus, the Euro is expected to fluctuate more widely.

5. The Global Trade Liberalization in Full Swing

After rounds of negotiations, the World Trade Organization (WTO) signed a July package on July 31, 2004, reaching agreements on the issues of trade facilitation, non-agriculture market access, agriculture, and services. In principle, the U.S., Europe, and Japan will eliminate their export taxes on agricultural products and reduce export subsidies, and all WTO members will reduce tariffs.

The negotiation of free trade agreements (FTA) was also in full swing around the world in 2004. The ASEAN countries and Japan in particular are seeking bilateral trade pacts and have made substantial progress. For example, Japan has signed a free trade agreement with Mexico and Singapore and is negotiating with South Korea, Malaysia, and Thailand. Mainland China is expanding trade talks with ASEAN countries and opened more of its markets to Hong Kong and Macau under the second stage of a Closer Economic Partnership Arrangement (CEPA) agreement.

6. Global Economy Will Slow Down in 2005

As described earlier, the global economy was robust in the first half of 2004, but slowed down in the second half of the year, mainly due to higher-than-expected oil prices and continuing interest rate hikes in the U.S., while the low level of the US dollar and the threat of terrorist attacks in 2004 had been in existence since 2003. Factors most critical to the world economy in 2005 should be oil prices and interest rates. Both will have a negative effect on economies. In addition, as the effects of mainland China's macro-control measures materialize, the forecast for 2005 global economic growth is 3.1% (Table 1-1-1).

The continuous interest rate increases in the U.S. are expected to thwart domestic investment, weaken productivity growth, cause a decline in economic growth, and shrink demands for imports, which will have negative impacts on many other countries. The U.S. interest rate is expected to raise another one percentage point in 2005. The big challenge is whether the Japanese Yen and the Euro could stay put against the U.S. interest rate hike rally.

Crude oil prices in 2005 are expected to slide to around US\$40 per barrel by the end of 2004 on the beliefs that oil-producing countries will increase output, high oil prices will suppress demand, and a soft global economy will curtail demand. However, by the end of June 2005, oil prices reached US\$60 per barrel.

A few uncertainties might impact the global economy. For instance, the interest rate movement in the Eurozone and Japan, whether mainland China's economy will achieve a "soft landing," and the political situations in the Middle East all warrant close observation.

II Economic Trends and Major Issues in China

1. High Economic Growth Continued in 2004

Mainland China shredded the negative impact from the SARS epidemic and picked up the pace of economic growth in the second half of 2003. However, under heavy investments in infrastructure projects that drove up demand for raw materials,

booming real estate markets galvanized in part by a lax monetary policy, and strong demand for durable consumer goods, there lies the risk of supply/demand spiraling out of control.

In the second half of 2003, the Chinese authority raised the bank deposit reserve rate by 0.5% in an attempt to contract money supply and put a brake on steel, cement, electrolytic aluminum, and real estate investment projects in the hopes to rein in the investment craze. Despite these efforts, its economy grew by 9.8% in Q1 2004. More surprisingly, its fixed asset investment soared by 47.8%, and the prices of raw materials skyrocketed.

In April 2004, Chinese Premier Wen Jiabao announced the halting of Jiangsu Tieben Iron and Steel Plant construction. Since then, the Chinese government has instituted a series of control measures targeting a few overheated sectors, including steel, cement, and hydrolytic aluminum, and implemented stringent policies over bank lending and land use. This new round of macroeconomic control has caught the attention of the world.

In April 2004, the Chinese authority raised the deposit reserve rate of commercial banks by another 0.5%, adopted the practices of differential reserve rates and a floating rediscount rate, and shrank the lending power of commercial banks. The central government also coordinated its industrial policy and credit policy to better harness the credit risks.

In the aspect of land supply control, mainland China's State Council announced its decisions on restoring land market order in the second half of 2003, which stressed the management of land development, rigorously investigating illegal land use, and a gradual implementation of the support systems for land management. By the end of July 2004, the Chinese authority had cancelled 4,735 land development projects, reduced the planned land use by 24,100 acres, and identified 61 non-complying golf courses. The central government also repossessed 2,617km² of land and redesignated 1,324km² of cultivated land.

Aside from the demand side cool-down measures, mainland China's macro-control policy also targeted the supply side. In 2004, the government raised the capital requirements for fixed asset investments in overheated sectors, including steel,

cement, hydrolytic aluminum, and real estate. In addition, a few planned or ongoing projects were stopped by administrative means that were either illegal or inconsistent with industrial policy.

Rising raw material and steel prices in the second half of 2004 proved indirectly that measures implemented on the basis of administrative control might produce pronounced results in the initial stage, as demonstrated by the statistical data in Q2 2004. However, relying on administrative approaches alone to “control land use and rein in lending practices” without the complement of market tools and further tuning based on price signals, the macro-control measures will be hard pressed to achieve the intended goal and whatever effects they have produced will be difficult to sustain.

Judging from the cost of funds, the interest rate, mainland China’s real interest rate was in fact negative in view of its fast rising consumer price index that exceeded the 5% inflation level for three months in a row, making funds awfully cheap and conducive to expansion activities. Once administrative control is relaxed, investments might surge and push up the prices of steel and other raw materials. If the interest rate is unable to reflect the availability of funds and is unable to reflect the normal supply and demand of funds, then the effect of macro-controls, if any, might be hard to sustain in the absence of price signal consideration.

Accompanying the implementation of macro-control policy, mainland China faces four major problems - rising consumer prices, appreciation of the RMB, interest rate hike, and shortages of water, electricity, and energy.

2. The Problem with Rising Prices

The rising consumer price index (CPI) in mainland China was attributed mainly to grain and crude oil price hikes. Grain price hikes, the most dominant contributing factor to rising CPI there since 2003, has largely played out its influence and will be mitigated in the future.

Oil prices in the international market have risen 60% since early 2004. Escalating oil prices drove up the prices of petroleum products and raw materials. This has become an important cause of the rising prices of upstream products in mainland China. Although many uncertainties remain as to whether oil prices will come down

in the future, the likelihood of a massive price hike based on its current level is small. In light of the downward trends for both grain and oil prices, mainland China's CPI growth should be around 4% in 2004 and 3% in 2005.

3. The Problem of RMB Appreciation

Mainland China's US\$500 billion plus foreign exchange reserves have kept the pressure and expectation of RMB appreciation high. Nevertheless, its leaders have declared on many occasions since 2003 that their decision is not to revalue the RMB over concerns that RMB appreciation would erode mainland China's export competitiveness and bring about a series of negative effects. However, as the prices of imported raw materials and energy stay high, the US dollar continues to depreciate in international markets, hot money pours in under the speculation of RMB appreciation, and domestic commodity prices surge, the RMB is faced with increasing pressure to appreciate.

In the three years since its accession to WTO, Chinese products have displayed considerable competitiveness in the international markets, and mainland China can no longer dodge the issue of RMB appreciation. Stalling the issue will give rise to other problems, such as low efficiency of resource allocation, economic inflation, and increasing trade frictions with other countries, which might not benefit its economic development in the long run. The Chinese government lately has taken a series of actions to relax foreign exchange controls and curtail export subsidies in the hopes at slowing down the growth of foreign exchange reserves. Those measures are still measures of expediency. More pertinent long-term approaches require systemic reforms that lead to a floating exchange rate in order to render its economic systems more flexible and efficient.

Mainland China's foreign exchange reserves have grown rapidly in recent years and reached the level of US\$514.5 billion at the end of September 2004, an increase of US\$111.5 billion from the beginning of the year. Over the same period of time, the country generated a trade surplus of US\$10.97 billion, attracted US\$53.8 billion of foreign investment, and generated an income of US\$10 billion on its foreign exchange reserves. That means that about US\$45 billion of hot money flowed into the land in 2004, representing 40% of its foreign exchange reserve increase. This hot money has been awaiting the arbitrage opportunity brought about by the anticipated appreciation

of the RMB. In addition, international hedge funds in the range of over US\$1 trillion in amount have also been eyeing covetously the chance to bet on RMB appreciation. How to prevent the speculative attack of hot money poses a considerable challenge to the Chinese government in its handling of the RMB exchange rate issue.

4. The Problem of an Interest Rate Hike

Mainland China announced a small interest rate hike of 27 basis points (0.27%) in October 2004, which seemed to have signified the start of a series of rate hikes. However, while it is still lingering at the crossroad of a planned economy and a market economy and many of its state-run enterprises serve the function of “hiding unemployment,” undertaking a massive rate increase to curb inflation is an apparent path that is nevertheless difficult to implement.

Interest rate hikes are a premonition to the adjustment of the RMB exchange rate. This is apparently what the currency speculators expect from the way “international hot money” has accelerated their inflow into mainland China. In fact, its interest rate hike eyes the long-term deposit rate, not the lending rate, mainly because the Chinese authority is afraid that a real negative deposit rate will cause a massive outflow of funds from the banking system. The growth in savings by Chinese citizens has been dropping since early 2004, and part of the deposit money was diverted to other investment channels.

A government should generally control its lending rate instead of the deposit rate if it wishes to cool down its economy. By relaxing control over the interest rate, the Chinese government can still institute control through the loan approval process, but it has less control over what its citizens do with their money. Thus, its interest rate hike should be a decision targeting the flow of private deposit funds. The general public in mainland China has also noticed the expectation of the RMB appreciation, and some have converted their USD deposits back to RMB.

5. Water, Electricity, and Energy Shortages

Mainland China’s water and electricity shortage problems in recent years will probably not be resolved in the immediate future. The practice of “transferring water

from the south to the north” to address the severe water shortage problem in the northern part of mainland China will take at least twenty years to see any material effect. The electricity shortage is a problem plaguing practically every province, in particular the coastal areas. In light of that 80% of power generation there relies on fossil fuel, chronic electricity shortages have pushed up coal prices, much to the chagrin of power plants. Judging from the current circumstances, it will take the country at least a year or two to see any alleviation to its electricity shortage problem.

Mainland China’s reliance on imported oil has been rising. It is now the second largest oil consuming country in the world (next to the U.S.), consuming as much as 6.4 million barrels of oil a day. As a lack of steady oil supply will be adverse to its economic development, mainland China has been looking at alternatives to ensure a steady oil supply, including working with other countries in oil exploration projects and seeking methods of oil transport other than tankers.

6. Economic Growth in 2005 Will Slip

Based on the macroeconomic forecast of the Chinese Academy of Social Sciences, mainland China should see more than 8% GDP growth in 2005, which is comparable to the 8.4% forecast made by Global Insight in May 2005 (Table 1-1-1). However, as the global economy slows down, its economic growth will inevitably dip in 2005. The year 2005 should be a crucial year for mainland China where market opportunities are accompanied by considerable risks. Under the notion of “China’s emergence,” the country has seen incidents of domestic unrest and political squabbles with other countries rising. Coupled with the recent passage of its Anti-Cession Law and coastal provinces hiking basic wages for workers, companies intending to make more investment in mainland China should pause, listen, and observe before jumping in.

III Changes in Taiwan’s Economic Environment and its Economic Reliance on Mainland China

1. Apparent Economic Rebound in 2004

Taiwan’s economic growth rose consistently from -0.12% in Q2 2003, to 4.17%

in Q3, and went up again to 5.88% in Q4. The upward trend continued into 2004, with economic growth reaching 6.72% and 7.88% in Q1 and Q2, respectively. It then fell to 5.27% in Q3 and went further down to 3.25% in Q4. Looking into 2005, the growth rate of Q1 decreased to 2.54%, but is expected to pick up gradually. In terms of annual economic growth, Taiwan enjoyed 3.33% growth in 2003 and 5.71% in 2004. The forecast for 2005 is 3.63% (Table 1-3-1).

Table 1-3-1 Major Indicators of Taiwan's Economy, 2002–2005

		Unit: %							
Year	Index	Economic growth rate	Consumer spending	Fixed capital formation	Government spending	Exports	Imports	CPI	Unemployment
2002		3.94	2.07	-1.61	1.47	10.48	5.71	-0.20	5.17
2003		3.33	0.84	-2.05	0.71	10.94	6.72	-0.28	4.99
2004		5.71	3.13	15.40	-0.69	15.27	18.56	1.60	4.44
2005		3.63	3.00	7.59	0.09	2.56	0.80	1.70	—

Notes: 1. With the exception of the unemployment rate, all other figures are annual growth rates.
2. The 2005 data are forecasts.

Sources: 1. Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Statistical Summary of Gross Domestic Product*, February 2005.

2. *Statistics of Gross Domestic Product and Outlooks of Domestic Economic Situation*, May 19, 2005.

2. Trade is Stimulating Economic Growth

The upturn in Taiwan's economy is attributable mainly to the continuing rebound of the global economy, while exports were the most important factor fueling economic growth. Exports for the whole of 2004 amounted to US\$174.014 billion, representing an increase of 20.69% from 2003 and recording the second best performance in the past five years, next only to the increase of 21.98% in 2000 (Table 1-3-2).

Table 1-3-2 Taiwan's Exports and Imports, 2000–2004

		Unit: US\$ billion; %				
Year	Item	Exports		Imports		Trade dependency ratio (import + export) GNP
		Value	Growth	Value	Growth	
2000		148.32	21.98	140.01	26.49	104.28
2001		122.87	-17.16	107.24	-23.41	94.66
2002		130.60	6.29	112.53	4.94	98.14
2003		144.18	10.40	127.25	13.08	102.72
2004		174.01	20.69	167.89	31.94	113.21

Source: Ministry of Finance, *Imports and Exports Statistics*; /www.mof.gov.tw/

Driven by rising prices of raw materials and stronger domestic demands, Taiwan's imports in 2004 totaled US\$167.890 billion, up 31.94% from 2003 and

hitting a five-year record high. This indicated an increased willingness to invest in the private sector and injected fresh vigor into investing activities.

The trade dependency ratio dropped to below 100% in 2001 and 2002, but went back to 102.72% in 2003, and increased to 113.21% in 2004. The trade dependency ratio reached the highest level in 5 years.

3. Steady Growth in Domestic Demand

Amid steady economic growth in 2004, Taiwan's stock market began to slide and fluctuated considerably after hitting a high point of 6,666 in April. With the CPI rising more than 1% in Q2, signs of inflation became all the more prominent. Discouraged by the negative wealth effect and the expectation of inflation, consumer spending became more conservative. Although the data of the Directorate General of Budget, Accounting and Statistics showed real growth of 4.32% in consumer spending in Q2, a record high in the past year, this growth figure was based on a low base of -2.18% in the same quarter the year before when consumer spending was ravaged during the SARS epidemics. The growth of consumer spending went back to normal in Q3, up only 1.41%, suggesting a conservative pattern of private consumption.

Despite growing sales turnover, which registered 8.84% growth in September 2004, a gradual slowdown of economic growth and a lackluster stock market are expected to suppress consumer spending which has recorded high growth consistently in the past. Although the stock market seems to have showed a rising trend since September, its high volatility has not benefited individual investors. Even more so, the Central Bank and Chunghwa Post raised rediscount rates and deposit rates consecutively in September and October. All these developments had a negative impact on consumer spending. As a result, consumer spending grew by 3.13% in 2004 (Table 1-3-1).

Spurred by a rising global economy and an improved economic climate in Taiwan, the private sectors have stepped up their investment activities. Preliminary statistics recorded 19.44% growth in domestic investment in Q2 2004, the highest since Q4 2000, of which private-sector investment rose 33.13%. The Q3 performance, though slightly down from Q2, remained impressive, recording double-digit growth of

13.72%. Private-sector investment increased by 26.44% in Q3, becoming the primary force of investment in Taiwan as investments by state-run enterprises and governments continued to decline. After years of negative growth, fixed asset formation in Taiwan for all of 2004 increased by 15.40% (Table 1-3-1).

4. Continuing Improvement in the Job Market

Taiwan's unemployment rate averaged 4.44% in 2004, down 0.55 percentage points from 4.99% in 2003. The average number of unemployed fell by 49,000 from 2003 to around 494,000. Going into 2005, the unemployment rate is expected to stay about the same as that in 2004. Aside from the improving economy, government's job creation program has also helped lower the unemployment rate.

5. Widening Budget Deficit

Based on the 2004 government budget planning prepared by the Directorate General of Budget, Accounting and Statistics, both government spending and infrastructure investments were expected to increase in 2004, but skyrocketing steel and cement prices in the international markets forced some of the projects to be put on hold. As a result, the government's real investment in 2004 was actually -4.22% by rough estimation. The contribution of public spending to Taiwan's economic growth in 2004 was -0.57%. This is the eighth consecutive year of negative contribution, indicating a limited role by public spending in boosting economic growth.

In 2003 the government's tax revenues plus other income accounted for only 12.8% of GDP. Too little revenue is the main cause of a worsening government deficit. As the government continued to launch big-budget projects in 2004, including the New Ten Development Projects, outstanding public debt in the next five years is expected to reach 39.9% of GDP, nearing the 40% cap stipulated in Article 4 of the Public Debt Act. Improving the government's deficit problem has become a vital issue at the present time.

6. Moderate Changes in CPI

Taiwan's CPI increased by 1.6% in 2004, which is markedly higher than the -0.3% in

2003, but the rise is still considered moderate. The CPI growth was 2.9% in Q3 2004, and then dropped to 1.9% in Q4. The CPI rise was attributed mainly to higher food prices and petroleum product prices, as food prices rose 6.42% over the same period of previous year, of which fruit prices had the biggest increase, up 15.49%. Because fruit prices represent the biggest share in food prices, rising fruit prices became the primary cause of higher food prices. Rising crude oil prices have driven up the prices of petroleum products. As public utility companies are planning rate increases and the prices of petroleum products remain high, the CPI is expected to continue its rise in the future, while only the magnitude of the rise will depend on the movement of petroleum product prices and its rippling effect.

Driven by persistently higher raw material and energy prices, wholesale prices in Taiwan have been on the rise since early 2004, up 2.5% in Q1, up 6.5% in Q2, and up as much as 10.4% in Q3 before dipping slightly to 8.9% in Q4. The rising trend is expected to halt in 2005 with a 1.0% increase in wholesale prices for the whole year.

7. Trade with Mainland China Grew 32.13% in 2004

According to the data of the Board of Foreign Trade under the Ministry of Economic Affairs, Taiwan's trade with mainland China totaled US\$82.940 billion in 2004, an increase of 32.13% from the year before and accounting for 24.26% of external trade, which represents an increase of 1.13 percentage points over the same period of the previous year. Of total trade, exports to mainland China amounted to US\$64.140 billion, up 28.10% from the year before and accounting for 36.86% of total exports, an increase of 2.14 percentage points as compared to the previous year. Taiwan's imports from mainland China in 2004 totaled US\$18.800 billion, an increase of 47.9% and accounting for 11.12% of total imports, which also represents an increase of 1.13 percentage points over the same period of the previous year. Taiwan enjoyed a trade surplus of US\$45.330 billion with mainland China in 2004, up 21.39% from the year before (Table 1-3-3).

By product structure, electrical and mechanical equipment and parts represented the bulk of Taiwan's exports to mainland China in 2004, accounting for 28.7%, followed by optical products and parts, machineries, and steel products. Electrical and mechanical equipment and parts also represented the bulk of Taiwan's imports from

mainland China, accounting for 31%, followed by machineries, and steel products. It can be surmised that the trade structure between Taiwan and mainland China is characterized by “intra-industry trade, IIT” – the higher the IIT index is, the higher the degree is of industrial integration. The “intra industry trade” tells a similar nature of industries in Taiwan and mainland China.

Table 1-3-3 Trade between Taiwan and Mainland China, 2001–2004

Unit: US\$ billion; %

Year	Total trade			Export (estimate)			Import			Surplus/deficit (-)	
	Value	Share	Change	Value	Share	Change	Value	Share	Change	Value	Change
Taiwan's statistics (including Hong Kong and Macao)											
2001	39.78	17.29	-10.25	31.99	26.03	-10.82	7.79	7.27	-7.8	24.19	-11.75
2002	50.78	20.89	27.66	41.07	31.45	28.39	9.72	8.63	24.64	31.35	29.60
2003	62.77	23.13	23.61	50.06	34.72	21.89	12.71	9.99	30.86	37.34	19.12
2004	82.94	24.26	32.13	64.14	36.86	28.12	18.80	11.12	47.90	45.33	21.39
China's statistics (excluding Hong Kong and Macao)											
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
2004	78.32	—	34.2	13.55	—	50.4	64.78	—	31.2	-51.23	—

Sources: 1. Board of Foreign Trade, MOEA website; /www.trade.gov.tw/
 2. *China Monthly Customs Statistics Bulletin* (collated by the Hong Kong Office of the Far Eastern Trade Services Center).
 3. China Customs Administration website; /www.customs.gov.cn/

8. More than 60% of FDI Going to Mainland China

There has been no slowdown in outward investment from Taiwan in recent years. Total investment in regions other than mainland China came to US\$3.97 billion in 2003, while investment in mainland China totaled US\$7.7 billion. The outward investment came down slightly in 2004 with US\$6.94 billion going to mainland China and US\$3.38 billion to other regions of the world.

In the past three years, Taiwan's investment in mainland China has surpassed its total investment in other regions, accounting for nearly 70% of total outward investment. By looking at the percentage of mainland China investment in total outward investment – which was only 38.8% in 2001, then jumped to 66.6% in 2002, stayed around 66.0% in 2003, and edged up to 67.2% in 2004 – Taiwanese enterprises apparently have shifted the focus of their operations to mainland China. From a

strategic perspective of global deployment, such a concentration in one country increases investment risk. Mainland China's passage of the Anti-Cessation Law in March 14, 2005 should be a warning to Taiwanese enterprises that in mainland China politics takes precedence over and meddles in economic affairs.

9. Shares in the Import Markets of the U.S., Japan, and Mainland China Falling

From the trend of Taiwan's performance in its three major export markets – the U.S., Japan, and mainland China in recent years, it is found that U.S. imports from Taiwan as a share of its total imports have been dropping to 2.51% in 2003 and went further down to 2.36% in 2004. While total U.S. imports grew by 16.91%, the country's import share from Taiwan declined by 0.15 percentage points (Table 1-3-4). A similar phenomenon could be seen in Japan's imports from Taiwan.

Table 1-3-4 Taiwan's Exports to the U.S., Japan, and China, 2001–2004

Unit: US\$ million; %

Item \ Year	2001	2002	2003	2004
US				
1. Amount of total U.S. imports	1,140,999	1,161,365	1,259,395	1,469,671
2. Share of U.S. imports from Taiwan	2.93	2.77	2.51	2.36
3. Growth rate of total U.S. imports	-6.24	1.68	8.44	16.91
4. Growth rate of U.S. imports from Taiwan	-17.62	-3.52	-1.70	9.55
Japan				
1. Amount of total Japanese imports	349,235	337,957	383,026	455,292
2. Share of Japanese imports from Taiwan	4.06	4.02	3.72	3.66
3. Growth rate of total Japanese imports	-7.99	-3.23	13.34	18.76
4. Growth rate of Japanese imports from Taiwan	-20.70	-4.35	5.07	16.52
China				
1. Amount of total China imports	243,567	295,303	413,096	560,811
2. Share of China imports from Taiwan	11.23	12.90	11.95	11.55
3. Growth rate of total China imports	8.21	21.24	39.89	35.76
4. Growth rate of China imports from Taiwan	7.24	39.27	29.62	31.19

Source: Bureau of Foreign Trade, MOEA, *Trade Competitiveness Database*.

Mainland China's total imports jumped 39.89% in 2003 and sustained another increase of 35.76% in 2004. However, its imports from Taiwan as a share of its total imports edged down to 11.95% in 2003 from 12.90% in 2002. Whether it is a sign of

mainland China's decreased reliance on trade with Taiwan warrants further observation.

10. Economic Growth in 2005 Will Slip

Led by strong growth in the U.S. and Asia, the global economy turned out a brilliant performance in the first half of 2004, but under the interference of escalating oil prices and interest rate hikes in leading countries, the pace of economic expansion slowed down. According to the forecasts of Global Insight published in May 2005, the world economy will see slower growth in 2005. Global economic growth looks to drop to 3.1% from 4.1% in 2004, and world trade turnover will grow 4.2% in 2005, down from 8.9% in 2004.

As the pace of global economic expansion dwindles, Taiwan's economy will also slow down. According to the forecasts of the Directorate General of Budget, Accounting and Statistics published on May 19, 2005, Taiwan's economic growth in 2005 will drop to 3.63%, its CPI will rise by 1.70%, and GNP will reach NT\$10,950.5 billion, which is equivalent to US\$349.3 billion or US\$15,419 per capita.

To sum up, the global economy underwent a turnaround in the second half of 2003, reached a peak in the first half of 2004, and diminished again in the second half of the year. The forecast for 2005 is that the global economy will stay on a mild course in the first half of 2005 and rise gradually in the second half of the year. Taiwan's economy basically mirrors the movement of the global economy. Under such a macroeconomic climate, the status of Taiwan's small and medium enterprises will be discussed in the following chapter.

Chapter 2

An Overview of SME Development

In this Chapter, we have compiled and processed the original information from the business tax collection data released by the Tax Data Center, Ministry of Finance (MOF) and information published in the *Monthly Bulletin of Manpower Statistics*. The related statistical results are presented in Sections I to V so that we may observe and compare the development and evolution of Taiwanese enterprises over the years, including the development and structural change of SMEs and their role in the economy as a whole.

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

- (1) Indicators studied: The main indicators used in this Chapter are the number of enterprises, number of employed persons, number of paid employees, sales value, domestic sales value and export value.
- (2) Industry classification: In 2003, the classification of industries was revised according to the ROC Standard Industry Classification, 7th Revision. When comparing data for different years, the changes in the classification system must be taken into account.
- (3) Definition of SMEs: According to the latest version of the Definition of SMEs, revised in May 2000, enterprises in the manufacturing, construction and mining and quarrying sectors with paid-in capital of less than NT\$80 million or less than 200 regular employees are classed as SMEs. For other industries, those enterprises that had annual operating revenue of less than NT\$100 million in the previous year or that have fewer than 50 regular employees are classed as SMEs.
- (4) Data for the number of enterprises and operational data are based on paid-in capital or revenue as defined by the said revised criteria. For the number of people employed and the number of employees on the payroll, the definition of

SMEs is based on the number of regular employees.

- (5) Newly-established enterprise: This refers to a new business that has been in operation for less than one year. The original statistical data comes from the Tax Data Center, MOF.

I SMEs' Role in the Economy

This section reviews the major indicators for Taiwanese business enterprises in 2004 and the development of Taiwanese enterprises as a whole and of SMEs in recent years, so as to understand the role that SMEs have played in Taiwan's economy.

1. Operational Performance in 2004

Compared to 2003, the indicators for Taiwanese business enterprises as a whole in 2004 showed that the number of enterprises increased by 1.57%, the number of employed persons and the number of employees on the payroll increased by 2.23% and 3.38%, respectively, sales value increased by 10.45%, and export value increased massively by 15%, indicating that Taiwan's businesses had turned the corner with the continuing global economic rebound (Table 2-1-1).

In 2004, various observation indicators for SMEs all showed positive growth. The number of enterprises increased by 1.54%; the number of employed persons increased by 1.72%, and total sales value, domestic sales value and export value increased by 7.41%, 7.41% and 7.42%, respectively. However, the annual growth rate for various indicators for large enterprises and the rate of increase in the growth rates were all larger than those for SMEs. As a result, the SMEs' shares of various indicators were lower in 2003 (Table 2-1-2).

2. Overview of SME Development in Recent Years

This section examines the development of Taiwanese business enterprises over the period 2000–2004. By 2000, the impact of the Asian financial crisis was gradually receding, and the economies that had been affected by the crisis were starting to recover. With the global economy obviously expanding, the business operating environment in Taiwan turned out to be particularly favorable, resulting in massive

Table 2-1-1 Enterprise Performance in 2004 –by Size

Units: Enterprises; thousand persons; NT\$ million; %

Index \ Size	All enterprises	Large enterprises	SMEs
Number of enterprises	1,190,176	26,167	1,164,009
Share	100.00	2.20	97.80
Annual growth rate	1.57	2.91	1.54
Number of employed persons	9,786*	1,238	7,553
Share	100.00	12.65	77.18
Annual growth rate	2.23	6.82	1.72
Number of paid employees	7,131*	1,234	4,903
Share	100.00	17.31	68.74
Annual growth rate	3.38	6.75	3.13
Sales value	30,561,185	21,208,708	9,352,477
Share	100.00	69.40	30.60
Annual growth rate	10.45	11.84	7.41
Domestic sales Value	22,128,280	14,202,164	7,926,116
Share	100.00	64.18	35.82
Annual growth rate	8.80	9.60	7.41
Export value	8,432,906	7,006,544	1,426,362
Share	100.00	83.09	16.91
Annual growth rate	15.00	16.68	7.42

Note: The asterisk * in the table represents the total number of employed persons in Taiwan, including 995,000 government employees.

Sources: 1. Ministry of Finance Tax Data Center, VAT data for consecutive years.

2. Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data).

Table 2-1-2 Overview of Enterprise Development in Taiwan, 2000-2004

Units: Enterprises; thousand persons; NT\$ million; %

Index \ Year	2000	2001	2002	2003	2004
Number of enterprises	1,091,245	1,098,185	1,130,525	1,171,780	1,190,176
Annual growth rate	0.54	0.64	2.94	3.65	1.57
Number of employed persons	9,491	9,383	9,454	9,573	9,786
Annual growth rate	1.08	-1.09	0.76	1.26	2.23
Number of paid employees	6,746	6,727	6,771	6,898	7,131
Annual growth rate	1.76	-0.22	0.66	1.88	3.38
Sales value	26,112,489	24,108,790	25,395,635	27,670,606	30,561,185
Annual growth rate	9.48	-7.67	5.34	8.96	10.45
Domestic sales value	19,271,937	17,812,606	18,387,558	20,337,864	22,128,280
Annual growth rate	6.03	-7.57	3.23	10.61	8.80
Import value	6,840,552	6,296,729	7,008,076	7,332,742	8,432,906
Annual growth rate	20.53	-7.95	11.30	4.63	15.00

Sources: 1. Ministry of Finance Tax Data Center, VAT data for consecutive years.

2. Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data).

growth of all indicators. In particular, export value grew by 20.53%, the largest increase in recent years. In 2001, the rapid downturn of the global hi-tech industry and the 911 terrorist attacks on the US had made the business operating environment in Taiwan less desirable. With the exception of the number of enterprises that showed a slight increase of 0.64%, sales value, domestic sales value and export value all exhibited negative growth, declining by 8 percentage points compared to 2000. A rare negative growth rate was observed in the number of employed persons, a reduced rate of 1.09% being recorded. In 2002, Taiwan formally acceded to the World Trade Organization (WTO) and the global economy slowly rebounded. As a result, the business operating environment in Taiwan stabilized, and emerged from the shadows of recession. Meanwhile various indicators resumed their growth path, with the export value that increased by 11.30% being the highest of all the indicators. The number of employed persons also began to register positive growth. In 2003, despite the US-Iraqi war and the outbreak of SARS in the first half of the year, the second half of the year saw a strong global economic rebound. In Taiwan, the various indicators for business, apart from the index for export growth that exhibited a slight decline, all registered significant growth. In 2004, despite the impact of the earlier bullish world economy and the slow pace later both in the first half and the second half of the year, the number of employed persons and the number of employees on the payroll in Taiwan registered the largest growth in recent years with the export value showing a 15% increase, the second highest recorded since 2000 (Table 2-1-2).

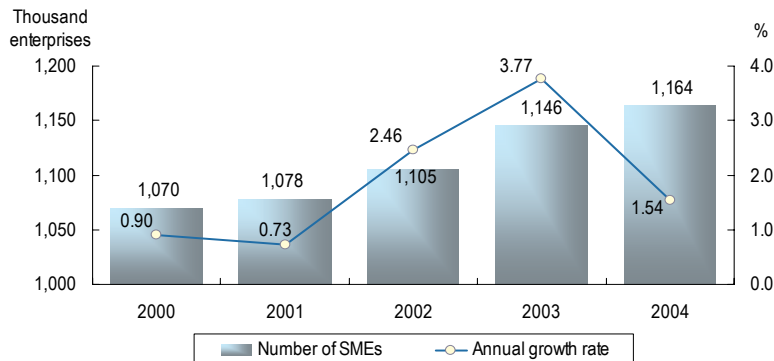
3. Overview of SME Development in Recent Years

If we further observe and compare the development of SMEs in the most recent five years (2000–2004), we note that the number of enterprises had increased with each year, especially in 2003 when the growth rate of 3.77% was the largest during the 5-year period. At the same time, the ratio of SME enterprises as a percentage of all businesses remained at an average of over 97%, with 2001 being the highest at 98.18% and 2002 the lowest at 97.72% (Figure 2-1-1 and Table 2-1-3).

As regards the number of employed persons and paid employees, a rare negative growth was seen in 2001 with -1.58%. In 2004, the number of employed persons and paid employees exhibited the largest increases in recent years, respectively, at 1.72% and 3.13%. However, the rate of increase was far lower than that found among large

enterprises; the SMEs' share of all employed persons and all paid employees in 2004 was the lowest since 2000 (77.18% and 68.74%, respectively) (Figure 2-1-2 and Table 2-1-3).

Figure 2-1-1 Number of SMEs from 2000 to 2004, and Annual Growth Rate



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

Table 2-1-3 Overview of SME Development, 2000-2004

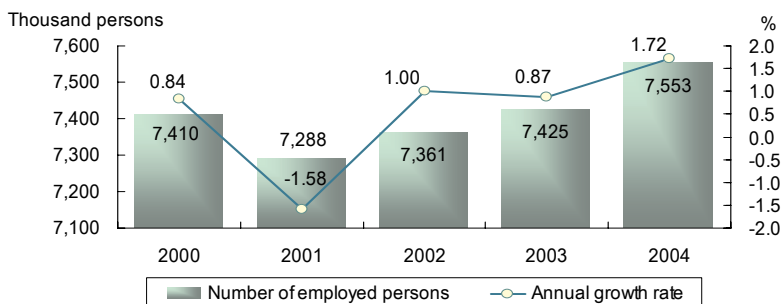
Units: Enterprises; thousand persons; NT\$ million; %

Index \ Year	2000	2001	2002	2003	2004
Number of enterprises	1,070,310	1,078,162	1,104,706	1,146,352	1,164,009
Share	98.08	98.18	97.72	97.83	97.80
Annual growth rate	0.90	0.73	2.46	3.77	1.54
Number of employed persons	7,410	7,288	7,361	7,425	7,553
Share	78.06	77.67	77.86	77.56	77.18
Annual growth rate	0.84	-1.58	1.00	0.87	1.72
Number of paid employees	4,668	4,636	4,682	4,754	4,903
Share	69.19	68.93	69.15	68.92	68.74
Annual growth rate	1.67	-0.59	0.99	1.54	3.13
Sales Value	7,566,617	6,841,565	7,495,287	8,707,060	9,352,477
Share	28.98	28.38	29.51	31.47	30.60
Annual growth rate	9.58	-9.58	9.56	16.17	7.41
Domestic sales value	6,196,680	5,541,613	6,144,404	7,379,224	7,926,116
Share	32.15	31.11	33.42	36.28	35.82
Annual growth rate	8.57	-10.57	10.88	20.10	7.41
Export value	1,369,937	1,300,385	1,350,884	1,327,836	1,426,362
Share	20.03	20.65	19.28	18.11	16.91
Annual growth rate	14.37	-5.08	3.88	-1.71	7.42

Sources: 1. Ministry of Finance Tax Data Center, VAT data for consecutive years.

2. Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data).

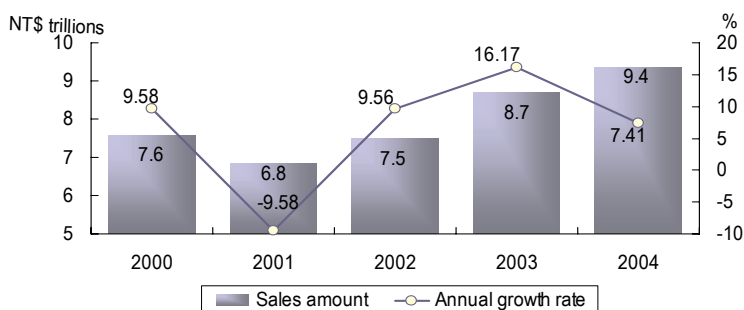
Figure 2-1-2 Number of Persons Working in SMEs from 2000 to 2004, and Annual Growth Rate



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

In terms of sales value, 2001 saw the largest reduction, exhibiting a decrease of 9.58%, the lowest in the 5-year period. In 2003, the annual growth rate reached its highest rate of 16.17%. In 2004, the annual sales value continued to grow, although at a slow pace (Figure 2-1-3). As for the shares of sales value, SMEs registered 31.47% in 2003 as a percentage of all businesses, the highest in the 5-year period, and 28.38% in 2001, the lowest over the same period (Table 2-1-3).

Figure 2-1-3 Total Annual Sales of SMEs from 2000 to 2004, and Annual Growth Rate

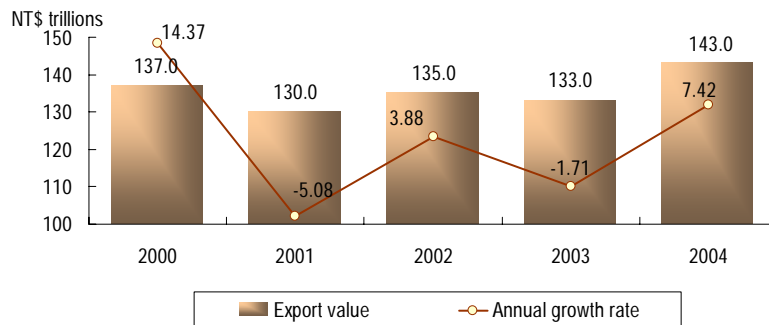


Source: Ministry of Finance Tax Data Center, VAT data for consecutive years.

In regard to domestic sales in the most recent 5 years, 2001 saw the largest decrease of 10.57%. For the other years, each year exhibited positive growth with 2003 being the highest with an increase of 20.10%. As for the shares of domestic sales accounted for by SMEs among all businesses, 2001 recorded the lowest share, accounting for 31.11% while 2003 had the highest share of 36.28% (Table 2-1-3).

In terms of the export value of SMEs, 2000 saw the largest increase of 14.37% during the 5-year period while 2001 and 2003 both registered negative growth of 5.08% and 1.71%, respectively. In 2004, the export value growth rate was 7.42%, the second largest increase in recent years (Figure 2-1-4). However, the export value of large enterprises increased relatively significantly in recent years, which made the share of exports accounted for by SMEs gradually diminish each year, falling to 16.91% in 2004, the lowest level in recent years (Table 2-1-3).

Figure 2-1-4 Annual Export Values of SMEs from 2000 to 2004, and Annual Growth Rates



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

According to the information mentioned above, we note that the business operating environment in Taiwan has undergone considerable changes in the last five years. In 2001 when the global economy rapidly nosedived, the economic growth rate in Taiwan went down by comparison, registering a negative -2.2%. In the same year, sales value, domestic sales value, and export value declined by 9.58%, 10.57% and 5.08%, respectively, compared to 2000, although the number of SMEs increased slightly by 0.73%. Surprisingly, the number of employed persons and the number of paid employees fell by 1.58% and 0.59% respectively. Beginning in 2002, the economy both at home and abroad gradually rebounded and the various observation indicators mostly turned from negative to positive with each passing year, with the exception of 2003 when the annual export growth rate exhibited a negative -1.71%. The number of SMEs as a proportion of all businesses remained at the 98% level while employment and the number of employees on the payroll exceeded 77% and 68%, respectively. In relation to social stability and the protection of the people's livelihood, SMEs indeed contributed to a certain degree.

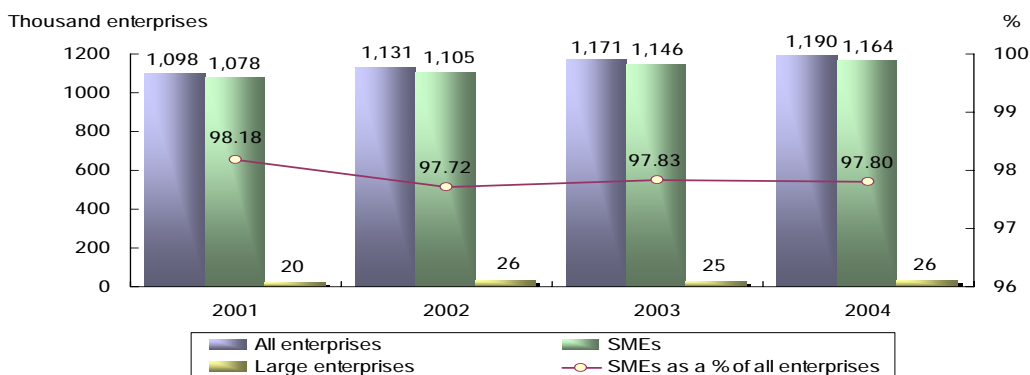
II The Structure of the SME Sector

In this Section, we shall consider the number of business enterprises in Taiwan in terms of enterprise size, sector, age of enterprise, form of organization, industry, geographical distribution, etc., so as to obtain a clearer picture of the overall structure of the SME sector.

1. Number of Enterprises – by Enterprise Size

In 2004, Taiwan had a total of 1,190,000 business enterprises, representing an increase of 18,000 enterprises, or 1.57%, compared to 2003. This total included 1,164,000 SMEs, representing an increase of 18,000 enterprises, or 1.54%. As a percentage of all enterprises, SMEs fell slightly from 97.83% in 2003 to 97.80% in 2004. The number of large enterprises rose by just over 700 to 26,000, representing an increase of 2.91%; large enterprises accounted for 2.20% of all enterprises in Taiwan in 2004 (Figure 2-2-1).

Figure 2-2-1 Number of Enterprises, 2001-2004



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

2. Number of Enterprises – by Sector

For both large enterprises and SMEs, the service sector accounted for the largest share of enterprises in 2004, followed by the manufacturing sector; the agricultural sector accounted for less than 1% of enterprises among both large enterprises and SMEs (Table 2-2-1).

Table 2-2-1 The Number of Enterprises in 2003 and 2004, by Sector

Units: Enterprises; %

Year/Industry	Size	All enterprises		Large enterprises		SMEs	
		Number of enterprises	Percentage of total	Number of enterprises	Percentage of total	Number of enterprises	Percentage of total
2003	Total	1,171,780	100.00	25,428	100.00	1,146,352	100.00
	Agriculture	10,751	0.92	33	0.13	10,718	0.93
	Manufacturing	217,307	18.55	5,900	23.20	211,407	18.44
	Service	943,722	80.54	19,495	76.67	924,227	80.62
2004	Total	1,190,176	100.00	26,167	100.00	1,164,009	100.00
	Agriculture	10,679	0.90	29	0.11	10,650	0.91
	Manufacturing	219,995	18.48	5,942	22.71	214,053	18.39
	Service	959,502	80.62	20,196	77.18	939,306	80.70

Note: The Agricultural sector in the Table above refers to the farming, forestry, fishing and livestock raising industries; the Manufacturing sector includes mining and quarrying, the manufacturing industry, the utilities industry, and the construction industry; the Service sector includes the wholesale and retail industries, the accommodation and eating-drinking places industry, the transportation, warehousing and communications industries, the finance and insurance industries, the real estate industry and leasing industry, the professional, scientific and technical service industries, the educational service industry, the medical service and health care and social welfare service industries, the cultural, sporting and entertainment industries, and other service industries.

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

There were 939,000 SMEs in the service sector in 2004, accounting for 80.70% of all SMEs in Taiwan. This figure represented an increase of 15,000 enterprises, or 1.63%, over 2003. There were 214,000 SMEs in the manufacturing sector, accounting for 18.39% of all SMEs in Taiwan, and representing an increase of 2,600, or 1.25%, over 2003. There were 11,000 SMEs in the agricultural sector, accounting for 0.91% of all SMEs in Taiwan; this figure represented a decline of 0.63% compared to 2003. As regards large enterprises, the service sector accounted for 77.18% of all large enterprises in Taiwan, with the manufacturing sector accounting for 22.71% and the agricultural sector for 0.11%. It can thus be seen that, regardless of enterprise size, the rate of growth in the number of enterprises in the service sector was higher than that in the manufacturing sector or in agriculture; as a result, the share of all enterprises in Taiwan accounted for by the service sector has risen, while the shares accounted for by the manufacturing and agricultural sectors have both fallen (Table 2-2-1).

3. Number of Enterprises – by Enterprise Age

In 2004, those enterprises that had been in existence for 10–20 years accounted for the largest share of all enterprises in Taiwan, at 24.15%, followed by enterprises that had been in existence for 5–10 years, at 20.61%, and enterprises that had been in existence for over 20 years, at 18.35%. A total of 63.11% of enterprises had been in existence for at least 5 years, and 42.5% had been in existence for at least 10 years (Table 2-2-2).

Table 2-2-2 The Number of Enterprises in 2004 –by Enterprise Age

Units: Enterprises; %

Years in business	All enterprises		Large enterprises		SMEs	
	Number of enterprises	Percentage of total	Number of enterprises	Percentage of total	Number of enterprises	Percentage of total
Total	1,190,176	100.00	26,167	100.00	1,164,009	100.00
Less than 1 year	108,610	9.13	375	1.43	108,235	9.30
1-2 years	110,649	9.30	1,213	4.64	109,436	9.40
2-3 years	87,612	7.36	1,410	5.39	86,202	7.41
3-4 years	70,895	5.96	1,362	5.21	69,533	5.97
4-5 years	61,321	5.15	1,380	5.27	59,941	5.15
5-10 years	245,280	20.61	5,871	22.44	239,409	20.57
10-20 years	287,444	24.15	8,443	32.27	279,001	23.97
Over 20 years	218,365	18.35	6,113	23.36	212,252	18.23

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

Just over a quarter (26.11%) of SMEs had been in existence for 3 years or less; 62.77% had been in existence for over 5 years, and 42.20% had been in existence for over 10 years. Some 9.3% of SMEs had been in existence for less than one year, compared to just 1.43% for large enterprises. These figures show that large numbers of SMEs are able to remain in business over an extended period, while at the same time SMEs still retain considerable flexibility in terms of market entry and exit (Table 2-2-2).

4. Number of Enterprises – by Form of Organization

In 2004, the three most common forms of organization for business enterprises in Taiwan were the sole proprietorship, limited corporation and corporation limited by shares. A total of 1.15 million enterprises used one of these forms of organization, accounting for 96.38% of all enterprises in Taiwan. Sole proprietorships accounted for 57.91% of the total, followed by limited corporations with 27.48% and corporations limited by shares with 10.98% (Table 2-2-3).

The three most common forms of organization for SMEs in 2004 were, in order: the sole proprietorship, the limited corporation and the corporation limited by shares. A total of 1.12 million SMEs used one of these forms of organization; these SMEs accounted for 96.54% of all SMEs in Taiwan. There were 689,000 sole proprietorships, representing 59.2% of all SMEs in Taiwan, 321,000 limited corporations (27.57%) and 114,000 corporations limited by shares (9.77%). The situation with large enterprises was markedly different; 64.99% of large enterprises in Taiwan were corporations limited by shares, 23.53% were limited corporations, and 8.41% were branches of

another enterprise. Between them, these three forms of organization accounted for 96.93% of all large enterprises in Taiwan in 2004 (Table 2-2-3).

Table 2-2-3 The Number of Enterprises in 2004 –by Form of Organization

Units: Enterprises; %

Form of Organization	Size	All enterprises		Large enterprises		SMEs	
		Number of enterprises	Percentage of total	Number of enterprises	Percentage of total	Number of enterprises	Percentage of total
Total		1,190,176	100.00	26,167	100.00	1,164,009	100.00
Corporation limited by shares		130,693	10.98	17,005	64.99	113,688	9.77
Limited corporation		327,094	27.48	6,158	23.53	320,936	27.57
Unlimited corporation		47	0.00	2	0.01	45	0.00
Unlimited corporation with limited liability shareholders		26	0.00	0	0	26	0.00
Partnership		16,382	1.38	48	0.18	16,334	1.40
Sole proprietorship		689,257	57.91	149	0.57	689,108	59.20
Foreign company		2,947	0.25	577	2.21	2,370	0.20
Representative office of foreign company		137	0.01	27	0.10	110	0.01
Branch office		23,593	1.98	2,201	8.41	21,392	1.84

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

5. Number of Enterprises – by Industry

The three industries with the largest number of enterprises in 2004 were: the wholesale and retail sector, with 633,000 enterprises (accounting for 53.22% of all enterprises in Taiwan), the manufacturing industry with 137,000 (11.52%), and the accommodation and eating-drinking places industry with 92,000 (7.69%) (Table 2-2-4). Among the large enterprises, the industries with the largest number of enterprises were: the wholesale and retail sector (52.91% of all large enterprises), manufacturing (16.5%) and finance and insurance (8.12%) (see Appended Table A-1).

Of the 15 major industry categories, those that accounted for less than 1% of all SMEs in Taiwan were: agriculture, forestry, fishing and animal husbandry (0.91%), finance and insurance (0.88%), mining and quarrying (0.12%), water, electricity and gas (0.04%), educational services (0.03%), and medical, health care and social welfare services (0.02%) (Table 2-2-4).

In comparison with 2003, although the total number of SMEs in Taiwan rose by 1.54%, nevertheless, as can be seen from Table 2-2-4, there were eight industry categories in which the number of SMEs fell. The decline was greatest in absolute terms in the transportation, warehousing and communications industry, and greatest in

percentage terms (a decline of 29.97%) in the medical, healthcare and social welfare services industry. The wholesale and retail sector had the greatest increase in the number of SMEs in absolute terms, at 8,200 SMEs (representing an increase of 1.34%). In percentage terms, the accommodation and eating-drinking places industry had the greatest increase, with 7.28% (6,200 SMEs in absolute terms). The next largest increase in absolute terms was posted by the construction industry, with an increase of 3,500 SMEs (4.55%).

Table 2-2-4 The Number of SMEs in 2003 and 2004 –by Industry

Units: Enterprises; %

Industry	Year	2003 (A)	2004 (B)	Percentage of total		
				Percentage of total	(B) – (A)	Annual growth rate
Total		1,146,352	1,164,009	100.00	17,657	1.54
Agriculture, forestry, fishing and animal husbandry		10,718	10,650	0.91	-68	-0.63
Mining and quarrying		1,393	1,381	0.12	-12	-0.86
Manufacturing		133,560	132,840	11.41	-720	-0.54
Water, electricity and gas		593	520	0.04	-73	-12.31
Manufacturing		75,861	79,312	6.81	3,451	4.55
Wholesale and retail		611,339	619,525	53.22	8,186	1.34
Accommodation and eating-drinking places		85,061	91,252	7.84	6,191	7.28
Transportation, warehousing and communications		44,721	40,385	3.47	-4,336	-9.70
Finance and insurance		10,513	10,240	0.88	-273	-2.60
Real estate and leasing		22,803	23,773	2.04	970	4.25
Professional, scientific and technical services		44,298	44,867	3.85	569	1.28
Educational services		459	403	0.03	-56	-12.20
Medical, health care and social welfare services		367	257	0.02	-110	-29.97
Cultural, sports and leisure services		26,612	27,654	2.38	1,042	3.92
Other service industries		78,054	80,950	6.95	2,896	3.71

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

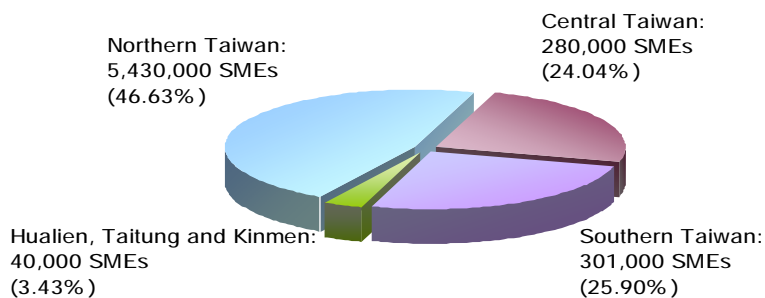
6. Geographical Distribution of Enterprises

In 2004, there were 560,000 enterprises in Northern Taiwan (accounting for 47.09% of all enterprises in Taiwan), 306,000 in Southern Taiwan (25.71%), 240,000 in Central Taiwan (23.84%), and 40,000 in Hualien, Taitung and Kinmen (3.37%). Large enterprises were heavily concentrated in Northern Taiwan; 67.28% of them were located in that region, compared to 17.22% in Southern Taiwan, 14.82% in Central Taiwan and 0.67% in Hualien, Taitung and Kinmen.

As regards the geographical distribution of SMEs, in 2004 there were 543,000 SMEs in Northern Taiwan, accounting for 46.63% of all SMEs in Taiwan, and

representing an increase of 8,600 (or 1.6%) compared to 2003; there were 301,000 SMEs in Southern Taiwan, accounting for 25.9% of all SMEs in Taiwan, and representing an increase of 6,900 (2.34%) compared to 2003; there were 280,000 SMEs in Central Taiwan, accounting for 24.04% of all SMEs in Taiwan, and representing an increase of 2,500 (0.89%); there were 40,000 SMEs in Hualien, Taitung and Kinmen, accounting for 3.43% of all SMEs in Taiwan, and representing a decrease of 0.64% (Figure 2-2-2).

Figure 2-2-2 Geographical Distribution of SMEs in 2004



Note: Northern Taiwan includes Taipei City, Taipei County, Keelung City, I-lan County, Taoyuan County, Hsinchu City, and Hsinchu County; Central Taiwan includes Taichung City, Taichung County, Miaoli County, Changhua County, Nantou County and Yunlin County; Southern Taiwan includes Chiayi City, Chiayi County, Tainan City, Tainan County, Kaohsiung City, Kaohsiung County, Pingtung County and Penghu County; the Hualien, Taitung and Kinmen region includes Hualien County, Taitung County and Kinmen County.

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

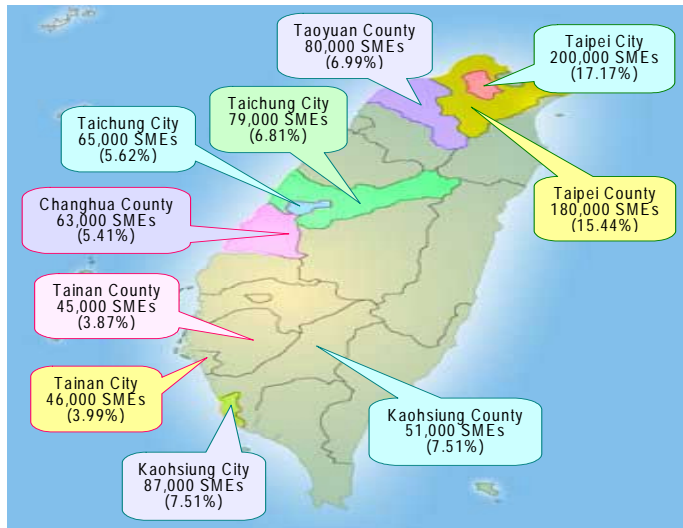
7. Counties and Cities with the Largest Number of Enterprises

In 2004, Taipei City (with 210,000 enterprises) and Taipei County (with 184,000) were the only two counties or cities in Taiwan that were home to more than 100,000 enterprises. Penghu County had the fewest enterprises, with approximately 6,000.

Taipei City had more SMEs than any other county or city in Taiwan in 2004, with approximately 200,000 (or 17.17% of all SMEs in Taiwan). This figure represented a decrease of 900 SMEs (or 0.45%) compared to 2003. Taipei County had the next largest number of SMEs, with approximately 180,000 (or 15.44% of all SMEs in Taiwan), representing an increase of 5,800 (3.34%) compared to 2003; it was followed by Kaohsiung City, with 87,000 SMEs (7.51% of all SMEs in Taiwan), representing an increase of 2,000 (2.3%). Four counties and cities experienced a decline in terms of the number of SMEs: Taipei City (-0.45%), Keelung City (-0.62%),

Hsinchu City (-0.55%), Yunlin County (-0.59%) and Taitung County (-3.69%) (Figure 2-2-3). As can be seen from Figure 2-2-3, Taiwan's SMEs are heavily concentrated in the major metropolitan areas and their satellite towns on the western side of Taiwan.

Figure 2-2-3 Counties and Cities with the Largest Numbers of SMEs in 2004



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

III Overview of the Employment

With both the Taiwanese economy and the global economy as a whole growing steadily, the number of employed persons in Taiwan continued to grow in 2004; the rate of increase was the highest for several years. Although the agriculture, forestry, fishing and animal husbandry sector experienced a decline in the number of employed persons, every other industry saw an increase. The following section provides an overview of the changes in the number of employed persons and the number of paid employees.

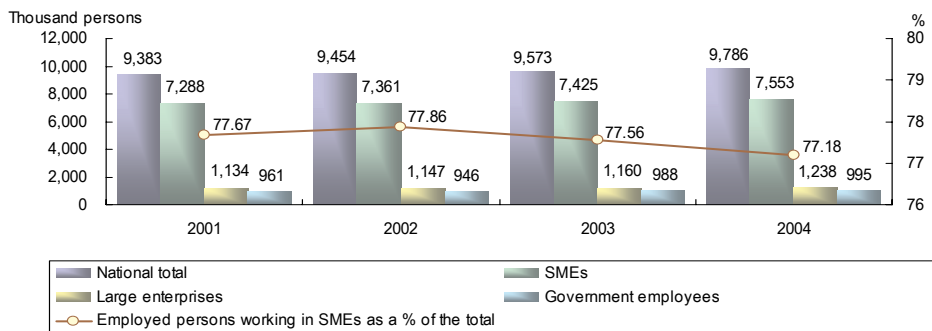
1. Number of Employed Persons

(1) Number of Employed Persons – by Size of Enterprise

The average number of employed persons in Taiwan in 2004 was 9,786,000,

representing an increase of 213,000 (2.23%) over 2003. This total included 995,000 government employees, accounting for 10.17% of all employed persons, and representing an increase of 6,000 (0.61%). 1,238,000 employed persons were working in large enterprises; they accounted for 12.65% of all employed persons in Taiwan. The number of employed persons working in large enterprises increased by 79,000 (6.82%) compared to 2003. 7,553,000 employed persons were working in SMEs; they accounted for 77.18% of all employed persons in Taiwan. The number of employed persons working in SMEs increased by 128,000 (1.72%) compared to 2003 (Figure 2-3-1).

Figure 2-3-1 Number of Employed Persons in Taiwan, 2001-2004



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

(2) Number of Employed Persons – by Industry

In 2004, the manufacturing industry accounted for the largest share of employed persons in Taiwan, or 27.3%; there were a total of 2,671,000 employed persons working in manufacturing enterprises, representing an increase of 82,000 (3.16%) over 2003. The wholesale and retail sector accounted for the next highest share of employed persons, at 17.65%; there were 1,727,000 employed persons working in wholesale and retail enterprises, representing an increase of 29,000. The construction industry was in third place, with 7.48% of all employed persons in Taiwan. There were 732,000 employed persons working in the construction industry in 2004; the upturn in the real estate market helped to stimulate an increase of 30,000 in the number of employed persons working in this industry. For large enterprises, the three industries that accounted for the largest shares of employed persons were the manufacturing industry (44.15% of all employed persons working in large enterprises),

the finance and insurance industry (12.72%), and the medical, healthcare and social services industry (8.29%) (see Appended Table A-5).

The manufacturing industry accounted for the largest share of those employed persons working for SMEs, or 27.73%; there were 2,095,000 employed persons working in SMEs in the manufacturing industry, representing an increase of 44,000 (2.16%) over 2003. The next largest share was accounted for by the wholesale and retail sector, with 1,621,000 employed persons working in SMEs, accounting for 21.47% of all employed persons working in SMEs; the number of employed persons working in SMEs in the wholesale and retail sector had increased by 25,000 (1.57%) compared to 2003. The construction industry was in third place, with 9.44% of all employed persons working in SMEs; there were 713,000 employed persons working in SMEs in 2004, representing an increase of 32,000 (4.71%) over 2003 (Table 2-3-1).

Table 2-3-1 The Number of Employed Persons Working in SMEs in 2003 and 2004 –by Industry

Units: thousand persons; %

Industry	Year	2003 (A)	2004 (B)	Units: thousand persons; %		
				Percentage of total	(B) – (A)	Annual growth rate
Total		7,425	7,553	100.00	128	1.72
Agriculture, forestry, fishing and animal husbandry		688	635	8.40	-54	-7.83
Mining and quarrying		7	6	0.08	-1	-13.94
Manufacturing		2,051	2,095	27.73	44	2.16
Water, electricity and gas		2	2	0.02	0	-10.54
Construction		681	713	9.44	32	4.71
Wholesale and retail		1,596	1,621	21.47	25	1.57
Accommodation and eating-drinking places		561	578	7.66	17	3.06
Transportation, warehousing and communications		313	321	4.25	8	2.55
Finance and insurance		201	199	2.64	-2	-0.79
Real estate and leasing		60	67	0.89	7	12.47
Professional, scientific and technical services		226	241	3.19	15	6.75
Educational services		161	171	2.27	10	6.16
Medical, health care and social welfare services		133	141	1.86	8	6.10
Cultural, sports and leisure services		128	130	1.72	2	1.88
Other service industries		617	632	8.37	15	2.44

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

In comparison with 2003, the manufacturing industry experienced the largest increase in the number of employed persons working in SMEs, followed by the construction industry, with the wholesale and retail sector in third place. Four industry

categories experienced a decline in the number of employed persons working in SMEs: mining and quarrying (-13.94%), water, electricity and gas (-10.54%), agriculture, forestry, fisheries and livestock raising (-7.83%), and finance and insurance (-0.79%) (Table 2-3-1).

(3) The Number of Employed Persons – by Sector

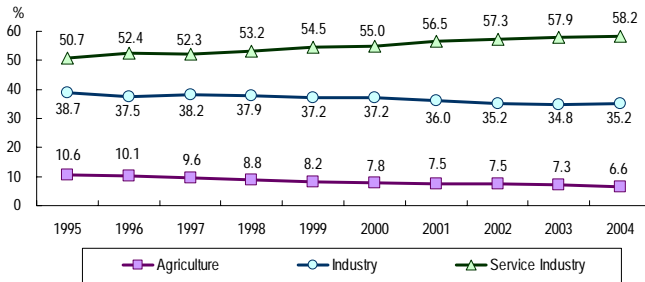
In 2004, there were 5,698,000 employed persons working in the service sector in Taiwan, representing an increase of 155,000 (2.8%) compared to 2003. All industries within the service sector experienced an increase in the number of employed persons. The number of employed persons working in the manufacturing sector rose by 111,000 (3.33%) to reach 3,446,000, while the number of employed persons working in agriculture fell by 54,000 (7.72%) to 642,000 (Table 2-3-1).

The service sector accounted for the largest share of employed persons working in SMEs in 2004, with 41.93% of the total. There were 4,103,000 employed persons working in service sector SMEs in 2004, representing an increase of 107,000 (2.67%) compared to 2003. There were 2,816,000 employed persons working in SMEs in the manufacturing sector, accounting for 28.77% of all employed persons working in SMEs; the number of employed persons working in the manufacturing sector SMEs rose by 75,000 (2.74%) compared to 2003. There were 635,000 employed persons working in SMEs in the agricultural sector, accounting for 6.48% of all employed persons working in SMEs; the number of employed persons working in agricultural sector SMEs fell by 54,000 (7.83%) compared to 2003.

(4) Changes in the Number of Employed Persons Working in SMEs in Taiwan in the Last Ten Years – by Sector

An examination of the changes in the share of all employed persons in Taiwan accounted for by each sector over the ten-year period from 1995 to 2004 shows that, by 1995, the service sector already accounted for more than half of the employed persons in Taiwan, at 50.7%, as compared to 38.7% for the manufacturing sector. From then onwards, the service sector's share continued to rise, and by 2004 the disparity between the service sector and the manufacturing sector had grown to 23 percentage points. Agriculture's share of all employed persons declined by 4 percentage points over the ten-year period (Figure 2-3-2).

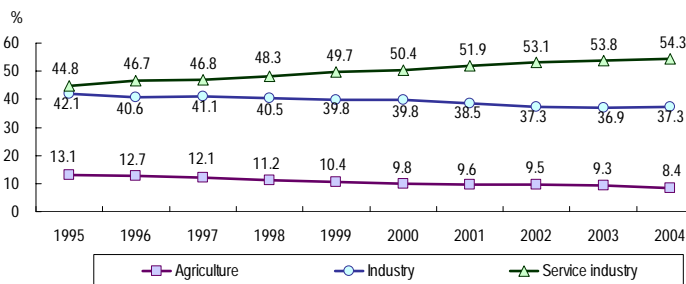
Figure 2-3-2 Individual Sectors' Shares of the Total Number of Employed Persons in Taiwan, 1995-2004



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

As regards the situation with SMEs, in 1995 the service sector accounted for 44.8% of all employed persons working for SMEs, while the manufacturing sector accounted for 42.1%. The disparity between the two sectors was thus only 2.7 percentage points. However, the service sector's share continued to rise, climbing to 50.4% by 2000, while the manufacturing sector's share gradually shrank. By 2004, the gap between the two sectors had grown to 17 percentage points, with the service sector accounting for 54.3% of all employed persons working in SMEs, while the manufacturing sector's share had fallen to 37.3%. The agricultural sector's share fell by 4.7 percentage points over the ten-year period from 1995 to 2004 (Figure 2-3-3).

Figure 2-3-3 Individual Sectors' Shares of the Total Number of Employed Persons in Taiwan Working in SMEs, 1995-2004



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

It can be seen from the data summarized above that, both for those employed persons working in SMEs and for employed persons as a whole, there has been a gradual shift towards employment in the service sector. However, with the upturn in the

economy that began in 2004, there has been a significant increase in the number of people working in the manufacturing industry and in the construction industry. As a result, the manufacturing sector's share of all employed persons has started to rise again.

IV Sales Performance and Sales Structure

1. Total Sales, Domestic Sales and Export Sales

In 2004, Taiwanese business enterprises had total sales of NT\$30,561.2 billion, representing an increase of NT\$2,890.6 billion (10.45%). Domestic sales totaled NT\$22,128.3 billion, representing an increase of NT\$1,790.4 billion (8.80%); exports totaled NT\$8,432.9 billion, representing an increase of NT\$1,100 billion (15.00%) (Table 2-4-1).

Table 2-4-1 Total Sales, Domestic Sales and Export Sales in 2004

Units: NT\$ million; %; percentage points

Year/Size	Item	Total sales value	Domestic sales value	Export value	Total	Domestic sales share	Export sales share
2003	All businesses	27,670,606	20,337,864	7,332,742	100.00	73.50	26.50
	Large enterprises	18,963,546	12,958,640	6,004,906	100.00	68.33	31.67
	SMEs	8,707,060	7,379,224	1,327,836	100.00	84.75	15.25
2004	All businesses	30,561,185	22,128,280	8,432,906	100.00	72.41	27.59
	Large enterprises	21,208,708	14,202,164	7,006,544	100.00	66.96	33.04
	SMEs	9,352,477	7,926,116	1,426,362	100.00	84.75	15.25
Percentage increase in 2004 compared to 2003						Change in percentage points	
	All businesses	10.45	8.80	15.00	–	-1.09	1.09
	Large enterprises	11.84	9.60	16.68	–	-1.37	1.37
	SMEs	7.41	7.41	7.42	–	0	0

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

Domestic sales accounted for 72.41% of total sales in 2004, while export sales accounted for 27.59%. Domestic sales accounted for a higher share of total sales than export sales for both large enterprises and SMEs; however, the percentage was much higher for SMEs (84.75%) than for large enterprises (66.96%). In the case of the SMEs, the disparity between the share of total sales accounted for by domestic sales and the share accounted for by export sales was extremely large, at 69.5 percentage points, reflecting the SMEs' greater orientation towards the domestic market. The shares of SMEs' total sales accounted for by export sales and domestic sales were more or less unchanged compared to 2003 (Table 2-4-1).

A comparison with 2003 shows a significant increase in total sales, domestic sales and export sales for Taiwanese enterprises as a whole, with the increase in export sales (15.00%) being particularly pronounced. SMEs posted a 7.41% increase in total sales, a 7.41% increase in domestic sales and a 7.42% increase in export sales; these rates of increase were significantly lower than those achieved by Taiwan's large enterprises (11.84%, 9.60% and 16.68%, respectively) (Table 2-4-1).

2. SME Sales Performance – by Sector

The service sector accounted for more than half of Taiwanese SMEs' total sales and domestic sales in 2004; this sector accounted for a 51.86% share of total sales and a 55.24% share of domestic sales. The manufacturing sector accounted for the largest share of total SME export sales, at 66.77%. The agricultural sector represented only a tiny share of total sales, domestic sales and export sales – 0.14% in all cases (Table 2-4-2).

Table 2-4-2 SME Sales Performance By Sector in 2003 and 2004

Units: NT\$ million; %, percentage points

Year/Industry	Indicator	2003		2004		Comparison between 2004 and 2003	
		Sales value	Percentage of total	Domestic sales value	Percentage of total	Annual growth rate	Percentage point changes
2003	Total	8,707,060	100.00	7,379,224	100.00		
	Agriculture	13,499	0.16	11,651	0.16		
	Manufacturing	4,038,414	46.38	3,184,169	43.15		
	Service sector	4,655,147	53.46	4,183,404	56.69		
2004	Total	9,352,477	100.00	7,926,116	100.00		
	Agriculture	12,851	0.14	10,821	0.14		
	Manufacturing	4,489,557	48.00	3,537,210	44.63		
	Service sector	4,850,069	51.86	4,378,085	55.24		
Comparison between 2004 and 2003		Annual growth rate	Percentage point changes	Annual growth rate	Percentage point changes	Annual growth rate	Percentage point changes
Agriculture		-4.80	-0.02	-7.13	-0.02	9.91	0.00
Manufacturing		11.17	1.62	11.09	1.48	11.48	2.43
Service sector		4.19	-1.61	4.65	-1.46	0.05	-2.44

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

In comparison with 2003, the service sector's shares of total sales, domestic sales and export sales fell by 1.61 percentage points, 1.46 percentage points and 2.44 percentage points, respectively. The manufacturing sector posted an increase of 11.17% in total sales, 11.09% in domestic sales and 11.48% in export sales, causing this sector's shares of total sales, domestic sales and export sales to rise by 1.62

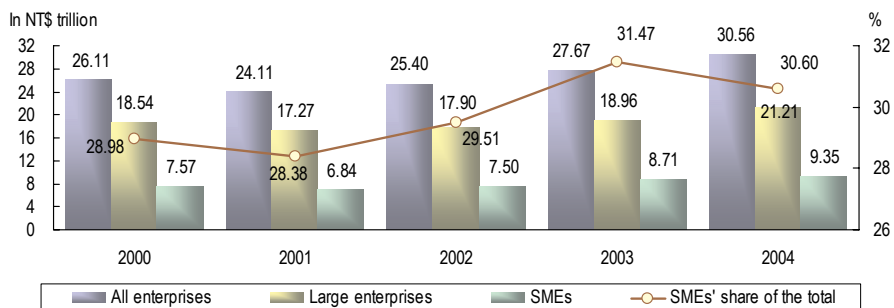
percentage points, 1.48 percentage points and 2.43 percentage points, respectively (Table 2-4-2).

3. Total Sales, 2000–2004

(1) Total Sales – by Enterprise Size

In 2004, Taiwan's large enterprises posted total sales of NT\$21,208.7 billion, accounting for 69.40% of the total sales for all Taiwanese enterprises. This figure represented an increase of NT\$2,245.2 billion (11.84%) over 2003. SMEs posted total sales of NT\$9,352.5 billion, or 30.60% of the total for all enterprises; this figure represented an increase of NT\$645.4 billion (7.41%) compared to 2003 (Figure 2-4-1).

Figure 2-4-1 Business Enterprises' Total Sales, 2000-2004



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

(2) SMEs' Total Sales – by Industry

The industry that accounted for the largest share of Taiwanese SMEs' total sales in 2004 was the wholesale and retail sector, with total sales of NT\$3,553.8 billion (38% of the total for SMEs in all industries); this figure represented an increase of NT\$171.9 billion (5.08%) over 2003. The manufacturing industry accounted for the second largest share, with total sales of NT\$3,521.3 billion (37.65% of the total for all industries), representing an increase of NT\$375.2 billion (11.93%). The construction industry was in third place, with total sales of NT\$926.3 billion (9.90% of the total), representing an increase of NT\$75.4 billion (8.86%). Total sales for the manufacturing industry and for the wholesale and retail sector are thus now at roughly the same level (Table 2-4-3).

Table 2-4-3 SMEs' Total Sales in 2003 and 2004 –by Industry

In NT\$ million; %

Industry	Year					Annual growth rate
		2003 (A)	2004 (B)	Percentage of total	(B) – (A)	
Total		8,707,060	9,352,477	100.00	645,418	7.41
Agriculture, forestry, fishing and animal husbandry		13,499	12,851	0.14	-648	-4.80
Mining and quarrying		33,648	35,333	0.38	1,685	5.01
Manufacturing		3,146,123	3,521,301	37.65	375,178	11.93
Water, electricity and gas		7,718	6,608	0.07	-1,111	-14.39
Manufacturing		850,925	926,316	9.90	75,391	8.86
Wholesale and retail		3,381,904	3,553,820	38.00	171,916	5.08
Accommodation and eating-drinking places		177,207	190,954	2.04	13,746	7.76
Transportation, warehousing and communications		357,039	326,139	3.49	-30,901	-8.65
Finance and insurance		165,044	159,895	1.71	-5,149	-3.12
Real estate and leasing		122,976	135,408	1.45	12,433	10.11
Professional, scientific and technical services		209,731	227,474	2.43	17,744	8.46
Educational services		1,891	1,513	0.02	-378	-20.00
Medical, health care and social welfare services		1,220	981	0.01	-239	-19.59
Cultural, sports and leisure services		75,844	78,832	0.84	2,988	3.94
Other service industries		162,291	175,052	1.87	12,762	7.86

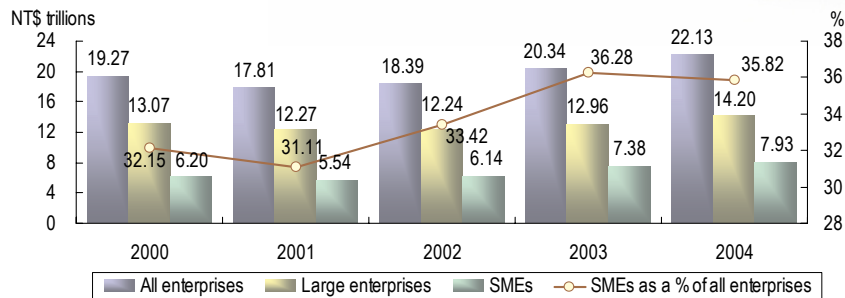
Source: Ministry of Finance Tax Data Center, VAT data for consecutive years.

In comparison with 2003, SMEs' total sales grew by 7.41% in 2004. The industries that achieved the highest sales growth were manufacturing, real estate and leasing, and construction. SMEs in six industries experienced a decline in total sales in 2004. These industries were: educational services; medical, healthcare and social services; the water, electricity and gas industry; transportation, warehousing and communications; agriculture, forestry, fishing and animal husbandry; and finance and insurance (Table 2-4-3).

4. Domestic Sales

(1) Domestic Sales – by Enterprise Size

In 2004, Taiwan's large enterprises posted total domestic sales of NT\$14,202.2 billion, accounting for 64.18% of total domestic sales for all Taiwanese enterprises. This figure represented an increase of NT\$1,243.5 billion (9.60%) over 2003. The SMEs posted total sales of NT\$7,926.1 billion, or 35.82% of the total for all enterprises; this figure represented an increase of NT\$546.9 billion (7.41%) compared to 2003 (Table 2-1-1 and Figure 2-4-2).

Figure 2-4-2 Taiwanese Enterprises' Domestic Sales, 2000-2004

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

(2) SMEs' Domestic Sales – by Industry

The wholesale and retail sector accounted for the largest share of Taiwanese SMEs' total domestic sales in 2004, with combined domestic sales of NT\$3,136.1 billion (39.57% of the total); this figure represented an increase of NT\$160.2 billion (5.38%) over 2003. The manufacturing industry was in second place with domestic sales of NT\$2,584.5 billion (32.61% of the total), representing an increase of NT\$280.1 billion (12.16%). The construction industry ranked third, with domestic sales of NT\$911.4 billion (11.50% of the total), representing an increase of NT\$72.4 billion (8.63%).

5. Export Sales

(1) Export Sales – by Enterprise Size

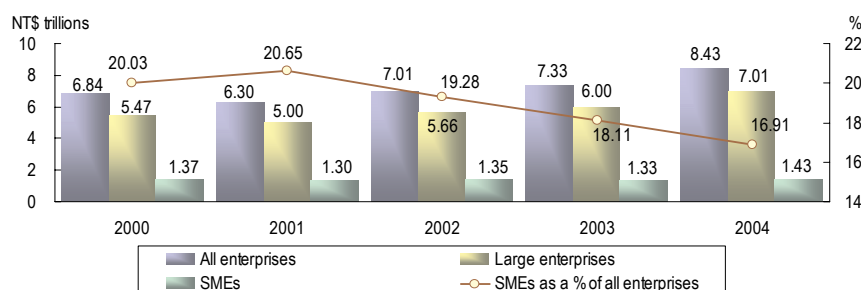
In 2004, Taiwan's large enterprises posted total exports of NT\$7,006.5 billion, representing an increase of NT\$1,001.6 billion (16.68%) over 2003. Taiwan's SMEs achieved total exports of NT\$1,426.4 billion, representing an increase of NT\$98.5 billion (7.42%). Large enterprises accounted for 83.09% of total exports for all enterprises, while the SMEs' share fell from 18.11% in 2003 to 16.91% in 2004 (Figure 2-4-3).

(2) SMEs' Export Sales – by Industry

In 2004, the manufacturing industry accounted for the largest share of Taiwanese SMEs' total export sales, with combined export sales of NT\$936.8 billion, or 65.67% of the total. This figure represented an increase of NT\$95 billion (11.29%) compared

to 2003. The wholesale and retail industry accounted for the second largest share, with total export sales of NT\$417.7 billion (29.29% of the total), representing an increase of NT\$11.7 billion (2.89%). The transportation, warehousing and communications industry ranked third, with total export sales of NT\$36.8 billion (2.58% of the total), representing a decrease of NT\$11.4 billion (23.67%). Between them, these three industries accounted for 97.54% of Taiwanese SMEs' total exports. No other industry accounted for more than 1% of total exports, with the exception of the construction industry, with 1.05% (Table 2-4-4).

Figure 2-4-3 Taiwanese Enterprises' Export Sales, 2000-2004



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

Table 2-4-4 SMEs' Export Sales in 2003 and 2004 –by Industry

Units: NT\$ million; %

Industry	Year	2003 (A)	2004 (B)	Percentage of total	(B) – (A)	Annual growth rate
Total		1,327,836	1,426,362	100.00	98,526	7.42
Agriculture, forestry, fishing and animal husbandry		1,847	2,031	0.14	183	9.91
Mining and quarrying		413	463	0.03	50	12.12
Manufacturing		841,710	936,759	65.67	95,049	11.29
Water, electricity and gas		133	177	0.01	43	32.59
Construction		11,989	14,949	1.05	2,960	24.69
Wholesale and retail		406,002	417,737	29.29	11,735	2.89
Accommodation and eating-drinking places		2,169	1,817	0.13	-352	-16.23
Transportation, warehousing and communications		48,217	36,806	2.58	-11,411	-23.67
Finance and insurance		216	307	0.02	91	42.36
Real estate and leasing		809	785	0.06	-25	-3.05
Professional, scientific and technical services		11,786	12,004	0.84	218	1.85
Educational services		48	16	0.00	-32	-66.55
Medical, health care and social welfare services		7	8	0.00	1	19.29
Cultural, sports and leisure services		783	730	0.05	-53	-6.75
Other service industries		1,706	1,773	0.12	67	3.92

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

To summarize, in 2004 domestic sales accounted for 84.75% of Taiwanese SMEs' total sales, while export sales accounted for 15.25%; there was thus a 69.5 percentage point gap between domestic sales and export sales. By contrast, for large enterprises, domestic sales accounted for 66.96% of total sales, while export sales accounted for 33.04%, giving a disparity of only 33.92 percentage points. There is thus a clear tendency for SMEs to focus on the domestic market to a greater extent than large enterprises do. SME export sales are heavily concentrated in the manufacturing industry (65.67%) and the wholesale and retail industry (29.29%).

V Newly-Established Enterprises

1. Overview of Newly-Established Enterprises – by Enterprise Size

The status of newly-established enterprises in Taiwan – by enterprise size – is outlined below (Table 2-5-1 and Figure 2-5-1).

Table 2-5-1 Domestic Sales and Export Sales of Newly-Established Enterprises in 2004

Units: NT\$ million; %

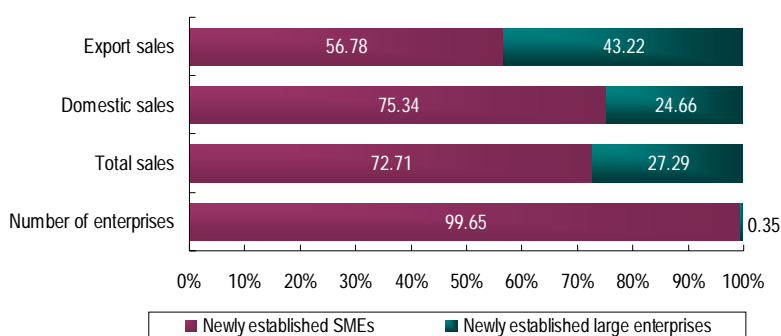
Size	Item	Total sales value	Domestic sales value	Export sales value	Total	Domestic sales ratio	Export sales ratio
All businesses		358,680	307,962	50,718	100.00	85.86	14.14
Large enterprises		97,869	75,947	21,921	100.00	77.60	22.40
	Percentage of total	27.29	24.66	43.22			
SMEs		260,811	232,015	28,797	100.00	88.96	11.04
	Percentage of total	72.71	75.34	56.78			

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

- (1) There were 109,000 newly-established enterprises, of which 375 were large enterprises, accounting for 0.35% of all newly-established enterprises; 108,000 of the newly-established enterprises were SMEs, accounting for 99.65% of all newly-established enterprises.
- (2) Newly-established enterprises posted total sales of NT\$358,680 million in 2004. Newly-established large enterprises accounted for NT\$97,870 million of this figure (27.29% of the total), while newly-established SMEs accounted for NT\$260,810 million (72.71% of the total).

- (3) Newly-established enterprises posted domestic sales totaling NT\$307,960 million. Newly-established large enterprises accounted for NT\$75,950 million of this figure (24.66% of the total), while newly-established SMEs accounted for NT\$232,011 million (75.34% of the total).
- (4) Newly-established enterprises posted export sales totaling NT\$50,720 million. Newly-established large enterprises accounted for NT\$21,920 million of this figure (43.22% of the total), while newly-established SMEs accounted for NT\$28.8 billion (56.78%).

Figure 2-5-1 Newly-Established Enterprises in 2004 –by Size



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

2. Ratio of Domestic Sales to Export Sales among Newly-Established Enterprises

The difference between the domestic sales performance and export sales performance of newly-established enterprises in 2004 was dramatic. Domestic sales accounted for 85.86% of newly-established enterprises' total sales, while export sales accounted for 14.14%. These figures reflect the fact that newly-established enterprises are heavily oriented towards the domestic market. For newly-established SMEs, domestic sales accounted for 88.96% of total sales, while domestic sales accounted for 11.04%, giving a disparity of 77.92 percentage points. Among newly-established large enterprises, the figures were 77.60% and 22.40%, giving a disparity of 55.2 percentage points. It can thus be seen that the orientation towards the domestic market among newly-established enterprises is even more pronounced among SMEs than among large enterprises.

3. Comparison of Newly-Established SMEs with SMEs as a Whole

Examination of the data for newly-established SMEs as a percentage of all SMEs for the last five years shows that, in 2004, there was a downward trend in all indicators. The shares of total sales, domestic sales and exports sales for all SMEs accounted for by newly-established SMEs all fell to their lowest level in five years. As a percentage of all SMEs, the number of newly-established SMEs was largest in 2003, at 9.73%, and lowest in 2002, at 8.28%. The share of SMEs' total sales and domestic sales accounted for by newly-established SMEs reached its highest level in 2000, while the share of SMEs' total export sales accounted for by newly-established SMEs reached its highest level in 2001 (Table 2-5-2).

Table 2-5-2 Comparison of Newly-Established SMEs with SMEs as a Whole, 2000-2004

Units: Number of enterprises; NT\$ million; %

Indicator		Year	2000	2001	2002	2003	2004
Number of enterprises	All SMEs		1,070,310	1,078,162	1,104,706	1,146,352	1,164,009
	Newly-established SMEs		96,723	94,803	91,435	111,507	108,235
	Newly-established SMEs as % of all SMEs		9.04	8.79	8.28	9.73	9.30
Total sales value	All SMEs		7,566,617	6,841,565	7,495,287	8,707,060	9,352,477
	Newly-established SMEs		267,649	231,363	247,292	295,370	260,811
	Newly-established SMEs as % of all SMEs		3.54	3.38	3.30	3.39	2.79
Domestic sales value	All SMEs		6,196,680	5,541,613	6,144,404	7,379,244	7,926,116
	Newly-established SMEs		228,245	190,003	204,968	266,634	232,015
	Newly-established SMEs as % of all SMEs		3.68	3.43	3.34	3.61	2.93
Export sales value	All SMEs		1,369,937	1,300,385	1,350,884	1,327,836	1,426,362
	Newly-established SMEs		39,403	41,384	42,324	28,736	28,797
	Newly-established SMEs as % of all SMEs		2.88	3.18	3.13	2.16	2.02

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

4. Newly-Established SMEs – by Industry

In 2004, the wholesale and retail sector accounted for the largest number of newly-established SMEs, at 54,000 (49.72% of all newly-established enterprises). The accommodation and eating-drinking places industry was in second place, with 16,000 enterprises (15.16% of all newly-established enterprises). In terms of the total sales achieved by newly-established SMEs, the wholesale and retail sector was in first place, with NT\$137.4 billion, accounting for 52.69% of the total for all industries, while the

manufacturing industry was in second place with NT\$40 billion (15.33%). As regards the total domestic sales value achieved by newly-established SMEs, the wholesale and retail sector again ranked first, with NT\$127.7 billion (55.02% of the total), followed by the construction industry with NT\$30.4 billion (13.11%). With respect to export sales, the manufacturing sector was in first place, with NT\$16.3 billion (56.47% of the total for all newly-established SMEs), and the wholesale and retail sector was in second place, with NT\$9.8 billion (33.95%) (Table 2-5-3).

Table 2-5-3 Overview of Newly-Established SMEs in 2004 –by Industry

Units: Number of enterprises; NT\$ million; %

Industry	Indicator	Number of enterprises		Total sales		Domestic sales		Export sales	
			% of total		% of total		% of total		% of total
Total		108,235	100.00	260,811	100.00	232,015	100.00	28,797	100.00
Agriculture, forestry, fishing and animal husbandry		245	0.23	185	0.07	185	0.08	0	0.00
Mining and quarrying		100	0.09	751	0.29	751	0.32	0	0
Manufacturing		5,045	4.66	39,993	15.33	23,732	10.23	16,262	56.47
Water, electricity and gas		27	0.02	190	0.07	190	0.08	0	0
Construction		8,701	8.04	32,637	12.51	30,414	13.11	2,222	7.72
Wholesale and retail		53,810	49.72	137,429	52.69	127,653	55.02	9,776	33.95
Accommodation and eating-drinking places		16,407	15.16	13,067	5.01	13,067	5.63	0	0.00
Transportation, warehousing and communications		990	0.91	4,467	1.71	4,273	1.84	193	0.67
Finance and insurance		971	0.90	3,145	1.21	3,144	1.35	1	0.00
Real estate and leasing		3,383	3.13	6,504	2.49	6,500	2.80	4	0.01
Professional, scientific and technical services		5,573	5.15	10,853	4.16	10,633	4.58	220	0.76
Educational services		62	0.06	122	0.05	122	0.05	0	0
Medical, health care and social welfare services		30	0.03	12	0.00	12	0.00	0	0
Cultural, sports and leisure services		3,928	3.63	3,636	1.39	3,626	1.56	10	0.03
Other service industries		8,963	8.28	7,822	3.00	7,714	3.32	108	0.37

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

VI International Comparison

Table 2-6-1 provides an international comparison of SMEs. In light of the differences in the time the data was collected and the difficulties encountered in the collection process, some data in the table might be incomplete or outdated. The table compares a few major economic indicators for SMEs in 15 countries and regions, including Taiwan, Australia, Canada, Hong Kong, Japan, Malaysia, Mexico, New Zealand, Philippines, Russia, Singapore, South Korea, Thailand, the UK and the US. Different countries define SMEs differently, and in some cases data for the years covered are not available. Readers should be aware of these limitations and are advised to interpret

the data more judiciously.

1. Percentage of SMEs

Based on the collected data for the 15 countries and regions covered by the comparison, the US and Canada define SMEs most loosely, that is, enterprises with 500 or fewer employees, while New Zealand has the most stringent criterion, setting the cut-off at 19 employees. Countries defining SMEs as enterprises with 300 or fewer employees include Japan and South Korea. In the case of Japan, the standard is 300 or fewer employees, but the cut-off is reduced to 100 employees for firms in the wholesale sector, and to 50 employees for the retail and service sectors; in the case of South Korea, the standard for the majority of industries (see Note 3 for details) is similarly 300 or fewer employees, but the cut-off is reduced to 200 or fewer employees for the seedling and broadcasting industries, and to 100 or less for some other industries. The UK defines SMEs as enterprises with 250 or fewer employees, whereas Russia does not have an explicit definition. Hong Kong classifies its industry into manufacturing and non-manufacturing sectors; enterprises in the manufacturing sector with 100 or fewer employees are classed as SMEs, while enterprises in the non-manufacturing sector with 50 or fewer employees are defined as SMEs. Taiwan defines SMEs based on the number of employees and sales turnover or capital; in the case of the former, SMEs are defined as enterprises with 200 or fewer employees in the manufacturing, construction and mining sectors, and enterprises with 50 or fewer employees in the other sectors; in the case of the latter, SMEs are defined as enterprises with a paid-in capital of less than NT\$80 million for the manufacturing, construction, mining and quarrying sectors, and as enterprises with turnover of less than NT\$100 million in the previous year for other sectors. Based on the number of employees, Taiwan's definition of SMEs is more stringent than those of most other countries. For the purposes of comparison, the data on Taiwan in the table define SMEs based on the criterion of sales turnover and capital, except for the number of employees.

In terms of absolute number, the US has the greatest number of SMEs, totaling 22.9 million and accounting for 99% of all enterprises. Russia and Japan have, respectively, 8.73 million and 5.63 million SMEs, taking the second and the third places among the countries under comparison. In fact, all 15 countries discussed in this section have very high percentages of SMEs, all exceeding 90% and twelve of them exceeding 95%,

suggesting the critical role played by SMEs in the economic structure of many countries.

Taiwan has 1.15 million SMEs, accounting for 96.91% of all enterprises. Such a high percentage also indicates the importance of SMEs to the country's economy.

Table 2-4-1 International Comparison of SMEs

Units: thousand establishments; thousand persons; percentage

Country/ Region	Item	Non-Agricultural sector				Sales turnover	Exports	Newly- established SMEs	SMEs closed down
		No. of establishments	Percentage	No. of persons employed	Percentage				
Taiwan (2004)		1,150	96.91	6,910	70.70	30.60	16.91	9.1	NA
Australia (2000)		1,100	96.00	3,940	43.50	NA	51.00	4.3	8.0
Canada (2003)		2,140 (2004)	91.44 (2004)	6,650	64.98	NA	38.20 (2002)	10.5	9.7
Hong Kong (2003)		280	98.00	1,310	60.00	NA	NA	NA	NA
Japan (2004)		5,630	98.32	39,220	75.20	48.20 (2002)	NA	2.7 (2002)	3.2 (2002)
Malaysia (2001)		205	96.11	376	32.50	NA	NA	NA	NA
Mexico (2001)		2,840	99.60	NA	64.00	NA	21.00 (1996)	NA	NA
New Zealand (2003)		290	96.84	650	42.28	33.20 (2001)	NA	18.2	13.5
Philippines (2001)		800	99.60	4,100	70.00	NA	NA	NA	NA
Russia* (2003)	250 employees	8,440	94.35	32,050	48.81	46.89	NA	NA	NA
	500 employees	8,730	97.57	39,960	60.86	53.78	NA	NA	NA
Singapore (2000)		540	91.00	400	57.00	NA	16.00	NA	NA
South Korea (2003)		2,950	99.81	10,380	86.66	NA	39.06 (2004)	1.5 (2000)	NA
Thailand (2003)		2,000	99.47	5,570	60.69	47.91	NA	NA	NA
UK (2003)		3,840	95.41	12,170	56.20	51.15	NA	4.8 (2002)	4.9 (2002)
USA (2002)		22,900	99.00	54,800	57.10	31.00	30.00	10.0	10.0

Notes: 1. * means the No. of enterprises, and employed population include those of the agricultural sector.

2. The percentages represent the ratio of SMEs as a percentage of all enterprises.

3. Definitions of SMEs in different countries:

Taiwan: See Appended Table B.

Australia: Enterprises with 200 or fewer employees.

Canada: Enterprises with 499 or fewer employees.

Hong Kong: For the manufacturing sector, enterprises with 100 or fewer employees; for the non-manufacturing sector, enterprises with 50 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.

Japan: For the mining, manufacturing, transportation and construction sectors, enterprises with 300 or fewer employees; for wholesale industry, enterprises with 100 or fewer employees; for the retail and service sectors, enterprises with 50 or fewer employees.

Malaysia: Enterprises with 100 or fewer employees.

Mexico: Enterprises with 500 or fewer employees.

New Zealand: Enterprises with 19 or fewer employees.

Philippines: Enterprises with 200 or fewer employees.

Russia: Not clearly defined; the country's data are classified into groups of SMEs with 250 or fewer employees and SMEs with 500 or fewer employees for comparison purposes.

Singapore: Enterprises with 200 or fewer employees.

South Korea: For the mining, manufacturing, transportation, construction, large wholesale, hotel, information processing sectors, enterprises with 300 or fewer employees; for the seedling and broadcasting sectors, enterprises with 200 or fewer employees; for the other sectors, enterprises with 100 or fewer employees.

Thailand: For the manufacturing and service sectors, enterprises with 200 or fewer employees; for the wholesale industry, enterprises with 50 or fewer employees; for the retail sector, enterprises with 30 or fewer employees.

UK: Enterprises with 250 or fewer employees.

USA: Enterprises with 500 or fewer employees.

Sources: Taiwan – White Paper on Small and Medium Enterprises in Taiwan, 2005.
 Australia – Department of Industry, Tourism and Resources, /www.industry.gov.au/
 Canada – Department of Industry, /strategis.ic.gc.ca/
 Hong Kong – Small and Medium Enterprises Office, /www.sme.gov.hk/
 Japan – Statistics Bureau, /www.stat.go.jp/
 Malaysia – Small and Medium Industries Development Corporation, /www.smidec.gov.my/
 Mexico – *OECD Small and Medium Enterprise Outlook 2002*.
 New Zealand – Statistics New Zealand, /www2.stats.govt.nz/
 Philippines – National Statistics Office, /www.census.gov.ph/
 Russia – Russian SME Resource Centre, /docs.rcsme.ru/
 Singapore – Ministry of Trade and Industry, /www.mti.gov.sg/
 South Korea – Small and Medium Business Administration, /www.smba.go.kr/
 Thailand – Office of SMEs Promotion.
 UK – Department of Trade and Industry, www.sbs.gov.uk/
 USA – Office of Advocacy, Small Business Administration, /www.sba.gov/advo/

2. Employment

For the purposes of comparison, the definition of SMEs in Taiwan in this section is based on the number of those in employment. If SMEs in the agricultural sector are excluded, the US ranks the highest in terms of SME employment, totaling 54.8 million persons, followed by Russia and Japan with 39.96 million persons and 39.22 million persons employed by SMEs, respectively. Based on the percentage of employed population, South Korea has the highest percentage of employed population working for SMEs, or 86.66%. Of the 15 countries compared, only four have less than 50% of its employed population in the SME sector, while the other countries all exceed 50%, indicating the SMEs in the great majority of countries provide more than 50% of employment opportunities.

Taiwan's SMEs employ 6.91 million persons, which accounts for 70.7% of the total employed population, being surpassed by the US and Japan only.

3. Sales Turnover

Taiwan's SMEs account for 30.6% of the sales turnover of all enterprises, which is comparable to the 31% in the US. The country where SME turnover accounts for the highest percentage of total turnover is the UK with 51.15%; Japan and Russia come in second and third with 53.78% and 48.2%, respectively. Of the 15 countries under comparison, only the SMEs in the UK and Russia contribute more than 50% of the country's turnover. Since the vast majority of SMEs contribute less to total sales turnover than large enterprises, this reflects the fact that SMEs tend to be labor-intensive enterprises.

4. Export Value

Exports of SMEs as a percentage of a country's total exports are the highest in South Australia, at about 51%; South Korea and Canada come in second and third at 39.06% and 38.2%, respectively. The share of direct exports by Taiwan's SMEs in 2004 stood at 16.91%. This share has been in decline in recent years, suggesting the changing role of SMEs in exports, from being direct exporters of final products in the past to serving as suppliers of components to Taiwan's large enterprises. While the SMEs in Taiwan undergo transformation, the country's industrial structure is also being oriented towards high technology.

5. New SMEs and the Closing Down of SMEs

The establishment and closing down of businesses may be viewed as the driving force within an economic system. If a country establishes more new enterprises than those it closes down, this is an indication that the country's economy is in robust shape. Thus the data on new SMEs and the closing down of SMEs provide a glimpse of how flexibly SMEs respond to changes taking place in the macroeconomic environment.

As shown in Table 2-4-1, the percentage of newly-established SMEs is less than 20% for all the countries under comparison. New Zealand has the highest percentage of 18.2%, but the country also has the highest percentage of SMEs closing down, or 13.5%, which means the growth rate of its SMEs is actually less than 5%. The US and the UK had nearly the same percentages of new SMEs and SMEs closed down during the period 2002–2003, representing essentially zero growth in their SME sector. The SMEs in Canada displayed slight growth with percentages of new SMEs and SMEs being closed down of 10.5% and 9.7%, respectively, representing an increase of 0.8%. By contrast, Japan has higher percentage of SMEs being closed down than of new SMEs, indicating that the number of SMEs in Japan is decreasing and reflecting the decline in the country's economic vitality. In South Korea, new SMEs accounted for 1.5% of all enterprises in 2000, whereas in Taiwan, the percentage of new SMEs was 9.1% in 2004. However, the data on the SMEs closed down in both countries are incomplete. Taiwan consistently had more new SMEs than SMEs closed down in the past. However, the statistics on SMEs being closed down have not been made available since 2003.

Chapter 3

Financial Status of SMEs

The overview of the financial status of SMEs presented in the first two sections of this chapter is based on data supplied by the Tax Data Center of the Ministry of Finance. As these data are derived from business income tax returns, there is a one-year time lag in contrast to the data presented in the other chapters. In other words, the data in Sections I and II are for the year 2003 rather than 2004. Section III analyzes the sources of funds for the manufacturing sector and the reasons for the difficulty in acquiring funds. Section IV examines the interaction between banks and SMEs based on changes in the statistical data.

Given the varying sources of data, the definition of SMEs used in different sections of this chapter also varies. In Section I and Section II, the definition of SMEs is that firms in the mining and quarrying, manufacturing and construction sectors have capital of NT\$80 million or less, and firms in other sectors have annual sales revenue of NT\$100 million or less. The industry categories used in Section II have been revised according to the ROC Standard Industry Classification Version 7. The data in Section III come from the Status Survey Report on the Domestic Investment of Manufacturing Industry published by the Statistics Department, Ministry of Economic Affairs, according to which large enterprises are firms with 200 or more employees; medium enterprises are firms with 100–200 employees; and small enterprises are firms with less than 100 employees. The data in Section IV are quoted from the Summary of Financial Statistics published by the Financial Supervisory Commission, Executive Yuan and from the Central Bank of China, which adopt the same definitions for SMEs as those in Sections I and II.

In 2003, more than 600,000 enterprises filed business income tax returns. After deducting those enterprises that did not provide complete data, where it was unclear as to which industry the enterprise belonged, or where the declared data were inconsistent, we were left with the financial data for 298,798 enterprises, of which

284,172 (95.11%) were SMEs. Of those SMEs, 124,962 or 43.97% were in the wholesale and retail sector, 74,485 or 26.21% were in manufacturing industry, and 31,654 or 11.14% were in the construction industry.

Overall, the financial conditions of enterprises in 2003 improved over 2002. Based on the 2003 profit and loss statements of the samples, 190,573 enterprises recorded profits. That means that 36.22% of enterprises did not make a profit in 2003, a figure slightly lower than the 37.19% recorded in 2002. 23.04% of large enterprises did not make a profit in 2003, compared to 25.36% in 2002, while 36.90% of SMEs failed to show a profit, as compared to 37.74% in 2002.

I Overall Financial Status of SMEs

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

1. Analysis of Fund Utilization by SMEs

(1) Small Increase in Current Assets

As can be seen from Table 3-1-1, the current assets of large enterprises as a percentage of total assets in 2003 declined by 5.62 percentage points from 2002, while the corresponding figures for SMEs increased by 2.72 percentage points, with accounts receivable displaying the highest gain of 1.13 percentage points, followed by cash with 0.94 percentage points, and inventory with 0.78 percentage points. These figures reflect the conservative mentality of SMEs, working to keep their cash position amid the constantly changing business climate when they do not have as much control over the terms of transactions on credit as large enterprises.

(2) Significant Drop in Funds and Long-term Investments

For large enterprises, the share of total assets held by funds and long-term investments increased by 3.82 percentage points in 2003 as compared to 2002, reflecting the more

aggressive approach of large enterprises towards capital expenditure back in 2001 in anticipation of a global economic rebound. By contrast, for SMEs the share of total assets held by funds and long-term investments fell by 2.95 percentage points over the same period.

Table 3-1-1 Consolidated Financial Data of Taiwanese Enterprises, 2001–2003

Unit: %

Item	Size/Year	Large enterprises			SMEs		
		2001	2002	2003	2001	2002	2003
Current assets		60.20	64.10	58.48	59.39	56.04	58.76
Cash		23.27	26.51	26.97	15.55	14.67	15.61
Accounts receivable		22.70	29.16	22.54	16.53	16.04	17.17
Inventory		10.59	5.28	5.92	23.54	21.81	22.59
Advance payments		0.55	0.51	0.54	1.87	1.68	1.60
Other current assets		3.09	2.64	2.50	1.91	1.84	1.80
Funds and long-term investments		24.76	19.81	23.63	9.74	13.38	10.43
Fixed assets		11.36	12.03	13.89	27.51	27.16	27.70
Land and buildings		6.50	6.44	7.40	15.78	16.20	16.91
Machinery		3.76	4.65	5.16	9.65	8.94	8.59
Other fixed assets		1.10	0.94	1.33	2.08	2.02	2.21
Intangible and other assets		3.68	4.07	4.01	3.36	3.42	3.11
Total assets = Liabilities + Net worth		100.00	100.00	100.00	100.00	100.00	100.00
Liabilities		79.55	80.73	78.47	66.23	66.33	66.67
Current liabilities		57.19	61.76	57.14	59.58	58.95	59.37
Short-term loans		41.91	43.20	41.45	17.24	17.27	15.60
Accounts payable		9.27	12.26	8.39	14.92	14.93	16.35
Income received in advance		1.89	2.29	2.39	4.92	4.64	4.87
Other current liabilities		4.13	4.01	4.91	22.50	22.11	22.55
Long-term liabilities		18.93	12.97	14.42	4.75	5.31	4.94
Long-term loans repayable		3.81	3.98	3.84	4.30	4.54	4.54
Other long-term liabilities		15.11	8.99	10.59	0.45	0.77	0.39
Other liabilities		3.43	6.01	6.91	1.90	2.07	2.36
Net worth		20.45	19.27	21.53	33.77	33.67	33.34
Stockholders' equity		14.59	14.46	15.42	41.40	41.17	40.40
Reserves and operating surplus		5.87	4.81	6.11	-7.63	-7.51	-7.07

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

According to the Monthly Bulletin of Investment Statistics published by the Investment Commission, Ministry of Economic Affairs, the number of investments in China by Taiwanese enterprises rose by 23.29% in 2003 to 1,837 projects, up from 1,490 projects in 2002. The amount of investment in China totaled US\$4.59 billion, up 18.91% and accounting for 53.68% 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, investment in China accounted for the lion's share of the outward investment by manufacturing industry with 77.75%, followed by investment in the US with 15.93%.

With regard to the supply of raw materials, parts and components, and semi-finished products for use in production by Taiwanese enterprises in major outward investment areas, all the indicators are positive, except for that in regard to items "supplied by Taiwan," which is pointing in a negative direction. "Supplied by Taiwanese enterprises in the invested country" was the indicator with the highest positive prospects, followed by "supplied by local, non-Taiwanese enterprises." These indicators suggest that, as the overseas establishments of Taiwanese enterprises stabilize, the trade creation effect brought about by outward investment gradually dwindles, and those enterprises tend to look to utilizing local resources more efficiently, make more effort to localize their business, and seek raw materials, parts and components, and semi-finished products directly from local suppliers.

As for the sales of products manufactured in the major overseas investment areas, more enterprises are electing to sell through their overseas establishments directly. This practice is particularly common among the larger enterprises. The amounts of sales to both the local market and export markets by the overseas establishments of Taiwanese enterprises have increased significantly regardless of the size of enterprise or the type of industry, while the sales generated from selling back to Taiwan have been declining. It is apparent that the efforts of those enterprises to develop overseas markets and enhance after-sales service are gradually starting to pay off.

The continuing deterioration of the economic environment in Taiwan in the first half of 2003 prompted SMEs to step up their overseas investments, as they focused on the abundant labor supply and the vast market in China. This is probably why the SMEs' share of total assets held by funds and long-term investments remained relatively high, while it could also be that SMEs remained conservative towards increasing machinery investment. Another possibility is that in an era of low interest rates when bank deposits yield meager returns, SMEs have adjusted their fund allocation by increasing the shares attributable to funds and long-term investments to earn better returns.

(3) A Slight Drop in Investment in Machinery, and a Slight Rise in Investment in Fixed Assets

For SMEs, the share of total assets held by fixed assets has been more or less the same in the past three years; it was 27.70% in 2003, representing an increase of 0.54 percentage points from 2002. The share held by land and buildings rose, while that held by machinery continued to fall. This indicates that, with the economic outlook still uncertain (although the recession seemed to have bottomed out in 2002), SMEs, which tend to have less capital, continued to give priority to holding more land, and delayed investment in machinery. Depreciation is another reason for the lower share held by machinery.

2. Analysis of SME Funding Sources

Overall, there was little change in the funding sources for SMEs in 2003 as compared to 2002. With no clear sign of an economic upturn, enterprises have continued to struggle, with no significant improvement in profitability.

(1) A Fall in Current Liabilities and an Increase in Long-term Debt

Taiwan's economy began its downturn in the second half of 2000. The SMEs' overall debt ratio jumped in 1999 and 2000 to 55.64% and 65.43%, respectively, then stayed around that level in the three years that followed. The current liability ratio in 2003 was 59.37%, which was slightly higher than in 2002. However the long-term liability ratio in 2003 was down slightly from 2002. The changes in the SMEs' debt ratios were the exact opposite of those for large enterprises. By analyzing the sources of funding for SMEs and large enterprises, in particular banks, we can get a glimpse of the attitude of lenders towards enterprises of different sizes. Because many SMEs have moved their production bases overseas, banks have become more cautious in extending credit to them, especially in the provision of short-term loans. As a result, we see an increase in the share of trade financing, accounts receivable and accounts payable among SMEs.

(2) Reserves and Surplus Still Negative

By and large, SMEs continued to exhibit a lackluster performance in 2003. Of close to

300,000 enterprises, 36.90% failed to make a profit, resulting in a situation where the accumulated loss as recorded on the balance sheet became greater than the accumulated surplus, and both the reserve account and surplus were negative. This situation continued for three years from 2000 onward, reflecting the difficult operating environment faced by SMEs, and the prevalent practice of SME owners undertaking overseas investment under their own names and engaging in “triangular trade.” As a result, the establishment of many SMEs in Taiwan has shrunk to the point where a SME no longer conducts regular business and may even show a loss on its books.

3. Analysis of SME Profit and Loss

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

In 2003 the operating costs of SMEs accounted for 81.03% of their net operating income (Table 3-1-2), down 0.37 percentage points from 2002; among large enterprises, the decrease was 0.15 percentage points. In the last three years, large enterprises and SMEs have seen their gross profit margin stabilize, with that of SMEs staying above 18% (18.97% in 2003). By contrast, the gross profit margin of large enterprises has dropped to the level of 5.5% as the operating environment has deteriorated since 2002 (the ratio of operating costs was 90.57% in 2000, 94.26% in 2001, and 94.60% in 2002). These figures reflect the fact that SMEs usually operate in a niche market where price competition is less intense, and are able to maintain reasonably high gross profit margins even when the economic climate deteriorates.

Table 3-1-2 Profit and Loss of Taiwanese Enterprises, 2001–2003

Unit: %

Item	Year	Large enterprises			SMEs		
		2001	2002	2003	2001	2002	2003
Net operating income		100.00	100.00	100.00	100.00	100.00	100.00
Less: Operating costs		94.26	94.60	94.45	81.32	81.40	81.03
Gross operating profit		5.75	5.40	5.55	18.68	18.60	18.97
Less: Operating expenses		4.93	4.89	4.32	18.51	18.38	18.06
Net operating profit		0.82	0.52	1.23	0.16	0.22	0.91
Plus: Non-operating income		0.78	0.71	0.73	1.87	1.62	1.33
Less: Interest expenses		0.41	0.42	0.38	1.09	0.93	0.92
Less: Other non-operating expenses		0.54	0.39	0.31	1.48	1.15	0.87
Profit (loss)		0.64	0.41	1.26	-0.53	-0.24	0.45

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

(2) A Substantial Drop in Operating Expenses, But the Ratio is Still Higher Than That of Large Enterprises

Operating expenses include expenses arising from operations, including salaries, rentals, advertising, depreciation, insurance, etc. In 2003 the operating expenses of SMEs amounted to 18.06% of net operating income, down 0.32 percentage points from 18.38% in 2002, but still far higher than the 4.32% of larger enterprises. Either because of contractual requirements or the accounting method used, it is more difficult for SMEs to pare down their rental expenses, depreciation or salaries as compared to large enterprises, in particular those in high-tech and OEM or ODM businesses. In addition, SMEs lack the advantage of economies of scale. As a result, their operating expenses (as a percentage of net operating income) tend to be much higher than those of large enterprises.

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

Operating costs and operating expenses combined accounted for 81.03% of the net operating income of SMEs, while their net profit margin ratio was just 0.91%. 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, their operating expenses account for a very high percentage of net operating income. High gross profit margins are thus eroded by high operating costs, resulting in net profit performance inferior to that of large enterprises. Large enterprises enjoy a gross profit margin of only 5.55%, but are able to achieve a profit margin of 1.23% because they have been more successful at keeping operating expenses down. However, in 2003 both large enterprises and SMEs generally posted a lower operating expenses ratio, suggesting that business owners have improved the ability to control costs and expenses in this era of declining profit margins.

(4) Current Profit and Loss Turned Positive

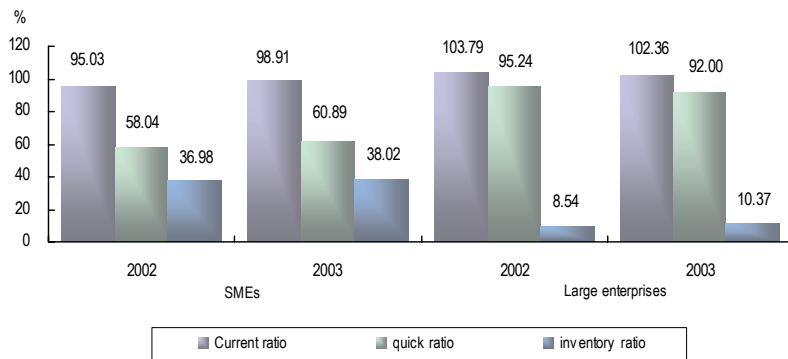
Although gross profit margins in 2003 were comparable to those of previous years, SMEs made an impressive gain of 0.91% in net operating profit from 0.22% in 2002 due to the effective control exercised over operating expenses. The non-operating income and expenses of SMEs in 2003 were more or less the same as in previous years. Thus, many SMEs recorded a profit in 2003.

4. Analysis of Financial Ratios of SMEs

(1) Current Ratio, Quick Ratio and Inventory Ratio Remain About the Same

Spurred by the upturn in the global economy, the short-term liquidity of SMEs improved in 2003 (Figure 3-1-1), with the current ratio, quick ratio and inventory ratio all rising slightly. The quick ratio and inventory ratio of large enterprises moved in different directions, reflecting the differences in operational patterns. For example, if enterprises are unable to bring short-term debt under control, their short-term solvency will be adversely affected. In 2003 the current ratio of large enterprises declined by 1.43 percentage points, and their quick ratio declined by 3.24 percentage points, indicating that the short-term solvency of large enterprises in 2003 was somewhat weaker than in 2002. The inventory ratio of large enterprises increased slightly to 10.37% from 8.54% in 2002, suggesting that large enterprises stocked up a little bit more to meet production and sales needs under a recovering global economy.

Figure 3-1-1 Short-term Liquidity of Enterprises, 2002–2003



Notes: 1. Current ratio = $\text{current assets} \div \text{current liabilities} \times 100\%$ (reference value = 200; ideally, the ratio should be higher than the reference value).

2. Quick ratio = $(\text{current assets} - \text{inventories}) \div \text{current liabilities} \times 100\%$ (reference value = 100; ideally, the ratio should be higher than the reference value).

3. Inventory ratio = $\text{inventories} \div \text{current liabilities} \times 100\%$ (reference value = 50; ideally, the inventory ratio should be higher than the reference value).

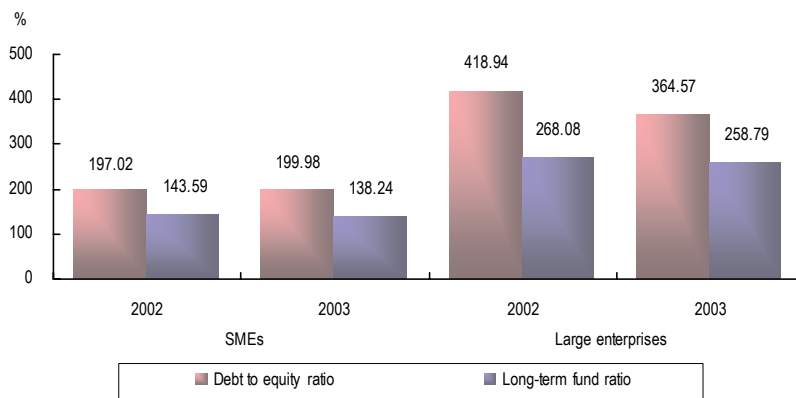
Source: Business income tax return data, Ministry of Finance.

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

The debt to net worth ratio of SMEs in 2003 was 199.98%, up 2.96 percentage points

from 2002. However, that of large enterprises dropped substantially (by 54.37 percentage points) from 418.94% to 364.41%. This indicates that, as banks have become less willing to extend loans in recent years, large enterprises have turned from the money market to the capital markets for financing. Because of their better debt repayment ability, large enterprises tend to have a much higher debt ratio than SMEs. The debt to net worth ratio is a measure of the long-term solvency of an enterprise; an increase in this ratio indicates a decline in the enterprise's ability to meet its obligations to creditors. The long-term fund ratio of SMEs fell slightly to 138.24%, which was worse than the 258.79% of large enterprises, but still within the acceptable range (Figure 3-1-2).

Figure 3-1-2 Long-term Stability of Enterprises, 2002–2003



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

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

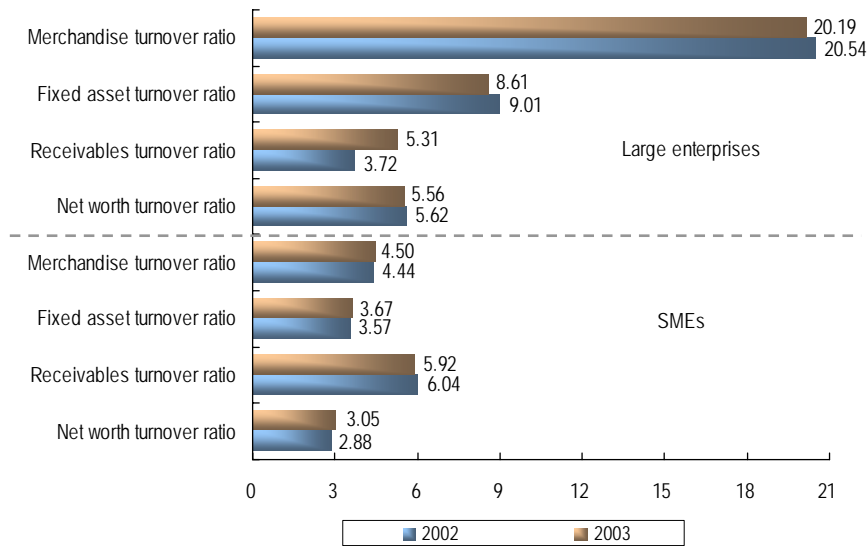
Source: Business income tax return data, Ministry of Finance.

(3) A Slight Decrease in the Receivables Turnover Ratio While the Other Turnover Ratios Edge up

The operational performance of an enterprise depends on the effective utilization of its assets. The level of turnover reflects the extent to which the assets are being effectively utilized, the company's credit policy and its inventory policy. The receivables turnover can be used to measure the operating capability of an enterprise; a high ratio suggests better operating capability, the efficient collection of receivables and the absence of idle or excess inventory. Looking at the data for 2003, the

receivables turnover of SMEs dropped slightly to 5.92 turns from 6.04 turns in 2002 (Figure 3-1-3), while merchandise turnover rose slightly to 4.50 turns from 4.44 turns in 2002.

Figure 3-1-3 Operating Capability of Enterprises, 2002–2003



Notes: 1. Net worth turnover ratio = net sales / net worth.
 2. Receivables turnover ratio = net sales / receivables.
 3. Fixed asset turnover ratio = net sales / fixed assets.
 4. Merchandise turnover ratio = net sales / inventories.
 Source: Business income tax return data, Ministry of Finance.

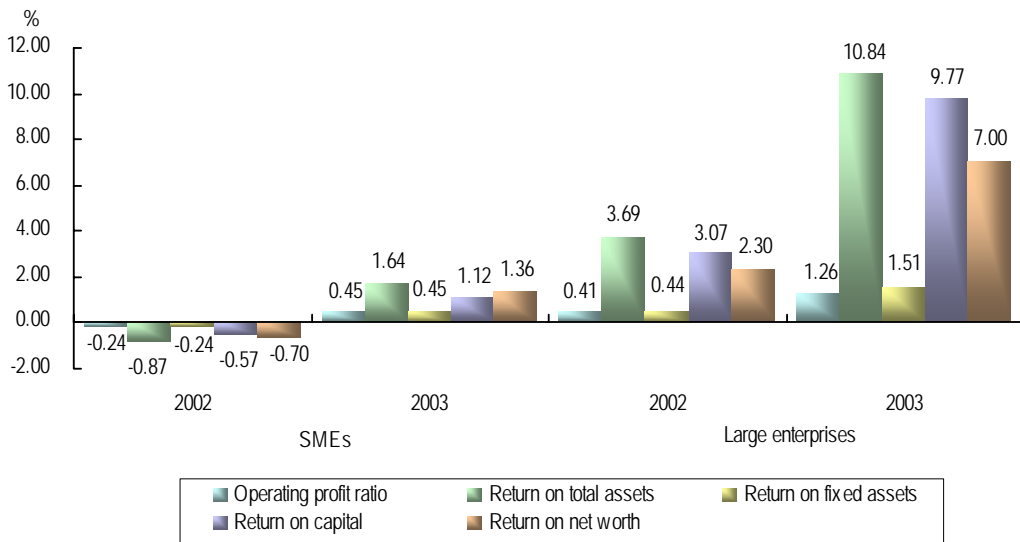
The other two turnover ratios – net worth turnover and fixed asset turnover – are used to evaluate the efficiency of asset utilization. Higher ratios mean the enterprise is better able to make effective use of its own capital and fixed assets. In 2003 the fixed asset turnover of SMEs rose slightly to 3.67 turns from 3.57 turns in 2002, while the net worth turnover rose to 3.05 turns from 2.88 turns in 2002, indicating that SMEs were better able to make use of their fixed assets and own capital to generate income under conditions of stronger domestic demand.

(4) Profitability Indicators All Positive

Profitability can be observed from an enterprise's ability to use its funds and capital to generate profit. Taiwan's economic growth in 2003 was comparable to that in 2002, reflecting the growth level since 2001 (-2.18% in 2001, 3.59% in 2002, and 3.3% in

2003). As domestic demand gradually picked up steam, SMEs were able to see a profit in 2003 after two consecutive years of loss in 2001 and 2002. The profitability indicators of SMEs were all positive in 2003; the operating profit ratio was 0.45%, the return on total assets was 1.64%, the return on fixed assets was 0.45%, the return on capital was 1.12%, and the return on net worth was 1.36% (Figure 3-1-4).

Figure 3-1-4 Profitability of Enterprises, 2002–2003



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

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

II Financial Analysis by Industry

The breakdown by industry of the 298,798 enterprises for which comprehensive financial data are available is shown in Table 3-2-1. Of the 284,172 SMEs, 104,855 (or 36.90%) failed to make a profit. The industries with a percentage of SMEs failing to make a profit higher than the overall average of 36.90% included: the accommodation and eating-drinking places industry (59.83%), educational services (56.13%), leisure services (55.73%), finance and insurance (52.89%), and professional services (52.24%).

Table 3-2-1 Financial Status of Enterprises by Industry, 2003

Unit: %

Industry	Scale	SMEs		Large enterprises	
		No. of enterprises	% failing to make a profit	No. of enterprises	% failing to make a profit
Total		284,172 (104,855)	36.90	14,626 (3,370)	23.04
Agriculture, forestry, fishing and animal husbandry		974 (207)	21.25	26 (4)	15.38
Mining and quarrying		351 (49)	13.96	5 (1)	20.00
Manufacturing		74,485 (16,525)	22.19	2,112 (618)	29.26
Electricity, gas and water		159 (56)	35.22	32 (9)	28.13
Construction		31,654 (9,684)	30.59	1,161 (405)	34.88
Wholesale and retail		124,962 (53,920)	43.15	8,010 (1,478)	18.45
Accommodation and eating-drinking places		7,922 (4,740)	59.83	245 (73)	29.80
Transportation, warehousing and communications		10,504 (3,748)	35.68	646 (106)	16.41
Finance and insurance		3,375 (1,785)	52.89	1,004 (306)	30.48
Real estate, rental and leasing		5,868 (2,905)	49.51	527 (183)	34.72
Professional, scientific and technical services		12,416 (6,486)	52.24	418 (84)	20.10
Educational services		253 (142)	56.13	10 (2)	20.00
Health care and social welfare services		120 (50)	41.67	–	–
Cultural, sporting and leisure services		3,675 (2,048)	55.73	250 (71)	28.40
Others		7,454 (2,510)	33.67	180 (30)	16.67

Note: Figures in parentheses are the number of enterprises failing to make a profit.
Source: Business income tax return data, Ministry of Finance.

1. Overall Financial Analysis by Industry

The 2003 consolidated balance sheets of SMEs and large enterprises by industry are shown in Table 3-2-2 and 3-2-3; the 2003 profit and loss structure by industry is shown in Table 3-2-4; the consolidated financial ratios by industry are presented in 3-2-5. As can be seen from the figures, considerable disparities exist between the financial structures of different industries. These are summarized below.

(1) The Construction Industry had the Highest Current Asset Ratio, while the Cultural, Sporting and Leisure Services Industry had the Lowest

As in 2002, SMEs in the construction industry had the highest ratio of current assets in 2003, at 85.71%. Current assets account for the vast majority of the assets of construction firms, with inventory being a particularly significant item. After inventory is sold and converted into cash, the enterprise will continue to pour in cash

to increase inventory if it feels that a reasonable return can be made. As shown in Table 3-2-2, inventory accounts for nearly 50% of current assets in the construction industry. This might be related to the ongoing slump in the real estate market that has made it difficult for construction companies to move their inventory.

The lowest ratio of current assets is found in the cultural, sporting and leisure services industry, at only 27.68%, which is far lower than the average of other industries. This has to do with the nature of this industry. Because the cultural, sporting and leisure services industry provides mainly services where payment is normally made in cash, enterprises in this industry tend to have a lower level of accounts receivable. In addition, services are converted into cash once provided; the enterprise cannot stock up.

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

The situation with the fixed assets ratio of SMEs is the mirror image of the situation with the current assets ratio. The cultural, sporting and leisure services industry had the highest fixed assets ratio, at 61.96%, while the finance and insurance industry had the lowest, at just 8.19%.

(3) The Debt Ratios of the Cultural, Sporting and Leisure Services Industry, the Hotel and Restaurant Industry, and the Real Estate, Rental and Leasing Industry were Close to 80%

The debt ratio in most industries has remained at around 50–60%. However those of the cultural, sporting and leisure services industry, the hotel and restaurant industry, and real estate, the rental and leasing industry were all in the region of 80%, being 85.88%, 79.22%, and 78.05%, respectively. The construction industry had the highest current liability ratio, at 73.05%. The industry's current assets ratio to total assets was also very high, at 85.71%. These figures reflect the "rely on cash to generate cash" nature of the construction industry. In the construction industry, income received in advance accounts for 30% of current liabilities. This is because of the widespread practice in the construction industry of collecting advance payments from the sale of pre-sold housing products or for construction work. Along with the receipt of advance

Table 3-2-2 SMEs' Consolidated Balance Sheet by Industry in 2003

Unit: %

Industry \ Item	Agriculture, forestry, and animal husbandry	Mining and quarrying	Manufacturing	Electricity, gas and water	Construction	Wholesale and retail	Hotel and restaurant	Transportation, warehousing and communications	Finance and insurance	Real estate, rental and leasing	Professional, scientific and technical services	Educational services	Health care and social welfare services	Cultural, sporting and leisure services	Other services
Current assets	43.82	44.62	60.74	42.72	85.71	73.45	34.82	54.66	30.56	37.10	52.31	31.62	67.84	27.68	55.93
Cash	11.79	12.39	13.19	21.22	14.58	17.78	10.83	23.24	21.93	7.86	26.02	21.86	31.11	9.72	27.97
Accounts receivable	7.44	17.07	22.34	9.53	22.79	20.71	7.81	20.82	5.71	3.50	14.79	6.74	12.47	8.02	13.95
Inventory	8.20	8.68	22.68	9.34	44.66	30.95	12.50	4.72	1.25	21.67	6.40	0.53	20.54	6.00	8.67
Advance payments	12.47	4.93	1.37	1.48	1.40	1.93	2.12	2.80	0.45	1.55	2.20	1.21	0.75	2.34	3.00
Other current assets	3.91	1.55	1.17	1.15	2.29	2.09	1.57	3.07	1.21	2.53	2.90	1.29	2.97	1.60	2.34
Funds and long-term investments	2.46	1.07	1.48	1.03	0.96	5.24	5.13	6.54	59.13	9.31	17.03	16.38	14.96	4.07	4.48
Fixed assets	45.53	50.11	35.97	53.07	10.41	18.92	55.29	33.50	8.19	47.06	23.75	19.37	13.96	61.96	34.70
Land and buildings	12.37	18.38	18.88	22.81	4.53	11.91	39.18	11.97	7.40	37.85	16.03	8.13	2.38	45.83	19.58
Machinery	27.66	28.86	14.97	19.30	5.36	5.88	10.16	19.90	0.41	2.18	6.09	1.90	9.07	8.96	12.75
Other fixed assets	5.50	2.87	2.13	10.96	0.51	1.13	5.95	1.63	0.39	7.03	1.64	9.34	2.51	7.17	2.36
Intangible and other assets	8.19	4.20	1.81	3.18	2.92	2.40	4.76	5.31	2.12	6.54	6.91	32.63	3.24	6.30	4.90
Total assets = Liabilities + Net worth	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Liabilities	69.93	59.17	68.80	50.10	77.10	70.92	79.22	43.62	38.64	78.05	52.06	35.69	43.17	85.88	51.31
Current liabilities	53.75	51.73	62.53	42.47	73.05	66.38	67.04	37.71	32.69	60.14	46.55	30.02	40.96	59.15	43.26
Short-term loans repayable	14.70	15.43	18.41	10.25	9.44	13.85	15.15	8.72	14.42	23.53	8.64	9.00	1.91	12.08	8.98
Accounts payable	12.45	13.61	20.67	13.36	17.11	20.65	15.63	11.55	4.68	8.28	15.04	13.69	18.29	10.45	11.89
Income received in advance	2.87	0.29	1.49	1.11	33.77	1.42	1.26	1.02	0.23	2.76	4.71	0.69	10.55	2.53	2.34
Others	23.73	22.41	21.96	17.76	12.73	30.46	35.00	16.42	13.35	25.57	18.15	6.64	10.21	34.08	20.06
Long-term liabilities	8.85	6.30	5.08	6.76	1.18	3.17	10.24	3.57	4.13	11.96	3.10	2.87	0.96	10.47	5.30
Long-term loans repayable	8.69	2.88	4.62	6.10	1.08	2.99	9.02	2.32	3.78	11.42	2.76	2.85	0.03	9.76	4.51
Other long-term liabilities	0.16	3.42	0.46	0.66	0.10	0.18	1.22	1.25	0.34	0.54	0.35	0.01	0.93	0.72	0.79
Other liabilities	7.32	1.14	1.20	0.87	2.87	1.38	1.94	2.34	1.83	5.94	2.40	2.80	1.26	16.25	2.74
Net worth	30.07	40.84	31.20	49.90	22.91	29.08	20.78	56.38	61.36	21.95	47.94	64.31	56.83	14.12	48.69
Stockholders' equity	37.75	35.95	30.24	60.92	29.28	45.05	47.53	72.12	57.48	30.16	75.53	74.13	100.64	40.27	70.02
Reserves and operating surplus	-7.68	4.89	0.95	-11.02	-6.37	-15.97	-26.75	-15.74	3.88	-8.20	-27.59	-9.82	-43.81	-26.15	-21.32

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

Table 3-2-3 Large Enterprises' Consolidated Balance Sheet by Industry in 2003

Unit: %

Item \ Industry	Agriculture, forestry, fishing, and animal husbandry	Mining and quarrying	Manufacturing	Electricity, gas and water	Construction	Wholesale and retail	Hotel and restaurant	Transportation, warehousing and communications	Finance and insurance	Real estate, rental and leasing	Professional, scientific and technical services	Educational services	Health care and social welfare services	Cultural, sporting and leisure services	Other services
Current assets	52.70	41.17	38.15	14.34	78.05	66.86	18.20	29.78	64.30	39.12	60.36	64.05	–	23.25	43.30
Cash	10.33	25.66	9.06	5.27	9.78	13.90	7.85	15.18	35.49	6.61	20.56	43.40	–	7.52	17.54
Accounts receivable	9.75	9.50	15.77	4.78	15.05	31.13	4.81	9.10	25.56	5.52	19.38	13.30	–	8.57	9.97
Inventory	9.80	1.71	10.72	2.64	47.59	17.53	2.72	0.79	0.61	23.72	16.33	0.59	–	1.82	5.90
Advance payments	20.75	0.86	1.00	0.38	1.57	2.01	1.24	0.72	0.14	1.06	1.33	3.39	–	1.97	1.47
Other current assets	2.08	3.44	1.60	1.27	4.06	2.29	1.57	3.99	2.51	2.22	2.77	3.38	–	3.38	8.42
Funds and long-term investments	16.44	29.38	13.55	5.72	6.01	7.58	6.34	24.88	29.77	12.37	17.79	22.48	–	7.32	17.48
Fixed assets	23.89	29.18	44.36	76.44	10.33	21.80	66.94	40.20	2.35	41.21	16.80	8.98	–	61.04	30.97
Land and buildings	13.09	21.20	17.80	10.05	6.66	16.54	54.06	14.71	2.06	24.44	10.05	2.13	–	36.41	19.78
Machinery	8.06	1.92	24.11	63.12	3.03	3.20	5.21	21.32	0.20	4.70	4.32	4.17	–	10.29	10.07
Other fixed assets	2.74	6.06	2.46	3.27	0.65	2.06	7.67	4.18	0.09	12.07	2.43	2.68	–	14.34	1.12
Intangible and other assets	6.97	0.27	3.94	3.50	5.61	3.77	8.53	5.14	3.58	7.29	5.05	4.49	–	8.39	8.26
Total assets = Liabilities + Net worth	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	–	100.00	100.00
Liabilities	53.55	29.11	52.16	55.20	75.08	71.43	59.19	46.00	87.75	67.94	56.88	45.48	–	67.18	68.52
Current liabilities	47.36	17.42	31.33	15.20	70.04	62.84	32.54	23.56	64.24	44.91	50.89	40.65	–	39.74	43.36
Short-term loans repayable	22.88	12.75	13.66	8.97	11.70	20.91	12.90	8.36	55.28	24.38	5.53	1.42	–	14.98	7.99
Accounts payable	10.91	4.35	12.48	4.85	13.97	30.38	12.64	10.30	4.45	7.40	19.54	16.54	–	12.91	10.49
Income received in advance	11.76	0.03	1.11	1.10	39.95	2.47	0.88	0.57	0.10	3.64	18.89	19.98	–	4.41	20.23
Others	1.81	0.30	4.09	0.28	4.43	9.08	6.11	4.34	4.41	9.49	6.93	2.71	–	7.44	4.65
Long-term liabilities	3.73	7.81	17.27	36.44	2.91	6.65	20.93	18.82	14.81	17.44	3.94	0.00	–	13.96	23.33
Long-term loans repayable	3.65	7.81	12.09	22.73	2.38	5.80	19.25	12.03	0.56	14.99	2.69	0.00	–	11.54	13.34
Other long-term liabilities	0.08	0.00	5.18	13.72	0.53	0.86	1.68	6.79	14.25	2.45	1.25	0.00	–	2.42	9.98
Other liabilities	2.45	3.88	3.55	3.56	2.14	1.93	5.72	3.62	8.69	5.60	2.05	4.83	–	13.48	1.84
Net worth	46.46	70.89	47.85	44.80	24.92	28.57	40.81	54.00	12.25	32.06	43.12	54.52	–	32.82	31.48
Stockholders' equity	27.49	52.18	33.24	31.39	25.48	23.39	37.53	39.87	8.14	20.06	27.38	43.41	–	28.46	24.48
Reserves and operating surplus	18.96	18.70	14.61	13.42	-0.56	5.18	3.28	14.13	4.11	12.00	15.74	11.12	–	4.37	7.00

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

payments, there is usually a contractual requirement that the work be completed on schedule. That means that construction companies run the risk of incurring huge penalties if they fail to monitor the progress of work properly.

After the construction industry, the accommodation and eating-drinking places industry had the second highest current liabilities ratio, at 67.04%. This reflects the changes in consumer spending patterns, which have created a situation where enterprises in this industry tend to have inadequate current ratios. It also warrants further examination as to whether the high ratio of “other liabilities” under the current liabilities is related to the nature of the industry. The real estate, rental and leasing industry ranked third in terms of the debt ratio; this industry’s current liabilities ratio was 60.14%, while its current assets ratio was 37.10%. Clearly, there is an excessive reliance on short-term borrowing to pay for long-term debt in this industry. Companies in the real estate, rental and leasing industry need to pay more attention to working capital management to keep credit risk to a minimum.

(4) The Majority of Industries Had Negative Reserves and Surpluses

In 2003 36.90% of SMEs failed to make a profit. With the exception of mining and quarrying, manufacturing, and finance and insurance, which were able to keep their reserves and surpluses in positive territory, all other industries reported negative reserves and surpluses. Eight industries accumulated losses in excess of 10%, namely, health care and social welfare services (-43.81%), professional, scientific and professional services (-27.59%), the accommodation and eating-drinking places industry (-26.75%), the cultural, sporting and leisure services industry (-26.15%), real estate, rental and leasing (-26.17%), other services (-21.32%), wholesale and retail (-15.97%), transportation, warehousing and communications (-15.74%), and electricity, gas and water (-11.02%).

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

From the profit and loss structure of SMEs in 2003 (Table 3-2-4), it can be seen that, of the 15 industry categories, only four – agriculture, forestry, fishing and animal husbandry, mining and quarrying, manufacturing, and construction – made a profit. All other industries reported a loss. About half of all industries had gross profit

margins of around 30%, with that of the educational services industry being the highest at 54%. Only SMEs in agriculture, forestry, fishing and animal husbandry, manufacturing, electricity, gas and water, and the accommodation and eating-drinking places industry had lower gross profit margins than large enterprises in the same industry. SMEs in the other eleven industries performed better than their large-sized counterparts in terms of gross profit margin, reflecting the tendency for SMEs to focus on niche markets. However, despite their impressive performance in terms of gross profit margins, the ability of SMEs to keep operating expenses and costs under control was far inferior to that of large enterprises. As a result, there were only four industries in which SMEs exhibited a positive net operating profit and earnings after deducting operating expenses.

While the gross profit margins of SMEs are far higher than those of large enterprises, their current profit levels after deducting costs and expenses lag far behind those of large enterprises. This probably reflects the fact that the SMEs' ability to control costs and non-operating expenses is inferior to that of the large enterprises. Another possibility is the deliberate reporting of extra expenditure on the part of SMEs to reduce their tax burden. The industry that sustained the biggest loss in 2003 was finance and insurance. However, it exhibited an improvement in terms of its current profit (loss) (-32.09% in 2001, -25.26% in 2002). The majority of enterprises in the finance and insurance industry have recorded losses in the past few years, mainly because many banks have been writing off non-performing loans, and insurance companies have been increasing their loss reserve as required by law and experiencing shrinking margins as a result.

As shown in Table 3-2-4, the operating expense ratio of SMEs in finance and insurance was 77.28%, lower than the 98.13% of their large-sized counterparts. However, the operating expense ratio of SMEs in finance and insurance amounted to 29.69%, which was much higher than the 1.87% of large enterprises in the same industry. As regards non-operating income and expenses, the interest expense ratio of SMEs in finance and insurance was not only higher than that of large enterprises, but also placed second among the 15 industry categories. The above figures seem to show that the cost control ability of SMEs is not inferior to that of large enterprises; it is the high interest expenses and other non-operating expenses that contribute to net operating losses and current losses.

Table 3-2-4 Profit and Loss Structure by Industry, 2003

Unit: %

Item \ Industry	Agriculture, forestry, fishing, and animal husbandry	Mining and quarrying	Manufacturing	Electricity, gas and water	Construction	Wholesale and retail	Hotel and restaurant	Transportation, warehousing and communications	Finance and insurance	Real estate, rental and leasing	Professional, scientific and technical services	Educational services	Health care and social welfare services	Cultural, sporting and leisure services	Other services
SMEs															
Net operating income	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Less: Operating costs	85.85	76.65	83.62	74.13	85.89	80.45	63.20	69.28	77.28	74.74	53.24	45.74	58.79	59.92	57.86
Gross operating profit	14.16	23.35	16.38	25.87	14.12	19.55	36.80	30.72	22.73	25.26	46.76	54.26	41.22	40.08	42.14
Less: Operating expenses	12.28	18.17	12.96	30.69	12.09	21.06	42.99	31.12	29.69	30.47	54.09	62.02	42.28	47.54	44.16
Net operating profit	1.88	5.18	3.42	-4.82	2.02	-1.51	-6.19	-0.40	-6.96	-5.21	-7.33	-7.77	-1.07	-7.47	-2.02
Plus: Non-operating income	1.51	0.45	0.94	4.47	0.51	1.49	1.47	1.94	7.19	7.88	3.06	7.20	1.11	2.86	1.41
Less: Interest expenses	1.58	0.33	0.83	0.26	0.43	0.56	0.75	1.12	9.98	5.97	2.04	3.61	0.20	1.99	1.05
Less: Other non-operating expenses	1.35	0.46	0.96	1.46	0.34	0.47	0.96	0.60	5.10	7.82	0.84	3.68	0.26	2.12	0.52
Current profit (loss)	0.45	4.84	2.57	-2.06	1.76	-1.05	-6.42	-0.18	-14.85	-11.12	-7.15	-7.85	-0.41	-8.72	-2.16
Large enterprises															
Net operating income	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	—	100.00	100.00
Less: Operating costs	80.16	69.79	85.67	73.16	94.16	86.30	62.33	77.96	98.13	85.62	66.72	69.39	—	60.55	69.79
Gross operating profit	19.84	30.21	14.33	26.84	5.84	13.70	37.67	22.04	1.87	14.38	33.28	30.61	—	39.46	30.21
Less: Operating expenses	14.41	18.59	8.32	3.78	4.66	12.00	34.62	15.16	1.59	10.65	26.43	25.65	—	32.60	25.00
Net operating profit	5.43	11.62	6.01	23.06	1.18	1.70	3.05	6.88	0.29	3.74	6.85	4.96	—	6.86	5.20
Plus: Non-operating income	3.28	5.98	1.98	2.07	1.79	1.11	2.14	2.26	0.38	3.54	1.60	4.23	—	3.66	2.93
Less: Interest expenses	1.03	1.96	1.48	0.83	1.00	0.48	0.79	1.12	0.17	2.59	1.01	3.27	—	1.90	0.89
Less: Other non-operating expenses	1.48	3.69	1.36	5.38	0.94	0.49	2.34	1.29	0.05	3.99	0.39	0.06	—	2.73	1.57
Current Profit (loss)	6.21	11.95	5.16	18.93	1.03	1.84	2.06	6.72	0.45	0.70	7.05	5.87	—	5.88	5.68

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

2. Financial Ratios by Industry

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

Table 3-2-5 Financial Ratios for Individual Industries in 2003

Unit: %

Item \ Industry	Agriculture, forestry, fishing, and animal husbandry	Mining and quarrying	Manufacturing	Electricity, gas and water	Construction	Wholesale and retail	Hotel and restaurant	Transportation, warehousing and communications	Finance and insurance	Real estate, rental and leasing	Professional, scientific and technical services	Educational services	Health care and social welfare services	Cultural, sporting and leisure services	Other services
SMEs															
Current ratio	81.52	86.26	97.14	99.48	117.51	110.58	51.93	144.86	93.36	61.62	111.31	104.77	167.51	46.78	129.22
Quick ratio	66.26	69.48	60.87	77.73	56.28	63.98	33.29	132.34	89.53	25.63	97.68	103.02	116.80	36.64	109.19
Inventory ratio	15.26	16.78	36.26	21.75	61.23	46.60	18.64	12.52	3.83	35.99	13.63	1.74	50.71	10.14	20.03
Debt-to-net worth ratio	232.52	144.89	220.55	100.39	336.58	243.91	381.17	77.36	62.97	355.52	108.58	55.49	75.97	608.12	105.36
Long-term fund ratio	85.49	94.06	100.85	107.93	231.11	170.57	56.13	179.11	800.50	72.14	216.96	348.59	409.23	39.71	155.68
Net worth turnover	2.23	3.41	4.69	0.99	4.55	4.66	4.03	1.51	0.17	0.60	1.21	0.33	1.61	3.05	1.96
Receivables turnover	9.01	8.16	6.55	5.24	4.57	6.54	10.73	4.09	1.83	3.75	3.96	3.17	7.26	5.37	6.84
Fixed asset turnover	1.47	2.78	4.07	0.94	10.01	7.16	1.51	2.54	1.27	0.28	2.46	1.10	6.49	0.70	2.75
Merchandise turnover	8.17	16.04	6.45	5.35	2.33	4.38	6.70	18.05	8.32	0.61	9.14	40.60	4.41	7.19	11.00
Operating profit ratio	0.45	4.84	2.57	-2.06	1.76	-1.05	-6.42	-0.18	-14.85	-11.12	-7.15	-7.85	-0.41	-8.72	-2.16
Return on total assets	0.66	13.44	10.46	-1.94	17.60	-7.53	-9.73	-0.46	-18.91	-3.10	-17.61	-8.66	-2.65	-6.07	-5.95
Return on fixed assets	0.30	6.74	3.76	-1.02	1.83	-1.42	-5.38	-0.15	-1.55	-1.46	-4.14	-1.67	-0.37	-3.76	-2.06
Return on capital	0.80	18.74	12.44	-1.68	6.27	-3.16	-11.31	-0.21	-2.69	-4.83	-5.49	-2.25	-0.37	-9.33	-2.95
Return on net worth	1.01	16.50	12.06	-2.04	8.01	-4.89	-25.88	-0.27	-2.52	-6.64	-8.64	-2.60	-0.66	-26.61	-4.24
Large Enterprises															
Current ratio	111.27	236.39	121.72	94.34	111.42	106.39	55.38	126.37	100.15	87.11	118.68	157.55	—	58.50	99.86
Quick ratio	90.58	226.55	87.52	77.00	43.48	78.50	47.10	123.02	99.21	34.30	86.58	156.11	—	53.91	86.25
Inventory ratio	20.69	9.84	34.20	17.34	67.94	27.89	8.28	3.35	0.94	52.81	32.11	1.44	—	4.58	13.60
Debt-to-net worth ratio	115.26	41.07	109.01	123.20	301.34	250.03	145.03	85.18	716.08	211.93	131.93	83.42	—	204.67	217.73
Long-term fund ratio	210.07	269.69	146.84	106.29	269.36	161.55	93.12	181.21	1,151.52	120.11	280.00	607.11	—	76.63	176.96
Net worth turnover	1.89	0.30	1.54	0.73	2.13	7.18	1.41	1.25	10.86	0.98	2.23	2.23	—	1.39	2.31
Receivables turnover	9.00	2.22	4.68	6.81	3.53	6.58	12.09	7.43	5.20	5.70	4.97	9.13	—	5.31	7.29
Fixed asset turnover	3.67	0.72	1.66	0.43	5.14	9.40	0.87	1.68	56.60	0.76	5.73	13.53	—	0.74	2.35
Merchandise turnover	8.95	12.28	6.88	12.36	1.12	11.70	21.38	85.64	219.28	1.33	5.90	207.21	—	24.96	12.32
Operating profit ratio	6.21	11.95	5.16	18.93	1.03	1.84	2.06	6.72	0.45	0.70	7.05	5.87	—	5.88	5.68
Return on total assets	22.80	8.62	8.59	8.07	5.31	17.32	1.79	11.30	25.58	0.54	40.41	79.35	—	4.38	13.32
Return on fixed assets	5.45	2.51	3.81	6.17	0.55	3.78	1.19	4.54	0.60	0.22	6.79	7.13	—	2.67	4.12
Return on capital	19.81	4.82	11.46	19.65	2.15	16.14	3.16	11.39	7.38	1.10	24.80	16.42	—	9.39	16.86
Return on net worth	11.72	3.55	7.96	13.76	2.20	13.22	2.91	8.41	4.91	0.69	15.75	13.07	—	8.14	13.10

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

With no signs of the domestic economy picking up again, the short-term solvency or debt paying ability worsened in most industries. As can be seen from Table 3-2-5, eight industries had a current ratio below 100% in 2003. Regarding the

quick ratio, only the transportation, storage and communications industry had a quick ratio significantly higher than 100%, at 132.34% (educational services: 100.95%; health care and social welfare services: 116.80%; other services: 109.19%), most other industries had a current ratio below 80%, indicating poor ability to convert assets into cash to meet repayment obligations. By analyzing the data from the Joint Credit Information Center, it can be seen that the situation is particularly serious in the agriculture, forestry, fishing and animal husbandry industry, and the electricity, gas and water industry. In 2003, both of these industries saw their current ratios drop by 16.8% and 7.1% respectively, indicating a significant deterioration in short-term solvency.

The short-term solvency of the accommodation and eating-drinking places industry and the cultural, sporting and leisure services industry also needs to be watched. These two industries ranked the lowest in terms of both their current ratios and quick ratios, with quick ratios of just 33.29% and 36.64% respectively.

Taiwan's economy began to pick up again in 2002, recording positive growth of 3.59% in contrast to the negative growth of -2.18% in 2001. The economic growth continued in 2003, with a growth rate of 3.24% being recorded, and 5.71% in 2004. The level of demand in both the domestic and foreign markets also grew stronger. As a result, those SME financial ratios that measure their operating performance also improved significantly in 2003.

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

1. Main Sources of Funds for Operation or Investment

Taiwan has robust financial and capital markets that offer a wide variety of funding sources for businesses. Aside from own funds or borrowing from private lenders, bank loans or the issuance of bills and notes, bonds, or stocks have become important funding sources for enterprises. According to the 2004 Survey of Domestic

Investment by Manufacturing Industry published by the Statistics Department, Ministry of Economic Affairs (Table 3-3-1), around 76% of the funds for the operation or investment of domestic manufacturers (regardless of their size) come from local bank loans, followed by cash capital increments (35.31%), and retained earnings or capital surplus (31.91%).

Table 3-3-1 Sources of Funds for the Operation or Investment of Manufacturers in 2004

Unit: %

Sources of funds	Scale	Total	Large enterprises	Medium enterprises	Small enterprises
Borrowing from domestic banks		75.87	72.51	76.19	77.69
Cash capital increment		35.31	34.39	38.78	35.55
Retained earnings or capital surplus		31.91	43.10	32.65	25.69
Borrowing from friends and relatives		13.15	1.15	10.20	19.99
Revolving credit association		6.45	0.29	1.36	10.23
Issues of commercial paper or depository receipts		9.85	22.89	13.61	2.37
Borrowing from foreign banks		6.25	12.64	4.76	2.85
Issues of corporate bonds		7.49	22.03	4.76	0.42
Borrowing from credit cooperatives or farmers' or fishermen's associations		3.14	0.38	0.68	4.85
Others		6.45	6.51	8.16	6.28

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

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

Source: Statistics Department, Ministry of Economic Affairs, *Survey of Domestic Investment by Manufacturing Industry*, November 2004.

The funds of large and medium enterprises that came from the issuance of commercial paper or depository receipts accounted for 22.89% and 13.61% of all funds in 2003, respectively (vs. 41.52% and 23.9% in 2002). This represents a decrease in the use of such direct financing tools by large and medium enterprises as the era of low interest rates draws to an end. The percentage of funds obtained by borrowing from friends and relatives, private lenders, and other private sources increased to 1.44% and 11.56% for large and medium enterprises respectively (vs. 1.56% and 3.58% in 2002), reflecting the difficulty in securing financing in the capital and money markets, even though these ratios are still relatively low. Small enterprises obtained as much as 30.22% of their funds from borrowing from friends and relatives, private lenders, and other private sources, indicating a heavy reliance on personal relationships in the acquisition of funds and much weaker financial leveraging ability compared with large and medium enterprises.

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

Based on the 2004 Survey of Domestic Investment of Manufacturing Industry published by the Statistics Department, Ministry of Economic Affairs, 32.59% of small enterprises in the manufacturing industry felt that they were having difficulty in acquiring funds, while 31.29% of medium enterprises held the same view (Table 3-3-2).

Table 3-3-2 Reasons for Difficulty in Acquiring Funds by Manufacturers in 2004

Questionnaire	Scale	Unit: %			
		Total	Large enterprises	Medium enterprises	Small enterprises
Any difficulty in acquiring funds?					
No		71.82	80.27	68.71	67.41
Yes		28.18	19.73	31.29	32.59
Reasons for the difficulty in acquiring funds					
Banks tightened up on lending policy in view of a slump in the industry		45.98	50.49	43.48	44.66
Banks became more rigorous in approving loan applications		54.94	48.54	60.87	56.63
The interest rate offered was too high		44.94	38.35	36.96	47.73
Unable to furnish adequate collateral		39.77	27.67	45.65	43.37
Banks could not process the loan request in time		17.13	16.02	23.91	16.99
Low stock price rendered public or private offering difficult		7.93	23.79	10.87	2.43
The application formalities for cash capital increments or bond issuance are too complicated		6.21	15.53	4.35	3.24
Others		2.87	5.83	0.00	2.10

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

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

Source: Statistics Department, Ministry of Economic Affairs, *Survey of Domestic Investment by Manufacturing Industry*, November 2004.

Regardless of the size of enterprise, the top three reasons why enterprises in the manufacturing industry experience difficulty in securing funds are: “Banks become more rigorous in approving loan applications” (54.94%), “Banks tighten up on lending policy in view of a slump in the industry” (45.98%), and “The interest rate offered is too high” (44.94%). These are followed by “Unable to furnish adequate collateral” (39.77%), and “Banks could not process the loan request in time” (17.13%), and “Low stock price rendered public or private offering difficult” (7.93%). Less than 10% of the manufacturers surveyed found acquiring funds difficult because “The application formalities for cash capital increments or bond issuance are too complicated” (Table

3-3-2).

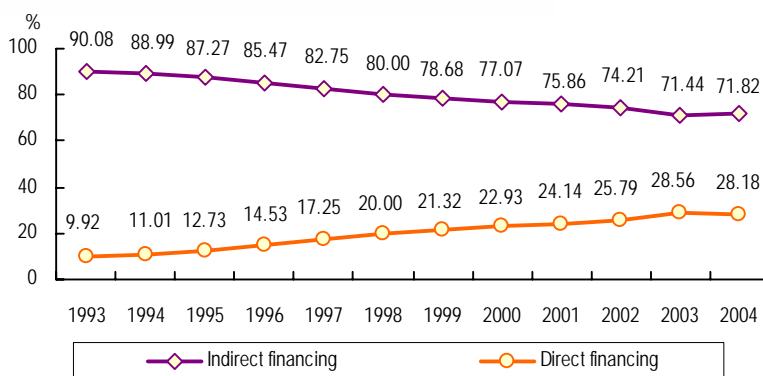
The government implemented a number of measures in 2003 to help SMEs secure working capital. These measures include: expanding the services provided by the “SME Troubleshooting Center,” helping innovative SMEs to acquire working capital, improving the accounting system of SMEs and helping SMEs to secure financing, introducing a number of new low interest rate loan programs and continuing to implement existing programs, and enhancing the functions of the Small and Medium Enterprise Credit Guarantee Fund. The Central Bank of China also continued to implement its easy monetary policy and lowered the discount rate to steer the market towards lower rates. As the economy rebounded in 2003, the difficulties encountered by manufacturing enterprises in securing funds as reported in the survey should be alleviated gradually.

IV Financial Institutions and SME Financing

Financing is the lifeline of an enterprise, and this is particularly true for SMEs, which tend to have inadequate funds. Ready access to funds and smart fund management are among the keys to their successful operation. The sources of funding for an enterprise include internal funds and external financing. Internal funds include primarily the earnings and reserves of the enterprise, with the amount available depending on its business performance. External financing includes private loans, business credit, bank loans, and the issuance of securities in the financial markets. With the rapid development of Taiwan’s capital markets, the direct financing’s share of total financing has been increasing, reaching 28.56% at the end of 2003, although falling slightly to 28.18% in 2004, meaning that it remains a viable financing alternative for SMEs. The share held by indirect financing (loans and investments) went down to 71.44% as of the end of 2003, and then edged up to 71.82% by the end of 2004. Bank loans as a percentage of financing from banks and the financial markets had dropped to 62.99% by the end of 2004 (Figures 3-4-1 and 3-4-2).

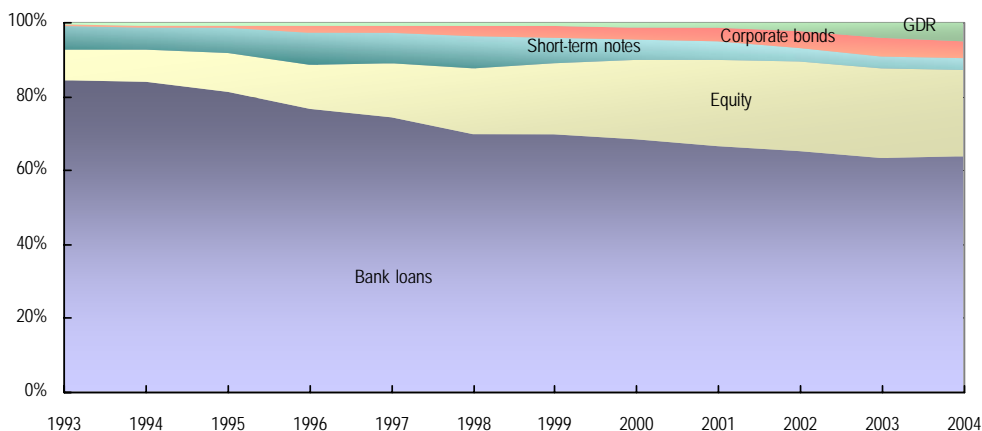
In light of the fact that bank loans remain the most important source of financing for SMEs, it is essential that the interactions between banks and SMEs undergo further structural change.

Figure 3-4-1 Shares Held by Direct and Indirect Financing, 1993–2004



Source: Central Bank of China, Republic of China.

Figure 3-4-2 Business Financing Channels, 1993–2004



Source: Central Bank of China, Republic of China.

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

Taiwan Cooperative Bank has consistently been the top lender in the SME loan market (“loans outstanding” in this section include overdue loans). As of the end of 2004, the bank’s loans outstanding to SMEs amounted to NT\$591.6 billion, an increase of NT\$54.9 billion from 2003 and giving it a market share of 21.34%. Taiwan Business Bank, one of the SME-specialized banks, came in second with

NT\$333.7 billion in loans outstanding to SMEs, which was NT\$8.1 billion lower than the 2003 level, and gave it a 12.03% market share. First Commercial Bank was in third place with NT\$242.7 billion in loans and a market share of 8.75% (Table 3-4-1).

Table 3-4-1 Top 10 Banks by Amount of Loans to SMEs, End of 2004

Unit: NT\$ million; %

Bank	Loans outstanding	Market share	Loans to SMEs as percentage of total loans
Total	1,975,169	71.22	
Taiwan Cooperative Bank	591,646	21.34	47.13
Taiwan Business Bank	333,714	12.03	46.56
First Commercial Bank	242,694	8.75	32.02
Hua Nan Commercial Bank	203,072	7.32	24.14
Chang Hwa Commercial Bank	163,918	5.91	20.00
Land Bank of Taiwan	117,201	4.23	9.08
Bank of Taiwan	104,940	3.78	8.73
Tainan Business Bank	74,779	2.70	66.01
International Commercial Bank of China	72,218	2.60	16.61
Hsinchu International Bank	70,987	2.56	28.22

Source: Bureau of Monetary Affairs, Financial Supervisory Commission, Executive Yuan, *Statistics of Banking Business*, February 2005.

In addition, Hua Nan Commercial Bank, Chang Hwa Commercial Bank, the Land Bank of Taiwan, and the Bank of Taiwan have always maintained high shares in the SME loan market. Banks whose loans outstanding to SMEs went down at the end of 2004 as compared to 2003 include: Chang Hwa Commercial Bank (NT\$174.9 billion less), Taiwan Business Bank (NT\$8.1 billion less), Hsinchu International Bank (NT\$6.4 billion less), and First Commercial Bank (NT\$5.9 billion less). By contrast, Tainan Business Bank and Taiwan Cooperative Bank increased their loans to SMEs in 2004 by NT\$5.5 billion and NT\$54.9 billion, respectively. It is clear that banks adopt different lending policies in view of the changing economic climate.

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

Loans to SMEs have always accounted for a high percentage of the loans granted by the four SME-specialized banks, in line with the policy objectives that these banks are expected to meet. Of the top 10 banks in terms of the percentage of loans going to

SMEs, over the years the top 3 have consistently been SME-specialized banks (Taiwan Cooperative Bank ranked fourth in 2004). However, except for the Taiwan Business Bank and Tainan Business Bank, the amount of loans outstanding of the other two SME-specialized banks was limited, reflecting their relatively small scale of operations relative to regular commercial banks (Table 3-4-2).

Table 3-4-2 Top 10 Banks by Percentage and Amount of Loans to SMEs in 2003 and 2004

Unit: NT\$ million; %

Bank	2003		2004	
	Loans to SMEs as a percentage of total loans	Loans outstanding	Loans to SMEs as a percentage of total loans	Loans outstanding
* Tainan Business Bank	67.03	69,252	66.01	74,779
* Hualien Business Bank	60.37	15,236	60.24	11,905
* Taitung Business Bank	60.04	24,839	60.03	24,707
Taiwan Cooperative Bank	43.93	536,737	47.13	591,646
* Taiwan Business Bank	49.87	341,765	46.56	333,714
First Commercial Bank	31.99	248,575	32.02	242,694
Shanghai Commercial and Savings Bank	26.66	49,997	31.74	59,611
Hsinchu International Bank	33.39	77,381	28.22	70,987
Shin Kong Commercial Bank	21.23	11,085	27.57	14,983
Hua Nan Commercial Bank	22.49	183,521	24.14	203,072

Note: Banks marked "*" are SME specialized banks.

Source: Bureau of Monetary Affairs, Financial Supervisory Commission, Executive Yuan, *Statistics of Banking Business*, February 2005.

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

As of the end of 2004, there were 55 domestic banks (including 50 regular banks and 5 SME-specialized banks) and 36 foreign banks operating in Taiwan. The total loans outstanding to SMEs amounted to NT\$2.77 trillion, or NT\$40.3 billion less compared to the end of 2003. The top 10 banks in terms of loans outstanding to SMEs (including the seven banks referred to above) had a combined market share of 71.22%, indicating a high level of market concentration. The combined value of loans outstanding to SMEs by all foreign banks was NT\$15.7 billion, representing a market share of merely 0.57%, which was roughly the same as in the previous year.

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

In response to the development of the financial market, the diversification of demand for financial services, and the government's desire to expand the scale of the financial sector, improve its operational performance and enhance the international competitiveness of the industry as a whole, the Financial Holding Company Law was approved by the Legislative Yuan and signed into law by the President on July 9, 2001, taking effect on November 1, 2001. So far, a total of 14 financial holding companies have been established. As of the end of 2004, 14 banking subsidiaries of financial holding companies and the China Development Industrial Bank had a combined total of NT\$820.1 billion in loans outstanding to SMEs, accounting for 29.58% of all loans outstanding to SMEs, an increase of NT\$45.8 billion or 5.91% as compared to the end of 2003 (Table 3-4-3). This indicates that those banks still value the business of SMEs, although the growth in the total loan amount was not as substantial as 2003.

Table 3-4-3 Loans Outstanding and Percentage of Loans to SMEs by Banking Subsidiaries of Financial Holding Companies in 2003 and 2004

Unit: NT\$ million, %

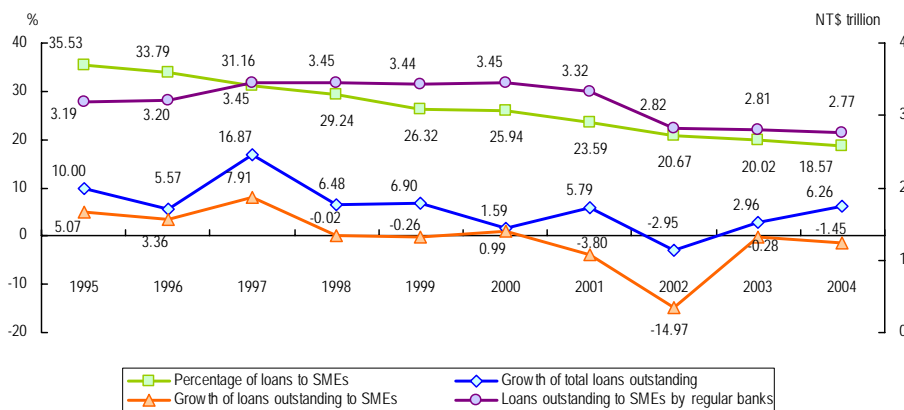
Bank	2003		2004			
	SME Loans outstanding	Loans to SMEs as a percentage of total loans	SME Loans outstanding	Loans to SMEs as a percentage of total loans	Change in loans to SMEs	Annual growth
Total	774,345	27.53	820,116	29.58	45,771	5.91
First Commercial Bank	248,575	31.99	242,694	32.02	-5,881	-2.37
Hua Nan Commercial Bank	183,521	22.49	203,072	24.14	19,551	10.65
International Commercial Bank of China	57,418	15.53	72,218	16.61	14,800	25.78
Chiao Tung Bank	65,287	17.06	63,962	16.18	-1,325	-2.03
Chinatrust Commercial Bank	42,265	7.30	46,714	6.84	4,449	10.53
International Bank of Taipei	32,362	8.87	36,443	11.82	4,081	12.61
Cathay United Bank	31,021	5.84	31,689	5.69	668	2.15
E. Sun Commercial Bank	18,627	10.21	26,339	10.21	7,712	41.40
Fubon Commercial Bank	20,455	15.08	22,792	18.60	2,337	11.43
Jih Sun International Bank	16,009	9.69	18,859	10.38	2,850	17.80
Taishin International Bank	37,843	9.94	18,488	4.09	-19,355	-51.15
Fuhwa Commercial Bank	15,048	9.41	16,920	9.17	1,872	12.44
Shin Kong Commercial Bank	11,085	21.23	14,983	27.57	3,898	35.16
Bank SinoPac	1,798	0.96	2,684	1.17	886	49.28
China Development Industrial Bank	4,116	6.57	2,259	4.27	-1,857	-45.12

Source: Bureau of Monetary Affairs, Financial Supervisory Commission, Executive Yuan, *Statistics of Banking Business*, February 2005.

5. Overall Bank Loans to SMEs Maintained the Same Level as at the End of 2003

In order to conform to the requirements set forth in the government's "2-5-8 financial reform program" which requires banks to reduce their non-performing loans to 5% before the end of 2003, banks have been working vigorously to clean up their NPL portfolio by being more aggressive in payment collection, selling off non-performing assets, and writing off bad debts to bring their NPL ratio down. According to the statistics of the Bureau of Monetary Affairs, Financial Supervisory Commission, domestic banks wrote off a total of NT\$162.2 billion in bad debts in 2004, which was less than the write-off in the previous two years (NT\$413.8 billion in 2002, NT\$236.8 billion in 2003). The total loans outstanding of regular domestic banks (excluding overseas loans) as of the end of 2004 grew by 6.26% over the end of 2003 (Figure 3-4-3). The loans outstanding to SMEs declined by 1.42% to NT\$2.81 trillion; the percentage of bank loans going to SMEs also fell by 1.45 percentage points, from 20.02% to 18.57%.

Figure 3-4-3 Bank Loans to SMEs over the Years



Note: Total loans outstanding was derived from "loans outstanding to SMEs (including overdue loans) by regular banks" ÷ "loans to SMEs as a percentage of total loans."

Source: Bureau of Monetary Affairs, Financial Supervisory Commission, Executive Yuan, *Statistics of Banking Business* published each year.

Benefiting from a robust global economy, the overall performance of the Taiwanese economy in 2004 was quite impressive, with import and export trade both rising to new heights, which in turn encouraged companies to upgrade their equipment. Private investment shot up, the employment market and the bank NPL picture also

improved, and the real estate market picked up again. All these developments helped to drive up demand in the domestic market.

Banks have traditionally been less willing to extend loans to SMEs due to their dubious financial health. However, with the economic climate improving and with the government injecting more funds into the SME Credit Guarantee Fund in the past few years to make up for the difficulty that most SMEs experience in providing sufficient collateral, banks have become more willing to extend loans to SMEs. The “Credit Guarantee Utilization Rate” of the SME Credit Guarantee Fund (i.e. financing to SMEs through the provision of credit guarantees as a percentage of total loans outstanding to SMEs) also rose to 15.04% from 9.71% at the end of 2003. In an era of declining profit margins, banks now generate only meager profits from loans to large corporations, and are gradually shifting the main focus of their business operations towards consumer finance and SME financing. It is foreseeable that the percentage of bank loans going to SMEs will continue to increase in the future, making it easier for SMEs to secure the financing they need.

It should be noted that the definition of “loans” in this section includes overdue loans, but not bank guarantees and acceptances; if those items were to be included, the loans outstanding and percentage of loans to SMEs would change. In addition, the bank funds described above were directly allocated to their SME loan business, but in fact a significant number of SMEs borrowed from the bank in the name of individuals. Those personal loans are not treated as loans to SMEs, but in reality they do constitute a type of SME financing.

6. A Continuing Fall In the Amount of Loans Secured by SMEs for Every NT\$100 of Revenue

Bank loans outstanding to SMEs totaled NT\$2.77 trillion in 2004, accounting for 18.57% of total bank loans outstanding. The dollar amount was comparable to that in 2003, but the ratio fell, mainly because banks put more focus on business with large corporations. As of the end of 2004, the NPL ratio of banks had dropped to 2.78% (it had been 4.33% at the end of 2003, after peaking in the first quarter of 2002 at 8.04%); the overdue loans also fell to NT\$557.6 billion (having peaked at NT\$1,147.5 billion in the first quarter of 2002). Clearly, the overall health of Taiwan’s banks is gradually

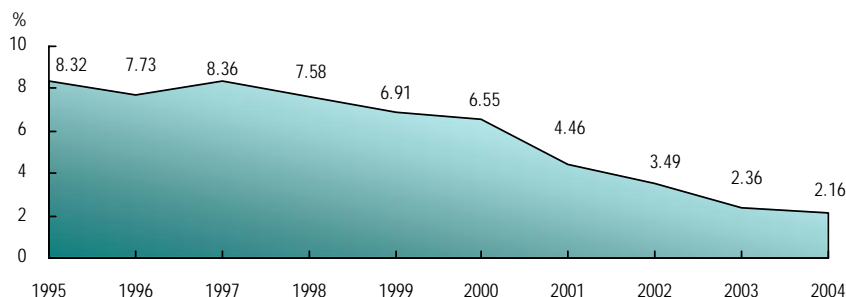
improving, making it more likely that banks will be able to play their role as financial intermediaries more effectively, and making it easier for SMEs to secure financing.

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

The Central Bank of China (ROC) has maintained an easy monetary policy since the end of 2000, and has cut the discount rate 15 times to bring market rates down and help cut the cost of funding for businesses. The Central Bank has also urged banks to implement the new prime rate system for loans to address the stiff downward rate adjustment issue and to effectively lower the lending rates to corporations. In a letter to domestic banks in June 2003, the Central Bank asked the banks to step up their SME loan business and take on SME credit guarantee business, and indicated that it will monitor the banks' business on a monthly basis. As of end of 2004, loans extended to SMEs through the SME Credit Guarantee Fund by domestic banks amounted to NT\$332.6 billion, an increase of 41.83% from NT\$234.5 billion at the end of 2003.

The Central Bank data show that the average interest rate on new loans extended by the Bank of Taiwan, Taiwan Cooperative Bank, and the three leading state-owned commercial banks had fallen steadily from 8.73% in 1994 to 2.16% in 2004 (Figure 3-4-4). Although the Central Bank data were not broken down by enterprise size, it is clear from Figure 3-4-3 that the cost of bank loans secured by SMEs has been falling consistently over the last few years.

Figure 3-4-4 Average Interest Rates on New Loans Extended by Five Leading Banks from 1995 to 2004



Note: The interest rates are a weighted average of the 12 months in the year.
Source: Central Bank of China, Republic of China.

Chapter 4

The Current Status of SMEs' Labor Utilization

In the first half of 2003, Taiwan's economy was affected by the war in Iraq and the Severe Acute Respiratory Syndrome (SARS) epidemic. By August 2003, the unemployment rate had risen to 5.21%, but thanks to an aggressive job creation strategy on the part of the government (aimed at creating new jobs in both the private sector and public sector), the unemployment rate for the whole year was held down to 4.99%. In 2004 the economy began to pick up again, and the government continued to implement various measures to stimulate job creation, causing the unemployment rate for the whole year to fall to 4.44%. This chapter examines the current status of labor utilization among SMEs, focusing on manpower resources, working conditions, the government's labor policy, and SMEs' manpower cultivation.

An enterprise's scale is in principle defined according to the number of employees. Enterprises in the mining and quarrying, manufacturing, and construction sectors with less than 200 employees as well as 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. For such cases, enterprises with less than 100 employees are classed as SMEs. This is pointed out in the text where appropriate.

I Labor Usage in SMEs

In 2004 Taiwan's total available workforce amounted to 10,240,000 persons, of which 9,786,000 were working and 454,000 were unemployed. Of those at work, 7,131,000 were directly employed persons. The labor participation rate was 57.66%, and the average unemployment rate was 4.44%.

There was an increase overall in both the available workforce and the number of people in work compared to 2003 for 2004. Thus, the labor market was in a healthier

state in 2004 than in 2003. The following sections examine labor usage in Taiwan's SMEs during 2004.

1. An Increase of Nearly 130,000 in the Number of People Working in SMEs

In 2004 a total of 7,553,000 people were working in SMEs in Taiwan, representing an increase of 128,000 compared to 2003 (Table 4-1-1). However, as a percentage of all those at work, those working in SMEs fell to 77.18% in 2004, because the number of people working in large enterprises increased by 6.82% while the number working in SMEs increased by only 1.72%.

Table 4-1-1 Characteristics of Persons in Work, 2003–2004

Units: thousand persons; %

Item	2003			2004		
	SMEs	Large enterprises	Government employees	SMEs	Large enterprises	Government employees
Total No. of persons (Percentage)	7,425 (77.56)	1,159 (12.11)	988 (10.32)	7,553 (77.18)	1,238 (12.65)	995 (10.17)
Age	100.00	100.00	100.00	100.00	100.00	100.00
15–24	11.30	11.22	4.43	10.66	11.42	4.21
25–40	45.84	60.10	44.26	45.65	59.52	43.33
41–55	34.53	26.17	44.75	35.39	26.40	45.80
56–65	6.65	2.27	6.36	6.67	2.46	6.46
65 or over	1.68	0.25	0.20	1.62	0.20	0.21
Sex	100.00	100.00	100.00	100.00	100.00	100.00
Male	59.52	53.20	54.90	59.27	53.35	54.53
Female	40.48	46.80	45.10	40.73	46.65	45.47
Education	100.00	100.00	100.00	100.00	100.00	100.00
Illiterate	1.35	0.15	0.20	1.06	0.12	0.15
Self-taught	0.32	0.05	0.03	0.29	0.03	0.04
Primary school	16.71	3.39	4.38	15.73	3.02	4.54
Junior high school	20.03	6.59	4.75	19.50	6.30	4.73
Senior high school	9.49	7.40	7.88	9.58	6.90	7.44
Senior vocational school	29.03	25.06	17.81	29.56	24.89	16.88
Junior college	14.42	26.50	25.34	14.72	26.01	24.47
University	7.67	22.94	31.65	8.51	24.25	32.68
Masters	0.90	6.41	6.34	0.98	7.03	7.29
Ph.D.	0.07	1.52	1.62	0.06	1.47	1.78

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data), 2003–2004.

SME employees were mostly aged between 25 and 55, while in large enterprises,

the level of age group concentration was even more pronounced. In terms of the breakdown of SME employees by sex and education, there was little difference between the 2004 data and those for 2003. In both years, men accounted for a larger share of SME employees than women, and those educated at the junior college, senior vocational school, junior high school, or primary school levels continued to account for the bulk of SME employees. Among those working for large enterprises, the disparity between the number of male workers and the number of female workers was less pronounced, as employees of large enterprises are generally educated to a level between senior vocational school and university. It is noticeable that in the last few years the share of SME employees educated to the senior high school level or higher has increased, while for large enterprises there has been an increase in the share of employees educated to the university level or above. These changes probably reflect the fact that the overall level of education in Taiwan's population has been rising.

2. A 3.13% Increase in the Number of SME-Hired Employees

The total number of hired employees working for SME employers in 2004 was 4,903,000, representing a 3.13% increase compared to 2003. However, as a percentage of all hired employees, this figure represented a decrease from 68.92% to 68.75%. Hired employees accounted for over 64% of persons working at SMEs; for large enterprises the figure exceeded 99% (Table 4-1-2). Hired employees working in SMEs were mainly concentrated in the 25–55 age group. Nearly 60% were male, this was a lower percentage than that found among directly-employed persons. As regards to the level of education, SME-hired employees displayed a higher level of concentration in the senior vocational school to master's degree holder groups.

3. The Number of SME Employers Rises to Over 500,000

Compared to 2003, the number of SME employers increased by nearly 14,000 in 2004, rising to 507,000. The largest share was those aged 41–55. As a percentage of all SME employers, female SME employers increased slightly in 2004, climbing to 17.21%. There is a long-term increasing trend for women's share of SME employers, reflecting a gradual rise in enthusiasm for entrepreneurial activity among women (Table 4-1-3). Nevertheless, the female share of SME employers remains very low.

Table 4-1-2 Characteristics of Hired Employees, 2003–2004

Units: thousand persons; %

Item	2003			2004		
	SMEs	Large enterprises	Government employees	SMEs	Large enterprises	Government employees
Total No. of persons (Percentage)	4,754 (68.92)	1,155 (16.75)	988 (14.32)	4,903 (68.75)	1,234 (17.31)	994 (13.94)
Age	100.00	100.00	100.00	100.00	100.00	100.00
15–24	16.05	11.26	4.43	14.96	11.45	4.21
25–40	53.38	60.24	44.26	53.16	59.67	43.33
41–55	27.52	26.05	44.75	28.60	26.30	45.80
56–65	2.77	2.24	6.36	3.01	2.40	6.46
65 or over	0.28	0.22	0.20	0.27	0.17	0.21
Sex	100.00	100.00	100.00	100.00	100.00	100.00
Male	56.39	53.08	54.90	56.32	53.25	54.53
Female	43.61	46.92	45.10	43.68	46.75	45.47
Education	100.00	100.00	100.00	100.00	100.00	100.00
Illiterate	0.49	0.15	0.20	0.38	0.12	0.15
Self-taught	0.11	0.05	0.03	0.11	0.03	0.04
Primary school	11.03	3.39	4.38	10.56	3.01	4.54
Junior high school	19.12	6.56	4.75	18.38	6.28	4.73
Senior high school	9.34	7.41	7.88	9.40	6.89	7.44
Senior vocational school	31.67	25.10	17.81	31.77	24.94	16.88
Junior college	17.63	26.51	25.34	17.66	26.05	24.47
University	9.38	22.90	31.65	10.41	24.21	32.68
Masters	1.15	6.42	6.34	1.26	7.02	7.29
Ph.D.	0.07	1.52	1.62	0.07	1.47	1.78

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data), 2003–2004.

The number of large enterprise employers increased by approximately 7 percent in 2004. Large enterprise employers tend to be younger than SME employers, and their average educational level is higher.

4. More Than Half of Those Working in SMEs in Hi-tech and Knowledge-intensive Industries are Aged 40 or Younger

According to the definition used by the OECD, hi-tech and knowledge-intensive industries include: the chemical materials manufacturing industry; the chemical products manufacturing industry; the machinery manufacturing and repair industry; the computer, communications, and audiovisual electronics manufacturing industry; the transportation vehicle manufacturing and repair industry; the precision instruments industry; the optical instruments industry; the medical equipment industry; the clock and watch industry; the postal and express delivery industry; the telecommunications

Table 4-1-3 Characteristics of Employers, 2004–2005

Units: thousand persons; %

Item	2003		2004	
	SMEs	Large enterprises	SMEs	Large enterprises
Total No. of persons (Percentage)	492.94 (99.32)	3.39 (0.68)	506.74 (99.3)	3.56 (0.7)
Age	100.00	100.00	100.00	100.00
15–24	0.55	–	0.60	–
25–40	34.88	13.12	33.02	9.87
41–55	54.64	65.83	55.51	58.74
56–65	8.29	10.93	9.11	20.88
65 or over	1.64	10.11	1.76	10.51
Sex	100.00	100.00	100.00	100.00
Male	83.45	91.38	82.79	88.94
Female	16.55	8.62	17.21	11.06
Education	100.00	100.00	100.00	100.00
Illiterate	0.15	–	0.06	–
Self-taught	0.08	–	0.08	–
Primary school	12.07	4.85	11.19	5.06
Junior high school	17.73	18.90	17.48	13.39
Senior high school	12.13	3.84	11.75	11.44
Senior vocational school	26.19	11.88	26.97	6.75
Junior college	16.65	20.40	17.15	13.51
University	13.01	34.91	13.46	38.63
Masters	1.66	5.22	1.57	10.07
Ph.D.	0.32	–	0.28	1.14

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data), 2003–2004.

industry; the financial industry and supporting industries; the securities and futures industry; the insurance industry; the legal and accounting services industry; the building and construction services industry; the design services industry; the computer system design and services industry; the data processing and data supply services industry; the consulting services industry; the R&D services industry; the advertising industry; other professional, scientific and technical services industries; the educational services industry; the medical and healthcare services industry, etc.

The data for 2004 indicate that approximately 2.35 million people in Taiwan were working in industries of those types above. Of these, over 1.33 million were working in SMEs, representing an increase of 33,000 compared to 2003. There was a heavy concentration in the 25–40 age group. Most of those working in SMEs for these types of industry were male, but in large enterprises women dominated, and the average educational level was higher in large enterprises (Table 4-1-4).

Table 4-1-4 Characteristics of Those Working in Hi-tech and Knowledge-intensive Industries, 2003–2004

Units: thousand persons; %

Item	2003			2004		
	SMEs	Large enterprises	Government employees	SMEs	Large enterprises	Government employees
Total No. of persons (Percentage)	1,297.74 (56.78)	539.59 (23.61)	448.40 (19.62)	1,331.38 (56.63)	567.85 (24.15)	451.98 (19.22)
Age	100.00	100.00	100.00	100.00	100.00	100.00
15–24	13.66	10.76	6.07	12.30	10.33	5.88
25–40	56.97	62.25	47.65	56.73	61.56	47.50
41–55	26.17	24.48	41.32	27.64	25.42	41.72
56–65	2.79	2.21	4.84	2.95	2.49	4.79
65 or over	0.41	0.30	0.12	0.38	0.21	0.11
Sex	100.00	100.00	100.00	100.00	100.00	100.00
Male	52.85	47.78	41.51	53.17	47.80	41.28
Female	47.15	52.22	58.49	46.83	52.20	58.72
Education	100.00	100.00	100.00	100.00	100.00	100.00
Illiterate	0.11	0.08	0.05	0.08	0.07	0.06
Self-taught	0.03	0.06	0.01	0.02	0.01	0.05
Primary school	5.15	1.60	1.98	4.58	1.58	2.07
Junior high school	9.10	3.85	2.59	8.61	3.73	2.66
Senior high school	7.77	5.43	5.02	7.49	4.54	4.43
Senior vocational school	28.44	18.95	11.05	27.89	18.83	9.94
Junior college	26.73	29.21	19.60	26.90	28.52	18.49
University	19.50	28.54	47.80	21.08	30.04	48.97
Masters	2.92	9.27	9.04	3.12	9.80	10.21
Ph.D.	0.24	2.99	2.86	0.22	2.88	3.13

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data), 2003–2004.

With the economy continuing to pick up, the number of people employed in the hi-tech and knowledge-intensive industries has gradually increased, reflecting the growing strength and importance of these industries. However, the number of people working in SMEs in the hi-tech and knowledge-intensive industries grew by only 2.59% in 2004, compared to 5.24% for large enterprises. What is more, large enterprises account for a higher share of employment in the hi-tech and knowledge-intensive sector than they do in the economy as a whole. The development of the hi-tech and knowledge-intensive industries would thus appear to be oriented heavily towards large enterprises.

5. A Rise in the Percentage of Older Self-employed Persons

In 2003 there were over 1,480,000 self-employed people in Taiwan, but by 2004 this figure had fallen to 1,458,000. This decline may have been due to the upturn in the

economy, which made it easier to find a job, thereby causing the number of people wishing to start their own business to fall. The percentage of self-employed workers falling into the 41–55 age group continued to increase, indicating that enthusiasm for entrepreneurial activity remains high among this group (Table 4-1-5). As with SME employers, the percentage of self-employed persons who are women has been rising steadily in the past few years, indicating an increase in small-scale entrepreneurial activity among women. The potential for a further increase in female entrepreneurial activity (whether in the form of self-employment or of establishing an SME that hires other workers) appears to be quite pronounced.

Table 4-1-5 Characteristics of Self-employed Persons, 2003–2004

Units: thousand persons; %

Item	Year	2003	2004
Total No. of persons		1,484	1,458
Age		100.00	100.00
15–24		1.18	1.11
25–40		28.07	27.73
41–55		48.09	49.14
56–65		17.01	16.55
65 or over		5.64	5.46
Sex		100.00	100.00
Male		77.95	77.18
Female		22.05	22.82
Education		100.00	100.00
Illiterate		3.14	2.44
Self-taught		0.88	0.79
Primary school		32.48	30.74
Junior high school		23.40	23.67
Senior high school		9.38	9.56
Senior vocational school		21.23	22.41
Junior college		6.58	7.09
University		2.67	3.02
Masters		0.21	0.25
Ph.D.		0.02	0.01

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data), 2003–2004.

6. The Number of People Employed in Important New Emerging Industries Increased by Over 20,000

In 2004 a total of 1.07 million people were employed in the “important new emerging industries” (chemical materials manufacturing; chemical products manufacturing;

electrical and electronics machinery manufacturing, repair and distribution; transportation vehicle manufacturing; precision machinery manufacturing, repair, and distribution) (Table 4-1-6). This figure represents an increase of over 60,000 compared to 2003. However, while the number of people working in SMEs in these industries increased by 20,000, SMEs' share of total employment in the important emerging industries fell by 1.72 percentage points. With the number of people working in large enterprises in the important emerging industries growing by over 40,000, it is clear that larger enterprises are gradually expanding into this sector.

Table 4-1-6 Characteristics of Those Working in Important Emerging Industries, 2003–2004

Unit: thousand persons; %

Item	2003			2004		
	SMEs	Large enterprises	Government employees	SMEs	Large enterprises	Government employees
Total No. of persons (Percentage)	651.76 (64.37)	353.02 (34.86)	7.78 (0.77)	672.22 (62.65)	393.92 (36.71)	6.89 (0.64)
Age	100.00	100.00	100.00	100.00	100.00	100.00
15–24	15.52	13.89	1.29	14.37	15.22	3.48
25–40	56.44	64.93	34.70	57.65	63.87	23.66
41–55	25.57	20.03	59.77	25.43	19.81	68.80
56–65	2.26	1.08	4.24	2.29	1.05	4.06
65 or over	0.22	0.07	–	0.26	0.06	–
Sex	100.00	100.00	100.00	100.00	100.00	100.00
Male	52.85	55.96	84.32	55.37	56.31	93.18
Female	47.15	44.04	15.68	44.63	43.69	6.82
Education	100.00	100.00	100.00	100.00	100.00	100.00
Illiterate	0.25	0.07	–	0.15	0.03	–
Self-taught	0.02	0.06	–	0.04	0.02	–
Primary school	7.94	2.56	1.67	6.71	2.44	1.60
Junior high school	13.69	6.96	6.30	13.12	6.57	7.55
Senior high school	9.11	7.64	12.08	8.83	7.37	8.85
Senior vocational school	30.92	29.96	24.42	31.64	30.18	30.33
Junior college	23.01	27.11	32.65	22.76	25.32	22.93
University	12.26	18.24	16.45	13.81	20.31	22.35
Masters	2.69	6.84	6.30	2.73	7.35	4.79
Ph.D.	0.11	0.55	0.00	0.21	0.40	1.74

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

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data), 2003–2004.

The fact that there was an increase in the number of persons employed for both SMEs and large enterprises indicates an improvement in the business climate (and job

creation) for the important emerging industries in 2004.

7. SMEs Dominate the Cultural and Creative Industries

The Challenge 2008 National Development Plan announced by the government in 2002 incorporated a Cultural and Creative Industries Development Plan, with the aim of making Taiwan a leading player in the global ethnic Chinese cultural and creative sector. In 2003, 13 industries were designated as cultural and creative industries whose development the government was seeking to promote. They included: the visual arts industry; the music and performing arts industry; the cultural display industry; the handicrafts industry; the film industry; the broadcasting industry; the publishing industry; the advertising industry; the design industry; the digital leisure and entertainment industry; the designer brand fashion industry; the innovative lifestyles industry; the architectural design industry. For four of these industries – the visual arts industry, the music and performing arts industry, the cultural display industry, and the handicrafts industry – suitable industry survey data are not available, and so the artistic and sporting services industry has been taken as a proxy for these industries. The creative lifestyles industry, designer brand fashion industry, and the digital leisure and entertainment industry are “compound” industries which are difficult to define precise boundaries. It is therefore difficult to produce precise data for these industries. The data in the table below are therefore limited to the artistic and sporting services industry, the film industry, the broadcasting industry, the publishing industry, the advertising industry, the design services industry, the building and construction services industry, and the leisure services industry.

Looking at the data for 2003 and 2004, one can see that the number of people working in the cultural and creative industries stood at 266,000 in 2003 and at 279,000 in 2004. In both years, the number of people working in SMEs in these industries exceeded 200,000, and the figure rose in 2004 (Table 4-1-7). However, the percentage of all those working in the cultural and creative industries who were working in SMEs fell in 2004, dropping to 76.73%. Thus, although SMEs continue to dominate the structure of the cultural and creative industries, the number of people employed in the cultural and creative industries who are working in large enterprises is growing faster than the number of people working in SMEs.

Table 4-1-7 Characteristics of Those Working in the Cultural and Creative Industries, 2003–2004

Unit: thousand persons; %

Item	2003			2004		
	SMEs	Large enterprises	Government employees	SMEs	Large enterprises	Government employees
Total No. of Persons (Percentage)	205.50 (77.15)	55.75 (20.93)	5.11 (1.92)	213.91 (76.73)	59.45 (21.33)	5.41 (1.94)
Industry	100.00	100.00	100.00	100.00	100.00	100.00
Artistic and cultural services	11.40	10.93	28.71	11.94	9.93	39.29
Film industry	1.86	1.77	–	2.37	1.34	–
Broadcasting	5.43	33.23	15.83	5.92	31.25	11.06
Publishing	11.59	28.85	2.14	10.12	29.10	1.08
Advertising	18.87	2.52	–	18.87	3.03	–
Design services	8.51	4.37	0.95	9.34	4.82	–
Building and construction services	11.12	7.67	24.89	11.35	8.42	8.31
Leisure services	31.21	10.66	27.48	30.09	12.11	40.27
Sex	100.00	100.00	100.00	100.00	100.00	100.00
Male	53.65	55.89	77.31	54.15	55.62	63.44
Female	46.35	44.11	22.69	45.85	44.38	36.56
Education	100.00	100.00	100.00	100.00	100.00	100.00
Illiterate	0.21	0.46	1.57	0.07	0.09	–
Self-taught	0.08	–	–	0.05	–	–
Primary school	4.80	4.65	9.12	5.33	4.05	11.98
Junior high school	11.89	6.33	5.63	10.85	4.72	7.27
Senior high school	9.65	7.60	18.15	9.51	7.35	9.70
Senior vocational school	32.15	23.78	17.78	31.00	23.91	21.26
Junior college	22.16	21.38	18.70	22.30	22.61	23.02
University	16.07	27.76	19.65	17.72	28.23	19.23
Master's	2.85	7.82	7.91	3.00	8.40	7.54
Ph.D.	0.13	0.21	1.48	0.17	0.64	–

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data), 2003–2004.

8. The Number of Unemployed Persons who Previously Worked in SMEs Continues to Fall

Both the unemployment rate and the absolute number of unemployed people in Taiwan fell in 2004 compared to 2003. For both those who had previously worked in large enterprises and those who had previously worked in SMEs, the number of unemployed was lower in 2004 than in 2003. The number of unemployed who had previously worked in SMEs fell from 368,000 to 313,000, while the number of unemployed who had previously worked in large enterprises declined from 37,000 to 33,000 (Table 4-1-8). However, the number of unemployed who had previously worked for the

government increased. This increase may have been related to the termination of some government job creation schemes.

Table 4-1-8 Characteristics of the Unemployed, 2003–2004

Unit: thousand persons; %

Item	2003			2004		
	SMEs	Large enterprises	Government employees	SMEs	Large enterprises	Government employees
Total No. of persons (Percentage)	367.80 (73.13)	36.99 (7.36)	98.12 (19.51)	312.58 (68.82)	32.93 (7.25)	108.71 (23.93)
Age	100.00	100.00	100.00	100.00	100.00	100.00
15–24	17.91	14.98	60.57	17.45	17.53	55.17
25–40	46.82	51.21	29.52	48.39	51.90	29.85
41–55	31.18	29.47	7.99	30.45	27.57	12.22
56–65	4.06	4.27	1.92	3.70	3.01	2.76
65 or over	0.04	0.07	–	0.02	–	–
Sex	100.00	100.00	100.00	100.00	100.00	100.00
Male	68.53	53.45	54.76	631.66	55.18	56.96
Female	31.47	46.55	45.24	33.45	44.82	43.04
Education	100.00	100.00	100.00	100.00	100.00	100.00
Illiterate	0.50	0.19	0.26	0.30	–	0.10
Self-taught	0.12	–	0.01	0.09	0.03	0.11
Primary school	14.47	5.91	4.19	12.33	5.88	5.35
Junior high school	24.75	10.06	10.27	23.48	12.50	8.18
Senior high school	9.90	10.91	8.11	9.37	9.09	8.71
Senior vocational school	31.69	35.08	29.89	32.96	29.42	26.98
Junior college	12.59	22.60	19.18	13.75	23.89	17.80
University	5.57	13.25	25.28	7.21	16.76	27.77
Masters	0.40	1.97	2.81	0.48	2.32	4.85
Ph.D.	0.03	0.04	–	0.04	0.12	0.14

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

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data), 2003–2004.

9. An Increase in the Number of SME Employees Changing Jobs

The number of SME employees changing jobs rose significantly in 2004 compared to 2003, climbing to around 46,000. There was an increase in the number of SME employees going to work for other SMEs, as well as in the number of SME employees going to work for large enterprises or for the government. However, although the number of SME employees going to work for other SMEs increased in absolute terms, as a percentage of all SME employees changing jobs it fell. However, there was a

pronounced increase in the share of SME employees changing jobs who went to work for large enterprises or for the government (Table 4-1-9). It seems likely that the upturn in the economy created more opportunities for people to change jobs.

Table 4-1-9 Choice of New Employer by Former SME Employees

Unit: thousand persons; %

Year	Total	Going to work for another SME		Going to work for a large enterprise		Going to work for the government	
		No. of persons	Percentage	No. of persons	Percentage	No. of persons	Percentage
1998	485	426	87.99	46	9.94	13	2.07
1999	504	448	88.85	44	8.75	12	2.40
2000	490	427	87.14	53	10.82	10	2.04
2001	485	429	88.45	39	8.04	17	3.51
2002	441	394	89.34	32	7.26	15	3.40
2003	455	405	89.01	36	7.91	14	3.08
2004	501	433	86.32	43	8.62	25	5.05

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data), 2003–2004.

10. Implementation of the SME Manpower Assistance Program Succeeded in Reducing the Unemployment Rate

In order to help Taiwan's one million SMEs to recover from the downturn in the economy as quickly as possible, not only did the Executive Yuan help SMEs to secure financing, it also provided assistance in the area of human resources in accordance with the provisions of the Provisional Regulations Governing the Expansion of Employment in the Public Services Sector. Under the SME Manpower Assistance Program, the implementation of which began on June 18, 2003, the government pays SMEs a subsidy of NT\$10,000 per month for every unemployed person that they hire. The subsidy is available for up to 12 months; the total budget allocated for the project by the government was NT\$3.3 billion. Taking into consideration the fact that the type of manpower for which SMEs have the greatest need is medium and high-end manpower, rather than unemployed manual workers, the middle-aged, and members of disadvantaged groups, the qualifications for subsidies under the SME Manpower Assistance Plan were relaxed so that the subsidies were available for the recruitment of unemployed persons (and young people who had never been in employment) aged 18–65, rather than 30–65 as originally specified. However, in the case of employees aged 18–30, the subsidy is available for only six months.

During the period from June 18, 2003 to December 31, 2004, the subsidies were provided for a total of 58,859 individuals, with 13,543 SMEs benefiting from the scheme. The number of unemployed who actually took up the positions offered to them was 51,488, and the average number of subsidies per enterprise was 4.35. However, the statistics indicate that 81.46% of those recruited under this scheme were aged 45 or under. The problem of high unemployment among the middle-aged thus continues to exist.

11. A Decrease in the Number of Foreign Laborers Employed by SMEs

To reduce competition for jobs between foreign laborers and domestic workers, in 2001 the Council of Labor Affairs began to implement a new policy of restricting the number of foreign laborers allowed into Taiwan. It was hoped that the adoption of this policy would help to reduce the unemployment rate. Both the number of foreign laborer approvals and the number of foreign laborers actually fell in Taiwan steadily. However, in 2004 the number of approved foreign laborers in Taiwan increased instead by 2,708 compared to 2003. The number of approvals for foreign laborers employed by SMEs fell by 1,326 (Table 4-1-10), but the number of approvals for large enterprises increased by 4,034. The number actually in Taiwan fell by 600 in the case of SMEs and rose by 4,322 in the case of large enterprises. Thus, although the total number of foreign laborers rose slightly, the number employed by SMEs fell.

Table 4-1-10 Number of Foreign Laborers Employed by Large Enterprises and SMEs, 2001–2004

Unit: thousand persons; %

Year	Item/Scale	Approved foreign laborers		Foreign laborers actually in Taiwan	
		SMEs	Large enterprises	SMEs	Large enterprises
2001		104,481 (43.70)	134,601 (56.30)	83,094 (43.64)	107,328 (56.36)
2002		85,965 (42.30)	117,270 (57.70)	76,846 (42.68)	103,192 (57.32)
2003		83,322 (42.37)	113,316 (57.63)	75,824 (43.04)	100,332 (56.96)
2004		81,996 (41.13)	117,350 (58.87)	75,224 (41.82)	104,654 (58.18)

Notes: 1. Includes only foreign laborers imported by manufacturing and construction firms.
 2. SMEs are defined as firms with less than 200 employees.
 3. Figures in parentheses are percentages of the total.

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

II Labor Conditions in SMEs

1. Higher Average Salaries for Employees in Some Industries

With the economy clearly starting to pick up again, average salaries have risen in most industries. However, average salaries fell for employees of SMEs in the agriculture, forestry, fishing and animal husbandry sector, the finance and insurance sector, the health and social services sector, and the cultural, sports, and leisure services sector (Table 4-2-1). Overall, for SME employees, average salaries are still highest in the health and social services sector at NT\$44,000 per month. In the case of large enterprises, it is the professional, scientific and technical services industry that offers the highest average salaries. In all industries, large enterprises have higher average salaries than SMEs.

Table 4-2-1 Average Monthly Salary by Industry, 2003–2004

Unit: NT\$ thousand

Industry	Scale	SMEs		Large enterprises		Government employees	
		2003	2004	2003	2004	2003	2004
Agriculture, forestry, fishing and animal husbandry		17.85	16.79	39.99	31.27	32.15	36.15
Mining and quarrying		33.62	40.64	–	–	46.72	25.04
Manufacturing		31.17	32.24	37.14	37.54	48.31	49.45
Water, electricity, and gas		33.80	35.11	39.59	40.97	52.55	54.22
Construction		32.38	34.31	55.34	49.60	41.63	37.70
Wholesale and retail		32.84	33.90	40.43	39.03	40.26	39.54
Accommodation and eating-drinking places		28.24	29.03	34.57	31.57	45.61	25.00
Transportation, warehousing, and communications		32.88	35.28	45.56	48.08	50.49	49.59
Finance and insurance		39.88	38.84	42.85	43.32	49.82	50.83
Real estate and rental		33.89	36.32	47.95	41.68	50.97	34.94
Professional, scientific, and technical services		38.46	40.09	54.16	52.31	41.63	41.50
Educational services		29.48	30.87	49.10	46.43	46.30	45.78
Medical, healthcare, and social services		48.01	44.00	46.16	46.49	46.66	46.65
Cultural, sporting, and leisure services		29.78	29.35	39.92	38.47	39.32	34.38
Other service industries		27.30	29.63	32.12	31.16	30.06	30.68

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Taiwan Region Manpower and Employment Survey*, 2003 and 2004.

2. The Percentage of Total Costs Accounted for by Personnel Expenses Fell Slightly in 2003

An enterprise's operating expenses include wages, rental, travel expenses, advertising, water, electricity, and gas bills, postal costs, insurance premiums, entertainment expenses, training costs, etc. Personnel expenses account for a significant share of operating expenses. The percentage of total operating expenses accounted for by personnel expenses is highest in the health and social services industry at 59.82% (Table 4-2-2) and lowest in the mining and quarrying industry. Among large enterprises, it is once again the health and social services industry that has the highest percentage, with the real estate and rental industry having the lowest share.

Table 4-2-2 Personnel Costs as a Percentage of Operating Costs and Operating Expenses in 2003

Unit: %

Industry	Size	Personnel costs as a percentage of operating expenses		Personnel costs as a percentage of operating costs	
		SMEs	Large enterprises	SMEs	Large enterprises
Agriculture, forestry, fishing and animal husbandry		30.88	41.43	3.90	6.31
Mining and quarrying		16.47	37.21	3.16	7.83
Manufacturing		35.78	28.22	4.13	2.47
Water, electricity, and gas		40.69	43.77	11.91	2.19
Construction		50.88	41.33	6.32	1.95
Wholesale and retail		49.05	35.42	10.17	4.29
Accommodation and eating-drinking places		44.20	37.53	17.88	13.59
Transportation, warehousing, and communications		45.22	36.35	13.95	6.11
Finance and insurance		43.56	40.41	11.69	0.64
Real estate and rental		39.32	21.90	11.42	2.32
Professional, scientific, and technical services		48.66	40.68	24.49	11.12
Educational services		51.93	46.60	29.43	10.84
Medical, healthcare, and social services		59.82	62.14	25.29	3.61
Cultural, sporting, and leisure services		45.13	32.74	20.01	11.41
Other service industries		54.00	46.29	23.45	12.27

Note: Operating costs include both business costs and operating expenses.
Source: Ministry of Finance Tax Data Center, Business Income Tax Data for 2003.

If business costs are added to operating expenses, then personnel costs' share of total operating costs is significantly lower. For SMEs, in 2003 the industry in which personnel costs accounted for the highest share of operating costs was educational services. The disparity was more apparent in the manufacturing sector than in the

service sector, mainly because manufacturing firms need to purchase raw materials, which account for a large share of operating costs. In the service sector the expenditure on raw materials is much smaller, and hence there is a difference in the share of total operating costs held by personnel costs.

3. Little Change in the Number of Hours Worked per Week for All Industries

With the upturn in the economy, for most industries average working hours per week were slightly higher in 2004 than they had been in 2003. In most industries, working hours are longer in SMEs than they are in large enterprises. As a result, working hours in the service sector are longer than in the agricultural and industrial sectors. For SMEs, the accommodation and eating-drinking places industry has particularly long hours, averaging 50.57 hours per week, followed by the wholesale and retail industry at 48.49 hours (Table 4-2-3).

Table 4-2-3 Working Hours per Week by Industry, 2003–2004

Unit: hours per week

Enterprise type Industry	SMEs		Large enterprises		Government employees	
	2003	2004	2003	2004	2003	2004
Agriculture, forestry, fishing and animal husbandry	40.46	41.26	44.24	43.27	41.17	40.98
Mining and quarrying	45.14	45.77	40.00	40.00	40.78	40.48
Manufacturing	43.10	44.41	43.58	43.59	41.15	41.36
Water, electricity, and gas	44.39	44.03	43.65	42.71	41.56	40.87
Construction	40.82	41.75	43.68	43.08	40.98	40.71
Wholesale and retail	48.32	48.49	44.19	44.78	42.25	42.01
Accommodation and eating-drinking places	49.61	50.57	45.86	47.01	46.62	49.00
Transportation, warehousing, and communications	45.98	46.24	45.19	44.65	41.00	40.29
Finance and insurance	44.34	44.21	42.98	43.44	39.84	41.09
Real estate and rental	47.00	47.57	45.73	47.76	41.01	41.71
Professional, scientific, and technical services	43.40	43.42	43.15	44.44	40.09	40.76
Educational services	40.85	40.49	36.49	37.57	37.00	36.73
Medical, healthcare, and social services	46.95	45.56	44.66	43.94	41.95	42.68
Cultural, sporting, and leisure services	47.31	47.67	44.52	43.89	41.11	40.24
Other service industries	47.39	47.71	45.92	46.20	42.01	41.97
Public administration	43.33	41.33	44.00	40.00	41.22	41.79

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data), 2003–2004.

Among workers in the private sector, average working hours declined with age

(Table 4-2-4). In the SME sector, those educated at the vocational high school level have the longest working hours, averaging 45 hours per week. For other educational levels, both above and below the vocational high school level, the average number of hours worked each week is lower. In large enterprises, the correlation between a higher educational level and shorter working hours is particularly pronounced.

Table 4-2-4 Weekly Working Hours for Employees in the Private Sector, 2003–2004

Unit: hours per week

Item	Enterprise type	SMEs		Large enterprises	
		2003	2004	2003	2004
Total No. of persons		43.32	43.77	43.46	43.66
Age					
15–24		44.14	43.92	42.84	44.06
25–40		43.70	44.40	44.31	44.08
41–55		43.55	43.99	43.95	43.82
56–65		42.13	42.91	42.07	42.67
65 or over		41.84	41.89	37.97	39.51
Sex					
Male		43.74	44.23	43.79	44.19
Female		42.87	43.32	43.11	43.10
Education					
Illiterate		41.83	41.30	44.05	44.89
Self-taught		39.07	41.29	46.79	45.12
Primary school		42.80	43.28	44.29	44.62
Junior high school		44.17	44.36	45.46	45.19
Senior high school		44.19	45.40	45.05	44.73
Senior vocational school		44.35	45.23	44.51	44.62
Junior college		43.88	44.11	42.94	43.01
University		42.11	42.63	41.42	42.16
Masters		42.08	41.25	40.90	41.83
Ph.D.		41.11	39.43	38.17	39.75

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data), 2003–2004.

4. Fewer Labor Disputes in SMEs

In 2004 with the economy starting to pick up again, a total of 4,327 labor disputes were registered with the government while there were 4,784 with private arbitration organizations (Table 4-2-5). These figures represent a decrease of 219 and 539, respectively, compared to 2003. For SMEs, there was a pronounced decline in both the

number of disputes registered with the government and the number registered with private arbitration organizations. For large enterprises, on the other hand, there was a slight increase in the number of labor disputes.

Table 4-2-5 Number of Labor Disputes and Number of Persons Involved, 1997–2004

Units: disputes; persons; %

Year	Disputes registered with the government			Disputes registered with private arbitration organizations		
	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)
2004	4,327	844(19.51)	3,483(80.49)	4,784	741(15.49)	4,043(84.51)
No. of persons involved						
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)
2004	21,038	13,541(64.37)	7,497(35.64)	6,271	1,234(19.68)	5,037(80.32)

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

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

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

As regards to the number of people involved in labor disputes, in the case of those disputes registered with the government, 2003 saw a dramatic fall in the number of people involved. Although the total for 2004 was higher than that for 2003, it was still significantly lower than the 1998 level. On the basis of the data available from the government and from private arbitration organizations, it would appear that the number of SME employees involved in labor disputes fell by approximately 800 in 2004 compared to 2003. However, SMEs' share of labor disputes registered with private arbitration organizations rose from 76.74% in 2003 to 80.32% in 2004. SMEs thus account for the largest share of companies seeking assistance from private

arbitration organizations, and this share is rising.

III Manpower Cultivation in SMEs

1. A Continuing Fall in SME Participation in Professional Training in 2003

In 2003 the number of persons participating in professional training in Taiwan increased by approximately 120,000. Public and private enterprises with fewer than 200 employees were the only group for which the number of employees participating in professional training declined, falling by 15,000 (Table 4-3-1). This decrease may have been related to the fact that the economic downturn was not entirely over in 2003, causing smaller enterprises with less than 200 employees to have misgivings about spending money on professional training for their employees. The increase in the participation of professional training opportunities among larger public and private enterprises (over 200 workers) more than compensated for the decline among smaller enterprises.

Table 4-3-1 Number of Employees Participating in Professional Training, 1996–2003

Unit: instances of training

Year	Item	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 more than 200 employees	Other
1996		610,898	101,630	414,058	95,210
1997		631,764	133,977	413,479	84,308
1998		623,495	139,376	392,753	91,366
1999		669,561	113,038	429,880	126,643
2000		757,670	155,153	464,555	137,962
2001		759,142	163,698	442,490	152,954
2002		738,580	160,498	399,128	178,954
2003		859,308	145,503	499,079	214,726

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 "other" category includes "cultivation 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.

2. Training Integration to Provide the Manpower that Enterprises Need

In order to bring down the unemployment rate, which has been rising steadily in recent years, and to help business enterprises secure the manpower they need, in the second half of 2001 the government began to implement the “Plan for Promoting the Integration of Training and Placement for the Unemployment with Enterprises’ Initial Training for New Employees.” The aim of this plan was to match up job-seekers with enterprises’ manpower needs. It was anticipated that the implementation of this plan would help to cultivate the types of manpower that enterprises need, help enterprises to maintain a steady supply of new employees, and help the unemployed to find jobs.

In 2004, 77 enterprises participated in the program, and a total of 3,841 people received training. Of these, 99.05% were hired on the completion of their training program. Training integration of this kind has an important intermediary role to play, bridging the gap between employers and job-seekers (Table 4-3-2).

Table 4-3-2 Results of Training Integration, 2001–2004

Unit: enterprises; persons; %

Year	Item	No. of enterprises involved	No. of trainees hired	Percentage of trainees hired
2001		18	1,508	95.99
2002		85	12,253	99.58
2003		64	11,548	99.59
2004		77	3,841	99.05

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

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

With the upturn in the economy, although the number of enterprises participating in the scheme increased, the number of trainees fell dramatically. One of the main reasons for this decrease is that, in order to ensure that the interests of SMEs are protected, beginning in 2004 the amount of training subsidies for which any individual enterprise could apply was capped at NT\$1 million. As a result, the number of large enterprises applying to participate in the scheme fell. Most of the companies participating in the program are now SMEs, and hence there is a substantial decline in the number of persons undergoing training.

3. Enterprise Spending on Professional Training Remains Low

As a rule, wages account for a higher share of SMEs' total operating expenses and operating costs than they do for large enterprises. However, when it comes to expenditure on training, there is no direct correlation between training expenses as a percentage of total operating costs or operating expenses and the size of the enterprise. For SMEs in the agriculture, forestry, fishing and animal husbandry sector, the wholesale and retail sector, the accommodation and eating-drinking places sector, and the cultural, sports, and leisure sector, on average training expenses' share of total operating costs is lower than it is among large enterprises in these industries. However, for SMEs in other sectors, the share of total operating costs is higher than it is among large enterprises (Table 4-3-3). On the other hand, if one considers training expenses as a percentage of operating expenses rather than operating costs, then the percentage is lower for SMEs than for large enterprises in almost all industries.

Table 4-3-3 Expenditure on Training as a Percentage of Operating Costs and Operating Expenses in 2003

Unit: %

Industry	Enterprise size	SMEs		Large enterprises	
		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, fishing and animal husbandry		0.09	0.71	0.17	1.12
Mining and quarrying		0.02	0.09	–	–
Manufacturing		0.33	2.84	0.17	1.90
Water, electricity, and gas		0.37	1.26	0.06	1.22
Construction		0.12	0.93	0.09	1.92
Wholesale and retail		0.14	0.69	0.21	1.73
Accommodation and eating-drinking places		0.22	0.55	0.30	0.83
Transportation, warehousing, and communications		0.29	0.95	0.26	1.57
Finance and insurance		1.02	3.79	0.04	2.54
Real estate and rental		0.26	0.90	0.18	1.73
Professional, scientific, and technical services		1.23	2.44	1.10	4.01
Educational services		1.46	2.57	0.98	4.22
Medical, healthcare, and social services		0.44	1.03	0.39	6.74
Cultural, sporting, and leisure services		0.19	0.43	0.57	1.62
Other service industries		0.47	1.09	0.84	3.15

Source: Ministry of Finance Tax Data Center, Business Income Tax Data for 2003.

4. Enterprises' Main Motivation for Implementing Professional Training is to Meet the Needs of Organizational Development

For SMEs in Central Taiwan, the three main reasons for implementing professional training were (in order): to meet the needs of organizational development, to strengthen the capabilities of the enterprise's employees, and to improve working efficiency (Table 4-3-4). It would thus appear that SMEs prioritize those types of professional training that can contribute to the development of the enterprise as a whole. The next most important goal is to boost productivity, followed by the cultivation of managerial talent. SMEs are thus very much oriented towards their *current* manpower needs; less consideration is given to future needs.

Table 4-3-4 SMEs' Motivation for Implementing Professional Training in 2004

Units: number of enterprises; %

Ranking	Motivation	No. of enterprises reporting this motivation	No. of enterprises reporting this motivation as % of the total
1	To satisfy organizational development needs	89	27.5
2	To upgrade employee capabilities	75	23.4
3	To improve working efficiency	67	20.8
4	To cultivate managerial talent	60	18.4
5	To boost employee morale	16	5.1
6	To meet employee's individual needs	15	4.8
Total		322	100.0

Source: Central Taiwan SME Training Center, College of Management, Tunghai University, *SME Training Needs in Central Taiwan – Analysis of Survey Results*, December 2004.

5. SMEs Attach the Most Importance to the Cultivation of Managerial Capabilities

In recent years, as the processes of economic globalization and internationalization have proceeded, SMEs have been forced to pay more attention to the cultivation of managerial talent capable of operating in an internationalized environment. Courses aimed at enhancing managerial capabilities account for the largest share of professional training courses implemented or arranged by SMEs, followed by quality management and cost management courses, public safety training courses, and project management training (Table 4-3-5).

Table 4-3-5 Main Types of Professional Training Course Implemented by SMEs in 2004

Units: instances of training: %

Main types of training course implemented	Instances of training	Percentage of total
Managerial capabilities	489	60.82
Quality and cost management	461	57.34
Public safety training	244	30.35
Project management	207	25.75

Source: Shih Chin-chung, Results of the SME Training Needs Survey (2004 Survey of Human Resources Needs in Light of the Growing Importance of Global Logistics), Southern Taiwan SME Training Center, College of Management, National Sun Yat-sen University, December 2004.

6. Technical and Service Personnel Will Remain the Highest Demanded Talent

The category of talent for which SMEs believe that they will have the greatest need in the future is technical and service personnel; 55.11% of SMEs reported this as being the category of talent for which they would have the greatest demand. The next most in-demand category was managerial talent at 20.18% (Table 4-3-6). Demand for administrative talent, e-commerce talent, and other types of supporting talent was much lower than the demand for specialist and managerial talent. The government's efforts to help SMEs cultivate their human resources should therefore continue to focus on specialist and managerial talent.

Table 4-3-6 Types of Human Talent for which SMEs Expect to Experience the Highest Level of Demand in the Future

Units: %

Talent category	2002		2003		2004	
	%	Ranking	%	Ranking	%	Ranking
Technical and service talent	49.20	1	49.20	1	55.11	1
Managerial talent	25.10	2	18.20	2	20.18	2
E-business talent	9.50	3	6.40	4	7.67	3
Administrative services talent	4.90	5	5.50	5	4.06	6
None	2.50	6	15.80	3	7.54	4
Other	2.10	7	0.60	7	0.59	7
Don't know / refused to answer	6.70	4	4.30	6	4.85	5
Total	100.00		100.00		100.00	

Source: SME Training Center (Northern Region), College of Business, National Chengchi University, December 2004, *Survey of SME Manpower Cultivation Needs in 2004*.

7. Most Employee Training and Cultivation is Implemented In-house

SMEs generally prefer to conduct employee training and manpower cultivation in-house – for example, through the use of in-company instructors (77.99% of SMEs) or by organizing in-company study groups (67.04%). Nearly 50% of SMEs have arranged to have training provided by outside consulting firms; only 20% have made use of e-learning (Table 4-3-7).

Table 4-3-7 Main Training and Manpower Cultivation Methods Used by SMEs in 2004

Units: No. of enterprises; %

Training and manpower cultivation methods	No. of enterprises reporting the use of this method	Percentage of enterprises reporting the use of this method
In-company instructors	627	77.99
In-company study groups	539	67.04
Outsourcing of training to firms of consultants	362	45.02
E-Learning	161	20.02

Note: Respondents were permitted to list more than one method.

Source: Shih Chin-chung, Results of the SME Training Needs Survey (2004 Survey of Human Resources Needs in Light of the Growing Importance of Global Logistics), Southern Taiwan SME Training Center, College of Management, National Sun Yat-sen University, December 2004.

The data for SMEs in Central Taiwan also show relatively few SMEs making use of e-learning. The main reason given for this was that the company had not yet developed e-learning; 58.2% of SMEs in Central Taiwan gave this reason (Table 4-3-8). The next most common reason was difficulty in establishing an e-learning platform; just over 10% of SMEs reported that they had used e-learning in the past, but had felt that the course content was of little practical value, or had otherwise not been impressed with the results, and so had discontinued the program.

Table 4-3-8 Reasons Given by SMEs in 2004 for Not Using e-Learning

Units: No. of enterprises; %

Reasons given for not using e-Learning	No. of SMEs giving this reason	Percentage of SMEs giving this reason
Have not developed e-learning yet	168	58.2
Difficulty in establishing an e-learning platform	87	33.0
Implemented e-learning in the past, but the results were disappointing	1	0.3
Implemented e-learning in the past, but the course content was of little practical benefit	33	11.4
Total	289	100.0

Source: Central Taiwan SME Training Center, College of Management, Tunghai University, *SME Training Needs in Central Taiwan – Analysis of Survey Results*, December 2004.

8. SMEs Prefer to Participate in Training Programs Organized by Universities and Other Academic Institutions

According to the results of the survey conducted by the Central Taiwan SME Training Center at the College of Management, Tunghai University, the type of training that SMEs are most enthusiastic about participating in is those training programs organized by universities and other academic institutions. This was the preferred type of training for 52.8% of SMEs (Table 4-3-9). It may be because universities and other academic institutions enjoy high prestige or are felt to display a high level of professionalism. The next most popular type of training was that provided by foundations and government agencies (25.4% of SMEs). Training programs provided by private consulting firms were the least popular.

Table 4-3-9 Types of External Training that SMEs Most Wished to Participate in during 2004

Units: No. of enterprises; %

Ranking	Type of external training provider	No. of SMEs reporting a preference for this type of training provider	Percentage of SMEs reporting a preference for this type of training provider
1	Universities and other academic institutions	151	52.8
2	Foundations and government agencies	73	25.4
3	Private consulting firms	62	21.8
Total		286	100.0

Source: Central Taiwan SME Training Center, College of Management, Tunghai University, *SME Training Needs in Central Taiwan – Analysis of Survey Results*, December 2004.

9. Conferences are Felt to be the Most Effective Form of Training Activity

The forms of training activity that SMEs felt to be most effective were conferences (27.8% of SMEs) and case studies (26.9%), followed by lectures (21.6%). The types of training activity that were regarded as least effective were role-playing and e-learning (Table 4-3-10). It would appear that SMEs prefer general activities that provide an opportunity to acquire new knowledge while also providing a venue for interaction and exchange, and hence the preference for conferences over lectures.

Table 4-3-10 Training Activities that SMEs Felt to be Most Effective in 2004

Units: No. of enterprises; %

Ranking	Training activity	No. of SMEs that preferred this type of activity	Percentage of SMEs that preferred this type of activity
1	Conferences	190	27.8
2	Case studies	184	26.9
3	Lectures	148	21.6
4	Role playing	131	19.2
5	E-Learning	32	4.5
Total		683	100.0

Source: Central Taiwan SME Training Center, College of Management, Tunghai University, *SME Training Needs in Central Taiwan – Analysis of Survey Results*, December 2004.

Chapter 5

Internationalization Activities of Taiwan's SMEs

In general, if the internationalization of an enterprise is defined as “expansion of the enterprise’s products or activities to areas beyond the territory of its home country,” then the scope may extend from passive exporting (which carries the lowest level of risk, but also offers the least control over the market) or direct export to international licensing, international franchising, international strategic alliances, international joint ventures (IJV) and foreign direct investment (FDI), the highest level of internationalization activity. SMEs can select any of the above-mentioned methods to conduct their internationalization activity in accordance with their own strategic intent. In practice, there are two main methods for implementing internationalization activity: 1) undertaking internationalization in stages and 2) the “global start-up” strategy. What is meant by “implementing internationalization in stages” is starting from domestic production or marketing first and then moving up step by step in stages. Adoption of the “global start-up” strategy means that, when the enterprise is first organized, it is already focusing primarily on the global market, whether its activities start from exports or FDI. In the past, SMEs generally opted for a stage-by-stage approach to internationalization, perhaps because they felt they were not sufficiently familiar with international markets and international management. Today, however, this is no longer the case. Benefiting from the convenience of global communication, the development of the Internet, global regional integration and the dismantling of international trade barriers, SMEs have more opportunities than before to move toward internationalization. In the first part of this Chapter, we will examine the current state of internationalization of Taiwan’s SMEs, analyzing the impact of Taiwan’s SMEs on other countries (including direct exports, indirect exports, licensing agreements, franchising and overseas investment). These factors can serve as indicators of the level of internationalization achieved by Taiwan’s SMEs.

SMEs' internationalization activities will inevitably be affected by the strategic intent of the company's managers and by the firm's multinational strategy. Section 2 of this Chapter will therefore explore management's strategic intent and multinational strategy as well as the relationship with internationalization; a questionnaire survey is used to provide supporting data.

In recent years, more and more SMEs have begun to concentrate their attention on marketing activities. While building up their enterprise image and brand name at home, they have gradually extended the scope of their operations into international markets. Although the manpower and resources of SMEs are far smaller than those of large corporations, nevertheless, given the potential for reducing marketing costs through the adoption of new technology, it should still be possible for SMEs to gradually step up their international marketing activity. Section 3 of this Chapter focuses on the marketing resources available to SMEs, anticipating that the use of those low-cost marketing resources will help SMEs to increase their marketing capacity, establish a higher reputation, create more profits and develop a more forward-looking corporate vision. They can then go on to map out their international marketing strategy for the next stage.

I Internationalization of Taiwan's SMEs – Current Status

In this Section, we shall describe primarily the current status of internationalization of Taiwan SMEs. As stated above, SMEs may, in the process of internationalization, adopt either a stage-by-stage internationalization strategy or a global start-up strategy. Stage-by-stage internationalization involves starting from domestic production or marketing first, and then moving up step by step in stages. With the global start-up strategy, the enterprise is focusing primarily on the global market right from the start. If this strategy is adopted, the point of entry can be any type of activity, ranging from exportation to FDI. In the past, SMEs that were seeking to internationalize would normally adopt the stage-by-stage internationalization strategy. Regardless of the form of internationalization activity that the enterprise chooses to implement, the need to internationalize is something that all SMEs will have to face in the future. In this

section, we examine the current state of internationalization among Taiwan's SMEs, focusing on the following aspects: export value, licensing, franchising, joint ventures and direct investment.

1. Marketing, Domestic Sales, and Exports

Using total sales, domestic sales and export sales data based on Ministry of Finance Tax Data Center original business income tax data to compare the level of internationalization among SMEs and large enterprises, we note that the sales value of SMEs in 2004 accounted for 30.60% of the overall business sales value for all enterprises; SMEs' domestic sales value accounted for 35.82% of the overall business domestic sales value for all enterprises, while SMEs' export value accounted for 16.91% (Table 2-1-1) of the overall export sales value for all businesses. It is clear that, in comparison with large corporations, domestic sales remained the main focus of SMEs' management and operational activities. If one considers export inclination (export value / total sales value), it can be seen that the overall export inclination for all businesses stood at 26.50% while for SMEs it was 15.25% (Table 5-1-1). The manufacturing sector displayed the highest export inclination, at 21.21%, while the service sector had the lowest export inclination, at 9.73%; this is related to the indivisibility of production and consumption that often characterizes service sector enterprises, making for lower levels of exportation. Examination of export inclination over the period 2001 to 2004 shows that it appears to have been declining, down from 19.01% to 15.25%. The overall level of export inclination in 2004 was roughly the same as in 2003; export inclination rose in the agricultural and manufacturing sectors, while falling in the service sector.

Table 5-1-1 Export Inclination of SMEs by Sector, 2001–2004

Unit: %

Year \ Sector	Total	Agriculture	Manufacturing	Service
2001	19.01	15.31	18.54	19.36
2002	18.02	15.46	18.96	17.41
2003	15.25	13.70	21.15	10.13
2004	15.25	15.80	21.21	9.73
2004 domestic sales as multiple of export sales	5.56	5.33	3.71	9.28

Note: Export inclination = export sales / total sales.

Source: Compiled from Ministry of Finance Tax Data Center business income tax data (original data) for 2001–2004.

2. Licensing Agreements and Franchising

Internationalization can also be analyzed by looking at firms' licensing agreements and franchising activities. In this section, we use data for the manufacturing sector compiled by the Department of Statistics, Ministry of Finance. Table 5-1-2 shows the main forms that investment in overseas operations by Taiwanese enterprises took in 2004. On the whole, overseas investment by the manufacturing industry as a whole was implemented primarily through cash investment; this was true for 85% of SMEs that invested overseas, and for 93% of large enterprises that did so. Compared with 2003, these percentages increased by 2.55% in the case of small enterprises and by 2.70% in the case of large enterprises; only that for medium-sized enterprises was there a decrease of 0.46%. In 2004, 47.93% of enterprises implemented investment in overseas operations through the provision of machinery or equipment. In comparison with 2003, this percentage increased by 4.97% in the case of large enterprises, while for both small and medium enterprises it declined. In 2004, the percentage of enterprises that undertook investment in overseas operations in the form of providing raw materials, components, semi-finished products or finished products stood at 23.35%.

Table 5-1-2 The Main Forms of Investment Used by Taiwanese Manufacturing Enterprises Investing Overseas

Unit: %

Scale \ Form	Cash	Machinery & equipment	Raw materials, components, semi-finished products or finished products	Patent or technology on cash terms	Other
2003 survey	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
2004 survey	90.27	47.93	23.35	4.68	0.69
Small enterprises	85.00	51.46	31.88	5.63	0.42
Medium enterprises	93.66	41.99	16.01	2.72	0.60
Large enterprises	96.94	45.50	13.58	4.24	1.19
Increase or decrease in percentage in 2004 compared with 2003 survey					
Manufacturing industry as a whole	2.80	-2.07	-2.08	-0.18	-0.17
Small enterprises	2.55	-3.63	-1.14	0.54	-0.05
Medium enterprises	-0.46	-5.40	-1.96	-0.87	-0.38
Large enterprises	2.70	4.97	0.00	-0.90	-0.46

Note: Respondents were allowed to tick more than one form of investment.

Source: Ministry of Economic Affairs, Survey on Overseas Investment by Manufacturing Industry in the Taiwan Region, ROC, 2003 and 2004.

Compared to 2003, the percentage declined for both small and medium enterprises. Only about 5% of enterprises undertook investment in overseas operations that took the form of providing patents or technology; compared to 2003, the percentage increased slightly in the case of small enterprises, but decreased in the case of medium-sized and large enterprises. It can thus be seen that, regardless of enterprise size, cash investment is the most common form of investment in overseas operations, with investment in the form of patents or technology being the least common.

3. Joint Ventures

Continuing our analysis of overseas investment by the manufacturing sector, if we compare the survey results for 2002, 2003 and 2004 as shown in Table 5-1-3, we can see that, in the case of SMEs, the percentage of enterprises whose overseas operations took the form of a wholly-owned subsidiary was highest in 2003 and lowest in 2004, when it was approximately 63.56%. The 2004 survey indicated that the percentage of firms investing overseas that used wholly-owned subsidiaries had declined, and that this was true of both SMEs and large enterprises. In the case of SMEs, the percentage declined by 6.67%. By contrast, the share of enterprises making use of joint ventures rose from 32.67% in 2003 to 36.44% in 2004. The percentage of enterprises using joint ventures was higher among SMEs than among large enterprises. It can thus be seen that the percentage of enterprises in the manufacturing sector that used a “partnership” arrangement to invest overseas increased in 2004. If one breaks Taiwanese industry down into four major industry categories, we can see that the use of wholly-owned subsidiaries for overseas investment was most common among companies in the information and electronics industry (72.63%), and least common in the chemical industry (55.49%). If the industry breakdown is based on the type of activity being undertaken, then the use of wholly-owned subsidiaries can be seen to be most common among enterprises engaged in processing operations (67.27%), and least common among those engaged in materials production (42.03%). Overall, Taiwanese companies still prefer to undertake overseas investment through the medium of wholly-owned subsidiaries.

As regards disparities between enterprises investing in different regions of the world, the use of wholly-owned subsidiaries was most common among enterprises investing in Western Europe, followed by China, Hong Kong and the US. The use of

joint ventures was most common among enterprises investing in Southeast Asian nations such as Indonesia, Malaysia, Singapore, and Vietnam. Collaboration with local companies was most common among Taiwanese enterprises investing in Japan. Overall, China was the main target for Taiwanese manufacturing enterprises investing overseas in 2004; the number of enterprises investing in China grew, whereas the number investing in other regions declined.

Table 5-1-3 The Main Forms of Ownership Arrangement Taken by the Overseas Operations of Taiwanese Manufacturing Enterprises

Unit: %

Scale \ Form	Wholly-owned subsidiary	Joint venture			
		In cooperation with a foreign enterprise	In cooperation with a local enterprise	In cooperation with a Taiwanese enterprise	In cooperation with individual Taiwanese business people
2002 total	64.84	10.09	9.68	12.17	10.23
Small enterprises	61.39	—	—	—	—
Medium enterprises	65.80	—	—	—	—
Large enterprises	69.81	—	—	—	—
2003 total	67.33	9.67	9.72	12.04	9.61
Small enterprises	65.00	—	—	—	—
Medium enterprises	66.99	—	—	—	—
Large enterprises	72.63	—	—	—	—
2004 total	63.56	9.84	8.30	10.59	7.18
Small enterprises	60.73	9.17	7.50	11.46	9.27
Medium enterprises	66.16	7.85	11.18	9.37	6.04
Large enterprises	66.72	12.05	7.98	9.85	4.41
Major areas of investment	W. Europe	Singapore	Japan	Indonesia	Indonesia
	Mainland China	Japan	Indonesia	Vietnam	Thailand
	Hong Kong	Malaysia	Thailand	Singapore	Malaysia

Note: Respondents were allowed to tick more than one form of operation.

Source: Ministry of Economic Affairs, Survey on Overseas Investment by Manufacturing Industry in the Taiwan Region, ROC, 2002, 2003 and 2004.

4. Wholly-owned Subsidiaries

As indicated by Table 5-1-3, wholly-owned subsidiaries remained a very common form of overseas investment among Taiwanese manufacturing firms; they were particularly widespread in terms of investment in Western Europe, China and Hong Kong. In the late 1980s, many Taiwanese SMEs began to set up factories in Southeast Asia – particularly Thailand and Malaysia – in line with the government’s “Go South” policy. However, from the 1990s onwards, Vietnam and China became the main

places for overseas investment. Generally speaking, the industries that moved production overseas were labor-intensive industries with products in the mature stage of the product lifecycle that offered little potential for upgrading; in some cases, the industry was already in decline in Taiwan. As such, the main places for investment were countries with relatively low production costs: countries that offered abundant cheap labor, easy access to land and factory buildings, and government incentive programs to encourage investment. Taiwanese SMEs also preferred to invest in areas with a large ethnic Chinese business community; the most popular targets were Southeast Asia and China, which to Taiwanese businesspeople “feels” close to home. China, with its huge, rapidly-growing market, became the single most popular location for Taiwanese overseas investment.

As noted above, the percentage of Taiwanese SMEs investing overseas declined in 2004, in both the large enterprise and SME segments. The decline was 4.27 percentage points in the case of SMEs, and 5.91 percentage points in the case of large enterprises. If the level of investment in wholly-owned subsidiaries overseas (i.e. foreign direct investment, or FDI) is taken as a proxy for internationalization activity among Taiwan’s SMEs in 2004, then it can be seen that such activity weakened in 2004.

To summarize the above, we have compiled Table 5-1-4 to show the performance of Taiwan’s SMEs with respect to various aspects of internationalization activity. While the number of enterprises undertaking overseas investment in the form of wholly-owned subsidiaries declined, the number doing so through the use of licensing agreements and joint ventures increased. The figures for domestic sales and export sales both show an increase; moreover, the export inclination remained unchanged. Overall, the vitality of Taiwan’s SMEs with respect to internationalization activity increased slightly.

Table 5-1-4 Vitality of Taiwanese SMEs with Respect to Internationalization Activity According to 2004 Survey Data

Internationalization process	Domestic sales (amount)	Direct exports (amount)	Export inclination	Overseas licensing & franchising (number of firms)	Overseas joint ventures (number of firms)	Wholly-owned subsidiaries overseas (number of firms)
Annual growth rate	Up	Up	Unchanged	Up	Up	Down
Internationalization index	—	—	—	V	V	—

Note: V indicates a positive impact upon internationalization; — indicates no impact or a negative impact.

II The Relationship between a Company's Strategic Intent and Internationalization

1. The Impact of Company Characteristics and Globalization Pressure on Market Entry Policy

In general, the strategic intent and special characteristics of a firm affect the internationalization strategy that it adopts. Management's global vision can also have a major impact on the company's business strategy. Table 5-2-1 lists the possible relationships between the strategic intent of management and the internationalization process. When it comes to strategic intent, profit may not be the short-term goal of a firm, even though the ultimate goal of a business is to seek profit. For some firms, the market entry strategy is based on the desire to acquire new technology while, for others, the motive is to be one of the first companies to get a foot in the door in that market. Many of the international companies that have invested in China over the years (such as Motorola) realized right from the start that it might be some time before their China operations became profitable; nevertheless, by spending time to develop the market, they were able to develop an in-depth knowledge of the Chinese market, and gain a better understanding of how local companies operated. If a company's strategic intent is to gain a clearer understanding of market needs, then a joint venture or FDI strategy will be most appropriate for them. If the strategic intent of an enterprise is merely to secure short-term profits, then direct or indirect exportation would be the most suitable strategy. Joint ventures and FDI will be more feasible for firms with abundant resources; if a company is able to exercise significant control over the market, then it will be in a better position to implement joint ventures or FDI. Table 5-2-1 depicts the relationship between a firm's characteristics and entry strategy.

Strategic intent is obviously very important for SMEs when embarking on internationalization. If an SME is in a relatively weak position financially, then short-term profit will be an important goal. This explains why exportation is the main form of internationalization activity for so many SMEs.

As regards internationalization pressure, as shown in Table 5-2-2, when a firm finds itself under relatively high internationalization pressure, if its competitive

advantage lies in the upstream segment of the value chain, then a transnational strategy would be its optimal choice. If an enterprise is under heavy localization pressure and its competitive advantage lies in the downstream segment of the value chain, then a multi-location strategy would be recommended.

Table 5-2-1 The Decision-making Matrix for the Formation of Entry Strategy

Reason		Entry strategy				
		Direct exports	Indirect exports	Licensing and franchising	Joint ventures	FDI
Strategic intent	To understand the market			V	VV	VVV
	To acquire short-term profit	VVV	VVV	VV	V	V
Company resources	Financial issues are paramount	VV	VVV			
	In possession of international experts				VV	VVV
Host nation government	Investment incentives				VVV	VVV
Products	Not easy to transport		V	V	VV	VVV
	Easily pirated			VV	V	VV
Culture	Huge cultural difference between the two markets	VV	V	VV	VVV	V
Market control ability	High				V	VVV
Risk	Low	VVV	VVV	VV	V	V

Note: VVV indicates the strategy is highly appropriate; VV appropriate; V marginally appropriate.

Source: J.B. Cullen (2000), *International Business Management*; Cincinnati, Ohio: South-Western Thomson Learning.

Table 5-2-2 Relationship between Globalization Pressure and Multinational Strategy

Globalization/Localization pressure	Major competitive advantage in the value chain	
	Upstream	Downstream
High globalization pressure	Transnational strategy or international strategy	Regional strategy, compromise strategy
High localization pressure	Regional strategy, compromise strategy	Multi-location strategy

Source: J.B. Cullen (2000), *International Business Management*; Cincinnati, Ohio: South-Western Thomson Learning.

2. Room for Improvement with Respect to Cross-cultural Management and Attitudes towards Internationalization

Table 5-2-3 analyzes the difficulties that firms experience in their overseas operations, with the aim of gaining a clearer understanding of the nature of internationalization pressure. Apart from fierce competition in the marketplace, the difficulties that have caused most difficulty for these Taiwanese enterprises have been rising labor costs and securing financing. One point worth noting is the widespread feeling that differences in social customs and ways of doing business can be an important obstacle

to the development of overseas operations. This problem appears to apply all over the world, including the US, Western Europe and Japan. Bearing in mind that these three regions have reached a higher level of internationalization than any other part of the world, it appears that there is still room for improvement among Taiwanese enterprises in terms of cross-cultural management capabilities and attitudes towards internationalization.

Table 5-2-3 Difficulties Faced by the Primary Overseas Operation of Taiwanese Manufacturing Enterprises

Difficulty	No. 1	No. 2	No. 3	No. 4	No. 5
China	Fierce competition in the marketplace	Ineffective local administration hinders cooperation	Difficulties with capital transfer or borrowing	Strict controls on sales in the local market	Unstable local political and economic situation
USA	Fierce competition in the marketplace	Rising local labor costs	Difficulties with capital transfer or borrowing	Other	Different social customs and business practices
Hong Kong	Fierce competition in the marketplace	Strict controls on sales in the local market	Difficulties with capital transfer or borrowing	Different social customs and business practices	Ineffective local administration hinders cooperation
Vietnam	Difficulty in negotiations due to language barrier	Fierce competition in the marketplace	Different social customs and business practices	Difficult to access related materials & equipment	Ineffective local administration hinders cooperation
Thailand	Difficulty in negotiations due to language barrier	Fierce competition in the marketplace	Unstable local political and economic situation	Difficulties with capital transfer or borrowing	Ineffective local administration hinders cooperation
Malaysia	Fierce competition in the marketplace	Rising local labor costs	Different social customs and business practices	Ineffective local administration hinders cooperation	Difficulties with capital transfer or borrowing
W. Europe	Fierce competition in the marketplace	Rising local labor costs	Difficulties with capital transfer or borrowing	Difficulty in negotiations due to language barrier	Different social customs and business practices
Japan	Fierce competition in the marketplace	Different social customs and business practices	Ineffective local administration hinders cooperation	Difficulties with capital transfer or borrowing	Strict controls on sales in the local market
Indonesia	Unstable local political and economic situation	Fierce competition in the marketplace	Rising local labor cost	Ineffective local administration hinders cooperation	Difficulty in negotiations due to language barrier
Singapore	Fierce competition in the marketplace	Difficulties with capital transfer or borrowing	Rising local labor cost	Ineffective local administration hinders cooperation	Difficult to access related materials & equipment

Notes: 1. This table is based on 2004 survey data.

2. Bold letters indicate replies given by 20% or more of respondents.

Source: Ministry of Economic Affairs, Survey on Overseas Investment by Manufacturing Industry in the Taiwan Region, ROC, 2003 and 2004.

3. Analysis of Motives for Overseas Investment by SMEs

Despite the problems that internationalizing SMEs experience due to limited financial resources or limited manpower, many SMEs continue to demonstrate immense

enthusiasm for internationalization. To overcome the barriers that SMEs face when seeking to enter global markets, international business theorists emphasize the importance of fostering an “internationalization culture” among SMEs that can serve as the foundation for developing global markets. What is meant by an “internationalization culture” is that both managers and employees must think globally when considering the business opportunities available to the enterprise and that, within the organization, international experience is shared through organizational learning so as to build up a corporate culture with a global outlook. However, when it comes to implementation, the key factor that will determine whether the business can move successfully toward internationalization remains the characteristics of the enterprise’s senior managers, including how difficult senior managers feel it will be to develop overseas markets, their international experience, how risk-averse they are, and their willingness to develop strategies that are international in scope. Since the existing information we have on hand does not include questionnaire surveys targeting senior managers, all we can do at present is to infer what companies’ motives for overseas investment are likely to be.

In the past, the motives for investment by Taiwanese SMEs in Southeast Asia or China could be reduced to the following key factors: low labor costs, the opportunity to expand production capacity, responding to pressure from customers, building a cost advantage, developing new markets, spreading risk, accessing new production resources, and experimenting with new business areas. For those who opted to invest in North America or Europe, the primary motives were to develop an advantage in the areas of technology and information, differentiate their products from those of competitors, and spread risk. In recent years, the investment environment in China has changed, with labor costs starting to climb, and this appears to have had an impact on companies’ motivation for investing overseas. The results of surveys undertaken in 2002, 2003 and 2004 indicate that the main motives for overseas investment were more or less the same in all three years; the five most common given motives were: “huge potential for local market development,” “abundant cheap local labor pool,” “responding to overseas customers’ needs,” “investing in areas where Taiwanese customers have migrated,” “worsening business climate in Taiwan,” and “ready availability of land for factory construction.” The following points are worth noting:

First, “huge potential for local market development” has replaced “abundant

cheap local labor pool” as the main motivation for overseas investment. The 2004 survey results indicated that the most important motive for manufacturing industry to invest overseas was the “huge potential for local market development;” this was given as a motive by 63.35% of enterprises, as compared to the 55.21% of enterprises listing “abundant cheap local labor pool” as a motive. This increased emphasis on developing the local market is reflected in the sales destinations of the products of Taiwanese enterprises’ overseas operations. As can be seen from Table 5-3-4, the share of the total output of Taiwanese enterprises’ overseas operations that is sold in the local market has risen dramatically; 48.79% of output is sold locally, with only 16.64% being shipped back to Taiwan. In comparison with 2003, sales in the local market grew by 64.21%, which was higher than the rates of growth for exportation to overseas markets and shipment back to Taiwan. Clearly, Taiwanese enterprises investing overseas are now focusing more on the local market in the areas in which they have invested.

Second, there is the importance of network relationships. Network linkages, or in other words the internationalization of firms within the production network, is often one of the most important factors contributing to the internationalization of Taiwan’s SMEs. The competitive advantage of Taiwanese businesses in the international market is derived mainly from the division of labor among Taiwan’s SMEs, a flexibility based on mutual support, and the network relationships that arise out of this. Through network linkages, technology and capital are combined, helping companies to respond more rapidly to changes in market demand. Due to the desire to minimize risk, the need to adapt to the special characteristics of the host country, and the high level of uncertainty that characterizes decision making in the area of overseas investment, Taiwanese SMEs often adopt a production internationalization model based on networks, either through the extension of existing networks, or by moving production overseas in concert with other SMEs. This enables enterprises to make the most efficient use of the intra-industry division of labor and of their own in-house resources. We can see from Table 5-2-4, which shows the motivation for overseas investment by manufacturing enterprises, that “responding to foreign customers’ needs” and “investing in areas where Taiwanese customers have migrated” have both ranked among the top five motives in the last three years, both for medium-sized enterprises and small enterprises. One can deduce from this that internationalization through the

operation of network relationships is still very common among Taiwanese SMEs.

Table 5-2-4 Motivation for Overseas Investment by Taiwanese Manufacturing Enterprises, 2004

Motivation Scale	No. 1	No. 2	No. 3	No. 4	No. 5
2002 survey	Huge potential for local market development (63.55%)	Abundant cheap local labor pool (62.76%)	Worsening business climate in Taiwan (36.08%)	Responding to foreign customers' needs (33.36%)	Investing in areas where Taiwanese customers have migrated. (27.19%)
2003 survey	Abundant cheap local labor pool (63.34%)	Huge potential for local market development (62.31%)	Responding to foreign customers' needs (35.38%)	Worsening business climate in Taiwan (28.51%)	Investing in areas where Taiwanese customers have migrated. (25.70%)
2004 survey	Huge potential for local market development (63.35%)	Abundant cheap local labor pool (55.21%)	Responding to foreign customers' needs (36.65%)	Investing in areas where Taiwanese customers have migrated. (25.85%)	Worsening business climate in Taiwan (22.02%)
By the size of domestic business					
Small enterprise	Huge potential for local market development (57.40%)	Abundant cheap local labor pool (56.77%)	Responding to foreign customers' needs (36.77%)	Worsening business climate in Taiwan (29.38%)	Investing in areas where Taiwanese customers have migrated. (28.75%)
Medium enterprise	Huge potential for local market development (69.18%)	Abundant cheap local labor pool (48.04%)	Responding to foreign customers' needs (36.25%)	Investing in areas where Taiwanese customers have migrated. (24.77%)	Easy access to local land (16.31%)
Large enterprise	Huge potential for local market development (69.78%)	Abundant cheap local labor pool (56.71%)	Responding to foreign customers' needs (36.67%)	Investing in areas where Taiwanese customers have migrated. (21.73%)	Easy access to local land (15.45%)

Notes: 1. Respondents were allowed to give more than one motive for investing overseas.

2. The figures in parentheses are the percentages of enterprises reporting that particular motive.

Source: Ministry of Economic Affairs, Survey on Overseas Investment by Manufacturing Industry in the Taiwan Region, ROC, 2003 and 2004.

Third, the importance of the “worsening business climate in Taiwan” as a factor behind overseas investment has declined. In the 2002 survey, the “worsening business climate in Taiwan” ranked as the third most commonly listed motivation for overseas investment, but fell back to fourth place in 2003 and fifth place in 2004. This change in ranking reflects an improvement in the business environment in Taiwan.

The 2004 survey results suggested that the state of the domestic business environment in Taiwan is not a significant source of motivation for overseas

investment among medium-sized and large enterprises; ready availability of land for factory construction was a more important source of motivation for these enterprises. This may be related to the fact that medium-sized and large enterprises generally require a much larger area of land for factory building than do small enterprises.

4. The Transnational Management Model Employed in the Overseas Operations of Taiwan's SMEs

The management models and attitudes adopted by Taiwanese SMEs when establishing overseas affiliates are reflected in the relationship between the overseas affiliate and the parent company.

(1) Division of Labor

The discussion in this section focuses on the manufacturing sector. It can be seen from Table 5-2-5 that finished products manufactured in Taiwan are mainly high-grade products, with a wide variety of different products. For some (approximately 11.38%), however, the quality of the products manufactured by the overseas operation and those manufactured by the Taiwan parent company is exactly the same. As regards the division of labor between the overseas operation and the Taiwan parent company, a horizontal division of labor is most common. That is to say, the domestic and overseas operations produce more or less the same products, but the Taiwan-made products are of higher grade; a division of labor of this type was adopted by 13.38% of enterprises. A vertical division of labor normally still takes the form of the domestic operation manufacturing components or semi-finished products that are shipped to the overseas operation for assembly into finished products; 7.07% of enterprises used a division of labor of this kind.

(2) The Level of Autonomy Enjoyed by the Overseas Operation with Respect to Marketing

According to the results of a 2004 survey of the marketing methods employed by the overseas operations of Taiwanese business enterprises (Table 5-2-6), approximately 60% of Taiwanese enterprises that have invested overseas market their products directly through the overseas operation; this ratio has been rising steadily, climbing

from 58.41% in 2000 to 61.91% in 2003. The next most common marketing strategy is for the Taiwan parent company to be responsible for marketing; this is true in approximately 50% of cases, and the percentage has remained more or less unchanged. Other strategies – such as marketing through a local company, marketing through another Taiwanese company (i.e. a trading company), or marketing through a company based in a third country, were all much less common; none of them was used by more than 20% of enterprises.

Table 5-2-5 The Relationship between the Products of Taiwanese Parent Companies and Those of Their Overseas Operations

Relationship	Scale	2003 total	2004 total	Size of domestic business		
				Small enterprise	Medium enterprise	Large enterprise
The same types of finished products are produced at both locations, but the Taiwan-made products are of higher grade.		18.47	13.88	13.44	12.69	15.28
Product quality is the same, but the Taiwan parent company manufactures a wider variety of different products.		14.47	11.38	8.23	11.78	16.30
The products manufactured by the Taiwan parent company and the overseas operation are different; those manufactured by the Taiwan parent company have higher value-added.		9.50	12.66	8.65	15.11	17.83
Product types and product quality are exactly the same.		10.64	10.90	12.60	11.78	7.64
The Taiwan parent company produces components and semi-finished products, while the overseas operation assembles these into finished products.		12.20	7.07	6.15	6.34	9.00
Product quality is the same, but the overseas operation manufactures a wider variety of different products.		8.26	5.16	6.98	3.93	2.89
The overseas operation produces components and semi-finished products, while the Taiwan parent company assembles them into finished products.		5.02	2.45	2.50	3.02	2.04
Both the Taiwan parent company and the overseas operation manufacture components, but for different product types.		4.00	2.82	2.19	5.141	2.55
The products manufactured by the Taiwan parent company and the overseas operation are different; those manufactured by the overseas operation have higher value-added.		1.57	1.49	1.88	1.51	0.85
The same types of finished products are produced at both locations, but the products manufactured by the overseas operation are of higher grade.		0.49	0.53	0.52	0.91	0.34

Note: Respondents were permitted to select more than one type of relationship.

Source: Ministry of Economic Affairs, *Survey on Overseas Investment by Manufacturing Industry in the Taiwan Region, ROC, 2004*.

The percentage of enterprises marketing directly through their overseas operation and the percentage marketing through a local company were higher in 2004 than in any previous year. Adopting this kind of strategy can help Taiwanese businesses to develop the local market, secure access to local distribution channels, and obtain local market information. The increase in the share of enterprises using these strategies

reflects the fact that Taiwanese enterprises have begun to focus more on the local market in the countries where their overseas operations are located; it corroborates the findings noted above regarding the greater emphasis on local market development.

Table 5-2-6 Marketing Methods Used by the Main Overseas Businesses of Taiwanese Manufacturing Enterprises in 2004

Unit: %

Year of survey	Item	Marketing handled directly by overseas business	Marketing handled by Taiwan parent company	Marketing through local enterprise	Marketing through other Taiwanese enterprise	Marketing through an enterprise of a third country	Marketing through an affiliate in another area
2000		58.41	51.89	17.12	9.57	7.92	5.95
2001		60.34	49.37	15.07	7.46	7.66	3.56
2002		61.78	51.69	15.90	7.16	6.88	4.23
2003		61.91	55.37	17.23	6.65	5.64	5.27
By the size of the business							
Small enterprise		61.25	55.94	16.04	7.81	7.60	5.10
Medium enterprise		60.12	52.27	23.26	5.74	3.93	5.14
Large enterprise		64.01	56.20	15.79	5.26	3.40	5.60

Note: Respondents were permitted to list more than one marketing method.

Source: Ministry of Economic Affairs, *Survey on Overseas Investment by Manufacturing Industry in the Taiwan Region, ROC, 2004*.

III Analysis of SME Marketing Models and Resources

Generally speaking, SMEs are characterized by the ability to rapidly respond to changing circumstances, a strong entrepreneurial spirit, drive, flexibility and ability to spread risk. In the past, SMEs have been primarily engaged in manufacturing, particularly OEM. As a result, they have relatively weak marketing capabilities, for example with respect to market development and brand development. They also find it difficult to secure control over distribution channels, and to monitor changes in consumer demand. As a result, profit margins for Taiwan's SMEs have tended to be very low.

For most SMEs, the most serious problems are small size and limited capital. These limitations have made it difficult for SMEs to achieve much in the area of marketing (such as developing their own brand or implementing effective advertising). Recently, however, with the advances in marketing technology and the improvement in overall marketing infrastructure, SMEs have become more aggressive in their

marketing efforts.

One example of successful marketing by a Taiwanese enterprise is BenQ, which signed an agreement with UEFA to provide IT equipment for the 12th European Championship, which was held in Portugal in 2004. During the competition, the BenQ brand and the purple BenQ logo could be seen everywhere on the streets of Portuguese cities, helping to boost brand recognition for BenQ in Europe. Another example is Franz, a leading gifts supplier. In the past, Franz has undertaken OEM production for many leading international brands; Franz became noted for its superior design and product quality, and for its successful market segmentation and pricing strategy. In the space of just two years after Franz went public in 2002, it had established itself as a leading brand in its own right, achieving an impressive degree of success in its development of international markets.

Table 5-3-1 Taiwan's Top Ten International Brands as of 2004

Ranking	Brand name	Company name	Brand name value (NT\$ million)	Growth rate of brand name value 2003–2004
1	TrendMicro	TrendMicro Enterprise	30,835	18.8%
2	ASUS	ASUS Computer	27,788	13.6%
3	Acer	Acer Computer	21,673	24.4%
4	Master Kong	Master Kong Holding	12,004	3.6%
5	MAXXIS	Cheng Shin Rubber	9,402	8.0%
6	BenQ	BenQ Taiwan	9,123	35.0%
7	GIANT	Giant Bicycles	8,085	12.7%
8	ZyXEL	ZyXEL	7,303	9.7%
9	D-Link	D-Link Corp.	7,193	N/A
10	ADVANTECH	Advantech Taiwan	6,626	9.6%

Source: Taiwan Innovalve website.

1. SME Marketing Models

In recent years, businesses have been moving the main focus of their operations more and more towards marketing; enterprises have become more aware of the contribution that marketing activities can make to profitability. Table 5-3-2 shows that the response strategies that businesses have adopted in order to deal with the changing domestic business environment have included the stepping up of R&D activity (a strategy adopted by 40.56% of enterprises), followed by the cultivation of specialist talent (28.73%), own-brand development and design capability enhancement (27.83%), and

the strengthening of marketing capabilities (23.91%). SMEs have thus come to attach more importance to marketing activities as a means of developing their business operations.

Table 5-3-2 Strategies Adopted by Business Enterprises in Response to the Changing Business Environment

Unit: %

Strategy	Scale	Size of the Taiwan parent company			
		Grand total	Small enterprise	Medium enterprise	Large enterprise
Increased overseas investment		12.21	18.68	12.24	8.65
Increased investment in Taiwan		10.53	7.66	10.88	12.08
Stepping up R&D activity		40.56	55.08	53.06	31.59
Stepping up the automation of production		23.71	21.36	25.17	24.89
Strengthening of environmental protection facilities and technology		4.34	3.45	3.40	4.91
Cultivation of specialist talent (e.g., technical, marketing and financial specialists)		28.73	31.80	27.21	27.16
Effective utilization of capital and focusing on long-term rather than short-term profitability		11.92	6.90	12.24	14.66
Development of own brand and of distinctive product design capabilities so as to boost competitiveness		27.83	23.85	34.01	29.54
Computerization of business operations		8.23	7.95	5.44	8.60
Stepping up the introduction of new technology from outside sources		17.14	16.28	17.69	17.56
Enhancement of marketing capabilities		23.91	19.92	18.37	26.53
Formation of marketing alliances with other companies or groups		6.12	9.29	6.80	4.32
Flexible adjustment of investment in domestic and overseas production locations		4.66	7.66	5.44	2.95
Diversification of operations		15.78	10.54	13.61	18.83
E-Business development		3.43	4.41	2.04	3.01
Boosting value-added		19.40	23.75	21.77	16.83
Developing new markets, both in the domestic market and overseas		22.58	22.89	16.33	22.89

Source: Ministry of Economic Affairs, *Survey on Overseas Investment by Manufacturing Industry in the Taiwan Region, ROC, 2004*.

As regards the sales strategies that enterprises emphasize (Table 5-3-3), it can be seen that, regardless of enterprise size, “monitoring market demand and strengthening the company’s own systems and functions” is given top priority, followed by “the aggressive introduction of new products into the marketplace.” Although “enhancement of corporate image” ranks relatively far down the list, its perceived importance has been increasingly steadily.

2. Overseas Sales

Regarding overseas sales, it can be seen from Table 5-3-4 that, in those cases where

the products of manufacturing firms' overseas operations are sold locally or exported to other regions, the percentage of enterprises reporting an increase in sales is significantly higher than the percentage reporting a decline in sales. However, in cases where the overseas operation's products are shipped back to Taiwan, the percentage of enterprises reporting an increase in sales is lower than the percentage reporting a decrease. It can thus be seen that the development of overseas production and overseas sales by the Taiwanese manufacturing sector in recent years has been quite successful.

Table 5-3-3 Sales Strategies Emphasized by Taiwanese Manufacturing Enterprises

Unit: %

Strategy	Scale	2002 total	2003 total	2004 total	Size of Taiwan parent company		
					Large enterprise	Medium enterprise	Small enterprise
Monitoring market demand and strengthening the company's own systems and functions		62.58	77.44	66.17	75.3	69.47	63.57
Aggressive introduction of new products into the marketplace		57.93	55.73	55.05	63.01	58.49	52.67
Price setting strategy		43.66	34.79	42.65	40.45	40.29	43.59
Enhancement of after-sales service		38.72	34.59	36.75	37.71	33.82	37.15
Enhancement of employee's sales capabilities		28.04	28.13	27.52	27.21	30.16	27.05
Alteration, restructuring or strengthening of sales channels		21.57	28.93	24.99	21.24	25.03	25.77
Enhancement of corporate image		25.67	18.52	21.29	18.5	20.39	22.06
Aggressive expansion of advertising and promotional activities		17.90	16.24	18.77	13.72	18.07	19.98
Other		–	1.29	1.63	0.95	1.34	1.83

Note: Respondents were permitted to select more than one sales strategy.

Source: Ministry of Economic Affairs, Survey on Overseas Investment by Manufacturing Industry in the Taiwan Region, ROC, 2004.

Table 5-3-4 Comparison of the Sales of Taiwanese Manufacturing Enterprises' Overseas Operations in 2004 as Compared to 2003

Unit: %

Scale	Sales	Shipped back to Taiwan			Sold locally			Exported to other regions		
		Increase	About the same	Decrease	Increase	About the same	decrease	increase	About the same	Decrease
Grand total		26.78	53.70	19.52	33.55	61.32	5.13	31.80	59.70	8.49
Small enterprise		21.75	53.72	24.70	33.83	61.41	4.76	30.49	59.17	10.34
Medium enterprise		35.64	52.18	12.18	33.17	60.00	6.83	34.86	59.85	5.29
Large enterprise		31.86	54.42	13.73	33.33	61.87	4.80	32.88	60.67	6.45
Percentage of total sales (all categories) held by this category of sales		16.64			48.79			34.57		
Expansion index		53.63			64.21			61.61		

Source: Ministry of Economic Affairs, Survey on Overseas Investment by Manufacturing Industry in the Taiwan Region, ROC, 2004.

Chapter 6

The Changes in the Export Contribution of Taiwan's SMEs

For over a decade, Taiwan's SMEs have attracted attention throughout the world. The main reason for this intense interest in Taiwan's SMEs is that Taiwan's economic development has been built on exports, and particularly those of SMEs. The flexibility of Taiwanese SMEs and their ability to respond rapidly to changing circumstances have been one of the major factors behind the rapid growth of international trade and of the Taiwanese economy as a whole.

However, the export behavior of Taiwan's SMEs is still something of a mystery. Different government agencies use different definitions of "exports" in their surveys, and the variables that these surveys consider also vary somewhat. To gain a clear, accurate picture of Taiwanese SMEs' exports is thus a considerable challenge. This chapter will begin by considering the various categories of survey data that are available, before going on to look at the changes in the SMEs' export contribution ratios, analyze the possible causes of these changes, summarize the overall nature of the export contribution of these SMEs, and offer concrete recommendations for SME guidance policy.

I SMEs' Export Contribution

1. The Export Contribution of Taiwanese SMEs as a Whole

To determine the export contribution of Taiwan's SMEs (SME export contribution = SME exports ÷ total exports), one first needs to consider the types of data available. Different sets of statistical data give different export contributions for Taiwanese SMEs; each set of data has its own limitations. Currently, there are five sets of data

available in Taiwan that can be used to calculate the SMEs' export contribution: the import and export data for "excellent exporters/importers"; the VAT collection statistics; the Survey of the Financial Status of Industry in the Taiwan Region, the Industry, Commerce and Service Census, and the Factory Adjustment and Operation Survey. The results of estimating the export contribution using these different sets of data are shown in Table 6-1-1. On the basis of these data (which use the same capitalization-based definition of "SMEs"), the following two conclusions can be reached:

- (1) Both the import and export data for "excellent exporters/importers" and the Survey of the Financial Status of Industry in the Taiwan Region indicate that the export contribution of Taiwan's SMEs peaked in 1982, and that it has been declining steadily since 1986.
- (2) Calculation of the export contribution using the VAT tax data suggests that the SME export contribution remained relatively stable during the period 1997–2000, fluctuating within the 22.15% to 23.39% band, and that from 2001 on it began to gradually pick up again.

2. Analysis of SME Export Contribution by Industry

As was noted in the first section of this chapter, in recent years the export growth performance of Taiwan's SMEs has been inferior to that of large enterprises. This section provides an analysis of SME performance by industry, seeking to determine which types of SME are causing the export contribution of SMEs as a whole to fall; it examines the changes in the export structure to determine the main reasons behind the decline in the SMEs' export contribution. Owing to the limitations of the data that are available, the analysis of the export contribution structure by industry is limited to the manufacturing sector; as used in this section, and, therefore, the term "export contribution rate" refers to the share of total manufacturing sector exports.

(1) Analysis of Industry, Commerce and Service Census Data for the Period 1996–2001

According to the data from the Industry, Commerce and Service Census, for the manufacturing sector as a whole, SME exports grew by an annual average of 6.01%

Table 6-1-1 The Export Contribution and Export Orientation of Taiwanese SMEs in the Manufacturing Sector as Calculated Using Different Sets of Survey Data

Unit: %

Year	Import and export data for "excellent exporters/importers"		VAT tax data		Survey of the financial status of industry in the Taiwan region		Industry, commerce and service census				Factory adjustment and operation survey	
							"SMEs" defined by paid-in capital		"SMEs" defined by number of employees			
	Export contribution	Export orientation	Export contribution	Export orientation	Export contribution	Export orientation	Export contribution	Export orientation	Export contribution	Export orientation	Export contribution	Export orientation
1972	-	-	-	-	9.55	55.09	-	-	-	-	-	-
1973	-	-	-	-	7.36	53.06	-	-	-	-	-	-
1974	-	-	-	-	5.43	41.89	-	-	-	-	-	-
1975	-	-	-	-	4.07	51.13	-	-	-	-	-	-
1976	-	-	-	-	7.07	57.09	-	-	-	-	-	-
1977	-	-	-	-	9.75	53.55	-	-	-	-	-	-
1978	-	-	-	-	10.36	56.74	-	-	-	-	-	-
1979	-	-	-	-	11.12	58.92	-	-	-	-	-	-
1980	-	-	-	-	13.27	68.46	-	-	-	-	-	-
1981	-	-	-	-	22.48	75.25	-	-	-	-	-	-
1982	73.53	-	-	-	30.49	75.94	-	-	-	-	-	-
1983	66.90	-	-	-	30.61	73.55	-	-	-	-	-	-
1984	62.53	-	-	-	28.21	71.76	-	-	-	-	-	-
1985	64.59	-	-	-	29.10	70.01	-	-	-	-	-	-
1986	70.05	-	-	-	30.42	66.49	45.56	44.29	41.72	36.23	-	-
1987	70.77	-	-	-	26.08	62.62	-	-	-	-	43.99	44.59
1988	63.33	-	-	-	19.06	47.03	-	-	-	-	-	-
1989	64.83	-	-	-	17.54	36.30	-	-	-	-	-	-
1990	60.49	-	-	-	15.25	39.97	-	-	-	-	33.16	3.49
1991	60.04	-	-	-	14.83	38.87	-	-	41.45	26.13	-	-
1992	59.02	-	-	-	13.04	35.31	-	-	-	-	46.44	24.67
1993	57.81	-	-	-	11.94	33.96	-	-	-	-	-	-
1994	55.47	-	-	-	10.45	37.53	-	-	-	-	-	-
1995	53.45	-	-	-	7.49	32.52	-	-	-	-	-	-
1996	52.51	-	-	-	-	-	19.06	20.04	31.38	22.09	-	-
1997	51.47	-	23.36	23.39	-	-	-	-	-	-	-	-
1998	49.11	-	20.46	23.23	-	-	-	-	-	-	-	-
1999	-	-	17.39	22.15	-	-	-	-	-	-	-	-
2000	-	-	15.84	23.31	-	-	-	-	-	-	-	-
2001	-	-	16.61	24.33	-	-	-	-	25.34	26.92	-	-
2002	-	-	15.36	24.57	-	-	-	-	-	-	28.75	26.41
2003	-	-	19.82	26.75	-	-	-	-	-	-	-	-
2004	-	-	18.57	26.60	-	-	-	-	-	-	-	-

Notes: 1. The Factory Adjustment and Operation Survey defines SMEs as enterprises with less than 200 employees; the other data sources use paid-in capital as the basis for defining SMEs.

2. The Factory Adjustment and Operation Survey data and the Survey of the Financial Status of Industry in the Taiwan Region data both use the individual workplace, rather than the enterprise, as the unit of calculation.

3. SME export contribution = (SME exports / Total exports) × 100. SME export orientation = (SME exports / SME total sales) × 100

Sources: 1. *Import and Export Data for Excellent Exporters/Importers*; VAT collection statistics.

2. Survey of the Financial Status of Industry in the Taiwan Region.

3. Industry, Commerce and Service Census.

4. Factory Adjustment and Operation Survey (consecutive years).

over the period 1996–2001. However, during this same period large enterprises' exports were growing by an average of 12.5% per year. As a result, the SMEs' export contribution rate fell by 6.04 percentage points over the period 1996–2001, declining from 31.38% to 25.34%.

As can be seen from Table 6-1-2, of the 21 industries examined (the tobacco industry was excluded because there are no SMEs in this industry) over the period 1996–2001, there were 9 industries – including printing and related industries, chemical materials, chemical products manufacturing, petroleum and coal products manufacturing, non-metallic mineral products manufacturing, basic metals, metal products manufacturing, and electric power equipment and electrical machinery manufacturing, repair and distribution – in which SMEs had a lower average annual export growth rate than large enterprises. There were another three industries – the rubber products industry, plastic products industry and “other manufacturing industries” – in which the SMEs' export growth rate had fallen while the large enterprises' export growth rate had risen, and two industries – wood and bamboo products manufacturing and paper and paper products manufacturing – in which both SMEs and large enterprises experienced a decline in export growth, but where the decline in export growth among SMEs was greater. There were thus 14 industries in which SME export growth was inferior to that of large enterprises over the period 1996–2001, and only 7 industries in which it was superior.

Further analysis of the changes in the export contribution rate of SMEs and large enterprises within the same industry shows that, with the exception of large enterprises in the electric power equipment and electrical machinery manufacturing industry, where the export contribution rate rose from 40.64% in 1996 to 53.58% in 2001, for all other industries (and for both SMEs and large enterprises) there was little change in the export contribution rate. Among the 14 industries where the SME export growth rate was lower than that of large enterprises, the largest decrease in the SME export contribution rate (in the plastics industry) was just 1.21 percentage points. The main reason for the decline in the SMEs' export contribution rate is thus the increase in exports among large enterprises in the electric power and electronics industry. Large enterprises in the electric power and electronics industry account for around 40–50% of Taiwan's total manufacturing sector exports; as a result, changes in the export performance of this sector can have a dramatic impact on the overall export contribution. The period

1996–2001 saw rapid growth in the exports of large enterprises in the electric power and electronics industry, with an average annual growth rate of 16.9%, leading to a significant increase in the export contribution rate of large enterprises.

Table 6-1-2 Analysis of Export Contribution Ratios for Individual Industries within the Manufacturing Sector

Unit: %; percentage points

Industry	Export growth rate 1996–2001			Export contribution ratio in 2001			Changes in the export contribution ratio over the period 1996–2001		
	All enterprises	Large enterprises	SMEs	All enterprises	Large enterprises	SMEs	All enterprises	Large enterprises	SMEs
Total	10.64	12.52	6.01	100.00	74.66	25.34	0.00	6.04	-6.04
Food and beverage manufacturing	-19.15	-24.28	-9.92	0.72	0.37	0.35	-2.74	-2.12	-0.62
Tobacco industry	6.39	6.39	–	0.03	0.03	–	-0.01	-0.01	–
Textile industry	-0.41	-2.48	3.81	2.95	1.85	1.09	-2.04	-1.63	-0.41
Garment and apparel manufacturing	4.66	3.15	5.42	1.91	0.61	1.30	-0.61	-0.26	-0.36
Leather, fur and leather and fur products	1.68	-19.09	15.32	0.81	0.14	0.66	-0.42	-0.55	0.12
Wood and bamboo products	-12.03	-8.34	-12.42	0.14	0.02	0.13	-0.31	-0.02	-0.28
Furniture and furnishings manufacturing	0.79	-5.50	4.96	0.85	0.28	0.57	-0.50	-0.33	-0.17
Paper pulp, paper and paper products	-3.21	-1.09	-8.28	0.41	0.31	0.10	-0.39	-0.23	-0.16
Printing and related industries	14.05	39.30	12.48	0.10	0.01	0.09	0.01	0.01	0.01
Chemical materials manufacturing	9.79	10.01	8.80	5.83	4.80	1.03	-0.23	-0.14	-0.09
Chemical products manufacturing	10.76	12.17	10.09	1.07	0.36	0.71	0.01	0.02	-0.02
Petroleum and coal products manufacturing	10.97	11.28	6.01	1.35	1.28	0.07	0.02	0.04	-0.02
Rubber products manufacturing	4.41	7.03	-1.97	0.99	0.76	0.24	-0.33	-0.14	-0.20
Plastic products manufacturing	-0.88	1.33	-3.26	2.82	1.56	1.26	-2.07	-0.86	-1.21
Non-metallic mineral products manufacturing	4.09	4.97	3.01	0.60	0.34	0.26	-0.21	-0.10	-0.11
Basic metals	7.93	11.21	1.15	2.91	2.14	0.77	-0.38	0.05	-0.44
Metal products manufacturing	5.22	7.79	4.04	3.24	1.09	2.15	-0.93	-0.15	-0.77
Machinery manufacturing, repair and distribution	9.30	5.56	11.06	4.53	1.30	3.23	-0.29	-0.35	0.06
Electric power equipment and electrical machinery manufacturing, repair and distribution	15.98	16.91	10.58	61.42	53.58	7.84	12.89	12.91	-0.02
Transportation equipment manufacturing, repair and distribution	5.74	4.67	7.08	3.38	1.83	1.55	-0.86	-0.58	-0.28
Precision machinery manufacturing	17.32	24.27	9.88	1.96	1.19	0.77	0.50	0.53	-0.03
Other industrial product manufacturing industries	1.29	9.36	-2.73	1.99	0.82	1.16	-1.10	-0.05	-1.05

- Notes: 1. This table is based on Industry, Commerce and Service Census data.
 2. The export growth rate for the period 1996–2001 = [(exports in 2001 / exports in 1996)1/5 – 1] × 100
 3. The ROC Industry Classification System was revised in 2001. In order to ensure consistency with the data for 1996, the data for the “electrical power equipment and electrical machinery manufacturing industry” for 2001 were obtained by adding together the data for the “computer, communications and audiovisual products manufacturing industry,” the “electronic components manufacturing industry” and the “electric power equipment and materials manufacturing, repair and distribution industry.”

Source: Compiled from the Industry, Commerce and Service Census for the years 1996 and 2001.

As regards export orientation (exports as a percentage of total sales), as can be seen from Table 6-1-3, for large enterprises, export orientation rose from 38.29% in 1996 to 49.43% in 2001, an increase of 11.14 percentage points. By contrast, the SMEs' export orientation rose by only 4.84 percentage points, from 22.09% to 26.92%. It would appear that, over the last five years, the impact of globalization has helped to stimulate exportation by large enterprises.

Table 6-1-3 Analysis of Export Orientation Ratios for Individual Industries within the Manufacturing Sector

Unit: %; percentage points

Industry	Item	1996			2001			Changes over the period 1996-2001		
		All enterprises	Large enterprises	SMEs	All enterprises	Large enterprises	SMEs	All enterprises	Large enterprises	SMEs
Total		31.12	38.29	22.09	40.79	49.43	26.92	9.67	11.14	4.84
Food and beverage manufacturing		18.10	21.71	12.68	7.09	6.58	7.74	-11.0	-15.1	-4.95
Tobacco industry		0.85	0.85	-	1.26	1.26	-	0.40	0.40	-
Textile industry		32.95	45.64	20.05	33.19	46.53	22.34	0.24	0.90	2.29
Garment and apparel manufacturing		42.03	53.10	37.90	53.15	57.85	51.20	11.12	4.75	13.30
Leather, fur and leather and fur products		42.56	56.86	32.15	41.69	31.94	44.67	-0.87	-24.9	12.51
Wood and bamboo products		19.16	24.91	18.74	14.95	27.16	14.17	-4.21	2.25	-4.56
Furniture and furnishings manufacturing		36.53	63.48	27.14	42.71	75.20	35.35	6.18	11.72	8.21
Paper pulp, paper and paper products		10.72	14.55	6.95	9.21	12.57	5.11	-1.51	-1.99	-1.84
Printing and related industries		2.74	0.65	3.13	4.89	4.56	4.93	2.15	3.91	1.80
Chemical materials manufacturing		28.06	29.62	22.75	30.36	31.03	27.56	2.29	1.41	4.80
Chemical products manufacturing		13.62	12.16	14.41	19.33	17.24	20.58	5.71	5.08	6.17
Petroleum and coal products manufacturing		8.50	8.28	13.63	11.37	11.38	11.31	2.87	3.09	-2.33
Rubber products manufacturing		39.66	62.61	22.61	49.12	66.96	26.55	9.46	4.36	3.94
Plastic products manufacturing		27.31	36.46	21.91	28.03	39.83	20.50	0.72	3.37	-1.41
Non-metallic mineral products manufacturing		7.19	8.51	6.07	10.07	13.39	7.61	2.88	4.87	1.54
Basic metals		12.17	15.86	8.70	19.11	25.60	11.24	6.93	9.75	2.54
Metal products manufacturing		22.12	43.33	18.32	28.81	57.39	23.00	6.69	14.07	4.69
Machinery manufacturing, repair and distribution		27.82	41.37	23.77	31.32	48.35	27.42	3.50	6.98	3.65
Electric power equipment and electrical machinery manufacturing, repair and distribution		55.78	63.27	34.59	65.38	71.66	40.87	9.60	8.39	6.28
Transportation equipment manufacturing, repair and distribution		19.87	16.61	26.86	26.49	22.74	32.87	6.61	6.14	6.02
Precision machinery manufacturing		55.15	89.31	41.77	64.73	83.11	48.20	9.58	-6.20	6.43
Other industrial product manufacturing industries		49.95	74.88	44.17	51.66	67.72	44.25	1.71	-7.16	0.08

Note: This table is based on Industry, Commerce and Service Census data.

Source: Compiled from the Industry, Commerce and Service Census for the years 1996 and 2001.

Examination of the situation in individual industries shows that, of the 21 industries examined, large enterprises displayed a greater increase in export orientation than SMEs in 12 industries: wood and bamboo products; furniture and furnishings; printing and related industries; petroleum and coal products manufacturing; rubber products manufacturing; plastic products manufacturing; non-metallic mineral products manufacturing; basic metals; metal products manufacturing; machinery manufacturing, repair and distribution; electric power and electrical machinery manufacturing, repair and distribution; and transportation vehicle manufacturing, repair and distribution. There were only 7 industries in which the increase in the SMEs' export orientation was greater than that of the large enterprises: the textile industry; the garment and apparel industry; the leather, fur and leather and fur products industry; the chemical materials industry; the chemical products industry; the precision machinery industry; and the "other industrial product manufacturing industries." In 2 other industries – food and beverage manufacturing and the paper pulp, paper and paper products industry – the export orientation of SMEs fell, but there was an even greater fall in the export orientation of large enterprises.

Further comparison of the changes in exportation contribution and export orientation displayed by individual industries over the period 1996–2001 shows that, for both large enterprises and SMEs, there appeared to be no correlation between the extent of change in export orientation and the extent of change in the export contribution rate. That is to say, for all industries, there was no relationship between changes in export orientation and changes in the export contribution rate.

To summarize, with the impact of globalization, the export orientation of large enterprises has tended to rise over the last five years; in most industries, the export growth performance of large enterprises has been superior to that of SMEs. However, the main factor behind the decline in the export contribution rate of Taiwan's SMEs has been the growing concentration of Taiwan's exports in the electronics sector. By 2001, the electronics industry accounted for 61.42% of Taiwan's manufacturing sector exports (Table 6-1-2), with large enterprises accounting for 53.58% and SMEs for 7.84%. The dramatic growth in the exports of large enterprises in the electronics industry during this period was the key factor contributing to the decline in the export contribution of SMEs over the same period.

If we push the beginning of the period studied back to 1991, Table 6-1-4 shows how large enterprises in the electronics industry have gradually come to account for a large share of Taiwan's total manufacturing sector exports; the share of total exports accounted for by these enterprises rose from 25.69% in 1991 to 40.64% in 1996, to 53.58% in 2001. For both the five-year period from 1991 to 1996 and the five-year period from 1996 to 2001, the increase in the share of exports accounted for by large enterprises in the electronics industry was almost exactly the same as the decrease in the export contribution of other industries. Over the 10 years from 1991 to 2001, the share of total manufacturing sector exports accounted for by large enterprises in the electronics industry rose by 27.89 percentage points, while the share accounted for by other industries (including both large enterprises and SMEs) fell by 27.14 percentage points. The change in the export contribution of SMEs in the electronics industry over the 10-year period was relatively limited, with a decline of just 0.75 percentage points. It can thus be seen that the main factor behind the decline in SMEs' export contribution over the period 1996–2001 (and also over the period 1991–2001) was not a falling off in exports (in reality, the SMEs' exports continued to increase over this period), but rather the advances in technology that have taken place in the last 10 years or so, and the rapid growth of the “3C” market which has boosted the exports of the Taiwanese electronics industry, creating a situation where exports are heavily concentrated in this one industry. Large enterprises in the Taiwanese electronics industry have benefited particularly from the development of the international division of labor in the IT sector and the growing popularity of contract manufacturing. The impressive performance of these large electronics manufacturers has led to a commensurate decline in the export contribution of Taiwan's SMEs.

Table 6-1-4 Structural Change in Manufacturing Sector Exports, 1991–2001

Units: %; percentage points

Item	1991	1996	2001	Percentage point increase / decrease		
				1991–1996	1996–2001	1991–2001
Electronics industry	34.28	48.53	61.42	14.25	12.89	27.14
Large enterprises	25.69	40.67	53.58	14.98	12.91	27.89
SMEs	8.59	7.86	7.84	-0.73	-0.02	-0.75
Other industries	65.72	51.47	38.58	-14.25	-12.89	-27.14
Large enterprises	32.86	27.95	21.08	-4.91	-6.87	-11.78
SMEs	32.86	23.52	17.50	-9.34	-6.02	-15.36
Manufacturing sector as a whole	100.00	100.00	100.00			

Source: Compiled from the Industry, Commerce and Service Census for the years 1996 and 2001.

(2) Analysis of VAT Collection Data for the Period 2001–2004

VAT collection statistics compiled by the Ministry of Finance Tax Data Center indicate that, over the period 1997–2001, the share of total manufacturing sector exports accounted for by manufacturing sector SMEs declined. As shown in Table 6-1-5, it fell by 6.75 percentage points, from 23.36% to 16.61%. As the VAT data use a different definition of “exports,” the export contribution ratios calculated using this data differ from those calculated using the Industry, Commerce and Service Census data. However, both sets of data show a decline, and a decline of roughly the same extent. As VAT collection data are not available for individual industries prior to 2001, the discussion of changes in SME export contribution in the following section is limited to the period 2001–2004.

Table 6-1-5 Changes in Manufacturing Sector Export Contribution Ratios, 1997–2004

		Unit: %	
Year	Item	SMEs' export contribution	Large enterprises' export contribution
1997		23.36	76.64
1998		20.46	79.54
1999		17.39	82.61
2000		15.84	84.16
2001		16.61	83.39
2002		15.36	84.64
2003		19.82	80.18
2004		18.57	81.43

Note: This table is based on VAT collection data.

Source: Small and Medium Enterprise Administration, *White Paper on Small and Medium Enterprises in Taiwan*, 2004.

By 2002, the SMEs' export contribution rate had fallen to 15.36%. 2003 saw a significant increase in SME exports, pushing the SME export contribution rate up to 19.82%. However, in 2003 the rate fell back to 18.57%. There was thus considerable fluctuation in the SME export contribution rate over the period 2001–2004. Between 2001 and 2004, the rate increased by 1.96 percentage points, while the large enterprises' export contribution rate fell by 1.96 percentage points.

As can be seen from Table 6-1-6, of the 21 individual industries (with the tobacco industry being left out), there was an increase in the SME export contribution rate in six industries during the period 2001–2004: the non-metallic mineral products

manufacturing industry; the leather, fur and leather and fur products industry; the paper pulp, paper and paper products industry; the chemical materials industry; the petroleum and coal products industry; and the electric power equipment and electrical machinery manufacturing industry. The overall increase in the SME export contribution rate for these industries was 4.93 percentage points, being mainly derived from a 2.27 percentage point increase in the export contribution rate of the electric power and electrical machinery manufacturing industry and a 1.82 percentage point increase in that of the chemical materials industry. There were 15 industries in which the SME export contribution rate fell: food and beverage manufacturing; the textile industry; garment, apparel and other textile product manufacturing; wood and bamboo product manufacturing; furniture and furnishings manufacturing; printing and related industries; chemical product manufacturing; rubber product manufacturing; plastic product manufacturing; basic metals; metal product manufacturing; machinery manufacturing, repair and distribution; transportation equipment manufacturing, repair and distribution; precision optical and medical equipment and timepiece manufacturing; and other industrial product manufacturing industries. The overall decrease for these industries was 2.97 percentage points, and was mainly derived from a 0.60 percentage point decrease in the export contribution rate of the metal products industry and a 0.56 percentage point decrease in the export contribution rate of the garment, apparel and other textile products industry.

As for large enterprises, of the 22 industries (including the tobacco industry), there were 8 industries where the export contribution rate for large enterprises rose over the period 2001–2004: the tobacco industry; the non-metallic mineral products manufacturing industry; the leather, fur and leather and fur products industry; the printing industry and related industries; the petroleum and coal products industry; the basic metals industry; the machinery manufacturing, repair and distribution industry; and the transportation equipment manufacturing, repair and distribution industry. Between them, these industries saw an increase in the export contribution rate of 5.55 percentage points, mainly deriving from a 2.91 percentage point increase in the export contribution rate of the petroleum and coal products industry and a 1.05 percentage point increase in the export contribution rate of the machinery manufacturing industry. There were 14 industries where the export contribution rate for large enterprises fell. The overall decrease for these industries was 7.51 percentage points; this drop was

derived mainly from declines of 4.05 percentage points, 0.69 percentage points and 0.56 percentage points in the export contribution rates of the electric power and electrical machinery manufacturing industry, the rubber products industry and the textile industry, respectively.

Table 6-1-6 Analysis of Export Contribution Ratios for Individual Industries within the Manufacturing Sector

Units: %; percentage points

Industry	Export growth rate, 2002–2004			Export contribution ratio in 2004			Changes in the export contribution ratio over the period 2001–2004	
	All enterprises	Large enterprises	SMEs	All enterprises	Large enterprises	SMEs	Large enterprises	SMEs
Total	16.37	15.51	22.29	100.00	81.43	18.57	-1.96	1.96
Food and beverage manufacturing	-6.59	-3.48	-11.20	0.38	0.25	0.13	-0.20	-0.17
Tobacco industry	7.14	7.14	–	0.01	0.01	–	0.01	–
Textile industry	12.70	14.81	0.24	3.99	3.65	0.34	-0.56	-0.20
Garment and apparel manufacturing	-4.17	0.28	-6.88	1.03	0.43	0.59	-0.25	-0.56
Leather, fur and leather and fur products	77.98	109.35	56.09	1.07	0.56	0.51	0.36	0.21
Wood and bamboo products	-1.85	10.22	-9.17	0.19	0.09	0.09	-0.02	-0.11
Furniture and furnishings manufacturing	0.76	-3.21	3.25	0.42	0.14	0.28	-0.11	-0.12
Paper pulp, paper and paper products	2.26	-4.47	49.35	0.47	0.29	0.18	-0.31	0.07
Printing and related industries	18.26	22.78	13.98	0.44	0.33	0.11	0.02	-0.02
Chemical materials manufacturing	27.52	18.18	309.22	5.70	3.60	2.09	-0.48	1.82
Chemical products manufacturing	12.28	13.66	10.22	0.61	0.38	0.23	-0.04	-0.04
Petroleum and coal products manufacturing	87.97	87.98	153.06	3.94	3.93	0.01	2.91	0.00
Rubber products manufacturing	-10.67	-8.48	-13.37	0.56	0.40	0.16	-0.69	-0.25
Plastic products manufacturing	12.35	16.07	13.47	2.64	1.06	1.57	-0.25	-0.13
Non-metallic mineral products manufacturing	51.26	43.70	163.82	1.38	0.66	0.72	0.10	0.57
Basic metals	24.40	26.12	16.35	5.15	4.54	0.61	0.96	-0.03
Metal products manufacturing	8.97	12.29	4.67	3.76	2.26	1.50	-0.28	-0.60
Machinery manufacturing, repair and distribution	25.26	33.59	15.51	5.29	3.25	2.05	1.05	-0.05
Electric power equipment and electrical machinery manufacturing, repair and distribution	15.23	13.46	43.39	56.80	51.23	5.57	-4.05	2.27
Transportation equipment manufacturing, repair and distribution	15.07	18.42	7.92	3.42	2.47	0.96	0.13	-0.24
Precision machinery manufacturing	9.08	10.59	3.10	1.58	1.30	0.27	-0.24	-0.12
Other industrial product manufacturing industries	7.02	17.03	0.41	1.19	0.59	0.60	-0.05	-0.33

Notes: 1. This table is based on VAT collection data.

2. The export growth rate for the period 2002–2004 = (export growth rate in 2002 + export growth rate in 2003 + export growth rate in 2004) / 3.

3. The ROC Industry Classification System was revised in 2001. The data for the “electric power equipment and electrical machinery manufacturing industry” for 2003 and 2004 were obtained by adding together the data for the “computer, communications and audiovisual products manufacturing industry,” the “electronic components manufacturing industry” and the “electric power equipment and materials manufacturing, repair and distribution industry.”

Source: Compiled from Ministry of Finance Tax Data Center VAT statistics (original data).

It can be seen from the above analysis for the period 2001–2004 that the fluctuations in the export performance of the electronics sector (including both large enterprises and SMEs) has been the main factor affecting the export contribution rate of Taiwan's SMEs. In this respect, the results are consistent with those obtained using the Industry, Commerce and Service Census data. However, the VAT collection data indicate that, while the increase in the exports of large enterprises within the electronics sector was the main factor behind the decline in the SMEs' export contribution during the period 1996–2001, in 2001–2004 flat export growth among large enterprises in the electronics sector coupled with more pronounced export growth among SMEs in the electronics sector led to a significant increase in the export contribution rate of SMEs as a whole. Fluctuations in the export performance of the petrochemical industry (including both large enterprises and SMEs in the petroleum industry and in the chemical materials industry) were another factor that affected the export contribution rate of Taiwan's SMEs during the period 2001–2004.

It is readily apparent from the above analysis that changes in the SME export contribution ratio embody both changes in the industrial structure and changes in the export growth rate. What these changes represent are, respectively, the fluctuations in the competitiveness of individual industries relative to each another and the changes in overall export competitiveness. Examining the SME export contribution ratio alone can show only the broad picture; only an in-depth exploration of the industrial structure (combined with an analysis of export competitiveness) can explain the underlying reasons behind the changes in SME export competitiveness. Judging from the data available to us at present, it appears that Taiwan's exports are highly concentrated in the electronics sector, reflecting the high competitiveness of Taiwan's electronics industry. As a result, fluctuations in the exports of both large electronics firms and electronics sector SMEs have a pronounced impact on the export contribution of Taiwan's SMEs. One point worth noting is that, during the period 2001–2004, the rapid growth in the exports of the large enterprises in the electronics industry was starting to slow, while the export performance of small and medium-sized electronics manufacturers began to improve. Further investigation will be needed to determine whether this trend is due to globalization (with larger enterprises investing in China) or to some other cause. It remains to be seen whether the decline in the export performance of large enterprises in the electronics sector will affect the exports of SMEs in the same sector.

II Types of Exportation among Manufacturing Sector SMEs

This section focuses on an analysis of exporting behavior, examining enterprises as suppliers of production factors and as consumers of production factors to explore the changes in the types of exportation that manufacturing sector SMEs engage in.

1. The Enterprise as Supplier of Production Factors

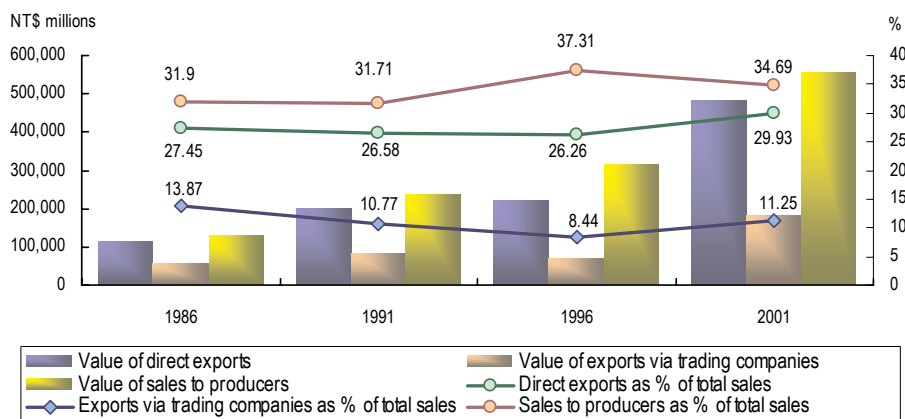
(1) Overall Product Flow

The results of using Industry, Commerce and Service Census data to calculate SME product flows are shown in Figure 6-2-1. If one compares the product flow structure for manufacturing SMEs over time, it can be seen that, prior to 1996, the shares of total sales accounted for by direct exports and exports via trading companies had been falling, but that in 2001 they began to pick up again. The direct exports' share of total sales fell from 27.45% in 1986 to 26.58% in 1991, and to 26.26% in 1996, but then rose again to 29.93% in 2001; the share accounted for by exports via trading companies fell from 13.87% in 1986 to 10.77% in 1991, and to 8.44% in 1996, before rising to 11.25% in 2001. In 1991, sales to other domestic producers accounted for roughly the same percentage of total sales as had been the case in 1986 (31.71% compared to 31.90%); this figure then rose to 37.31% in 1996, but fell back to 34.69% in 2001. Overall, two pronounced structural transformations can be seen in the product flows over the 15-year period from 1996 to 2001: these changes took place during the periods 1991–1996 and 1996–2001.

First, let us consider the structural transformation that took place during the 1991–1996 period. During this period, total sales revenue increased, but the shares of total sales revenue accounted for by direct exports and by exportation via trading companies decreased, while the share accounted for by sales to producers rose. Exportation via trading companies fell not only in percentage terms but in absolute terms, too. At the same time, sales to other producers increased both in absolute terms and as a percentage of total sales. The period 1991–1996 thus saw SMEs becoming less oriented towards export markets, while their role as suppliers of parts and

materials to other producers became more pronounced, reflecting an increased division of labor within Taiwanese industry as a whole.

Figure 6-2-1 Shares of Total SME Sales Accounted for by Direct Exports, Exports via Trading Companies, and Sales to Producers, 1996–2001



Source: Wu, Hui-lin, K'ai-fang Cheng and Ying-yi Tu, *Changes in SMEs' Export Contribution*, 2004, a project commissioned by the Small and Medium Enterprise Administration, Ministry of Economic Affairs.

In the following period, from 1996 to 2001, the shares of SME sales accounted for by direct exports and exports via trading companies both rose to higher levels in 2001 than they had stood at in 1996. The share accounted for by direct exports rose from 26.26% in 1996 to 29.93% in 2001, while the share accounted for by exports via trading companies increased from 8.44% in 1996 to 11.25% in 2001; these figures represented increases of 3.67 percentage points and 2.81 percentage points, respectively. Over the same period, the share of total sales accounted for by sales to other domestic producers fell by 2.62 percentage points, from 37.31% in 1996 to 34.69% in 2001.

(2) Product Flows by Industry

Having examined the structural changes in manufacturing sector SME product flows over the period 1996–2001, we will now go on to consider the variations between individual industries. The changes in the shares of total sales accounted for by direct exports, exports via trading companies and sales to other domestic producers (the three sales types of most significance for SMEs) for individual industries during the period 1996–2001 are summarized in Table 6-2-1 below.

Table 6-2-1 Changes in the Shares of Manufacturing Sector SMEs' Total Sales Accounted for by Direct Exports, Exports via Trading Companies and Sales to Other Producers by Industry, 1996–2001

Type of Change	Industries
The direct exports' share of total sales rose.	Garment and apparel industry; leather, fur and leather and fur products industry; furniture and furnishings industry; paper pulp, paper and paper products industry; printing and related industries; chemical products industry; rubber products industry; non-metallic mineral products manufacturing; basic metals; machinery and equipment manufacturing; precision machinery manufacturing.
The direct exports' share of total sales rose; the share accounted for by exports via trading companies rose; the share accounted for by sales to other domestic producers fell.	Furniture and furnishings industry; paper pulp, paper and paper products industry; printing and related industries; non-metallic mineral products manufacturing; machinery and equipment manufacturing.
The share of total exports rose for all three sales types.	Chemical products industry.
The direct exports' share of total sales rose; the shares accounted for by exports via trading companies and by sales to other domestic producers both fell.	Leather, fur and leather and fur products industry; rubber products industry; precision machinery manufacturing.
The direct exports' share of total sales rose; the share accounted for by exports via trading companies fell, but the share accounted for by sales to other domestic producers rose.	Garment and apparel industry; basic metals industry.
The direct exports' share of total sales fell.	Food and beverage manufacturing industry; textile industry; wood and bamboo products industry; chemical materials industry; petroleum and coal products industry; plastic products industry; metal products manufacturing industry; electric power equipment and electrical machinery industry; transportation equipment manufacturing industry; other industrial product manufacturing industries.
The direct exports' share of total sales fell; the shares accounted for by exports via trading companies and by sales to other domestic producers both rose.	Metal products manufacturing industry.
The direct exports' share of total sales fell; the share accounted for by exports via trading companies rose, but the share accounted for by sales to other domestic producers fell.	Textile industry; wood and bamboo products industry; petroleum and coal products; electric power equipment and electrical machinery industry; transportation equipment manufacturing industry.
The direct exports' share of total sales fell; the share accounted for by exports via trading companies fell, but the share accounted for by sales to other domestic producers rose.	Plastics products industry; other industrial product manufacturing industries.
The share of total exports fell for all three sales types.	Food and beverage manufacturing industry; chemical materials industry.

Note: The ROC Industry Classification System was revised in 2001. The "electric power equipment and electrical machinery manufacturing industry" of 1996 was broken down into the "computer, communications and audiovisual products manufacturing industry," "electronic components manufacturing industry" and "electric power equipment and materials manufacturing, repair and distribution industry."

Source: Wu, Hui-lin, K'ai-fang Cheng and Ying-yi Tu, *Changes in SMEs' Export Contribution*, 2004, a project commissioned by the Small and Medium Enterprise Administration, Ministry of Economic Affairs.

Industries where the changes in product flows over the period 1996–2001 reflected those for manufacturing sector SMEs as a whole (i.e. an increase in the shares of total sales accounted for by direct exports and exports via trading companies, combined with a decrease in the share accounted for by sales to other domestic

producers) included: furniture and furnishings manufacturing; paper pulp, paper and paper products manufacturing; printing and related industries; non-metallic mineral products; and machinery and equipment manufacturing. These are mostly “traditional” industries. The number of industries in which the share of total sales accounted for by direct exports rose was even larger, including: garment and apparel manufacturing; leather, fur, and leather and fur products; furniture and furnishings manufacturing; paper pulp, paper and paper products manufacturing; printing and related industries; chemical products manufacturing; rubber products manufacturing; non-metallic mineral products; basic metals; machinery and equipment manufacturing; and precision machinery manufacturing. Again, these are mostly traditional industries, which goes against the conventional wisdom that hi-tech products have dominated Taiwan’s exports in recent years. Given the intense competition from low-priced Chinese goods, the increase in the share of total sales accounted for by direct exports among SMEs in Taiwan’s traditional industries is quite impressive, and can be taken to reflect an upgrading of product quality.

2. The Enterprise as Consumer of Production Factors

The data from the Industry, Commerce and Service Census cannot tell us anything about situations where manufacturing sector SMEs supply production factors to larger manufacturing enterprises, owing to the lack of information on customer size. While the *Census* data do provide information regarding sales to other domestic producers, it is not possible to gain a clear picture of the subsequent product flow; the “other domestic producers” may be exporting their products directly, exporting them via trading companies or selling them to yet other domestic producers. There is no way of knowing how many stages an SME’s products go through before being exported.

When considering SMEs as suppliers, the official data currently available are not particularly helpful when trying to determine the percentage of export product production factor inputs that are derived from SMEs. To obtain this information, one needs surveys that focus on business enterprises as consumers of production factors, so that one can examine the share of the materials used in the production of export products that were purchased from SMEs.

To study SMEs’ indirect exports and to try to clarify the reasons for the decline

in the SMEs' export contribution, a questionnaire survey was conducted to treat the business enterprise as a consumer of production factors. As SME exports may take the form of either direct exports or indirect exports via trading companies or large manufacturers, this study also incorporated a survey of trading company export sales and a survey of manufacturing enterprise export sales. The main conclusions reached were as follows:

- (1) In 2003, 66.17% of the products exported by trading companies in Taiwan had been purchased from manufacturing sector SMEs. The percentage was 74.09% in the case of small and medium-sized trading companies, and 44.25 in the case of large trading companies.
- (2) In 2003, 13.49% of the production factor inputs used by large manufacturing enterprises in Taiwan to manufacture products in Taiwan for export had been purchased from SMEs.

As the survey limited itself to asking respondents about the share of export products or export product production factors derived from SMEs in 2003, it was not possible to examine the changes in the SMEs' export contribution over time. This will only be possible if similar surveys are carried out on a regular basis in the future. Nevertheless the study did attempt to prepare forecasts based on three possible scenarios for the period 2001–2003:

Scenario 1: In each of the years 2001, 2002 and 2003, the share of the raw materials used in the manufacture of products for export by large manufacturing enterprises in Taiwan derived from SMEs was 13.49%; 44.2% of the products exported by large trading companies were purchased from SMEs.

Scenario 2: The share of the raw materials used in the manufacture of products for export by large manufacturing enterprises in Taiwan derived from SMEs during the period 2001–2003 rose by one percentage point each year, giving a share of 11.49% in 2001, 12.49% in 2002 and 13.49% in 2003. The share of the products exported by large trading companies that were purchased from SMEs also rose by one percentage point per year, resulting in a share of 42.2% in 2001, 43.2% in 2002 and 44.2% in

2003.

Scenario 3: The share of the raw materials used in the manufacture of products for export by large manufacturing enterprises in Taiwan derived from SMEs during the period 2001–2003 fell by one percentage point each year, leading to a share of 15.49% in 2001, 14.49% in 2002 and 13.49% in 2003. The share of the products exported by large trading companies that were purchased from SMEs also fell by one percentage point per year, resulting in a share of 46.2% in 2001, 45.2% in 2002 and 44.2% in 2003.

The forecasts obtained for each of these three scenarios are shown in Tables 6-2-2, 6-2-3 and 6-2-4 below. What these forecasts have in common is that the SME export contribution rate falls steadily, regardless of whether the SME indirect ratio falls or rises.

Table 6-2-2 Indirect Export Estimates for 2001–2003 (Scenario 1)

Unit: NT\$ million

Year and Size / Item	Total exports (based on VAT collection data)	Manufacturing sector exports	The value of the raw materials used by large manufacturing enterprises that are derived from SMEs	Large trading companies' exports	The value of large trading company exports purchased from SMEs	SME export contribution rate (including indirect exports)	SME export contribution rate (excluding indirect exports)
2001						31.56%	20.65%
All enterprises	6,296,729	3,202,516					
Large enterprises	4,996,344	2,670,668	360,273	738,373	326,361		
SMEs	1,300,385	531,848					
2002						30.29%	19.28%
All enterprises	7,008,076	3,648,396					
Large enterprises	5,657,193	3,088,094	416,584	804,384	355,538		
SMEs	1,350,884	560,302					
2003						29.70%	18.11%
All enterprises	7,332,742	4,246,510					
Large enterprises	6,004,906	3,404,800	459,308	883,777	390,629		
SMEs	1,327,836	841,710					

Notes: 1. When the ROC Industry Classification system was revised in 2001, the "international trade" category was eliminated; goods that had formerly been included in this category were now included in either the "wholesale" or "retail" category. It is therefore not possible to calculate total exports for large trading companies in 2002 or 2003. The estimates used are based on large trading companies' total exports in 2001; these were multiplied by the annual rate of increase in exports (8.94% in 2002 and 9.87% in 2003).

2. Taking 2001 as an example, the numerator (1,987,019) = SME exports (1,300,385) + the value of those materials used by large manufacturing enterprises in the manufacturing of products for export derived from SMEs (360,273) + the value of those products exported by large trading companies that had been purchased from SMEs (326,361).

3. Calculation of the SME export contribution rate (including indirect exports):

(1) SME export contribution rate in 2001 = 1,987,019 / 6,296,729 = 31.56%.

(2) SME export contribution rate in 2002 = 2,123,006 / 7,008,076 = 30.29%.

(3) SME export contribution rate in 2003 = 2,177,773 / 7,332,742 = 29.70%.

Source: VAT collection data.

Table 6-2-3 Indirect Export Estimates for 2001–2003 (Scenario 2)

Unit: NT\$ million

Year and Size	Item	Total exports (based on VAT collection data)	Manufacturing sector exports	The value of the raw materials used by large manufacturing enterprises that are derived from SMEs	Large trading companies' exports	The value of large trading company exports purchased from SMEs	SME export contribution rate (including indirect exports)	SME export contribution rate (excluding indirect exports)
2001							30.47	20.65
	All enterprises	6,296,729	3,202,516					
	Large enterprises	4,996,344	2,670,668	306,860	738,373	311,593		
	SMEs	1,300,385	531,848					
2002							29.74	19.28
	All enterprises	7,008,076	3,648,396					
	Large enterprises	5,657,193	3,088,094	385,703	804,384	347,494		
	SMEs	1,350,884	560,302					
2003							29.70	18.11
	All enterprises	7,332,742	4,246,510					
	Large enterprises	6,004,906	3,404,800	459,308	883,777	390,629		
	SMEs	1,327,836	841,710					

Note: Calculation of the SME export contribution rate (including indirect exports):

(1) SME export contribution rate in 2001 = 1,918,838 / 6,296,729 = 30.47%.

(2) SME export contribution rate in 2002 = 2,084,081 / 7,008,076 = 29.74%.

(3) SME export contribution rate in 2003 = 2,177,773 / 7,332,742 = 29.70%.

Source: VAT collection data.

Table 6-2-4 Indirect Export Estimates for 2001–2003 (Scenario 3)

Unit: NT\$ million

Year and Size	Item	Total exports (based on VAT collection data)	Manufacturing sector exports	The value of the raw materials used by large manufacturing enterprises that are derived from SMEs	Large trading companies' exports	The value of large trading company exports purchased from SMEs	SME export contribution rate (including indirect exports)	SME export contribution rate (excluding indirect exports)
2001							32.64	20.65
	All enterprises	6,296,729	3,202,516					
	Large enterprises	4,996,344	2,670,668	413,686	738,373	341,128		
	SMEs	1,300,385	531,848					
2002							30.85	19.28
	All enterprises	7,008,076	3,648,396					
	Large enterprises	5,657,193	3,088,094	447,465	804,384	363,582		
	SMEs	1,350,884	560,302					
2003							29.70	18.11
	All enterprises	7,332,742	4,246,510					
	Large enterprises	6,004,906	3,404,800	459,308	883,777	390,629		
	SMEs	1,327,836	841,710					

Note: Calculation of the SME export contribution rate (including indirect exports):

(1) SME export contribution rate in 2001 = 2,055,199 / 6,296,729 = 32.64%.

(2) SME export contribution rate in 2002 = 2,161,931 / 7,008,076 = 30.85%.

(3) SME export contribution rate in 2003 = 2,177,773 / 7,332,742 = 29.70%.

Source: VAT collection data.

Part Two

Special Topics on SMEs



Chapter 7

Guidance and Development Policy for Traditional and Special Local Industries

Local industries help to maintain steady economic development at the local level, and they also create jobs, facilitate the accumulation of financial resources, and contribute to the accumulation and transmission of industrial technology. Local industries play an important role in intra-community relations, helping to build trust between individuals and providing a foundation for collaboration. These industries are one of the factors that give local communities their unique character – they are a prop for local people’s livelihood, while also playing a part in the maintenance of social stability and, in many cases, coming to symbolize the spirit of the community. The prosperity or decline of local industries thus has a major impact on the economic foundations of the locality and on its economic and social development.

In the past, there has been a tendency to neglect traditional local industries. Some are located in remote areas, creating transportation problems, while others have fallen into decline through lack of innovation. In those industries where efforts have been made to diversify, the industry’s products have sometime lost their special features that gave the industry its unique character to begin with.

The Small and Medium Enterprise Administration (SMEA) of the Ministry of Economic Affairs (MOEA) began to provide guidance for the restructuring of traditional local industries back in 1989, leading the way for other government agencies to become involved. The Executive Yuan incorporated a “New Home Community Development Plan” into its “Challenge 2008 National Development Plan,” with the aim of revitalizing commercial activity at the local level and stimulating the development of innovative local industries and community industries. Through this initiative, the Executive Yuan hoped to promote the formation of a consensus within communities and encourage the transformation and development of

local industries as “special local industries” that reflect the characteristics of the community within which they are located, thereby providing stimulus for new business creation and job creation. Local industries thus have an important role to play within Taiwan’s national development planning.

I Traditional and Special Local Industries – Definitions and Categories

There are several characteristics that can safely be said to constitute preconditions for claiming the status of “traditional and special local industry”: the industry must be concentrated in a particular locality, such as a township, rural township, city, district, village, neighborhood, or community; it should make use of local raw materials and local labor; it is generally a long-established, labor-intensive industry; in some cases, the industry may be of great cultural or historical significance.

When providing guidance to traditional and special local industries, government agencies generally focus on those industries that fall within their own remit. For example, the SMEA has concentrated on those industries that are of particular historical importance, consumer-oriented, or in some way unique, and which have the potential to be developed into special local industries for a particular township, rural township, or district. For the Council of Cultural Affairs, Executive Yuan, traditional and special local industries are those with special cultural characteristics. The Council for Hakka Affairs, Executive Yuan, has focused on those industries that are characteristic of the Hakka districts of Taiwan, including special agricultural products, construction, wood-carving, ceramics, weaving, paper umbrella production, the restaurant business, and bed-and-breakfast operations. The Council of Agriculture has concentrated on providing guidance to industries such as tourist farm operations, specialty agricultural products, the operation of restaurants using local agricultural products, and innovative agricultural products, while the Council of Indigenous Peoples, Executive Yuan, has been encouraging the development of tourism in indigenous communities, handicrafts, and other industries unique to Taiwan’s indigenous peoples. The Commerce Department of the MOEA has focused on revitalizing declining business districts, whereas the Industrial Development Bureau (IDB), MOEA, has been promoting the

development of new industries and products, particularly those that are unique or emphasize high quality (Table 7-1-1). However, these initiatives all share a common goal, which is to breathe new life into local communities, create industries that have their own unique character, and get local industries to emphasize the competitiveness of their products and the development of new business opportunities.

Table 7-1-1 Types of Industries on Which Government Agencies Have Focused in their Promotion of Traditional and Special Local Industries

Government Agency	Main Emphasis of Local Industry Promotion Efforts
Small and Medium Enterprise Administration, Commerce Department, MOEA	Industries that are of particular historical importance, consumer-oriented, or unique, and which have the potential to be developed into special local industries for a particular township, rural township, or district
Industrial Development Bureau, MOEA	Small and medium-sized commercial enterprises
Council for Cultural Affairs, Executive Yuan	New industries and products, particularly those that are unique or emphasize high quality
Council of Agriculture, Executive Yuan	Local industries with special cultural characteristics
Council of Indigenous Peoples, Executive Yuan	Tourist farm operations, specialty agricultural products, operation of restaurants using local agricultural products, and innovative agricultural products
Council for Hakka Affairs, Executive Yuan	Development of tourism in indigenous communities, handicrafts and other industries unique to Taiwan's indigenous peoples
	Industries characteristic of the Hakka districts of Taiwan, including special agricultural products, construction, wood-carving, ceramics, weaving, paper umbrella production, the restaurant business, and bed-and-breakfast operation

This chapter does not cover those traditional and special local industries involved in the production of raw materials or intermediates, those producing goods for industrial use, or those involved in large-volume manufacturing. Examples of this type of industry include the machine tool industry in Fengyuan, Taichung County, the electronic components industry in Chungho, Taipei County, and the screw, nut, and bolt industry in Kangshan, Kaohsiung County.

On the basis of the definitions adopted by the various central government agencies, traditional and special local industries can be divided into the following main categories: scenic and landscape related industries, agricultural products and related processing industries, handicrafts, cultural, and artistic products, and festival related industries.

1. Scenic and Landscape Related Industries

The Taiwanese landscape features a rich variety of land uses, which have in turn given rise to many different commercial activities and thus different industries. These

include rafting trips, canyoning, hot spring resort operations, cold spring resort operations, beach operations, forest recreation areas, etc. Some of the better-known examples of this type of industry are the Peitou and Wulai hot spring industries, the Hsiukuluan River rafting industry, etc.

2. Agricultural Products and Related Processing Industries

Taiwan was originally an agricultural society. Over time, local communities have adopted crops suited to their local climatic and soil conditions. In many cases, these agricultural products are processed locally to produce local specialties. Examples of this type of industry include the Tachia taro industry, the Paiho lotus industry, the Pingtung coconut industry, the Hsinchu pork and fish-ball industry, the Chinmen peanut candy industry, and the Yuanlin preserved fruit industry.

3. Handicraft Industries

Traditional handicraft industries make use of local raw materials and develop in accordance with local climatic and social conditions. Their continued existence reflects the role they play in meeting local needs with respect to employment and life needs. Over time, these industries come to acquire special historical and cultural significance, embodying the development of local culture and of technology. They are thus the combined product of culture and art. Most handicraft industries are highly labor-intensive, requiring the use of special skills. They do not lend themselves to large-volume production.

4. Cultural and Artistic Products and Festival Related Industries

Both existing and newly-developed cultural and artistic activities and products can be used as the basis and incentive for leveraging such activities and products for community building and rebuilding, making culture serve as an asset for industrial development and overall local development. Cultural activities and the sale of related products can be employed to revitalize local economic activities of various kinds. In this way, not only can these cultural assets be preserved, but culture can come to play an important role in national development objectives, using culture as a basis for industrial development. To take just one example, the Tachia Matsu (Tienhou)

processions, which began as a purely religious activity, have expanded in such a way as to revitalize local culture and the arts, and have provided a foundation for local economic development.

II Guidance Mechanisms for Traditional and Special Local Industries

Several central government ministries and agencies are already involved in the provision of guidance to traditional and special local industries. The types of guidance provided by these ministries and agencies – which include the Ministry of Economic Affairs, the Council for Cultural Affairs, the Council of Agriculture, the Council of Indigenous People’s Affairs, the Council of Hakka Affairs, the Council of Labor Affairs, etc. – are outlined below:

1. The Ministry of Economic Affairs

The Ministry of Economic Affairs (MOEA) began to provide guidance for the development of traditional and special local industries back in 1989, working through the SMEA. Subsequently, the Commerce Department and IDB of the MOEA also began to provide guidance for traditional and special local industries.

(1) The Small and Medium Enterprise Administration

The SMEA began implementation of the Guidance for Traditional and Special Local Industries Project in 1989, focusing on the provision of guidance to local industries that were of historical importance or unique, along with those consumption-type industries that had made a significant contribution to local development. Taiwan’s national development planning also made the expansion of creative local industries and the development of local industries in indigenous (aboriginal) communities a priority, with the aim of building up “a special local industry in every township, rural township and community.” It was anticipated that helping special local industries to develop their economic value would contribute to the sustainable development of the local economy, and that the integration of special local industries with the cultural sector would help to enrich them.

In regards to the guidance mechanism established by the SMEA, the first step was to draw up an annual guidance plan. The number of projects to which guidance would be given was decided on the basis of the amount of funding available. Projects and proposed funding amounts were proposed by local governments. The guidance team submitted a guidance proposal, and the SMEA would then convene a meeting of the project appraisal committee to select those projects that it was felt deserved funding. There were three main appraisal criteria: the special characteristics and state of health of the local industry, local companies willing to collaborate with the guidance project, and the implementation capability of the guidance team. For most of these projects, because of the limited amount of funding provided, the short period over which guidance was implemented, and the difficulty in obtaining accurate data, it is difficult to achieve a precise, objective appraisal of the results achieved.

The provision of guidance to traditional and special local industries by the SMEA can be divided into three periods:

The First Period (1989–1990): During this period, the main emphasis was on the provision of guidance to manufacturing and processing industries.

The Second Period (1991–2000): The provision of guidance in this period focused on agricultural products and cultural industries.

The Third Period (2001–2004): During this period, the main emphasis was on the leisure and tourist industries.

In order to differentiate its guidance activities from those undertaken by the IDB and the Commerce Department, for the most part the SMEA excluded the provision of guidance to manufacturing industries and business districts from its guidance activities. When guidance was provided to leisure agriculture or to industries in Hakka regions, the SMEA focused on “software” areas such as marketing and packaging.

(2) The Commerce Department

In 1994 the Commerce Department, Ministry of Economic Affairs, began implementation of the Business District Image Guidance Project, the Shopping Street Development and Promotion Project, and the Business Environment Visual Design Project. Through the implementation of these projects, the Commerce Department hoped to integrate the upgrading of business management “software” with improvement

of the “hardware” facilities making up the external public environment, so as to help business districts create a new image for themselves. Aside from promoting the concept of image building and helping to spread awareness of the importance of environmental quality, the Commerce Department also surveyed the current state of the commercial environment, the resources available, and special local needs in individual localities, provided guidance for individual regional projects, and assisted with the cultivation of managerial talent. In 1999 the Commerce Department began implementation of a Five-year Plan to Improve the Commercial Environment, the aim of which was to establish comprehensive planning to help small and medium-sized retailers collaborate with one another to improve the business environment in their area.

Applications to receive guidance had to be approved by the Commerce Department. Once the developers and/or local businesses had formed a preparatory committee, they could submit a written application for guidance. Following approval by the Commerce Department, the guidance project was handed over to the relevant agency for implementation. It was hoped that, through the provision of this guidance, modern management concepts and technology could be transferred to local business districts, and that the successful adoption of these concepts and technologies would be imitated in other areas. Industry associations and other business organizations could then set up their own guidance systems, helping the government to provide guidance to small- and medium-sized commercial enterprises, thereby achieving an across-the-board improvement of the commercial environment in Taiwan.

In 2003 the Commerce Department established model local industry exchange centers in Ilan County, Hsinchu County, Changhua County, Pingtung County, and Nantou County. Aside from planning new strategies with respect to land use, public facilities, transportation infrastructure, etc., these centers have also been working to develop new industries and new product mixes for the local community, and have helped local industries to integrate innovation into their product packaging. It is anticipated that the implementation of the local industry exchange center model can be continued over the long term on a sustainable basis.

(3) The Industrial Development Bureau

To help individual counties and cities in Taiwan to develop high-quality, distinctive

local industries and products, while at the same time upgrading their technical and marketing capabilities and creating new opportunities for local industrial development, over the period 2000–2003 the IDB implemented the Special Local Industry Guidance Plan for Outlying Islands. The emphasis in this Plan was on the provision of guidance to special local manufacturing and processing industries in those Taiwanese counties consisting of outlying islands some distance from the main island of Taiwan – including the counties of Chinmen, Penghu and Lienchiang (Matsu) – in the areas of production, technology, branding, marketing and market development, etc. In addition, the period 2002–2003 saw the implementation of the Plan for Upgrading the Competitiveness of Traditional Industries – Traditional and Special Local Industry Guidance Plan, which focused on providing assistance to local manufacturing and processing industries in areas affected by the severe earthquake that occurred in Taiwan on September 21, 1999. Here too, the scope of guidance provided was comprehensive, covering innovation, R&D, production technology, branding, marketing, market development etc.

In 2003 the IDB began to help factories in traditional industries to transform themselves into “Tourist Factories” that would combine production with tourist services. To be eligible to participate in this scheme, the factories had to be of historical or cultural significance, possess educational value and potential for development as a tourist attraction, hold a factory registration certificate, be committed to the process of transformation, and be ready to invest some of their own funds in the process. This scheme was widely applauded; in 2004, the project was renamed the “Local Industry Innovation and Transformation Development Plan.” The IDB continues to provide guidance services to foster the development of “Tourist Factories” under this scheme.

As part of its efforts to help those local industries characterized by the development of industry clusters to upgrade themselves and leverage the formation of clusters to maximum effect, in 2004–2005 the IDB implemented the Plan for the Promotion of Innovation and Transformation Among Local Industries – Houli Musical Instrument Industry Guidance Plan. This Plan targeted the saxophone manufacturers of the Houli District of Taichung County, which have been in existence for many years, helping them to upgrade their manufacturing technology and strengthen their product development capabilities, while also assisting with the

establishment of standard product systems and common standards that will be shared by the industry as a whole, thereby improving the overall quality of the industry's products. The Plan also involves helping saxophone manufacturers to develop a strong brand image, upgrade their marketing capabilities and develop international markets.

The IDB also has responsibility for the “Innovative Life Industries” under the Cultural and Creative Industry Development Plan, which is one of the ten major plans making up the Challenge 2008 National Development Plan. The term “Innovative Life Industries” is defined as follows: “Products and services that have their origins in innovation or cultural accretion, and that use innovative methods to meet nourishment, clothing, residential, travel, education or entertainment needs. These industries employ compound management methods, possess an innovation and reproduction capability, and provide learning experiences.” In other words, innovation or the accumulation of cultural knowledge is used to develop industries based on innovative ways of thinking. In 2004 the definition was revised as follows: “Industries that integrate innovation with the core knowledge of life industries to provide in-depth experience or high-quality aesthetic satisfaction.” The three key elements were now “core knowledge,” “in-depth experience,” and “high-quality aesthetic satisfaction.” “In-depth experience” includes the application of innovation to both services and activities; “high-quality aesthetic satisfaction” includes the application of innovation to locations and products. Business enterprises that meet these requirements can receive an “Innovative Life Industry Certificate” and can benefit from free diagnostic services to help them improve their operational performance.

2. The Council for Cultural Affairs

Following the introduction of the “Community Building” concept in 1994, initially the Council for Cultural Affairs focused on building up performance and display facilities at the level of the township and rural township, providing guidance to help city and county governments set up new museums and expand the collections of existing museums, emphasizing the develop of community cultural activities, and the beautification of traditional cultural space. Integrating its activities with the annual plans for the revival of local cultural industries and for the development of “life culture” work, the Council sought to create an architecture in which “software” and “hardware” elements would complement one another. From 2001, the main emphasis

was placed on the development of arts and culture at the community level, environmental and cultural reconstruction, and cultural industry development and revival.

In 2003 the Council for Cultural Affairs began promotion of the Local Cultural Industry Revival Plan as part of its community development efforts. The aim of this project was to strengthen communities' cultural foundations, with implementation items that included the development and integration of cultural industry assets, cultural industry transmission and study, and cultural industry innovation and marketing. Annual funding totaling of around NT\$20 million was provided for the Plan.

The Council for Cultural Affairs' Community Building plan focused heavily on cultural activities, aiming to use cultural preservation and construction to stimulate the development of community consciousness, promote the compilation and preservation of cultural and historical records, and provide a basis for all-round environmental restructuring, while at the same time stimulating the development of local cultural festivals and cultural industries. Over the years, the main emphasis in the Council for Cultural Affairs' guidance policy has been on the protection and preservation of local culture, the cultivation of local talent, and the transmission of knowledge. The industry and market promotion mechanisms serve as methods or tools for cultural preservation and continuation. At the same time, due consideration is given to the all-embracing nature of culture. In its provision of guidance to cultural industries, the Council for Cultural Affairs continues to emphasize cultural significance, seeking to maintain a balance between the "industrialization of culture" and the integration of culture into industry.

3. The Council of Agriculture

In its provision of guidance to special local industries, the Council of Agriculture has focused on the "culture" of local industries. Special incentive measures have been used to encourage local communities to organize agriculture and fishing industry culture study activities and cultural festivals, so as to achieve the objective of cultural transmission while at the same time encouraging "cultural tourism." In this way it is hoped to demonstrate the benefits of diversified agriculture and fisheries, while also boosting value creation within the agricultural and fisheries sectors.

To encourage consumers to visit the areas where agricultural and fisheries production takes place, thereby promoting tourism and consumption at the local level, the Council of Agriculture has implemented various additional projects including efforts to encourage women in rural communities to establish sideline businesses, and measures to promote the sale of local specialties. The aim is to get people in local farming and fishing communities to demonstrate innovation and original thinking in the processing of local agricultural products, restaurants, and product sales, so as to facilitate the further commercialization of agricultural products, promote the development of the tourism and leisure industries in local communities, and enhance the overall quality of life in such communities.

The implementation methods vary according to the nature of the individual project. Municipality, county, and city governments collate the applications for guidance from within their areas, and then arrange for the local agricultural improvement station or Bureau of Agriculture to perform a preliminary review. In some cases, applications may be submitted to the county or city government through the local Farmers' Association, in which case a preliminary review is performed by the Farmers' Association or by the local agricultural improvement station. In the case of specialty product marketing plans, the applications may be collated by the seven agricultural improvement stations and the Provincial Fisheries Association, in which case a preliminary qualification review meeting is convened, attended by representatives of the county or city government, the county or city Farmers' Association, and academics and experts. In all cases, a final review is undertaken by a review committee set up by the Council of Agriculture, the members of which include representatives of government, industry, universities, and research institutes.

4. The Council of Indigenous Peoples

In order to improve the standard of living of Taiwan's indigenous peoples, help them to maintain their self-respect, and rebuild confidence within indigenous communities, the Council of Indigenous Peoples, Executive Yuan, formulated the Plan for Promoting Industrial Development and Strengthening Overall Economic Development in Indigenous Communities. The aim of this Plan is to establish an industrial development mechanism for Taiwan's indigenous peoples, provide guidance for the development of indigenous peoples' factories and workshops, encourage the growth

of indigenous people's industries emphasizing small-volume production of a wide range of different products, promote the development of the tourist industry in indigenous communities, and encourage exchange between indigenous artists in Taiwan and those in other parts of the world.

The Plan for Promoting Industrial Development and Strengthening Overall Economic Development in Indigenous Communities provides for two categories of guidance work. One is the development of "model communities." This type of guidance is provided to communities that already possess a basic infrastructure, and which hope to establish themselves as models for other indigenous communities to emulate. As the amount of funding involved is in general rather large, approval for such guidance projects must be given by the Council for Indigenous Affairs itself. The other category of guidance is "blueprint communities." All indigenous communities with inadequate infrastructure are eligible to apply for this type of guidance. As the amount of funding involved is relatively small, approval is given at the local government level. Guidance projects are normally implemented over a period of three years. In the first year, the community can receive assistance from the guidance team, but in the second and third years the community must implement all work items by itself.

The method of selection that the Council for Indigenous Affairs employs for guidance projects involves sending teams of academics and experts to the indigenous communities to conduct on-site inspection, and to help the community draw up a guidance proposal that can be submitted to the rural township office. The proposal is then passed on from the rural township office to the county government for a preliminary review, after which it is submitted to the Council for Indigenous Affairs for final review.

5. The Council for Hakka Affairs

The Council for Hakka Affairs, Executive Yuan, has sought to facilitate the integration of culture and industry in Hakka areas, working to develop cultural and leisure industries with Hakka characteristics, thereby creating new jobs and contributing to the preservation and development of Hakka culture. The areas in which assistance is provided include both "software" and "hardware." On the "software" side, the emphasis is on coordinating the activities of cultural and

historical research teams, production and sales organizations, and local communities. Focusing on those industries that are most characteristic of the Hakka regions of Taiwan – including special agricultural products, building, wood-carving, ceramics, weaving, paper umbrella manufacturing, food production, bed-and-breakfast operations, etc. – funding is provided for planning, collaborative operation, brand establishment, promotion and marketing, and R&D. On the “hardware” side, the emphasis is on leveraging existing buildings – such as traditional houses and community buildings, Farmers’ Association retail outlets, bed-and-breakfasts and tourism and recreation facilities – to display and sell the products of Hakka industries, house-related public facilities, house processing equipment, and provide space for the development of production technology.

6. The Council of Labor Affairs

Following the severe earthquake that took place in Taiwan on September 21, 1999, the Council of Labor Affairs formulated various plans to speed up the process of reconstruction in the affected areas. These included the Employment Reconstruction Plan, implementation of which began in October 2000, and the Sustainable Employment Creation Plan, launched in January 2001. The main objective of these plans was to help civic organizations to devise innovative programs for job creation at the local level that would supplement the government’s own efforts in this regard.

The Diversified Employment Creation Projects promoted by the Sustainable Employment Creation Plan included Economic Projects and Social Projects. The Economic Projects were developed by civic communities in line with the needs of local development. The aim was to strengthen the employability of the unemployed, bring unemployment down, contribute to the development of new local industries, and extend the lifespan of existing industries.

III Results Achieved in the Provision of Guidance to Local Industries

The provision of guidance to local industries is implemented by the various central government ministries and agencies in line with their individual remits and areas of

expertise. The scope of guidance ranges from the purely industrial to guidance relating to cultural assets and the formation of consensus among the members of the local community. It is therefore not always possible to achieve a precise quantification of the benefits achieved in terms of production value, operating revenue, or jobs created. Measuring cultural transmission and the development of sideline occupations in monetary terms is a particularly difficult task. Despite the absence of precise indicators, an attempt is made in the following section to appraise the results of guidance implementation by the various ministries and agencies concerned.

1. The Ministry of Economic Affairs

(1) The Small and Medium Enterprise Administration

Many of the local industry guidance programs implemented by the SMEA, Ministry of Economic Affairs, have achieved impressive results, for which examples of projects that have been particularly successful include: the clog industry in Paimi, Ilan County; coconut cultivation in Laochuangchiao, Pingtung County; the vegetable dye industry in Chungliao, Nantou County; the Hsiaopant'ien community in Luku Rural Township; and the indigenous people's handicraft industry in Santimen, Pingtung County. The development of the clog industry in Paimi, Ilan County has been especially impressive. According to estimates produced by the SMEA, in 2000 the Paimi clog industry earned NT\$2.5 million in revenue (both direct sales revenue and indirect revenue from tourism), rising to NT\$7.36 million in 2001, and to NT\$12 million in 2003. The number of people employed by the New Peitou hot spring industry in Taipei City rose from 450 in 2002 to 560 in 2004. Over the same period, the industry's operating revenue increased from NT\$313 million to NT\$600 million. In Taichung County, the Tachia taro industry saw its annual operating revenue increase from NT\$5.5 million in 2002 to NT\$36.8 million in 2004, while the operating revenue of the lotus industry in Kuanyin Rural Township, Taoyuan County rose from NT\$10 million in 2002 to NT\$24.7 million in 2004. (Table 7-3-1)

(2) The Commerce Department

The key elements in the provision of guidance to local industries by the Commerce Department, Ministry of Economic Affairs, are the Business District Image Guidance

Project, and the Local Commercial Environment Revitalization Plan – Attractive Business District Creation Project. Various other projects, such as the Post-disaster Business District Reconstruction Plan and the Local Industry Exchange Center Plan have not been implemented on an ongoing basis. In 1994 the Commerce Department began implementation of the Business District Image Guidance Project, the Shopping Street Development and Promotion Project, and the Business Environment Visual Design Project, followed in 1999 by the Five-year Plan to Improve the Commercial Environment, the aim of which was to help small and medium-sized retailers to collaborate with one another to improve the business environment in their area. Following the termination of the Business District Image Guidance Project in 2003, in 2004 the Commerce Department began implementation of the Local Commercial Environment Revitalization Plan – Attractive Business District Creation Project, the aim of which was to cultivate local organizations that can make a significant contribution towards developing the local commercial environment, while also strengthening the local government’s business district administration capability so as to instill new vitality into the commercial environment. The selection process was adjusted to emphasize community-building goals, and efforts were made to get county and city governments involved in the process of developing proposals. At the same time, the Commerce Department sought to integrate the capabilities of the public and private sector, working to strengthen the overall competitiveness of business districts, and putting in place the architecture needed to revitalize local industries and strengthen the commercial function of local communities.

Table 7-3-1 Results of Local Industry Guidance Provision by the SMEA, Ministry of Economic Affairs

Units: NT\$ million; persons

Industry	Results	Operating Revenue		No. of Persons Employed	
		2002	2004	2002	2004
New Peitou Hot Spring Industry, Taipei City		313.0	600.0	450	560
Taro Industry, Tachia Rural Township		5.5	36.8	83	96
Economic Development Project, Wutai Rural Township, Pingtung County		0.26	1.0	8	15
Lotus Industry, Kuanyin Rural Township, Taoyuan County		10.0	24.7	25	72
Mataian Community Tourist Industry, Kuangfu Village, Hualien County		25.1	51.1	25	60
Vegetable Dyes Industry, Chungliiao Rural Township, Nantou County		0.5	2.87	6	18

Source: SMEA, Ministry of Economic Affairs, Results Achieved in the Provision of Guidance to Community and Local Industries in 2004.

(3) The Industrial Development Bureau

Over the last four years, the IDB has implemented 110 individual guidance projects targeting local industries in Taiwan's outlying islands. These guidance projects have stimulated investment totaling NT\$35,950,000, and have helped manufacturers to reduce their costs by a total of NT\$9,350,000 and increase their production value by NT\$9,800,000. In addition, in the last two years the IDB has implemented 42 individual guidance projects targeting local industries in regions affected by the severe earthquake that occurred in Taiwan on September 21, 1999. These 42 projects have stimulated investment totaling NT\$11,000,000, and have helped the industries concerned to make cost savings of NT\$6,550,000 and increase their production value by NT\$43,120,000. The Bureau has also provided guidance for 17 "Tourist Factories," helping these factories to combine the role of manufacturing enterprise with that of tourist attraction. These projects have stimulated NT\$109,300,000 worth of investment, raised the production value of the companies concerned by NT\$70,400,000, and increased the number of tourists visiting the areas in question by 10%; the factories that received this guidance from the Bureau felt that it had made a significant contribution towards the process of transforming and upgrading themselves. In 2004, under the Plan for the Promotion of Innovation and Transformation among Local Industries – Houli Musical Instrument Industry Guidance Plan, the IDB provided guidance to nine saxophone manufacturers, helping them to boost their production value by NT\$9 million and stimulating investment totaling NT\$8 million.

As regards the Bureau's "Innovative Life Industry Plan," companies were required to undergo a review process in order to be designated as belonging to an "Innovative Life Industry." As of the end of 2004, 53 companies had been authorized to use the "Innovative Life Industry" mark; this scheme is making a significant contribution towards the establishment of model companies in Taiwan's creative industries.

2. The Council for Cultural Affairs

In its guidance activities, the Council for Cultural Affairs has generally focused on the cultivation, transmission, and preservation of traditional local arts and handicrafts and the people involved in them. However, with local cultural industries continuing to face

serious threats, the Council has begun to reorient itself towards making cultural significance the cornerstone of its promotion of local culture, focusing on industries and markets. In 2003 the Council for Cultural Affairs began promotion of the Local Cultural Industry Revival Plan, emphasizing the development of culture at the local level. The major work items making up this Plan included the development and integration of cultural industry resources, cultural industry transmission and study, and cultural industry innovation and marketing. Aside from providing funding for exposure, study, and cultural industry revitalization activities, in 2003 the Council began to implement an Industry Diagnostics Plan, focusing on those cultural industries that had already received guidance. The aim of this Plan was to help local cultural industries to acquire a more in-depth understanding of market demand that could serve as a foundation for future market development.

3. The Council of Agriculture

The main programs implemented by the Council of Agriculture to provide guidance for local industries include the Local Industry Culture Guidance Plan, the Plan for Encouraging Women in Rural Communities to Establish Sideline Occupations, and the Plan for Developing the Sale of Local Specialties to Tourists. The aim of these programs is to help the women of farming families to develop their full potential through the operation of sideline businesses that can provide an additional source of revenue for the family, and to use local agricultural and fisheries products as the raw materials for developing high-quality, high value-added products that can be sold to tourists, thereby contributing to the development of tourism in the locality. As well as helping the inhabitants of farming communities to exercise their creativity and fostering the development of local agricultural products, these programs also provide a solid foundation for the all-round development of rural communities.

4. The Council of Indigenous Peoples

The Council of Indigenous Peoples provides guidance in the area of special agricultural products and related facilities. It has provided assistance for the establishment of plum processing plants, display and retail sales centers for fisheries products and handicrafts, agricultural product retail centers, and indigenous peoples' industry culture centers, etc. In addition, the Council has offered guidance for the

development of the fisheries industry, manufacturing industry, commerce, and the tourist industry in indigenous communities. In 2005 the Council began implementation of the Plan for the Sustainable Development of Indigenous Communities, the Indigenous Community Resource Pool Development Plan, and the Plan for Integrated Development of Indigenous People's Industries. The aim of these programs is to leverage indigenous people's innovation and R&D capabilities to improve the overall living environment in indigenous communities, striving for effective integration of community industries so as to facilitate industrial upgrading and transformation. At the same time, the Council is seeking to promote the growth of autonomous management within indigenous communities so as to make possible the sustainable development of these communities. Other promotional activities include the establishment of organic agriculture marketing and strategic alliances, the building up of a cultural diversity and innovation marketing network, new platforms for exchange, and mechanisms for international exchange. Through these measures, the Council is aiming to establish the necessary mechanisms for industrial development in indigenous communities, revitalize the tourist industry in indigenous communities, foster the development of local industries based on small-volume production of a wide variety of different products, and contribute to the sustainable development of indigenous communities.

5. The Council for Hakka Affairs

The Cultural Value Creation Plan implemented by the Council for Hakka Affairs has focused on encouraging talented individuals to remain in Hakka areas, using the development of "a special local industry in every rural township" to stem the outward flow of population in Hakka areas. In addition, the Council has been working to integrate the cultural and tourist industries, stimulating the development of cultural tourism to further the economic and cultural revitalization of Hakka areas, working to create new jobs in these areas, taking steps to reduce the disparities between urban and rural areas, and encouraging the maintenance of traditional Hakka values and Hakka culture. A total of NT\$2,756 million in funding will be allocated to the project over a period of six years, and it is anticipated that this will lead to the creation of business opportunities worth around NT\$7 billion and to the creation of 20,000 new jobs.

6. The Council of Labor Affairs

Under the Sustainable Employment Creation Plan, implementation of which began in 2001, the Council of Labor Affairs has provided funding for personnel costs, labor and health insurance costs, manpower cultivation, stationery, communications expenses, travel expenses, etc. Thanks to the availability of these subsidies, civic organizations (working in concert with the government) have succeeded in creating over 50,000 new jobs.

IV Problems Encountered in the Development of Local Industries

Although traditional and special local industries can make a major contribution to both local economic development and overall community development, there are still significant problems that need to be overcome in the course of developing these industries. The following section examines both the problems that the industries face themselves, and the difficulties that the government encounters when providing guidance to such industries.

1. Problems Encountered by Local Industries Themselves

(1) The Need for Constant Innovation in the Development of New Products

As the processes of internationalization and economic liberalization continue, Taiwan's domestic market has been opened up to the extent that Taiwan's local industries now have to face low-priced competition from China and Southeast Asia. This intensification of competition has hindered the development of local industries, and many of the industries containing a strong cultural element have gone into decline. These industries need an infusion of both manpower and resources if they are to survive.

(2) Difficulty in Ensuring the Transmission of Traditional Skills

While the decline of traditional local industries is partly due to the growth of new industries and the outflow of population from many areas, the failure to attach due

importance to local culture is also a key factor. This is particularly true in indigenous communities, where local culture and local industries have been unable to stimulate economic development, as a result of which the transmission of traditional culture and handicrafts has been interrupted. In the case of local industries in areas that are more highly urbanized, local residents are generally better placed to organize themselves and are more proactive when it comes to organizing activities to further the development of local industries. By contrast, with local industries in remote areas the people involved therein are mainly middle-aged or elderly farmers who tend to be less entrepreneurially minded, are less aware of the challenges facing the industry, and are less sensitive to the need to boost value-added. They also have less access to market information. These industries therefore need more help in the way of guidance.

(3) Replication Tends to Dilute the Local Character of Special Local Industries

The main selling point for special local industries is their local character. However, there is a tendency for different localities to develop industries that are highly similar to one another. This problem is particularly acute in the case of agricultural products and handicrafts, where replication and imitation are easy to implement. Failure to maintain innovation and to ensure that local industries reflect local culture is causing local industries to become more homogenous, at the expense of their local character.

(4) Vested Interests and Political Factions Hinder the Development of Local Industries

Local communities in Taiwan have for many years been characterized by fierce political infighting, which has not disappeared, simply because efforts are being made to develop special local industries. Ongoing conflicts between local political factions often result in a situation where one faction supports the development of local industries while the other opposes it. This leads to a waste of resources and has a negative impact on the long-term development of local industries.

(5) Difficulty in Rooting Guidance Work in the Local Community

Guidance work for local industry development is mainly carried out by civic guidance teams. However, the restrictions imposed by the Government Procurement Law make

it difficult for local organizations to undertake guidance work. Most of the organizations that are capable of providing guidance on a nationwide basis are located in central or northern Taiwan. The provision of guidance in southern Taiwan and in remote areas mainly involves dispatching personnel on temporary assignments, rather than establishing permanent offices in these regions. This makes it difficult to accumulate experience and hinders the cultivation of local guidance teams. The foundations that have been established through previous guidance work cannot be maintained, and local guidance groups have no opportunity to build up experience, rendering it impossible for them to take over responsibility for providing guidance in those areas.

2. Government Agencies

(1) Problems with the Legal Framework

In the course of providing guidance to local industries to help them build up their competitiveness, government agencies often encounter problems with the legal framework. Due to the lack of clarity regarding the legal basis for the provision of guidance to local industries, finding solutions to these problems can be very difficult. Some of the problems encountered include legal issues relating to the conversion of agricultural land for bed-and-breakfast operations and issues relating to the use of publicly-owned indigenous people's housing as bed-and-breakfasts. The application of current laws and regulations raises significant problems in these areas.

(2) Failure to Achieve Effective Coordination of Guidance Provision by Different Government Agencies

Although many different government agencies have taken an interest in promoting the development of traditional and special local industries, each of these agencies has its own agenda. In most cases, guidance is provided in the form of special programs, the effectiveness of which is often diluted by coordination problems, by the inability to provide funding on a continuing basis, or by excessively cautious promotion. Owing to the different implementation models adopted by different government agencies, it has proved difficult to carry out guidance work in a systematic manner or to create a multiplier effect.

(3) Problems Relating to Communication and Coordination between Central and Local Governments

So far, no mechanism has been established to facilitate coordination of the measures adopted by different government agencies to promote the development of traditional and special local industries. By and large, individual ministries and agencies continue to formulate a guidance strategy in line with their own objectives and policies, which often results in duplication and a waste of resources. Due to the lack of a “one-stop shop” for promoting the development of local industry, companies often find it difficult to secure answers to their queries. In some cases, even the local government authorities do not have ready access to the necessary information, which can lead to misunderstandings in the transmission of central government policy, preventing guidance provision from creating as much synergy as it should.

(4) The Need for a Comprehensive Appraisal Mechanism

Ever since 1989, the government has provided funding of several tens of millions of NT dollars a year (in some years over NT\$100 million) to provide guidance for traditional and special local industries. However, as yet no comprehensive appraisal mechanism has been established to measure the results achieved. This in turn makes it difficult for local governments, companies, and individual members of the public to appreciate the efforts that the government has made to foster the development of local industries. Given today’s emphasis on transparency in government policy, this puts government agencies seeking to provide guidance to traditional and special local industries in a difficult position.

V Guidance Policy with Respect to Traditional and Special Local Industries – the Future

1. Guidance Policy

Not only can successful local industries serve as symbols for Taiwanese industry as a whole, they can also serve as the embodiment of “globalization at the local level.” At the same time, they are the lifeblood of local economic development and an important

source of tax revenue for the government. The provision of guidance to traditional and special local industries is thus an issue of great importance. In the future, the government's policy with respect to the provision of guidance for local industries needs to focus on the following areas:

(1) Encouraging Local Industries to Innovate and to Improve the Quality of Their Products

Many local industries have evolved out of traditional handicrafts or the cultivation of particular agricultural products, using techniques that have been handed down over the generations. Owing to the limited amount of funding available, the provision of guidance to local industries by government agencies currently focuses heavily on low-cost specialty food production and restaurant operation. The problem with this type of industry is that the potential for replication or imitation is very high. To be able to compete effectively against low-priced foreign products, local industries in Taiwan need to focus on improving the quality of their products.

Given the relatively small size of Taiwan's domestic market, local industries need to develop a vision that encompasses the development of global markets. The simplest, most immediately effective method of guidance is therefore to show local industries how to identify consumer needs and how to develop products that, while embodying traditional Taiwanese culture, also conform to the tastes of overseas consumers in terms of design and packaging. In this respect, Taiwan would do well to study the example of Thailand, which recruited leading international designers to help local industries with product packaging and design to ensure that, besides their local character, these industries' products were also redolent with high quality and high aesthetic beauty. In this way, products can be made to appeal to overseas consumers, while also encouraging an improvement in the overall quality of design in local industries.

(2) Expanding the Marketing Channels Available to Local Industries

Most of the firms involved in traditional and special local industries are small and medium enterprises, or in some cases micro-enterprises. This means that their marketing resources and capabilities are generally rather limited. Currently, the single most important marketing channel for traditional and special local industries is religious, artistic, and cultural activities that attract large numbers of tourists, providing an

opportunity to promote the sale of local products. However, these activities take place over a limited period of time. The key issues in guidance provision are how to get tourists to buy local products on a regular basis, and how to market these products in other parts of the country and overseas. In the future, government agencies organizing large-scale events of this sort need to coordinate their activities with other agencies, arranging the participation of local industries that fall under the remit of other ministries and agencies, and working to create new marketing channels for local industries.

In addition to arranging for the display of local industries' products at international trade shows in Taiwan, the government should also organize international local product exhibitions. These exhibitions would give companies in Taiwan the opportunity to study the products of local industries in other countries, while at the same time providing a venue for international exchange, helping to strengthen the image of Taiwan's local industries. They would thus constitute an important channel for strengthening the development of local industries in Taiwan.

With regard to the development of overseas markets, the government can undertake the selection of the most distinctive products and then commission private-sector organizations to organize overseas promotional activities or to attend international trade exhibitions in other parts of the world. Overseas distributors could be employed to market the products of Taiwan's local industries in key markets, thereby increasing the level of exposure that these products enjoy. Taiwan's overseas representative offices and trade promotion offices would have an important role to play here.

(3) Active Cultivation of the Human Talent Needed by Traditional and Special Local Industries

With the average educational level in Taiwan continuing to rise, many local industries find themselves faced with a shortage of young people interested in carrying on these traditional trades. Despite the government's efforts to revitalize Taiwan's traditional and special local industries, more work needs to be done at the level of basic education, for example, by encouraging primary schools and junior high schools to arrange visits to local industry workplaces and to include material relating to local industries in their teaching materials. By doing so, they can plant the seeds of interest in young people who may in the future decide on a career in a traditional or special

local industry. In the area of manpower cultivation, the government needs to provide funding and training opportunities, making effective use of cultural and artistic talent to help companies give their products a unique flavor or develop their own brand. For example, the regulations governing implementation of the Council of Labor Affairs' Diversified Job Creation Program are no longer restricted to those unemployed. The scope of alternative military service could be expanded to include industries other than those in the hi-tech sector, thereby furthering the cultivation of cultural and artistic talent and enhancing the artistic value of local industries' products. The cultivation of managerial and marketing talent provides an effective means of strengthening the management and efficiency of local industries.

As regards to the current situation where most guidance teams are located in northern or central Taiwan, in the future more effort is needed to develop guidance teams at the local level and to integrate their activities into the local community.

(4) Leveraging R&D to Improve the Quality of Local Industries' Products

Of the various guidance schemes that are currently being implemented to further the development of local industries, only the IDB's Local Industry Innovation and Transformation Promotion Plan provides individual companies with a comprehensive guidance covering every stage from innovation, planning and design, R&D, production, marketing, and brand development, through to market operation. This project has achieved significant results in helping companies to develop distinctive products and enhance their quality of their products. It has also contributed to the emergence of new industries and new products, helping local industries to bring out their own unique character and creating new opportunities for them. However, in order to benefit from the Local Industry Innovation and Transformation Promotion Plan, companies are required to allocate significant resources of their own. Limited budgets have forced other ministries and agencies to focus on improving the image or external appearance of local industries' products. They have been able to do relatively little to strengthen the product quality.

Given the limited resources available to the government, if maximum benefit is to be obtained from R&D, then it is important to first implement a "grading" of local industries. In the case of those products that have real potential for internationalization,

aside from providing supplementary funding to encourage manufacturers to step up R&D, the government could also institute an awards system to provide recognition for outstanding products. As for those industries whose products are not yet ready to compete in international markets, it should be left up to the individual manufacturers to decide how best to improve their products. Specialist agencies can then be commissioned to assist them with R&D and help them to improve product quality. Through an effective integration of managerial expertise and guidance resources, it should be possible to give local industries new, distinctive features that reflect the character of the local community, thereby differentiating them from ordinary, run-of-the-mill industries.

(5) Aggressive Cultivation of Local Guidance Teams

Local industries are normally closely integrated into the fabric of the local community. People who are from the same community find it easier to communicate with them and to build consensus than outsiders would. If guidance teams can be cultivated at the local level, then even after the formal period of guidance has been completed, companies in the industry in question will have someone they can address queries to, and the guidance team – which will now have built up significant experience – may be able to provide guidance to other industries in the same area. By cultivating local guidance teams, work can be made to put down roots that facilitate its continuing implementation over the long term. Aside from large-scale guidance teams operating in several counties or cities, the government's guidance planning for the future should also emphasize collaboration with local guidance organizations, so that these small- and medium-sized groups have opportunities to learn, to build up experience, and to cultivate local talent.

(6) Building a Consensus to Achieve Sustainable Development

The building of consensus at the local level constitutes an important element in the process of providing guidance to traditional and special local industries. The operations of local organizations and groups are often the key factor that determines whether or not a local industry succeeds in transforming itself. These local organizations and groups can also play an important role in furthering the development of the industry after the completion of the formal guidance period. The

main source of competitiveness for traditional and special local industries is the ability to maintain or develop a local character. How effectively this local character can be presented depends on whether a consensus can be formed among local inhabitants, and on how actively they participate in the process of fostering the industry's development. Local organizations and groups normally enjoy good relations with the local community, enabling them to undertake the communication needed to build up consensus with respect to the upgrading of culture, technology, innovation, and value added, and to encourage the development of environmental consciousness. Only then will it be possible for local industries to achieve sustainable development and enhance the quality of life for local inhabitants, while themselves can grow steadily and take control over their own destiny.

One of the biggest challenges facing guidance providers is how to overcome opposition to the local industry development plans, by establishing a sound platform for calm, reasoned discussion so as to get everyone in the community working together for a common goal, and turning local political factions from an opposing force into a supporting one. Nevertheless, this is a challenge that must be overcome if the unnecessary waste of resources is to be avoided and a new vision established for the community as a whole.

2. Guidance Strategies

In the future the following strategies need to be adopted in the provision of guidance for traditional and special local industries if a comprehensive, effective guidance mechanism is to be established. Such a mechanism could provide the foundation for an innovative lifestyle model integrating knowledge, culture, innovation, aesthetics, industry, and quality of life. Not only would this provide new opportunities for the ongoing development of Taiwanese industry, but it would also help to give the people of Taiwan a better life, in both material and spiritual terms.

(1) Formulation of a Unified National Policy for the Provision of Guidance to Traditional and Special Local Industries

Various ministries and other government agencies are currently vigorously promoting local industry guidance to work in line with their own objectives and areas of

responsibility. The lack of sufficient inter-ministerial coordination tends to lead to the duplication of efforts and a failure to collaborate fully at the local level. The first priority for the government should be to hold meetings of the various ministries and agencies involved in the provision of guidance to traditional and special local industries, and to build consensus with local government authorities. In this way, the government can ensure that the provision of guidance to local industries achieves meaningful results, and a relationship can be built up between central and local governments based on trust, mutual assistances, and healthy interaction.

(2) Implementation of a National Survey of Traditional and Special Local Industries

As regards to the depth and breadth that are needed in the provision of guidance to traditional and special local industries, an in-depth survey of these industries is needed to ensure that assistance is provided where it is required. The implementation of systematic surveys of the local industry by local government authorities should make it possible to gain an overall understanding of the current state of development of those industries that display particular potential or that are of particular importance. This information can then provide a sound basis for further guidance and promotion work by various government agencies.

(3) Formulation of a Multi-tier Development Strategy

The results obtained in the survey of local industries can be broken down by product quality and by the maturity of the industry in question. Taiwan might want to follow the example of Thailand, which divides local industries into the following categories: those well suited for exportation, those with some export potential, and those whose products can be marketed only within Thailand. Alternatively, guidance planning can be based on cultural, industrial, R&D, service, marketing, image, or “hardware” infrastructure aspects, thereby helping those local industries that have yet to acquire their own unique character to gradually develop their own distinctive features, working either from a cultural or an industrial point of view. With respect to those local industries that have already succeeded in differentiating themselves, the government can provide assistance in the strengthening of R&D activity, in image building, and in market development. As for those products that are already

competitive in international terms, guidance work here needs to focus on packaging, product design, and international marketing. Local industries at all levels need to be integrated effectively with the relevant “hardware” facilities and tourism resources.

(4) Establishment of Benchmarks for the Appraisal of Traditional and Special Local Industries

There are many different kinds of local industry, each with their own unique characteristics. When undertaking nationwide surveys of traditional and special local industries, it is important to establish appropriate appraisal benchmarks or indicators for each type of industry. The questions that should be considered include the following: Is the industry unique? Does the industry enjoy a leading position or a high level of recognition within its own particular sector? Does the industry possess any special cultural or landscape-related features? Would the provision of guidance significantly increase the marketability of the industry’s products? Once guidance has been implemented, the agencies concerned need to follow-up on an ongoing basis to determine whether additional guidance is needed. Another important task is the development of “flagship” industries that serve as a model for other industries in the same sector, enabling others to benefit from their experience.

(5) Promoting the Internationalization of Traditional and Special Local Industries

As the process of economic globalization continues, the potential exists for leveraging traditional and special local industries to build up a distinctive image for Taiwanese products that can then be combined with aesthetic and artistic elements to facilitate international marketing, giving Taiwanese local industries their own unique positioning within the global economy. However, to be competitive in international terms, Taiwan’s local industries need to be able to offer innovative, high-quality products. Other important strategies for helping local industries to develop new business opportunities include the holding of and participation in international exchange activities, and the promotion of image-building advertising in order to build up international awareness and attract the interest of consumers in other countries. An example of what can be achieved in this respect is the Thai government’s recruitment of Italian designers to help give local industries’ products an international image.

(6) Division of Labor between Central and Local Governments

Taiwan's local industries are widely dispersed throughout the country. Local governments can therefore be expected to have the most in-depth knowledge of the current state of development of local industries and of their special needs. By involving local government authorities in guidance planning and arranging for them to assist in the implementation of guidance work, the results achieved can be significantly enhanced. While supervising the effective integration of resources, the central government must also take responsibility for ensuring collaboration and resource sharing between country and city governments. Aside from setting up platforms to facilitate the sharing of information and experience, the government also needs to set up an inter-departmental review mechanism to coordinate the integration of resources between different ministries and agencies, render the division of labor between them more efficient, and ensure that resources are not wasted through duplication.

In the past, the role that traditional and special industries have to play in the process of economic development has generally not been appreciated. As a result of this long period of neglect, coupled with the recent emphasis on diversification, different local products have tended to become blurred, and firms in many industries have found it increasingly difficult to find young people interested in learning any traditional skills. In recent years the government has begun to make changes to its industrial policy and has started to provide assistance to local industries that demonstrate distinctive local character or a strong industry cluster effect, helping them to transform themselves so that they can contribute to local economic development, create new jobs, and promote social stability and social harmony. Promoting the development of traditional and special local industries is one of the key elements in the government's Challenge 2008 National Development Plan, and the Taiwan Healthy Community Six Star Promotion Plan has made provisions for more effective coordination between government agencies. This guidance to traditional and special local industries by the government is thus being transformed. In the future, Taiwan's local industries will shine radiantly not only within their own local communities, but on the international stage as well.

Chapter 8

Helping SME Supply Chains to Develop Their Target Markets

In Taiwan, small and medium enterprises (SMEs) play a far more important role in the economy than they do in other developed nations. South Korea, whose economic development has in many respects paralleled Taiwan's, began to pay more attention to fostering the growth of its SMEs following the Asian Financial Crisis of 1997. The South Korean government found that Taiwan's experience in this regard offered many lessons. Taiwan's growing presence in international markets is largely attributable to the achievements of its SMEs, but the process of economic globalization also intensified the competition among multinational corporations, prompting a negative impact on the position occupied by Taiwan's SMEs within international markets. Handicapped by their small size and limited marketing and distribution capabilities, Taiwanese SMEs are often obliged to collaborate with leading international corporations when seeking new markets.

I The Significance of the Supply Chain in SMEs' Development of Their Target Markets

In the past the pronounced industry cluster effect that characterized those Taiwanese industries in which SMEs were dominant led to the emergence of a closely integrated supply chain linking upstream and downstream manufacturers. When Taiwan's SMEs began to develop overseas markets, it usually involved more or less simultaneous entry by the entire supply chain. While the process of economic globalization has opened up new vistas for Taiwanese industry and facilitated the adoption of new

business models, many industries have found themselves affected by changes in leading international corporations' choice of target markets within the Asia region and by the increasingly rapid pace of change in the industry cycle. In these industries the need for a restructuring of the supply chain has become increasingly obvious. In many cases, Taiwanese enterprises have found a niche for themselves within an international supply chain. However, many other Taiwanese SMEs have suffered a serious loss of competitiveness due to the collapse of a supply chain of which they had previously been a part.

With the growing importance of the Internet, digital technologies, and related industries, the pattern of global trade has changed dramatically. On the demand side, personalization, diversification, and service quality have become increasingly important. On the supply side, supply chains have become global in scope, and e-business has emerged as a major new force. Thanks to new developments in information and communications technology, the transaction flows between supply chain participants have become more closely intertwined, leading to the emergence of new business models that emphasize rapid response to changing customer needs and effective utilization of enterprise resources. With the steady expansion of supply chains that are dominated by leading international manufacturers, major distributors, or big trading companies, in many industries the level of industry concentration (at the global level) has been rising, and an integrated business model that is both customer- and value-oriented has become the mainstream.

Having already experienced their "baptism of fire" in the worldwide process of economic globalization, most of Taiwan's SMEs have made efforts to upgrade and transform themselves. However, there has been no significant increase in the share of Taiwanese SMEs' output that is exported, which suggests that the level of integration in the SME supply chain is still insufficiently high, and that there is a need for further reorganization.

The development of "integrated services" or "manufacturing-commercial integration" implies the adoption of innovation- and service-oriented business models within the existing supply chain. By combining the use of the Internet and other aspects of information technology with integrated, standardized processes and methods of information exchange, supply chain management systems can be used to

integrate R&D, purchasing, manufacturing, distribution, global logistics, and after-sales service in line with the needs of downstream customers and end-users. In this way it should be possible to enhance the efficiency of both production and other aspects of operations, reduce inventory, manufacturing, and distribution costs, achieve more efficient management of the flow of money, goods, information, and people, and respond more rapidly to changes in consumer demand, thereby raising the overall international competitiveness of Taiwan's products and services.

The main emphasis in the future development of Taiwan's SMEs should be on integrating the supply chain with target market development. Currently, Taiwanese SMEs face a serious threat from increasingly intense international competition. If they fail to strengthen their logistical capabilities through greater integration, then they will find themselves being swallowed up. New collaborative business models are needed to help Taiwan's SMEs upgrade their manufacturing and marketing capabilities so that they can compete effectively in the global market.

II Integrated Marketing Services

The underlying goal in encouraging SMEs to make use of integrated marketing services is to strengthen SMEs' marketing capabilities, an area where Taiwanese SMEs tend to be relatively weak. The adoption of integrated marketing services can help SMEs to reduce marketing costs, while at the same time enabling them to gain more effective control over distribution and develop new business opportunities.

1. The Significance of Integrated Marketing Services

"Integrated marketing" has been traditionally defined as the simultaneous use of two or more media for marketing purposes. However, in today's increasingly competitive markets, the possession of this kind of integrated marketing capability is no longer suffice. The new concept of "integrated marketing services" emphasizes not only the strengthening of traditional integrated marketing capability, but also providing SMEs with a comprehensive set of services that covers everything from the production of advertising materials through product sales to payment collection and after-sales service. Unlike traditional integrated marketing, the role of the service provider is no

longer confined to passive order processing. The service provider is actively involved in planning marketing flow for the manufacturers, in helping them to develop new target markets and new business opportunities, and in building up partnership relationships.

Integrated marketing service providers are responsible for handling order receipt and for the establishment of market development mechanisms and the mechanisms needed to expedite the flow of materials and money. Their overall objective is to maximize the benefits from participating in the company's activities, providing SMEs with the kinds of services that industry associations and chambers of commerce are currently unable to provide. The range of services that industry associations can provide to their members is generally rather limited. By contrast, an integrated marketing services provider seeks to do more than just assist the companies that use its services. It aims to maximize the business opportunities available to them. SMEs that collaborate with an integrated marketing services provider can hope to achieve the same level of economies of scale as a large enterprise, while maintaining the flexibility of an SME.

2. Integrated Marketing Services – Targets and Models

The potential for establishing an integrated marketing services provider exists wherever there is a group of SMEs that share common interests and common objectives. This group of collaborating SMEs need not necessarily belong to the same supply chain; in fact, they may even belong to different industries. However, the members of the group must have something in common and must complement one another in some way. They may be suppliers of end products or services, components, parts or machinery; they may be financial institutions or companies in related industries; they may include companies in downstream industries, such as distributors or customers, or manufacturers of complementary products; they may be architecture providers, providers of training, education, information, research or technical support services (such as government agencies, universities, think-tanks, or vocational training institutes), or standard-setting organizations. The range of industries in which this kind of integration is possible is thus extremely broad. The three main integration models are outlined below.

(1) Innovative Coordinated Planning – Cross-industry Integration

Cross-industry integration offers the potential for creating different types of value-added. To take one example, Taiwan's bridal outfit rental stores have already begun to collaborate with hotels and are investigating the possibilities for collaboration with transportation service providers and the tourist industry with respect to wedding transportation and honeymoon planning. By collaborating in this way, the companies involved can provide customers with a "one-stop shopping" experience. If, in the future, the involvement of companies in other industries can be secured, then there is the potential for developing even more innovative methods. When companies in different industries are collaborating in this way, the need for effective coordination becomes that much more important. Careful planning on the part of the integrated marketing services provider can help to compensate for areas in which companies in a particular industry may be weak. At the same time, by ensuring that resources are allocated in the most appropriate manner, companies can provide services to other companies in the group based on their own particular area of expertise. By establishing an information platform that supports effective communication, the members of the group are able to gain rapid access to the information and resources they need. The detailed planning that is needed for these various processes inevitably requires a significant level of expenditure. The small scale of operation of most SMEs makes it difficult for them to implement detailed planning with the same level of efficiency as a large enterprise, but if the SMEs have the assistance of an integrated marketing services provider, then they can hope to achieve the same kind of results as a large enterprise. While each maintain their own markets, the members of the group can leverage the services provided by the integrated marketing services provider to develop the group's target market.

(2) Bringing Supply and Demand Closer Together – Integration of Complementary Producers

The type of integration referred to above takes the form of circular integration, with the integrated marketing services company taking responsibility for the integration of the various suppliers' products. The integrated marketing services company also handles order processing on behalf of the SMEs, putting them in a stronger position when negotiating with larger corporations. It is important for the integrated marketing

services company to have offices in each target market and to monitor and coordinate supply and logistics operations. The company can then confirm whether components are being shipped to the assembly plant on time, and whether they are being marketed effectively. With this system, the SMEs can save on shipping expenses, marketing expenses, and inventory costs, while at the same time gaining access to a wider range of markets.

One example here is the placing of orders with Taiwanese SMEs by leading IT vendors such as HPQ and IBM. With demand for notebook PCs continuing to rise, demand for the products of these Taiwanese manufacturers – including Liquid Crystal Display (LCD), motherboards, etc. – has increased too. By collaborating with an integrated marketing services provider, Taiwanese electronics makers can satisfy the international vendors' need for timely delivery, preventing component shortages. After receiving components from the various suppliers, the integrated marketing service provider can then undertake notebook PC assembly in accordance with the customer's requirements, and then go on to ensure that the finished product is delivered to the customer in the shortest possible time. Given the homogeneity of the products, sales volume can be expected to increase steadily. At the same time, by ensuring an efficient, reliable supply, the commercial reputation of the companies involved in the alliance can be enhanced.

(3) Establishment of Quality Appraisal Mechanisms – Intra-industry Integration

Intra-industry integration involves the integration of companies with similar end products. With this type of integration, the integrated marketing services company handles the following areas: (1) Order receipt. (2) Centralized purchasing. (3) Establishment of standards. (4) Marketing. Normally, a small company is in a weak position when negotiating contracts with a large company. However, by working through an integrated marketing services provider, a small company can significantly enhance its negotiating position. Centralized purchasing involves an integrated marketing services provider purchasing raw materials on behalf of a group of SMEs, with large-volume purchasing making it possible to reduce production costs. The integrated marketing services provider establishes a set of standardized production processes. Individual manufacturers can then use these processes as the basis for

product quality control. The more mature the industry is, the easier it is to achieve a standardization of products. Even when the same raw materials are used, it should be possible to vary the specifications, and in this way, standardization can actually help manufacturers to specialize and to raise value-added. If this kind of mechanism is adopted, then the integrated marketing services provider must play the role of quality control manager, thereby contributing to the strengthening of commercial reputation.

3. The Contents of Integrated Marketing Services

(1) Marketing Content Integration

An integrated marketing services provider must have a clear grasp of when and how to make use of the various tools available to it. Once an appropriate overall strategy has been devised, the company can then arrange the details with experienced marketing services specialists. Nevertheless, possessing an in-depth understanding of the various types of marketing tools is only half the story. What is even more important is that the integrated marketing services provider must have a detailed knowledge of customers' business models and internal business processes. Only then can the various marketing tools be combined in the most effective manner to meet customers' marketing needs at different stages of the operational process, and only then can "integrated marketing" really be said to be taking place.

To achieve the above goal, it is not enough merely to integrate marketing tools, but the integrated marketing services provider must also have an in-depth knowledge of all of the companies' operations and sales-related activities. Different media have differing strengths and weaknesses, and different companies and brands all have their own preferences regarding the types of media they prefer to use. The traditional, go-it-alone model forced companies to waste large amounts of money on broadcasting activity management, leading to a dramatic escalation in costs. By establishing integrated marketing services companies, SMEs can achieve centralized management of different types of advertising activities, thereby reducing their marketing expenses. The integrated marketing service company can also provide SMEs with a full range of product and customer lifespan management services. While applying the various types of marketing tools available to them, they can also build up a comprehensive customer database.

One point worth noting is that, in the case of very small enterprises without a dedicated marketing department, the integrated marketing services provider can serve as a kind of “proxy marketing department” for the SME. In this way, the SME can save the cost of establishing its own marketing department.

One concrete example of integrated marketing services would be for the integrated marketing services provider to undertake the planning of full-function, interactive, e-business-oriented websites for SMEs. The first step here would be the planning of online advertisements to attract potential customers onto SMEs’ websites. The integrated marketing services provider could then add mechanisms for product introduction and withdrawal and for price management, set up a payment mechanisms with an effective encryption system, and finally provide an online customer service system for the handling of customer complaints and progress notification.

One of the key elements in the implementation of integrated marketing services is the collection and analysis of customer data. Ideally, prior to implementing any activity with any marketing tool, it should be possible to access useful information from the database. All information obtained during the course of implementing that activity could then be immediately captured and stored in the database, ready for accessing during the utilization of other marketing tools. The data can also be used as the basis for making adjustments to sales and communication strategies. By combining effective data integration with real-time, interactive tools and user-friendly communication methods, companies’ internal procedures can be linked up with the integrated marketing services provider’s marketing strategy to provide the main source of “motive power” for effective marketing. If the service provider can persuade customers that share a similar target market, but whose products are not in direct competition with one another, to make their respective databases available for cross-tabulation analysis and collaborative sales promotion, then the contribution that databases and marketing partnerships can make will be that much greater.

(2) Integration of Planning

a. Coordinating Communication between Companies

An integrated marketing services provider needs to be able to coordinate communication between companies. Those SMEs making use of the service provider

transmit information to it for dissemination. The service provider is also responsible for coordinating the transmission of information between companies. Preferably, the various companies involved should be able to work together to build sales on a foundation of mutual trust and mutual benefit.

b. Coordinating Marketing Strategy between Companies

Where SMEs make use of an integrated marketing service provider, the service provider will be responsible for coordinating marketing strategy between the SMEs. The service provider must be able to identify the key targets for marketing activity (whether customers or other related parties) and to formulate shared medium and long-term objectives.

(3) Integration of After-sales Service

The provision of effective after-sales services is one of the means whereby a company can strengthen the loyalty of its customers. An integrated marketing service provider therefore needs to do more than marketing products – it must also be capable of providing after-sales service. A service provider may find itself handling product sales for many different companies. If a consumer experiences a problem with one of these companies' products, the integrated marketing service provider should be able to provide the consumer with comprehensive after-sales service, sending the product in question back to the manufacturer for repair on the consumer's behalf. If the integrated market service provider has its own product repair department, then this effective integration of sales and after-sales service will make the consumer feel even more confident about purchasing products through the integrated market service provider. In the case of manufacturers whose products are frequently the subject of complaints, the integrated market service provider can help the manufacturer to make improvements, and in some cases it may be necessary to require the manufacturer to pay more for the provision of repair service on its behalf.

Another type of after-sales service is holding product review meetings by the integrated market service provider on a regular basis. In addition to the sales and support mechanisms, the establishment of discussion mechanisms can ensure that information flows freely between the company and its customers. The product review meeting is a regional discussion meeting mechanism, with customers in different

localities sending representatives to take part. The SMEs making use of the integrated market service provider should also send representatives to outline their product planning for the coming two years. Each meeting can focus on certain specific products, with users being given the opportunity to explain whether the product really meets their needs. By holding regular product review meetings of this type, the companies involved can ensure that their products are designed in such a way as to conform to users' preferences, rather than pushing blindly ahead with R&D efforts that are not customer-oriented. At the same time, companies can serve their customers better by providing more opportunities for consultation, which in turn has promotional benefits.

(4) Integrating the Transmission of Ideas

To make the process of integration as smooth as possible, the company responsible for supervising the integration needs full support from the manufacturers whose operations are being integrated. Educating these companies is thus an important part of the integrated market service provider's responsibilities. The key elements in this education process include: the building of corporate culture, cultivating the ability to respond rapidly to changes in market demand, cultivating an international outlook, and establishing manpower cultivation centers. These four elements are examined separately below.

a. Creation of a Corporate Culture Conducive to Integration

To ensure that the integrated market service provider receives full support from the SMEs whose operations it is helping to integrate, the board of directors of the integrated market service provider can be organized so that each SME has a seat on the board. The SMEs will thus be directly involved in supervising the service provider's operations and formulating and implementing its marketing strategy. They can agree between themselves the level of transparency they wish to maintain in the transfer of information between one another, thereby facilitating the open exchange of information on the basis of mutual trust.

i. Building up a Corporate Culture that Encourages the Open Sharing of Information

An integrated market service provider needs to create an environment that facilitates

the sharing of information between companies, while at the same time ensuring that the companies working with the service provider have a clear understanding of its marketing strategy. The communication content must include the following: the nature of the companies' share objectives; the principles governing collaborative design and innovation; strategies for working together to boost order volume; strategies for centralized purchasing of raw materials, methods for maintaining customer satisfaction, etc. The aim should be to create a "virtuous circle" of bi-directional communication, with active communication and coordination between the SMEs making up the alliance, and the creation of the necessary feedback mechanisms. Finally, the integrated market service provider should undertake a regular review of the communication channels to ensure a smooth flow of information at all times.

ii. Building a Customer-oriented and Stakeholder-oriented Corporate Culture

The integrated market service provider needs to ensure that the participating SMEs all build a corporate culture that is customer- and stakeholder-oriented, rather than maintaining a traditional corporate culture that emphasizes only sales and service provision. Manufacturers should be ready to adjust their product line in accordance with customer needs at any time and be capable of providing first-rate products and first-class services.

b. Cultivating Sensitivity with Respect to Changes in the Market

One important step is the establishment and sharing of databases. The content of these databases should include customers' needs, information on competitors' activities, etc. Manufacturers must be able to respond rapidly to changing circumstances on the basis of this information, so that they can provide customers with the best possible products and services.

c. Cultivating an International Outlook

The integrated market service provider should provide participating SMEs with feedback from its analysis of target markets. By providing them with up-to-date information, it can help the SMEs to develop products that are suited to individual target markets and enable them to develop an international outlook.

d. Establishment of Manpower Cultivation Centers

Industry conferences should be held on a regular basis to discuss new technologies and other new developments. If a consensus can be reached among the SME participants, then a training center can be established to cultivate talent and provide training for existing employees.

4. Integrated Marketing Services Processes

(1) Operational Processes

The integration model should operate in such a manner as to facilitate communication between the various stakeholders, to create synergy (in terms of technologies, information, and managerial experience) between SMEs and to maximize the multiplier effect. The first step is for a group of business enterprises with shared goals and interests to join forces to establish an integrated market service provider. Given the rapid pace of change in the market, it is impossible for SMEs to handle every link in the value chain themselves. By collaborating with other SMEs to set up an integrated market service provider, they can create a company that is more focused and more efficient and that can concentrate its efforts on value-creating activities. The integrated market service provider can then undertake surveys and research with respect to customers and other stakeholders, building up a database that can be used to gain an in-depth understanding of customers' needs. This in turn can help the companies participating in the project to forecast their customers' future requirements. Forecasting of this kind can be an extremely important sales technique. Accurate forecasting is a key factor in reducing costs, as by using the information they have obtained to establish a unified database, the integrated market service provider could avoid the need for duplication of effort and make it more convenient to implement the analysis. The existence of this kind of database gives the SMEs collaborating with the integrated market service provider access to a richer store of resources and provides them with the real-time information that they need for decision-making. The integrated market service provider can also help to coordinate communication between participant companies, providing a platform for smooth communication and contributing to the formulation of shared objectives. Databases need to be constantly adjusted in line with the needs of customers and other stakeholders, while identifying

useful information to provide feedback to the participating companies and modifying the marketing strategy as necessary.

(2) Marketing Processes

As a rule, the small size and limited marketing capabilities of SMEs make it necessary for them to rely on intermediaries (such as an integrated market service provider) to develop their target markets. Different models are adopted depending on the exact nature of the relationship between the companies concerned. These include specialist alliances, alliances centered around a core agent/distributor, loose groupings based around a general agent, etc. The shared goal of the companies participating in the network is to achieve integration with respect to media utilization, customers, competitors, etc. By leveraging the transmission and exchange of information between them, they can build a multi-dimensional, multi-sectoral network based on effective collaboration.

The integrated market service provider – serving as a unified integrator – can exploit its understanding of the target market and leverage the existing information platforms to pass the supplier's products and services on to the customer. The established network can thus work to the benefit of all concerned, helping them to improve sales management. It is thus important for the integrated market service provider to communicate regularly with local distributors and sub-distributors by telephone, so that it can provide them with updated product information.

The first step in the building up of the marketing procedures must be to select the Tier One direct transmission platform in the target market. The Tier One platform links up to the Tier Two platform, and so on. All of these different levels can be involved in the process of finding customers. Once this multi-level marketing network has been built up, product information can be transmitted rapidly to target customers.

5. Integration Examples

The small size of SMEs makes it difficult for them to build up their own supply chain. However, there are various different integration models or strategies available that can help SMEs to achieve a new positioning within the value chain and to make the necessary changes to their business model. Three sample integration strategies are

given below for reference.

Table 8-2-1 Integrated Marketing Services Models

Integration Item	Integrated Marketing Services	
	Dell	Italy's SME Production Networks
Background	In the computer industry, establishing a component manufacturing capability can be extremely expensive. Dell prefers to spend this money on activities that can create more value for its customers.	The industrial structure of Italy is dominated by SMEs. SME Production Networks have been established to ensure that Italy's SMEs can keep pace with international trends.
Business Model	<ol style="list-style-type: none"> 1. The direct sales model – eliminating the price differential that results from working through middlemen. 2. Close integration with complementary partners – Dell aims to develop close collaboration with a limited number of suppliers. 3. Market segmentation – breaking customers down into groups for the purpose of demand forecasting. 	<ol style="list-style-type: none"> 1. The "virtual supplier" model – one SME handles design, order receipt, and logistics, while the others focus on manufacturing. 2. Center-satellite clusters – while one SME serves as the central company for the cluster, others supply it with parts and components. 3. Distributed production combined with centralized sales – individual SMEs undertake manufacturing particular products in accordance with unified specifications and requirements. 4. SME business groups – SMEs that have developed a high level of dependence on one another form business groups through cross-shareholdings.
Functions	<ol style="list-style-type: none"> 1. Establishment of a quality appraisal mechanism. 2. Effective coordination of operations. 3. Customized production. 	<ol style="list-style-type: none"> 1. Centralized purchasing and centralized marketing help to reduce production costs. 2. The integration of local culture in SME production networks helps to boost value-added. 3. The existence of SME production networks facilitates the development of effective manpower cultivation mechanisms.

Table 8-2-2 Strategic Alliance Models

Integration Item	Strategic Alliances	
	Great Wall Enterprise	Yulon Motor Co., Ltd.
Background	Accession to the World Trade Organization (WTO) has led to a gradual opening up of Taiwan's markets, including the meat market. Leveraging their low labor costs, Southeast Asian producers have been able to flood the Taiwan market with their meat, and Taiwanese meat producers have found themselves faced with increasingly intense competition. To remain competitive, Taiwanese meat producers have had to focus on internationalizing their operations.	Yulon's decision to collaborate with Chinese car maker Dongfeng on production of the Fengshen was based on the fact that, in the past, car marketing and distribution channels in China have been dominated by state-owned enterprises; there was thus little room for the application of modern marketing strategies. Yulon realized that the most effective way of developing the China market would be to collaborate with a low-cost local manufacturer. In this way, Yulon would be able to concentrate its resources on building up its marketing and distribution channels, and on product development.
Business Model	<ol style="list-style-type: none"> 1. Vertical integration – integration of breeding, fertilization, feed supply, butchering and sales. 2. Formation of alliances with overseas partners. 	<ol style="list-style-type: none"> 1. Yulon provides marketing and technology; Dongfeng handles manufacturing. 2. Several Taiwanese car component manufacturers have accompanied Yulon in its entry into the Chinese market.
Functions	<ol style="list-style-type: none"> 1. Collaboration based on complementarity. 2. Intra-organizational learning. 3. Development of export markets. 	<ol style="list-style-type: none"> 1. Development of export markets.

Table 8-2-3 Integrated Manufacturing Services Models

Integration Item	Integrated Manufacturing Services	
	Hon Hai (Foxconn)	BMW
Background	Hon Hai is Taiwan's most successful contract manufacturer; its customers include leading international corporations such as HPQ, Nokia, Apple, Sony, and Dell.	Having been in existence for nearly a century, BMW has established itself as one of the world's leading car manufacturers. BMW produces a wide variety of different models to meet different needs. Between them, the three factories in Germany that are responsible for production of the BMW 3, 5, and 7 Series process 40,000 containers' worth of components (from over 1,000 different suppliers) every day.
Business Model	<ol style="list-style-type: none"> 1. Centralization of design operations – Hon Hai locates its R&D and design, production process testing, and sample production facilities close to its key customers. 2. Manufacturing divided between three main locations – Hon Hai has rapidly built up purchasing, manufacturing, engineering, and quality control operations in its three main production locations: Asia, North America, and Europe. Hon Hai is able to rapidly expand its production capacity as necessary in line with customers' requirements. 3. Global shipment – Working in collaboration with HPQ, Hon Hai has developed a global ERP system that provides the company with accurate, real-time production data and effective production management functions. 	<ol style="list-style-type: none"> 1. BMW has developed the full potential of "daily demand measurement" – order placement is optimized in accordance with production scheduling, using the daily demand levels as the basis for placement of orders. 2. Aggressive efforts to minimize the transportation costs resulting from low inventory levels – if a supplier receives orders from more than one BMW factory, it can use a single logistics service provider to ship the goods to a centralized transshipment point, from which they are sent on to the individual factories. 3. Involving value chain partners in cost-cutting efforts – BMW seeks to keep its suppliers' delivery costs to a minimum through optimization of order placement in accordance with carefully devised cost equations. The aim is to ensure that suppliers' trucks and other transportation vehicles are always full, and that deliveries can be made on fixed schedules.
Functions	<ol style="list-style-type: none"> 1. Simultaneous development of new products with customers makes it possible to bring new products to market more quickly. 2. Hon Hai is able to handle rapid increases in customer demand. 3. Hon Hai has the capability to ship "the right product, at the right time, with the right quality, in the right quantity" to the locations designated by customers. 	<ol style="list-style-type: none"> 1. BMW is able to provide suppliers with demand schedules covering the coming 10 months; suppliers can use these schedules as a basis for estimating the quantity and types of components that they will need to order from their own suppliers. 2. Transportation costs can be kept to a minimum. 3. Maximum efficiency can be achieved in the utilization of transportation vehicles and warehouse space.

The significance of the above table lies in the fact that, to build effective communication with leading vendors, suppliers must be able to respond rapidly to changes in the needs of both distributors and end users, while striving to make the flow of information as rapid and as smooth as possible. When setting up an integrated marketing services arrangement, SMEs need to be able to coordinate their operations with the different types of systems and processes outlined above.

Table 8-2-4 Comparison of the Supply Chain Models Adopted by WalMart and Carrefour

Item	WalMart	Carrefour
Key Features	Rapid, efficient supply-chain management.	Implementing gradual adjustment of the business model to achieve improved inventory management and more efficient allocation of resources.
Scope	All information relating to suppliers and logistics.	Supplier and distributor inventory system management.
Information Utilization	Use of commercial satellites for global network operation. Bar-code scanning and satellite communications are used to provide suppliers with sales, shipping, and order information on a daily basis.	<ol style="list-style-type: none"> 1. Implementation of Efficient Consumer Response (ECR). 2. Implementation of Vendor Managed Inventory (VMI). 3. Establishment of appraisal tables.
Supplier-manufacturer Interaction	<ol style="list-style-type: none"> 1. Ordering directly from manufacturers, rather than working through the manufacturers' agents. 2. Encouraging manufacturers to cut costs and reduce prices. 3. Establishment of new supply networks and data exchange systems. 4. Helping manufacturers to undertake design themselves. 	<ol style="list-style-type: none"> 1. Careful appraisal of the potential for collaboration in terms of operational methods and systems. 2. Ensuring full commitment and the establishment of effective teams among senior management. 3. Close communication and establishment of flexible systems. 4. Synchronization and automation of systems and processes.
Common Features	Suppliers are given responsibility for inventory and logistics management. Electronic Data Interchange (EDI) technology is used to establish automated ordering systems that link the vendor to its suppliers. Advanced information technology is used to ensure smooth coordination of delivery and sales and to ensure that the vendors' transshipment centers can collaborate effectively with suppliers.	

III Integrated Manufacturing Services

On the basis of the relevant theories (and practical experience), “integrated manufacturing services” can be defined as the vertical or horizontal integration of those links in the value chain that are related to manufacturing, including design, production, transportation, and supporting operations. The benefits resulting from the implementation of integrated manufacturing services can include lower production costs, a differentiation in one’s products from those of one’s competitors, and the ability to introduce innovative new business models.

1. Integrated Manufacturing Services – Contents and Models

The four main areas covered by integrated manufacturing services are examined individually in the following section and in Table 8-3-1, focusing on the content of

integration and the integration models that can be used.

Table 8-3-1 Integrated Manufacturing Services – Content and Models

Value Chain Activity	Integrated Manufacturing Services		Benefits			
	Vertical Integration	Horizontal Integration	Differentiation	Cost-down	Greater Speed and Efficiency	Other
Product Design and Development						
Product Design and Product Development	Collaborative design Car design and development centers (car industry) Plan E for supply chain e-enablement (collaboration on design between upstream and downstream segments of the supply chain) Formation of joint development and design teams within the bicycle industry (A-Team)	Joint design and development platforms Collaborative development of key components (e.g. collaborative development of car engines)	⊙	⊙	⊙	
Production						
Production Integration Emphasizing Improvement of Production Technology and Processes	Integration and improvement of technology Center-satellite systems Technology guidance system (technology guidance advisory teams) Collaboration on the enhancement of production efficiency Plan B for supply chain e-enablement (collaboration on production between upstream and downstream segments of the supply chain)	Technology exchange and development platforms Technology development institutes such as the Taiwan Textile Research Institute and the Industrial Technology Research Institute Technology guidance system (technology guidance advisory teams) Specialized industrial parks (e.g. the Science-based Industrial Parks, the Tainan County Taiwan Orchid Biotechnology Park, etc.)	⊙	⊙	⊙	
Raw Materials	Collaborative development of applied materials	Collaborative development of applied materials Establishment of centralized purchasing platforms	⊙	⊙		
Product Quality	Quality certification	Quality and certification The Taiwan-made shoes logo The Taiwan Innovalue logo	⊙			

Table 8-3-1 Integrated Manufacturing Services – Content and Models (continued)

Value Chain Activity	Integrated Manufacturing Services		Benefits			
	Vertical Integration	Horizontal Integration	Differentiation	Cost-down	Greater Speed and Efficiency	Other
Transportation						
Logistics and Delivery	Collaborative logistics Plan D for supply chain e-enablement (collaborative logistics)	Specialist logistics providers Logistics operations for refrigerated and low-temperature products Radio Frequency Identification (RFID) technology utilization		⊙	⊙	
Supporting Operations						
Information	Information platforms E-enabled supply chains E-enabled supply chain planning	Information platforms E-enabled service platforms SME e-Enablement Service Team		⊙	⊙	⊙
Finance	Plan C for supply chain e-enablement (integration of money flow)	SME Finance Services Platform SME Financing Guidance System		⊙		⊙
Intellectual Property	Intellectual property integration and value development	Intellectual property management and protection platforms	⊙	⊙		⊙
Education and Training	Collaborative training programs Industry-specific manpower cultivation platforms	Shared training platforms		⊙		⊙

(1) Integrated Services – Product Design and Development

Product design and product development are areas that are normally closely linked to an enterprise's core competitiveness. In the past, enterprises have generally preferred to undertake these activities in-house. However, as a result of the growing emphasis on risk sharing and cost sharing, companies are now beginning to implement product design and development on a collaborative basis. This is particularly true in the case of horizontal integration, where manufacturers can collaborate on the development of shared technologies and key components. Examples of this kind of collaboration include the development of car engines that can be used by more than one carmaker, or the development of DVD reader heads. The last few years have also seen the development of collaborative design and development under vertical integration - for

example, in the car industry and in the government's Plan E for the e-enablement of supply chains (which involves collaboration on product design between system manufacturers, their upstream suppliers, and their downstream customers). In some cases, the model adopted involves both vertical and horizontal integration, as with the "A-Team" plan in Taiwan's bicycle industry. The A-Team alliance, initiated by Giant and Merida, has brought together 11 Taiwanese bicycle component makers, whereby the emphasis in this alliance is on being demand-oriented, achieving differentiation, and designing and developing products that will stand out from the crowd.

As noted above, the need to spread risk, share costs, or respond to rapid changes in demand has encouraged the spread of integrated service models based on collaborative design or collaborative development. These needs are common to most SMEs, and it can therefore be anticipated that the establishment of integrated product design services or platforms will help Taiwan's SMEs to differentiate their products from those of competitors, reduce costs, and enhance the efficiency of design and development work. More important, the adoption of this type of business model can help SMEs to attune themselves better to market demand, taking design and development as an avenue for integration with the international market that can lead on to the integration of manufacturing and to that of the whole supply chain.

The A-Team constitutes an example of the successful adoption of the above strategy. The participants in the A-Team project have taken "consumers' future needs and the creation of value through innovation" as the basis for achieving differentiation. They have focused on supplying products of the highest possible quality to global markets in a timely manner, and on developing new products that feature innovative design, thereby enhancing the operational performance of their bicycle manufacturing operations and helping Taiwan to re-position itself as an innovative value-creator within the global bicycle industry.

Aside from developing integrated design and development capabilities, as a result of the integration process the A-Team members have succeeded in differentiating their brands within the international bicycle market. Their success points up the weaknesses that tended to characterize the integration models that Taiwanese companies adopted in the past: integration that did not go beyond the level of technology, failing to extend the process of integration to include branding,

certification, and the development of linkages with international markets.

(2) Integrated Services – Production Activities

As regards to the value chain for production activities, companies here need to leverage their production technology, cost-down capability, and product quality to secure orders from international customers. This section therefore focuses on integrated services and platforms that emphasize this type of value creation.

Over the years, Taiwanese business enterprises have developed a wide range of integration models and service platforms with respect to production technology, process improvement, materials development, and the enhancement of product quality. In the case of vertical integration, center-satellite systems are able to implement integration and improvement in the areas of technology, production processes, and quality. The government's Plan B for supply chain e-enablement aimed to integrate the e-enabled supply chains of system manufacturers and their upstream Taiwanese component suppliers, helping them to work together to build up e-enabled operational capabilities that would enable them to respond rapidly to changes in market demand, thereby making it possible to achieve a dramatic improvement in the production efficiency of the supply chain as a whole. Horizontal integration platforms include those created by the government's technology guidance system (the technology guidance teams), and technology research institutes such as the Taiwan Textile Research Institute and the Industrial Technology Research Institute. These platforms provide enterprises with assistance in the areas of production technology, process technology, new materials development, and the improvement of product quality.

In many cases, unfortunately, these long-established integration models and service platforms have failed to extend their value integration to include branding and marketing. In the field of production management, one strategy that Taiwanese enterprises could adopt is leveraging ISO certification more effectively, given that ISO certification constitutes a "shared brand" with significant marketing potential. Similarly, if Taiwan's technical service platforms could strengthen their certification function (including both international and domestic certification), focusing on the needs of marketing, then those enterprises that have received guidance would be able to leverage their technology or product certification to differentiate themselves from

their competitors and build up shared brands (these technology or quality-based brands would constitute a guarantee of the technology of the products themselves). Examples of the use of certification for marketing purposes to achieve differentiation include the “Taiwan Innovalue” logo and the recently introduced “Taiwan-made Shoes” logo. The first of these represents quality-based certification; the second merely constitutes a certificate of origin. Within a vertical integration model, the central manufacturer in a center-satellite system or a trading company can build up a certification system within the value chain, or make use of an existing, external certification system, so as to create value through differentiation.

The establishment of specialized industrial parks also constitutes a form of manufacturing activity integration, with geographical integration helping to produce an industry cluster effect. Examples of this type of integration include the Tainan County Taiwan Orchid Biotechnology Park and the Nankang Software Park. If specialist industrial parks of this kind can provide those companies located in the park with technology exchange and development platforms, while also developing their own technology or product certification brands, then this will help those enterprises located in the park to build value by differentiating themselves. Given that specialized industrial parks are normally home to a concentration of companies in the same industry, there is also significant potential for developing integration through centralized materials purchasing platforms, joint training platforms, centralized order receipt platforms, etc. All of these can help companies to cut costs, and they can lead towards the emergence of innovative new integration models.

(3) Integrated Services – Transportation

In the field of transportation-related activities – including logistics and delivery – value can be created from three areas: cost-down, efficiency (speed), and quality. Within supply chain management, the integration of logistics and information flow to achieve effective management of inventory (cost-down) and ensure rapid delivery (enhanced speed and efficiency) is one of the most important means for creating value. One example here is the government’s Plan D for supply chain e-enablement, which focuses on developing effective collaboration between Taiwanese system manufacturers and logistics service providers. One of the main foci of competition between Taiwanese enterprises today is the creation of value by integrating up-, mid-,

and downstream companies through order tracking and transportation planning. Aside from the use of e-enablement to provide integrated services, the development of dedicated logistics services platforms is another horizontal integration strategy that is worth exploring. Specialist logistics and distribution systems that are designed to meet the specific needs of particular industries or products can be used to expand the scale of transportation, enable multiple enterprises to share costs, and improve the quality of transportation service. This type of platform can be particularly useful in the food industry, where there is a need for refrigerated and low-temperature transportation. Making effective use of new technologies such as Radio Frequency Identification (RFID) can also help enterprises to improve the efficiency and quality of logistics management.

Looking ahead to the future, assuming that direct trade, transportation, and communication links can be established between Taiwan and mainland China, there is the potential for a significant breakthrough in Taiwan's efforts to establish itself as a leading Asia Pacific logistics center. Taiwan's SMEs will be able to leverage highly efficient, highly-integrated transportation services and platforms to create value and strengthen their competitiveness, developing international business opportunities in the areas of transshipment, distribution, and processing trade. This in turn would help to stimulate growth in related industries, both upstream and downstream.

(4) Integrated Services – Supporting Operations

Supporting operations are those that help business enterprises to implement key value activities, particularly the production and marketing of products and services. The discussion in this section focuses on how enterprises can upgrade the level of integration in supporting operations so as to promote the development of key value activities, rather than positioning supporting operations as a strategic tool for target market development. As the scope of supporting operations is extremely broad, the discussion below confines itself to the four major activities in which SMEs tend to be particularly weak: information, financing, intellectual property management, and training.

As regards to information, the advances in digital technology have made it much easier for SMEs to access information from the Internet. Reducing the “digital divide”

as it affects SMEs and raising SMEs' level of e-enablement are thus issues of key importance. The Small and Medium Enterprise Administration (SMEA) of the Ministry of Economic Affairs (MOEA) has established an SME E-Enablement Service Team and a Computerization Diagnostics and Guidance Platform to provide supporting services to all of Taiwan's SMEs. While the E-Enablement Technology Services Platform provides the basic infrastructure needed for e-adoption, other platforms – including industry-specific information platforms, e-catalogs, online marketplaces, etc. – are gradually coming online. Alas, in most cases these individual platforms have not been brought together to create large-scale information platforms that could integrate information with transactions and enable SMEs to gain maximum benefit from the Internet. This is an area where more effort needs to be done. The best examples of vertical integration of supporting operations are the government's Plans A, B, C, D, and E for supply chain e-enablement. The aim of these plans is to facilitate the establishment of an e-enabled business transaction and collaboration environment covering every link in the supply chain. In other words, they are intended to help enterprises set up a comprehensive supply chain e-enablement platform that would extend the integration of information flows to cover order receipt, design, production, shipment, and receipts and expenses. In this way, the supply chain as a whole can be more closely linked together and can be made to operate more efficiently, while giving rise to the emergence of new business models.

On the financing side, the SMEA has established an SME Financing Guidance System to serve as a service platform for SMEs. In the past, however, this system has only been able to provide advisory, referral, and financing guidance services. The key factors determining whether or not SMEs were able to secure financing were their ability to provide collateral, the attitude taken by the banks, and the operation of credit guarantee mechanisms. Hence, the significance of Plan C for supply chain e-enablement – the money flow integration plan – should be noted. The mechanisms covered by this plan include: electronic payment, on-line financing, integration of fund management and other services, order financing and provision of credit guarantees by the center manufacturers in center-satellite systems, the provision of SME credit guarantees, etc. Through the implementation of these mechanisms, the flow of funds within the supply chain can be made as smooth as possible. If Plan C can be expanded so that it creates an e-enabled money flow service platform that is

available to the majority of SMEs (through collaboration with credit rating agencies, credit guarantee mechanisms, online security specialists, etc.), then the functionality and effectiveness of the financing services platform can be significantly enhanced.

Within the supporting service field, information and financing services were among the earliest to emerge and have reached the highest level of development. One area with still a great deal to be done is intellectual property. The management and protection of intellectual property and the use of intellectual property to create value constitute an emerging activity area. Owing to their small size, SMEs often find it difficult to allocate sufficient manpower and resources to the management and protection of intellectual property. If horizontal integration methods can be used to build an intellectual property management and protection platform for the use of SMEs, then SMEs will be able to leverage specialist, centralized management (and the greater economies of scale that this will create) in order to reduce costs. SMEs will also enjoy better service at lower cost to themselves. Within a vertically-integrated model, the emphasis is on the integrated utilization of intellectual property rights and on value creation. As this relates to innovation and various highly-specialized fields, there is a clear need for assistance from specialist research institutes and for the establishment of licensing and transaction platforms that would help to enhance the value of SMEs' intellectual property.

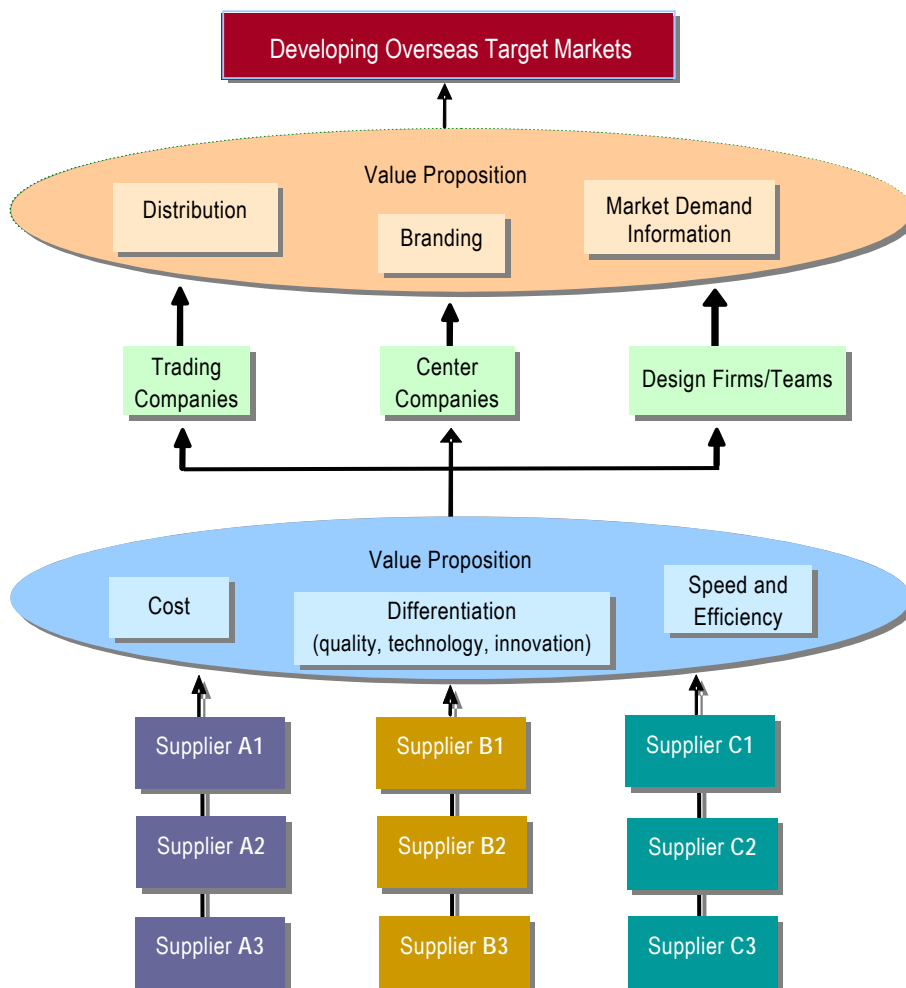
Training is another important area within the field of supporting operations. Whether one is considering the needs of global supply chain management or the establishment of industry-specific manpower cultivation platforms, the provision and integration of education and training services can help in the upgrading of manpower quality and the reduction of manpower cultivation costs. Supply chains' existing training mechanisms can be expanded to create training platforms for entire industries, while at the same time, manpower cultivation content that is common to several industries can be used to establish cross-industry manpower cultivation platforms. Both vertical and horizontal integration models can be employed to help SMEs to upgrade their human resources and to use them more effectively.

2. Strategy Models for Integrated Manufacturing Services

On the basis of the above analysis, it can be seen that, in order to help SME supply

chains to develop their target markets, there is a need for greater emphasis on value creation on the part of both individual enterprises and entire industries. As shown in Figure 8-3-1, at the production/manufacturing stage (including R&D and design), value derives mainly from cost-down, differentiation, and increases in speed and efficiency. Differentiation may relate to innovation, quality or technical capabilities.

Figure 8-3-1 Relationship between the Supply Chain and the Value Chain



When the supply chain as a whole is linked to international markets by trading

companies, center companies in center-satellite systems (or manufacturers), and design firms (or design teams), then there is a clear need to create value in the areas of distribution, brand management, and access to market information at the marketing stage. Production activities and marketing activities are closely related and impact on one another. Brand value may be supported by value created through differentiation, cost-down, speed, or efficiency. At the same time, the way in which products and services are presented to the customer must conform to market needs.

The following strategic models (based on different integrated manufacturing services models) are proposed to facilitate the creation of different types of value within the overall value chain:

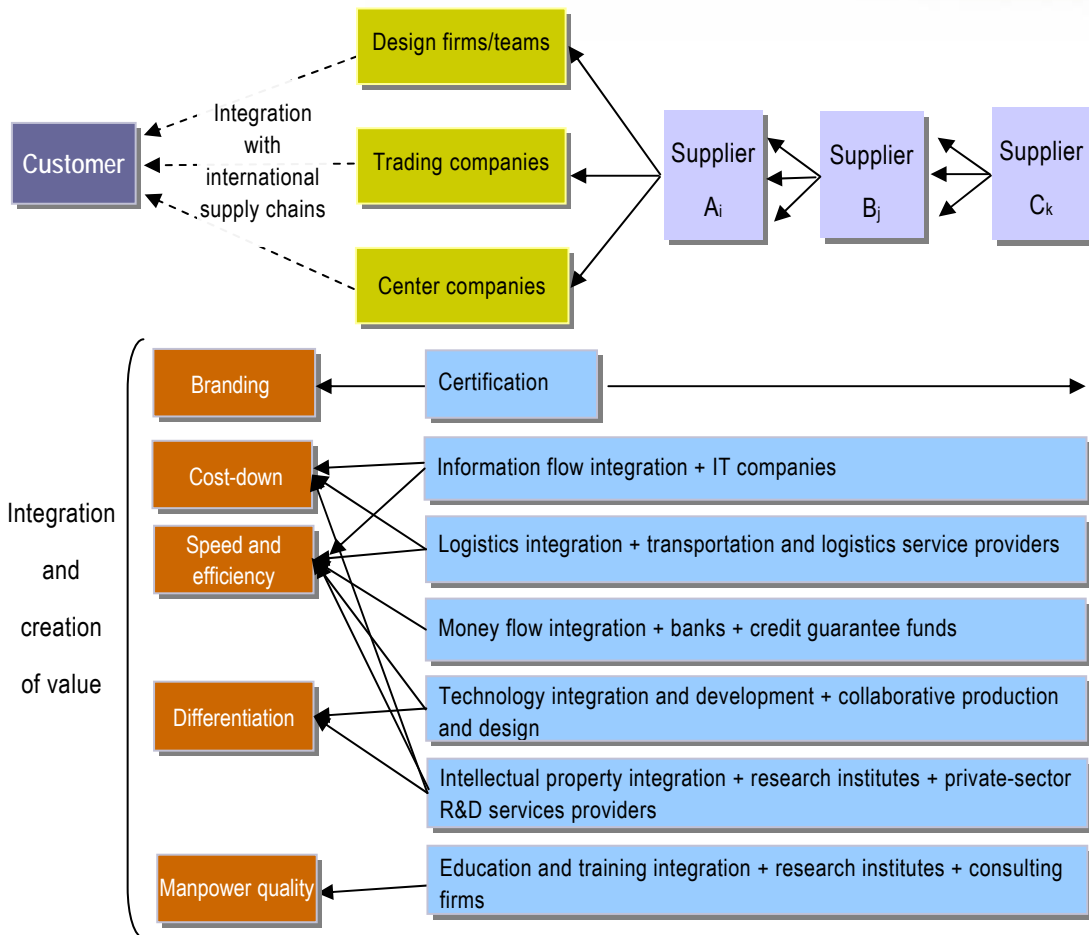
(1) Strategic Model for Supply Chain Integration

Supply chains can currently leverage the government's Plans A, B, C, D, and E to integrate additional types of value, including certification, technology integration, collaborative product development, integration of intellectual property, licensing and value creation, education and training, etc. As shown in Figure 8-3-2, there is the potential for further upgrading of value creation that can serve as a basis for development of the target market. The strategic model also incorporates the integration of various peripheral systems, including IT companies, transportation and logistics service providers, banks, credit guarantee funds, research institutes, R&D service providers, consulting firms, etc.

(2) Strategic Model for Industry-specific Platforms

Strategic models for supply chain integration generally apply only to one particular supply chain (such as a center-satellite system based around a single center company). A model of this kind can be expanded to create a platform that can be used by all enterprises within a particular industry, or several existing supply chains can be integrated to form such a platform (such as an industry-specific distribution platform, receipts and payments platform, or intellectual property transaction platform). As all the companies involved are in the same industry, as there is the potential for further integration through joint purchasing, thereby creating value through cost reduction.

Figure 8-3-2 Strategic Model for Supply Chain Integration



(3) Strategic Model for Cross-industry Platforms

Taiwan has already developed several cross-industry service platforms, such as the e-enablement service teams, financing guidance mechanisms and the various research institutes, supporting systems, etc. The supporting relationship between these service platforms and Taiwan's SMEs is a relatively loose one, and in the past there has been no serious attempt to extend the platforms to boost the creation of value through marketing activities. In the future, it should be possible to make use of existing platforms to strengthen the integration of services into the supply chain, or to gradually expand the scope of supply chain integrated services to build a

cross-industry joint service platform.

IV Integrated Manufacturing and Marketing Services Strategy

This section seeks to explore the ways in which Taiwanese SMEs can rebuild competitive advantage by keeping their finger on the pulse of change in the global business environment. On the basis of the analysis in the previous sections, the following strategies are proposed for the development of integrated manufacturing and marketing services.

1. Enhancing the Value that Existing Supply Chain Models Can Create Through Integration

The government's Plans A, B, C, D, and E (implementation of which is already underway) should be expanded to include the integration of additional value activities, including certification, intellectual property rights, education and training, etc. Some of the concrete measures that could be adopted include the following.

- (1) Technology exchange and certification plans: Trading companies, center companies (in center-satellite systems), and design firms would work to promote technology exchange, establishing or adopting certification systems and quality measurement standards. The process of integration would embrace all companies within the supply chain, with the aim at maintaining the creation of value through quality. Assistance could be provided by institutions, such as certification bodies, the Industrial Technology Research Institute, etc.
- (2) Intellectual property integration and value development plans: The aim here would be to achieve integration between companies in the upstream and downstream segments of the supply chain, encouraging them to collaborate on intellectual property development, licensing, transfer, management, protection, etc. Assistance could be provided by R&D service providers and intellectual property rights service providers.
- (3) Education and training integration plans: With this category of plan, the emphasis

is on integrating manpower cultivation between upstream and downstream companies. Assistance could be provided by education and training institutions. Supply chains could collaborate with universities and colleges through the establishment of alliances.

2. Introduction of Bottom-up Supply Chain Integration Concepts to Facilitate the Integration of Relevant Services and Institutions into the Supply Chain

Before marketing activity can go ahead, there are various related activities that must be implemented, including market surveys and forecasting, image design, advertisement production, media buying, etc. Integration thus needs to involve marketing research companies, advertising agencies, firms of marketing consultants, and other agencies and service providers. Expanding the supply chain integration concept to cover the integration of these activities helps to strengthen the marketing capabilities of trading companies, center companies, design teams, and other market participants.

One point worth considering is that Plans A, B, C, D, and E represent a top-down supply chain integration model (based on the integration of leading international vendors' needs through Plan A). Under this architecture, suppliers are in competition with one another, and the rapid transmission of information through digital technology ensures that price disparities are soon discovered, eventually leading to a fall in profit margins for suppliers. To avoid this situation from developing, it is proposed that, in addition to the existing Plans A, B, C, D, and E, an additional, bottom-up integration model could be established. The emphasis in this additional model would be on the development of joint branding and marketing, and joint distribution. The key implementation plans would be as follows.

- (1) Joint brand promotion plans: These would integrate upstream and downstream companies, either through horizontal integration or a mix of horizontal and vertical integration. By focusing on product image, joint brands could be developed for exportation.
- (2) Joint distribution and development plans: These plans would involve the cultivation of specialist trading companies and conference organizers, along with

the development of chain and franchise businesses, with the aim at building up joint distribution activities. Specialist trading companies could serve as joint order receipt centers. Conference organizers could assist in the integration of SME supply chains by helping SMEs to participate in trade shows, both in Taiwan and overseas, thereby facilitating the work of distribution channel development and brand promotion. With regard to chain stores and franchise operations, regardless of size, as the number of outlets expands they will gradually build up their brand and their distribution capability. The overseas operations of Taiwanese chain stores have been growing rapidly, particularly in mainland China. SMEs could form strategic alliances with these chains, leveraging their distribution channels (both within Taiwan and overseas) to market the SMEs' products. Franchise chains can be thought of as constituting a separate type of supply chain integration model, due to the mutually supporting nature of the operation with respect to products, facilities, and materials. In the early stages, the government could provide guidance for selected pilot projects that would help to strengthen other SMEs' confidence in their ability to develop target markets successfully.

- (3) Market information integration plans: The most basic prerequisite for developing a target market is access to up-to-date information regarding customer preferences, local specifications, etc. There is thus a need for the establishment of market information databases by industry, universities, and research institutes. The information contained in these databases can be transmitted through the use of digital technology to give companies (both upstream and downstream) timely access to the market information that they need so as to adjust their marketing strategies.

3. Leveraging Supply Chain Integration to Develop International Markets

A discussion of supply chains in Taiwan generally ignores marketing and sales activities. In the case of Plans A, B, C, D, and E for supply chain e-enablement, although Plan A covers integration with the international purchasing operations of leading international vendors, the treatment of supply chain integration models does not extend to the establishment of links with new customers (i.e. data transmission), entry into, and the development of new markets, etc. This points to the importance of

establishing a bottom-up supply chain integration model. The following methods could be used to promote the adoption of proactive marketing.

- (1) Encouraging the development of the conference organizing industry, to help members of SME supply chains participate in important domestic and overseas activities and exhibitions, thereby facilitating distribution channel development and the building of brand image.
- (2) Making effective use of the chain store and franchise integration model to build distribution channels.
- (3) Utilizing online marketing and establishing online marketplaces.
- (4) Building shared overseas distribution channels, such as shared product display facilities, marketing offices, and distribution centers.
- (5) Strategic alliances: SMEs should explore the potential for alliances with overseas trading companies, distributors, purchasing companies, and companies in other industries that possess valuable customer or distribution resources.
- (6) Developing contacts with the international purchasing offices (IPOs) of leading international corporations.

4. Gradual Expansion of Service Platforms, Moving from Supply Chain and Industry-based Platforms to Functional, Horizontal Service Platforms

- (1) Cultivation of system integration talent for e-business and e-enablement, focusing on specific manufacturing industries.
- (2) Strengthening collaboration on education and training between industry and universities through the establishment of alliances.
- (3) Developing integration strategies and related manpower cultivation for strategic service industries, particularly knowledge-intensive industries.
- (4) Integrating manufacturing and marketing services. This involves the formulation of concrete targets, focusing on innovation, the creation of value-added and high

growth, and on boosting production value, job creation, industry linkages, and industry sensitivity.

V Strengthening the Role of SMEs as Enablers within the Supply Chain

On the basis of the above analysis it can be seen that, in order to help SME supply chains develop their target markets, there is a need to integrate many different companies and institutions to provide assistance in different segments of the value chain. Table 8-5-1 lists the key categories of supporting companies and institutions and the roles they would be expected to play, breaking them down by the key business functions of design, manufacturing and marketing, and supporting functions such as transportation, provision and integration of information, payments, receipts and financing, intellectual property management, education and training, etc.

Table 8-5-1 Helping SME Supply Chains Develop Their Target Markets – Key Supporting Companies/Institutions and the Roles They are Expected to Play

Value activities and functions	Integrated design services – joint product development and image building	Integrated manufacturing services	Integrated marketing services
	<ul style="list-style-type: none"> ● R&D services industry ● Research institutes * R&D support and integrated design support ● Industrial design firms ● International marketing firms * Industrial design and product image integration 	<ul style="list-style-type: none"> ● Research institutes ● Other technology guidance systems * Production technology integration, improvement and consulting services ● Center companies ● Specialized industrial parks * Development of production activity integration and clustering, and establishment of integrated manufacturing services platforms ● Surveying service providers ● Certification agencies * Attestation and certification services 	<ul style="list-style-type: none"> ● International marketing firms ● Marketing consultants ● Advertising agencies * Brand image building, marketing design, marketing planning, and marketing guidance ● Conference organizers ● Trading companies ● Chain and franchise store operations * Distribution channel development ● Market research firms * Market data collection and consumer behavior survey firms ● Industry associations * Assistance with business negotiations services

Table 8-5-1 Helping SME Supply Chains Develop Their Target Markets – Key Supporting Companies/Institutions and the Roles They are Expected to Play (continued)

Value activities and functions	Integrated design services – joint product development and image building	Integrated manufacturing services	Integrated marketing services
Information provision and integration services	<ul style="list-style-type: none"> ● IT firms * E-Enablement of the entire supply chain, in order to facilitate vertical and horizontal integration of information relating to all value activities ● Marketing agencies ● Research institutes ● Online marketplaces * Establishment of information platforms to provide market information, production and sales information, technical information, information on standards and specifications, transaction data, etc. 		
Transportation and logistics services	<ul style="list-style-type: none"> ● Transportation and logistics service providers * Linking production to the consumer through efficient delivery services, including both regular logistics services and linkage with information flow to provide integrated logistics services ● Research institutes * Development of new logistics-related technologies (such as RFID, advanced refrigerated and low-temperature transportation technologies, etc.) 		
Payments and receipts, and financing	<ul style="list-style-type: none"> ● Banks, SME credit guarantee funds, other financial institutions, IT firms * Establishment of e-enabled money flow service systems (covering online payment, online financing, fund management, etc.) in line with new developments in digital transaction technology ● Intangible asset appraisal, transaction and financing mechanisms * Establishment of money flow systems for intangible asset transactions in line with the development of the knowledge economy ● Venture capital firms * Help SMEs to secure long-term equity financing that can help them to expand their markets 		
Intellectual property	<ul style="list-style-type: none"> ● Specialist intellectual property management agencies ● Law firms ● Accountant firms ● Research institutes ● R&D service providers * Intellectual property management, protection, integration, and value-added services 		
Education and training	<ul style="list-style-type: none"> ● Industry associations ● Management consulting firms ● Research institutes ● Universities and colleges * General and specialist manpower cultivation 		

Note: ● represents supporting agencies/companies; * represents the functions that support agencies/companies are expected to provide.

In the past, Taiwan has focused heavily on the integration and division of labor within production activities. The emphasis in this area now needs to be placed on the

development of inspection and certification services. Integrated design, production innovation and image building, and integrated marketing are all areas where Taiwanese SMEs tend to be relatively weak. The government could help by fostering the development of related service industries to support SMEs' efforts to upgrade their capabilities in these segments of the value chain. Supporting activities continue to display many areas of weakness, particularly with regard to the provision of market information, payment and financing services, intellectual property rights management, etc. In these areas, SMEs need assistance from the government to build up an environment conducive to the development of these activities.

Chapter 9

SMEs in Service Industries – Development Opportunities and Strategies

Following the adjustments that have taken place in Taiwan's industrial structure, the service sector has come to play an increasingly important role in economic development, and the main focus of the government's efforts to promote economic growth in Taiwan is now being placed on encouraging the development of service industries that are competitive in global terms. In 2004, the Council for Economic Planning and Development (working in collaboration with other ministries and agencies) promulgated the Guidelines and Action Plans for Service Industry Development, along with individual flagship plans. It was anticipated that, by ensuring that the individual plans were mutually supporting, it would be possible to gradually move from point-by-point development to linear and ultimately across-the-board development of Taiwan's service sector.

In the past, Taiwan's competitive advantage was based on its strength in manufacturing and on economies of scale. These, combined with low labor costs, first-rate engineering capabilities and responsiveness to change, created Taiwan's "economic miracle." However, the advantages that served Taiwan so well in the past have largely ceased to apply. Today, countries all over the world are aggressively promoting the development of the service sector. With international competition growing increasingly intense, Taiwan needs to abandon outdated models and strive to develop new opportunities and renewed vitality.

The service sector is involved in the production and sale of intangible, non-physical products. It covers an enormous scope, and the industries that make it up display an immense degree of variation. The provision and consumption of services take place simultaneously, and the roles played (in terms of supply and demand) vary over time. If a service provider is to succeed in providing first-class service, it must

respect its customers, and seek to put itself in the customer's shoes, thereby adopting the customer's attitudes towards service quality. The value of services is difficult to measure accurately, but the creation of value-added is clearly derived from respect for the customer; only when this respect is present can a service provider hope to build up the trust and word-of-mouth reputation that are needed to achieve perpetual operations.

Today, when the government's economic policy seeks to achieve both high economic growth and low unemployment, it is no longer sufficient merely to promote industrial upgrading; what is also needed is an improvement in the living standards and quality of life of Taiwan's citizens. Small and medium enterprises (SMEs), which account for nearly 94% of all enterprises in Taiwan's emerging service industries, need to engage in long-range planning to identify business areas with significant growth potential. By formulating the plans the need to transform and upgrade themselves, service sector SMEs in Taiwan can move up to a higher level of development.

I The Scope of the Service Sector, and the Availability of Government Resources

The service sector covers a wide range of different industries. New service industries are emerging all the time, making it that much more difficult to classify the different categories of industry. Furthermore, different classification schemes may be needed to meet the needs of different research topics, leading to a further increase in complexity. The discussion in this report focuses mainly on the government's strategies for the development of SMEs in the service sector, while also considering the government resources that are available to assist service sector SMEs in their development.

1. Government Policies and the Scope of the Service Sector

(1) Vigorous Policies to Support SME Development in the Service Sector

Responding to the changes in Taiwan's industrial structure and the emergence of the knowledge economy, on March 31, 2004 the Executive Yuan approved the Guidelines and Action Plans for Service Industry Development formulated by the Council for Economic Planning and Development (in collaboration with other ministries and agencies), and decided to hold a National Service Industry Development Conference

to raise awareness of the importance of the service sector and build consensus with regard to the development of the various individual service industries. In 2002, the Executive Yuan began to implement the Cultural and Creative Industry Development Plan, which aims to develop the core sources of growth for the service sector. To encourage investment in industries that are of great significance for Taiwan's economic development but which are also characterized by a high level of risk, in 2000 the government began to formulate new tax breaks for "important emerging strategic industries." The Commerce Department of the Ministry of Economic Affairs (MOEA) has undertaken intensive research on the current state of development of the service sector, while the MOEA's Bureau of Foreign Trade has been drawing up concrete plans for the internationalization of Taiwan's service sector in line with the requirements of World Trade Organization (WTO) negotiations regarding trade in services. The active involvement of so many government agencies in devising measures to support the growth of the service industries is combined with wider recognition of the importance of SMEs, the main prop for Taiwan's economic development.

(2) The Scope of the Service Sector

a. Government Agencies' Definitions of the Service Sector

There is a general lack of agreement as to how the boundaries of the service sector should be defined. In recent years, individual government agencies have tended to develop their own definitions of the service sector in line with their own areas of responsibility; these definitions are presented in Table 9-1-1.

b. The Definition of the Service Sector Used in this Chapter

All Taiwanese government data uses the ROC Industry Classification system. In its discussion of service industry SMEs, this chapter employs both the definition of service industries used by the Directorate General of Budget, Accounting and Statistics (DGBAS) and the definition used by the Council for Economic Planning and Development in the Guidelines and Action Plans for Service Industry Development; however, the "public administration industry" is excluded from the discussion. The definition of emerging service industries is based on that used by the OECD, as described in the *Report on the Service Sector in Taiwan in 2001* published by the Commerce Department, MOEA.

Table 9-1-1 The Definitions of Service Industries Adopted by Individual Government Agencies in Taiwan

Source	Scope and explanation
Directorate General of Accounting, Budget and Statistics, Executive Yuan – ROC Industry Classification	<ol style="list-style-type: none"> 1. The service industries included in the 16 industry categories of the ROC Industry Classification (Seventh Revision) promulgated in January 2001 by the Directorate General of Accounting, Budget and Statistics, Executive Yuan. 2. 11 service industries: Wholesaling and retailing; accommodation and eating-drinking places industry; transportation, warehousing and communications; finance and insurance industry; real estate and rental industry; professional, scientific and technical services industry; educational services industry; medical, healthcare and social welfare services industry; cultural, sports and leisure services industry; other services industries; public administration industry.
Council for Economic Planning and Development, Executive Yuan – Guidelines and Action Plans for Service Industry Development	<ol style="list-style-type: none"> 1. Based on the Guidelines and Action Plans for Service Industry Development approved by the Council for Economic Planning and Development, Executive Yuan in November 2004. 2. 12 service industries: Finance; distribution; communications and media services; medical and healthcare; manpower cultivation, manpower services and property management services; tourism, sports and leisure; culture and creative industries; design services; information services; R&D services; environmental services; engineering consulting.
Executive Yuan – Important Emerging Strategic Industries	<ol style="list-style-type: none"> 1. During the period 2000–2001 the Executive Yuan formulated various new tax breaks (in accordance with the provisions of the Statute for Upgrading Industries) to encourage investment in important emerging strategic industries that were of particular significance for Taiwan's economic development but which were characterized by a high level of risk. 2. Three main sets of tax incentives were formulated and implemented: the Incentive Measures for Important Emerging Strategic Industries Classed as Manufacturing or Technical Services Industries, drawn up by the Ministry of Economic Affairs; the Incentive Measures for Important Emerging Strategic Industries Classed as Agricultural Industries, drawn up by the Council of Agriculture, Executive Yuan; the Incentive Measures for Important Emerging Strategic Industries Classed as Film Industry Digitalization and Post-production Industries, drawn up by the Government Information Office, Executive Yuan. 3. In 2002 the Executive Yuan began implementation of the Cultural and Creative Industries Development Plan, a sub-plan of the Challenge 2008 National Development Plan. It was anticipated that, through the introduction of new regulations and revision of existing regulations, the scope of "important emerging strategic industries" could be expanded to include enterprises involved in culture and the arts.
Commerce Department, Ministry of Economic Affairs – Emerging Service Industries	<ol style="list-style-type: none"> 1. This definition of "emerging service industries" is based on the <i>Report on the Service Sector in Taiwan in 2001</i> published by the Commerce Department of the Ministry of Economic Affairs; given the close relationship between emerging service industries and knowledge-based service industries, knowledge-based service industries are treated as emerging service industries. 2. Those "hi-tech, knowledge economy industries" (as defined by the OECD) falling under the category of service industries would include: the posts and express delivery industry; the telecommunications industry, the banking and supporting industries; the securities and futures industry; the insurance industry; the legal and accounting services industry; the construction and engineering services industry; the specialist design services industry; the computer system design services industry; the data processing and data provision service industry; the consulting services industry; the R&D services industry; the advertising industry; other professional, scientific and technical industries; the educational services industry; the medical and healthcare services industry.

Source: The Executive Yuan and Individual Ministries and Agencies.

2. Financing, Incentive and Guidance Measures Implemented by the Government

(1) Financing Tools and Tax Breaks Provided by the Government

a. Project Financing for Service Industry SMEs

Working through the SME Financing Guidance System, the government implements various project financing initiatives and provides credit guarantees through the SME Credit Guarantee Fund, thereby helping SMEs to secure access to financing.

b. Tax Breaks for Companies in Important Emerging Strategic Industries

During the period 2000–2001, the Executive Yuan formulated tax breaks for newly established enterprises in the manufacturing sector, the technical services industry and the film industry in accordance with the provisions of the Statute for Upgrading Industries. In the last two years, in which implementation of the Cultural and Creative Industries Development Plan has begun, the Executive Yuan has been seeking to expand the scope of application of these tax incentives to help companies with enterprise transformation, the formation of cross-industry alliances and the development of new technologies.

c. The Provision of New Financing Tools under the Challenge 2008 National Development Plan

In 2002, the Executive Yuan began implementation of the Challenge 2008 National Development Plan. In 2003–2004, as part of the implementation of Challenge 2008 sub-plans including the e-Taiwan Construction Plan and the Cultural and Creative Industry Development Plan, new regulations were introduced regarding financing methods, and revisions were made to existing regulations in this area, so as to promote the growth of the digital content industry and the cultural and creative industries. The most important of the new and revised financing regulations and guidelines include the MOEA's Measures Governing Loans for the Promotion of R&D in Industry (which are applicable to the cultural and creative industries) and Outlines for the Provision of Preferential Loans to Encourage the Development of the Digital Content Industry and the Cultural and Creative Industries, and the loan interest subsidies for cultural and artistic enterprises provided by the Council for Cultural Affairs,

Executive Yuan in accordance with the provisions of the Statute for Encouraging the Development of Culture and the Arts.

(2) Guidance Measures Implemented by the Government

a. The SME Guidance System

In accordance with the provisions of the SME Development Statute, the Small and Medium Enterprise Administration of the MOEA has worked to build an environment conducive to the establishment and growth of SME start-ups. A five-pronged strategy has been adopted, emphasizing the strengthening of the business management guidance function, the integration of financing mechanisms, strengthening SMEs' technology and information application capabilities, building incubation platforms for start-ups, and creating a first-rate business development environment. Planning in all of these areas has been made as in-depth and comprehensive as possible. The SME Guidance System has developed into Taiwan's most complete enterprise guidance system; the strategic planning behind the System is outlined in Table 9-1-2.

b. Guidance Window for the Cultural and Creative Industries

In order to further the development of the cultural and creative industries and ensure that more attention is given to these industries in the formulation of economic policy, a Cultural and Creative Industry Promotion Office has been established under the framework of the Cultural and Creative Industry Development Plan. The Office will seek to coordinate the operations of the MOEA, Council for Cultural Affairs, Ministry of Education and Government Information Office in this area. Besides working to integrate cultural and creative industry resources (both in Taiwan and overseas), the Office will also be promoting the inclusion of cultural and creative enterprises within the SME Guidance System. Details can be found in Chapter 10.

c. The Digital Content Industry Guidance Window

To help Taiwan's digital content industry establish a dominant position within the global Chinese-language content market, thereby stimulating the growth of the knowledge economy as a whole, the government has designated the digital content industry as one of the "Two Trillion, Twin Star" industries whose growth it is seeking to promote in the new century, and the Executive Yuan has approved a Plan to

Promote the Development of the Digital Content Industry. In line with the government's policy in this regard, the Industrial Development Bureau of the MOEA has set up a Digital Content Industry Promotion Office to provide a "single window" for industry promotion and guidance.

II The Current State of SMEs in Taiwan's Service Sector

This section presents an overview of the overall state of development of Taiwan's service sector, the changes that have taken place in the structure of SMEs within the service sector, and the current state of development of strategic service industries, focusing on the overall environment, enterprise size, the employment structure and sales performance, with the aim of analyzing the performance of Taiwan's service industry SMEs in recent years.

For the purposes of this section, the term "service industries" is defined as including the following 10 categories from the ROC Industry Classification: the wholesaling and retailing industry; the accommodation and eating-drinking places industry; the transportation, warehousing and communications industry; the banking and insurance industry; the real estate and rental industry; the professional, scientific and technical services industry; the educational services industry; the medical, healthcare and social welfare services industry; the cultural, sports and leisure services industry; and other service industries. The definition of "emerging service industries" is based on the OECD's list of "knowledge economy industries," including: the posts and express delivery industry; the telecommunications industry; banking and supporting industries; the securities and futures industry; the insurance industry; the legal and accounting services industry; the construction and engineering services industry; the specialist design services industry; the computer system design services industry; the data processing and data provision services industry; the consulting services industry; the R&D services industry; the advertising industry; other professional, scientific and technical service industries; the educational services industry; and the medical and healthcare services industry.

The discussion of "strategic service industries" in this section focuses on the 12 strategic service industries listed in the Guidelines and Action Plans for Service

Industry Development: finance; distribution; communications and media services; medical and healthcare; manpower cultivation, manpower services and property management services; tourism, sports and leisure; cultural and creative industries; design services; information services; R&D services; environmental services; and engineering consulting services.

The definition of SMEs adopted is that used by the MOEA: In service industries, an SME is defined as an enterprise that posted total operating revenue of less than NT\$100 million in the previous year, or that has fewer than 50 regular employees. Any enterprise that does not meet these conditions is classed as a large enterprise. The sources for this section include secondary sources published by various ministries and agencies. Data regarding the number of enterprises and sales performance are taken from business tax data compiled by the Ministry of Finance Tax Data Center; employment data are taken from the Taiwan Region Manpower and Employment Survey conducted by the DGBAS.

1. Overview of the Development of Taiwan's Service Sector

Overall, the performance of Taiwan's service industries in 2004 was quite impressive. Positive growth was achieved in terms of the number of enterprises, the number of people working in the service sector, the number of employees, total sales, domestic sales and export sales (Table 9-2-1).

Table 9-2-1 Overview of Taiwan's Service Sector in 2004

Units: enterprises; thousand persons; NT\$ million; %

Enterprise type	No. of enterprises	No. of employees	No. of directly employed persons	Total sales	Domestic sales	Export sales
All service sector enterprises	973,497	5,325	3,651	18,424,926	15,040,840	3,384,085
As % of all service sector enterprises	100.00	100.00	100.00	100.00	100.00	100.00
Annual growth rate	3.08	2.92	3.66	11.10	11.19	10.69
SMEs in the service sector	952,122	4,103	2,431	4,993,108	4,520,500	472,608
As % of all service sector enterprises	97.80	77.05	66.60	27.10	30.05	13.97
Annual growth rate	2.94	2.67	3.64	7.24	8.04	0.18
Large enterprises in the service sector	21,375	679	676	13,431,818	10,520,340	2,911,477
As % of all service sector enterprises	2.20	12.74	18.51	72.90	69.95	86.03
Annual growth rate	9.63	6.13	6.09	12.61	12.60	12.61

Note: Totals for the number of employees and the number of directly employed persons both include persons employed by the government.

Sources: 1. Ministry of Finance Tax Data Center, Business Income Tax Data for 2003–2004.

2. Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area*, original data, 2003–2004.

(1) The Number of Enterprises in the Service Sector and Their Scale of Operation

In 2004, Taiwan's service sector included a total of 973,497 enterprises, representing an increase of 29,054 (or 3.08%) compared to 2003. SMEs account for the vast majority of enterprises in the service sector; over the last three years, 97.8% or more of all service sector enterprises have been SMEs. As of 2004, more than 60% of service sector enterprises had been in existence for at least five years; nearly 40% had been in existence for over 10 years. Enterprises that were more than 10 years old accounted for a particularly high share of large enterprises in the service sector. In 2004, there were approximately 95,981 newly established service sector enterprises that had been in existence for less than one year, accounting for nearly 10% of all service sector enterprises; of these, 99.67% were small enterprises.

In 2004, there were 61,985 enterprises in emerging service industries in Taiwan, representing an annual growth rate of 2.49%. Enterprises in emerging service industries accounted for 6.37% of all service industry enterprises. Large enterprises in emerging service industries accounted for 5.56% of all enterprises in emerging service industries; SMEs accounted for 94.44%. Enterprises that had been in existence for 5–10 years constituted the largest share of all enterprises in emerging service industries, or 23.03%; nearly 50% were more than five years old. 34.46% had been in existence for less than three years; these were mainly SMEs. Of those enterprises in emerging industries that were less than one year old, 99.58% were SMEs. Overall, the last three years have seen rapid growth in the number of SMEs in Taiwan's emerging service industries.

(2) The Number of Employees and Number of Directly Employed Persons Working in the Service Sector

As of 2004, there were a total of 5,325,000 people working in the service sector in Taiwan; this figure represented an increase of 151,000 (2.92%) over 2003. 77.05% of these people were working in SMEs, 12.74% were working in large enterprises, and 10.21% were employed by the government. The number of directly employed persons working in the service sector in 2004 was 3,651,000 (including government employees); this total represented an annual increase of 3.66% compared to 2003. SMEs accounted for 66.60% of all directly employed persons working in the service

sector; 18.51% were working for large enterprises, and 14.89% were working for the government. 1,587,000 people were working in emerging service industries, 3.79% up from 2003. Those working in emerging service industries accounted for 29.81% of all people working in the service sector in Taiwan. The number of directly employed persons working in emerging service industries was 1,447,000 (including government employees), representing an annual increase of 3.52%, and accounting for 39.62% of all directly employed persons working in the service sector as a whole (Table 9-2-2).

Table 9-2-2 Employment Structure in the Service Sector as a Whole and in Emerging Service Industries in 2004

Item	All service industries	Emerging service industries
Age	Large service sector enterprises have a younger workforce than service sector SMEs.	Younger workers account for the bulk of employees in emerging service industries.
Sex	Female employees outnumber male employees in large service sector enterprises; in service sector SMEs, the reverse is true.	Women outnumber men in emerging service industries, regardless of enterprise size.
Education	The workforce in large service sector enterprises is generally better educated than in service sector SMEs.	89% of those working in emerging service industries are educated to at least the senior vocational school level.
Dominant industries	Those working in large service sector enterprises are mainly employed in the banking and insurance sector; those working in service sector SMEs are mainly employed in the wholesaling and retailing business.	The banking and insurance sector continues to account for the largest share of those working in large enterprises in emerging service industries; the professional, scientific and technical service industries account for the largest share of those working in SMEs in emerging service industries.
No. of employees	Large service sector enterprises generally have in the range of 50–200 employees; enterprises with 10 or fewer employees account for the largest share of service sector SMEs.	Large enterprises in emerging service industries generally have in the range of 50–200 employees; enterprises with 30 or fewer employees account for the largest share of SMEs in emerging service industries.
Geographical distribution	Regardless of enterprise size, the largest share of those employed in service sector enterprises are working in Northern Taiwan.	The largest share of those employed in emerging service industries are working in Northern Taiwan.
Occupation	A high percentage of those working in large service sector enterprises are performing skilled or specialist work; the percentage of those working in service sector SMEs who are performing skilled or specialist work is increasing.	Demand for skilled and specialist workers is higher among large enterprises in emerging service industries than in SMEs in such industries.

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

(3) The Taiwanese Service Sector's Domestic Sales and Export Sales Performance

In 2004, the Taiwanese service sector as a whole achieved total sales of NT\$18,424.9 billion, representing an increase of NT\$1,840.8 billion (11.10%) compared to 2003. Domestic sales accounted for 81.63% of total sales, or NT\$15,040.8 billion; this figure represented an increase of NT\$1,513.9 billion (11.19%) compared to 2003. Export sales accounted for 18.37% of total sales, at NT\$3,384.1 billion; this figure represented an increase of NT\$326.9 billion (10.69%) compared to 2003. Over the last three years, domestic sales have continued to account for by far the largest share of the service sector's total sales, and this share has gradually been increasing, climbing from 77.95% in 2002 to 81.63% in 2004.

The emerging service industries (i.e. those industries that the OECD classes as belonging to the knowledge economy) achieved total sales of NT\$3,784.2 billion in 2004, representing annual growth of 27.93%. Not only have the total sales of these industries increased steadily over the past three years, but their share of total sales for the service sector as a whole has also risen, climbing to 20.54% in 2004.

In 2004, newly established service sector enterprises (those that had been in existence for less than one year) achieved total sales of NT\$289.7 billion. Newly established SMEs accounted for 67.99% of this total; newly established large enterprises accounted for 32.01%. Newly established enterprises in emerging industries posted total sales of NT\$25.3 billion, accounting for 8.74% of the total sales of all newly established service sector enterprises. Domestic sales for newly established service sector enterprises totaled NT\$262.6 billion; SMEs accounted for 71.08% of this total, while large enterprises accounted for 28.92%. Export sales for newly established service sector enterprises totaled NT\$27.1 billion; SMEs accounted for 38.06% of this total, while large enterprises accounted for 61.94%.

2. Changes in the Structure of Service Sector SMEs

In 2004, Taiwan's service sector included 952,122 SMEs, accounting for 97.80% of all service sector enterprises, and representing an annual increase of 2.94% compared to 2003. There were 58,538 SMEs in emerging service industries, accounting for 94.44% of enterprises in emerging service industries, and representing an annual

increase of 2.4% compared to 2003. Table 9-2-3 shows the number of enterprises, number of employees, number of directly employed persons, total sales, domestic sales and export sales for SMEs in individual industries in 2004, and Table 9-2-4 compares the enterprise structure, employment structure and sales structure of SMEs in service sector and in emerging service industries.

Table 9-2-3 The Status of SMEs in Individual Service Industries in 2004

Units: enterprises; thousand persons; NT\$ million; %

Industry	No. of enterprises	No. of employees	No. of directly employed persons	Total sales	Domestic sales	Export sales
Total	952,122	4,103	2,431	4,993,108	4,520,500	472,608
Wholesaling and retailing	627,123	1,621	812	3,643,404	3,225,249	418,154
Accommodation and eating-drinking places	91,963	578	267	195,178	193,361	1,817
Transportation, warehousing and communications	41,425	321	198	338,317	301,350	36,967
Banking and insurance	10,935	199	196	176,245	175,937	308
Real estate and rental	24,357	67	50	139,741	138,955	785
Professional, scientific and technical services	45,215	241	170	230,295	218,255	12,040
Educational services	458	171	143	1,860	1,843	16
Medical, healthcare and social welfare services	378	141	102	1,351	1,342	8
Cultural, sports and leisure services	28,020	130	100	81,097	80,363	734
Other service industries	82,248	632	393	185,622	183,844	1,779
Annual growth rate						
Total	2.94	2.67	3.64	7.24	8.04	0.18
Wholesaling and retailing	2.54	1.57	3.46	7.72	8.37	2.99
Accommodation and eating-drinking places	7.94	3.06	5.92	10.11	10.43	-16.23
Transportation, warehousing and communications	-7.54	2.55	3.21	-5.30	-2.48	-23.33
Banking and insurance	3.99	-0.79	-0.53	6.78	6.74	42.70
Real estate and rental	6.76	12.47	18.76	13.63	13.74	-2.98
Professional, scientific and technical services	2.01	6.75	4.48	9.79	10.24	2.15
Educational services	-0.22	6.16	6.47	-1.68	0.02	-66.55
Medical, healthcare and social welfare services	2.72	6.10	8.80	10.76	10.71	19.29
Cultural, sports and leisure services	4.88	1.88	-1.01	6.90	7.04	-6.30
Other service industries	5.27	2.44	1.82	14.33	14.44	4.24

Sources: 1. Ministry of Finance Tax Data Center, Business Income Tax Data for 2003–2004.

2. Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area*, original data, 2003–2004.

Table 9-2-4 The Comparison of SMEs in Service Sector and in Emerging Service Industries

Item	Service sector SMEs	SMEs in emerging service industries
Enterprise structure		
Number of enterprises	There were 627,123 SMEs in the wholesaling and retailing industry, far more than in any other service industry; they accounted for 65.87% of all service sector SMEs in Taiwan. The service industry in which the number of SMEs grew the most rapidly in 2004 was the accommodation and eating-drinking places industry, with an annual growth rate of 7.94%	There were 45,215 SMEs in the professional, scientific and technical services industry, accounting for 77.24% of all SMEs in emerging service industries in Taiwan in 2004. The service industry in which the number of SMEs grew the most rapidly was the finance and insurance industry, with an annual growth rate of 3.99%.
Location	The largest share of SMEs in Taiwan's service sector were in Northern Taiwan; there were a total of 454,892 service sector SMEs in this region, accounting for 47.78% of the national total.	Northern Taiwan's share of SMEs in emerging service industries was at 61.75%.
Organizational type	The sole proprietorship was the most common form of organization for SMEs in Taiwan's service sector, accounting for 61.99% of all SMEs in the sector. The next most common form of organization was the limited corporation, with 25.05%.	Limited corporations were in the majority, with 39.13% of SMEs, while sole proprietorships accounted for only 29.06% of the total.
Capitalization	49.97% of SMEs in Taiwan's service sector had total capitalization of NT\$100,000 or less; 83.53% had capitalization of NT\$5 million or less.	Enterprises with capitalization in the range of NT\$1 million to NT\$5 million accounted for the largest share of emerging service sector SMEs, at 32.11% of the total, while 25.26% had capitalization in excess of NT\$5 million.
Employment structure		
Total employment	The total number of people working in SMEs in Taiwan's service sector in 2004 was 4,103,000 (or 77.05% of all people working in the service sector); this figure represented an annual growth rate of 2.67%. 99% of service sector employers are running SMEs, and 66% of directly employed persons in the service sector are working in SMEs.	The total number of people working in SMEs in emerging service industries was 751,000, this figure represented an annual growth rate of 4.01%, accounting for 18.31% of the total in service sector. The number of self-employed persons working in SMEs in emerging service industries continues to increase.
Number of paid employees	2,431,000 persons, accounted for 59.26%, were paid employees in the SME service sector.	611,000 persons, accounted for 25.12% were paid employees in service sector.
Sales structure		
Sales Value	1. Total sales of NT\$4,993.1 billion, representing an annual growth rate of 7.24% compared to 2003. SMEs accounted for 27.1% of total service sector sales. 2. SMEs in the wholesaling and retailing industry had combined annual sales of NT\$3,643.4 billion in 2004, accounting for 72.97% of the total sales of all service sector SMEs, and representing an annual growth rate of 7.72%. The second largest share was in the transportation, warehousing and communications industry, which accounted for just 6.78% of total service sector SME sales.	1. Total sales of NT\$424.3 billion, representing an annual growth rate of 8.37%; SMEs accounted for 11.21% of total emerging service industry sales. 2. Scientific and technical services industry held the highest share of total emerging industry SME sales in 2004 with annual sales of NT\$230.3 billion, or 54.28% of the total, representing an annual increase of 9.79%.
Domestic Sales Value	SMEs in the wholesaling and retailing industry accounted for 71.35% of total service industry SME domestic sales; domestic sales in this industry grew by 8.37% compared to 2003.	The professional, scientific and technical services industry accounted for the largest share of total emerging service industry SME domestic sales, or 53.02%.
Export Sales Value	The wholesaling and retailing industry accounted for 88.48% of total service sector SME exports, with annual exports of NT\$418.2 billion, representing an annual growth rate of 2.99%.	SMEs in the professional, scientific and technical services industry posted total exports of NT\$230.3 billion, accounting for 95.28% of total emerging service industry SME exports.

Sources: 1. Ministry of Finance Tax Data Center, VAT data for consecutive years.
2. Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data).

3. The Current Status of SMEs in Strategic Service Industries

(1) Overview of the 12 Strategic Service Industries

The Guidelines and Action Plans for Service Industry Development identify 12 strategic service industries. However, the original data from the DGBAS manpower surveys use a two-digit classification of industries and occupations, which in some cases means that the DGBAS employment data cannot be broken down into these 12 industries; in these cases, the nearest equivalent is used. An additional problem is that some of the 12 industries include more than one of the ROC Industry Classification sub-categories, creating a risk of duplication.

Table 9-2-5 presents data for SMEs in Taiwan's strategic service industries in 2004, including the number of enterprises, number of employees, number of directly employed persons, total sales, domestic sales and export sales. Figure 9-2-1 shows the number of enterprises as a percentage of the total for service sector SMEs as a whole, and the rates of increase or decrease.

Table 9-2-5 The Status of SMEs in Taiwan's Strategic Service Industries in 2004

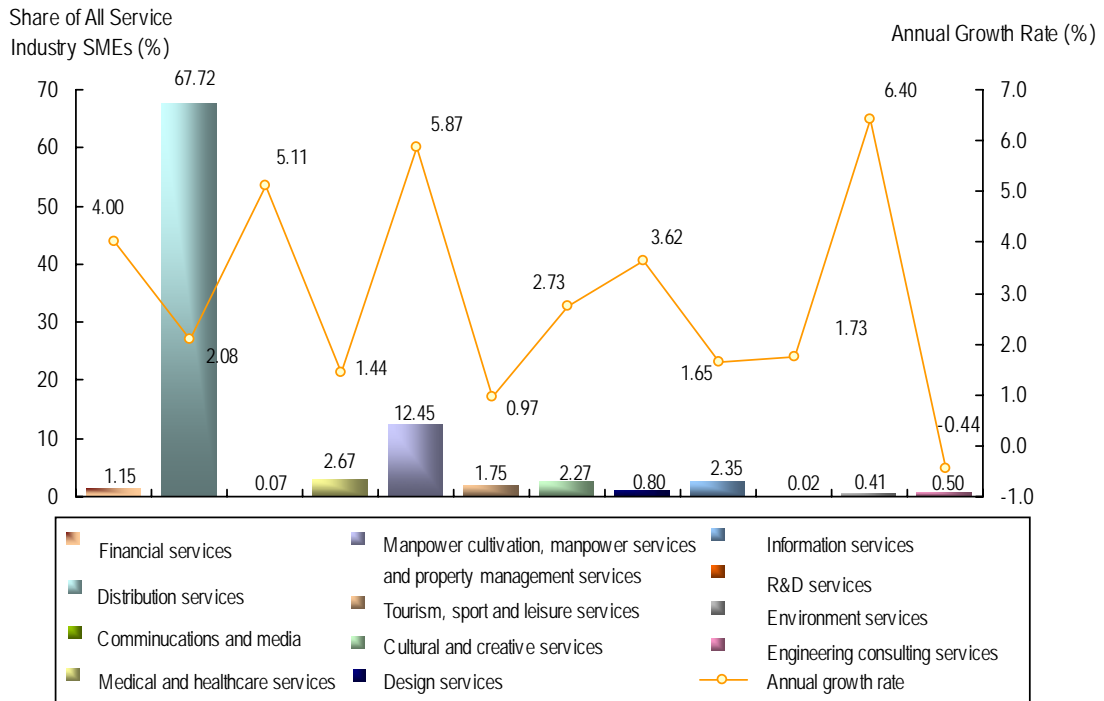
Units: enterprises; thousand persons; NT\$ million

Industry	No. of enterprises	No. of employees	No. of directly employed persons	Total sales value	Domestic sales	Export sales
Financial services	10,933	199	196	176,237	175,930	308
Distribution services	644,810	1,937	1,005	3,897,175	3,444,426	452,748
Communications and media services	679	18	17	5,789	5,537	252
Medical and healthcare services	25,442	141	102	87,297	84,838	2,459
Manpower cultivation, manpower services and property management services	118,503	238	187	514,194	433,919	80,274
Tourism, sports and leisure services	16,677	111	80	78,263	67,680	10,583
Cultural and creative services	21,599	106	83	90,106	84,919	5,187
Design services	7,617	60	40	41,457	39,592	1,865
Information services	22,419	52	45	177,187	156,111	21,077
R&D services	176	2	2	1,066	999	67
Environmental services	3,875	16	13	40,329	39,262	1,067
Engineering consulting services	4,768	24	19	30,398	30,084	315

Sources: 1. Ministry of Finance Tax Data Center, Business Income Tax Data for 2003–2004.

2. Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area*, original data, 2003–2004.

Figure 9-2-1 SMEs in the Strategic Service Industries – Share of All Service Industry SMEs, and Annual Rate of Increase



Source: Ministry of Finance Tax Data Center, Business Income Tax Data for 2003–2004.

(2) The Number of Enterprises in the 12 Strategic Service Industries

In terms of the rate of growth in the number of enterprises, while the engineering consulting services industry experienced negative annual growth of -0.44%, all other strategic service industries posted positive growth in 2004. Three industries – the environmental services industry, the manpower cultivation, manpower services and property management services industry – achieved positive growth rates of more than 5%.

(3) Employment in the 12 Strategic Service Industries

In 2004, two of the strategic service industries experienced a decline in the number of employed persons working in those industries; the negative growth rates were -0.79% in the case of the financial services industry, and -37.36% in the case of the R&D

services industry. All of the other strategic service industries achieved positive growth rates; in the environmental services industry and the communications and media service industry the annual growth rate exceeded 10%. The rate of growth in the number of paid employees tended to be lower than the rate of growth in the number of employed persons; this was true in the communications and media services industry, the manpower cultivation, manpower services and property management services industry, the tourism, sport and leisure services industry, the cultural and creative services industry, the design services industry and the information services industry. These industries thus saw an increase in the number of employers or self-employed persons.

(4) The Sales Performance of the 12 Strategic Service Industries

While the R&D services industry posted a 10.04% decline in total annual sales in 2004, the other 11 strategic service industries all achieved positive growth rates of at least 5%; in both the environmental services industry and the design services industry, the growth rate exceeded 10%. As all 12 strategic service industries are heavily oriented towards the Taiwanese domestic market, the growth rates for domestic sales were very similar to those for total sales. Besides the environmental services industry and the design services industry, the manpower cultivation, manpower services and property management services industry also achieved a growth rate of over 10% in domestic sales. The picture with export sales was more mixed. In the financial services industry, export sales rose by 42.70%; the next highest growth rates were found in the medical and healthcare services industry (20.54%) and in the environmental services industry (17.81%). The R&D services industry and engineering consulting services industries both experienced negative growth rates of more than 40%. Overall, the steady growth in domestic sales that characterized SMEs in the strategic service industries in 2004 was less apparent in the area of export sales.

III Challenges Facing the Taiwanese Service Sector

Service industries are, by their very nature, people-centered industries. On the one

hand, they provide services; at the same time, they also need services themselves. Government policy with respect to service industries must be adjusted in line with the overall business environment in Taiwan, the population and employment structure, the cultural background of Taiwanese society and developments in international markets. The government needs to undertake comprehensive planning covering all sectors to ensure that the policies that it adopts will make a meaningful contribution to economic development. The main challenges that Taiwan's service sector is facing today are outlined below:

1. SWOT Analysis With Respect to Service Sector Development in Taiwan

As part of its efforts to ensure the smooth development of the service sector in Taiwan, the Council for Economic Planning and Development incorporated Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis of the development prospects for Taiwanese service industries into its Guidelines and Action Plans for Service Industry Development. This analysis can facilitate the formulation of strategies that will help Taiwan's service industries to turn crises into opportunities (Table 9-3-1).

2. The Importance to Taiwan of Developing the Service Sector

In the Guidelines and Action Plans for Service Industry Development, the Council for Economic Planning and Development points out that the service sector is the new driver of growth for the Taiwanese economy as a whole, and that, in light of various issues (including the emergence of the knowledge economy, the high unemployment rate, the new business opportunities being created by outsourcing, the development of global business networks and the importance of improving the quality of life of Taiwan's citizens), Taiwan needs to focus on the development of knowledge-intensive, specialist and compound service industries (Table 9-3-2).

3. The Changing Population Structure

At a time when the government is seeking to promote the development of knowledge-intensive, specialist and compound service industries, Taiwan's population

Table 9-3-1 SWOT Analysis for Taiwan's Service Sector

Strengths	Weaknesses
<ol style="list-style-type: none"> 1. Taiwan has a strong IT and electronics industry, with comprehensive supply chains integrating up, mid and downstream production, and is well integrated into the global supply chain. 2. Taiwan occupies a central geographical location within East Asia. The average flying time between Taipei and other major cities in the region is just three hours; average journey time for marine shipping is only 53 hours. 3. Taiwanese companies have operations all over the world, creating a trans-national market for the Taiwanese service sector that can stimulate the growth of knowledge-intensive service industries. 4. Internationalization has enabled Taiwanese enterprises to accumulate significant experience of operation in China and in international markets, creating the potential for strategic alliances with transnational corporations. 5. Taiwan has many other advantages, including a high-quality workforce, abundant capital, a highly developed venture capital sector, strong entrepreneurial spirit, etc. 	<ol style="list-style-type: none"> 1. The government's attitude towards the service sector can be excessively restrictive, for example in the permit system imposed on certain service industries. Lack of coordination between government agencies has also been an obstacle to the development of the service sector. 2. Many service industries are concentrated in the larger cities. The zoning restrictions imposed by government authorities in these areas can make it difficult for service sector enterprises to develop new business areas or cause them to lose business opportunities. 3. In some cases, the definitions and classifications applied to service industries are insufficiently precise, particularly in the case of new industries that have emerged out of cross-industry collaboration between companies in existing industries. This makes it difficult to compile accurate data and establish useful databases. 4. The supply of human talent is insufficient to meet demand. Employee turnover in Taiwan's service sector is very high, both for managers and front-line employees; this tends to inhibit the transmission of experience from one employee to another. 5. Awareness of intellectual property rights is still too limited in Taiwan; neither the mechanisms needed for the appraisal of intellectual property rights or an appropriate regulatory framework are in place. 6. Other weaknesses include: insufficient emphasis on providing service to others; difficulty in securing financing in some industries; stunted development of certain industries due to lack of coordinated development.
Opportunities	Threats
<ol style="list-style-type: none"> 1. Taiwan's industrial structure is currently going through a period of transformation. Taiwan needs to focus on the development of the service sector and on introducing new mechanisms for innovation, so as to further the process of industrial upgrading and create jobs. 2. Taiwanese companies have been collaborating with leading foreign multinationals for many years. This should make it relatively easy to acquire the techniques and capabilities needed for successful development of knowledge-intensive service industries. 3. China is currently still in the process of developing its manufacturing sector, while Taiwan's industrial structure is being reoriented towards the service sector. Taiwan should take advantage of its lead over China in this respect and seek to extend it. 	<ol style="list-style-type: none"> 1. Among the "Four Little Dragons" of Asia, both Singapore and Hong Kong possess service sectors that have developed greater depth and breadth than Taiwan's. Start-ups in Singapore and Hong Kong also tend to display greater flexibility in management than those in Taiwan. 2. China's financial sector is developing rapidly, and the Chinese government is seeking to promote the development of other service industries (e.g., by relaxing the restrictions on foreign investment in the logistics sector and in chain store operation, and by introducing Hong Kong-style property management systems). This may have a negative impact on Taiwan's ability to attract foreign investment. 3. Formulation of standards in the service sector is dominated by the large international corporations. This situation, together with the frequency of mergers and strategic alliance formation among leading international IT and communications companies, will tend to limit the development potential of Taiwanese industry.

Source: Council for Economic Planning and Development, Executive Yuan, Guidelines and Action Plans for Service Industry Development, 2004.

Table 9-3-2 The Importance to Taiwan of Developing the Service Sector

Factor	Explanation
Responding to the emergence of the knowledge economy	<ol style="list-style-type: none"> 1. There is a global trend towards the development of the knowledge economy. Countries all over the world are working to stimulate the growth of knowledge-intensive service industries, encourage innovation and cultivate the necessary human talent. The emergence of the knowledge economy in Taiwan will lead to the development of industries with higher value-added and help boost the global competitiveness of Taiwanese industry. 2. Thinking in terms of the "smile curve," it is the two "ends" of the industry value chain – R&D and design at one end, and distribution and marketing at the other – that are the areas where the largest amount of value-added is created. To a large extent, these areas overlap with the service sector.
Reducing unemployment	<ol style="list-style-type: none"> 1. The transformation in Taiwan's industrial structure that has taken place in the last few years has created "structural unemployment." The service sector has the potential to create large numbers of new jobs to absorb the surplus labor thrown out by the manufacturing sector and reduce unemployment. To take just one example, there are already more than 560,000 people in Taiwan working in franchise operations. 2. To help solve Taiwan's unemployment problem, the government has taken vigorous steps to stimulate the development of the service sector. In October 2003, the government began implementation of the Care Service Welfare and Industry Plan, which was expected to create 20,000 new jobs by 2006. In May 2002, the government introduced the Plan to Double Tourist Arrivals; this was expected to create 110,000 new jobs by 2008. The property management industry involves the provision of maintenance and management services for office buildings, apartment buildings and residential communities, covering both the "hardware" of the buildings themselves and the "software" of the community living environment. This new, "compound" service industry already employed 240,000 people in 2003, a figure that was expected to rise by 100,000 by 2008.
Exploiting the potential of outsourcing	<p>As globalization progresses and the division of labor becomes finer, the need to strengthen competitiveness, cut costs and enhance service quality may force companies to outsource some activities that were previously undertaken in-house. This expansion of the industry value chain also stimulates the rapid growth of specialist and knowledge-intensive services.</p>
Encouraging Taiwanese and international corporations to locate global logistics activities in Taiwan	<ol style="list-style-type: none"> 1. If Taiwan is to keep pace with the trend towards liberalization in the global economy as a whole and the internationalization of business enterprise operations, economic activity in Taiwan – including money flow, materials flow, information flow, technology flow and the flow of human talent – will need to be more closely integrated with global economic networks; this will involve the development of specialist financial, investment, legal, accounting and management services. 2. More emphasis will need to be placed on the cultivation of specialist talent in the areas of financial, investment, legal, accounting and management services, so as to meet the needs of Taiwanese enterprises' global operations and of foreign companies' operations in Taiwan. 3. Not only will the development of the service sector help to encourage Taiwanese and international corporations to undertake a wide range of economic activity in Taiwan, it will also help Taiwan to avoid being marginalized and relegated to the fringes of the global economy.
Enhancing the quality of life of Taiwan's citizens	<p>The underlying objective of economic development is to improve the quality of life of the nation's citizens. This enhancement of quality of life can be achieved through the development of the medical and healthcare service industries, the tourist, sports and leisure services industries, the cultural and creative industries, the environmental services industries and the property management services industries.</p>

Source: Council for Economic Planning and Development, Executive Yuan, *Guidance and Action Plans for Service Industry Development*.

is aging, increasing the burden that the working population has to bear. There is an urgent need to develop new mechanisms for mutual assistance and collaboration, as well as new types of service industries that use simple, easily replicated production processes, are easy to manage and are not too physically demanding for employees.

(1) The Population Structure and the Employed Population

a. Smaller Families and an Aging Population

The aging of Taiwan's population is evidenced by the increase in the share of the total population accounted for by those aged 65 or over, and by the steadily falling birth rate. By 2003, the over-65s already accounted for 9.24% of Taiwan's population; the World Health Organization (WHO) defines an aging society as one in which at least 7% of the population are aged 65 or over. The trend towards smaller families is a global one, and Taiwan is no exception; in 2003, women in Taiwan aged between 15 and 49 had, on average, 1.2 children each, giving Taiwan the second lowest fertility rate in the world.

b. An Increased Burden for the Working Population

With the increases in the number of middle-aged unemployed, the number of students (of working age) and the number of members of disadvantaged groups, the burden on the working population has increased. During the period 2001–2004, the number of unemployed in the 40–59 age group increased by 13%, while the number of students in the 20–29 age group rose by 9%. At the same time, improved survival rates due to advances in medical technology have led to an increase in the number of mentally- and physically-handicapped persons, while the higher levels of stress that people are under today have caused the number of mentally ill people to rise; society has been forced to allocate more resources to cope with these increases.

(2) “Self-help” Service Industries

Although cutting-edge, specialist service industries are the main focus of attention worldwide, supporting “self-help” type service industries also offers significant latent business opportunities. There is increasing emphasis on getting elderly people to look after other elderly people, and on helping the mentally and physically handicapped to

earn a living for themselves. The range of industries encompassed by the service sector will become increasingly diverse, and the importance of the service sector to the economy as a whole will rise still further.

4. The Impact of the International Environment on the Service Sector

The transformation of the global economy has already begun to have an impact on the Taiwanese economy, and this impact has been felt most keenly in the service sector. Faced with the global trend towards the integration of trade and services in order to create higher levels of value-added, Taiwan's service industries must be ready to make adjustments, and must ensure that their products are distinctive enough to survive in the new international competitive environment.

(1) The Impact of International Trade Agreements

On November 29, 2004, the Association of Southeast Asian Nations (ASEAN) and China signed a historic trade pact in Vientiane, Laos. In the future, it is hoped to extend the scope of this free trade agreement to include Japan and South Korea, creating an "ASEAN + 3" free trade zone that would be the third largest free trade zone in the world after NAFTA and the European Union; the participant nations would have a combined GDP of US\$180 trillion. The signing of the free trade pact between the 10 ASEAN member nations and China represents the first step towards the establishment of a comprehensive free trade agreement – which would incorporate free trade in services – by 2010.

In the case of IT products, which account for the largest share of Taiwan's exports, Taiwan has already signed information technology agreements (ITAs) with more than 70% of the world's leading markets for IT products, giving Taiwan-made products tariff exemptions and other advantages in these markets. In the future, however, if the ASEAN-China free trade agreement is expanded to include Japan and South Korea, then, given the fact that Japan and South Korea are at roughly the same level as Taiwan in terms of technology, and that they export to more or less the same markets as Taiwan, Taiwanese manufacturers may find themselves being squeezed out by their rivals in Japan and South Korea.

(2) WTO Negotiations

Taiwan became a member of the WTO on January 1, 2002. The opening up of the service sector in Taiwan has proceeded much further than it has in most other WTO member nations. Faced with an international business environment in which other countries provide export subsidies to their own domestic corporations, establish restrictions on foreign ownership, impose onerous residency restrictions on the managers of foreign companies operating in their country, or make the qualifications that foreign specialists are required to possess excessively rigorous, in June 2004 Taiwan proposed a further opening up of the service sector to 34 WTO members with which Taiwan has particularly close trading relations. WTO negotiations on trade in services take as their foundation the initial request lists submitted by each WTO member. In accordance with WTO requirements, Taiwan submitted its initial request list in late March, calling for further opening of the computer, telecommunications, audiovisual and marine transportation services markets. In July 2004, the WTO called for members to submit revised request lists by May 2005; Taiwan had complied with this request before the end of May 2005, reflecting its commitment to active participation in the new round of WTO negotiations. In both APEC and the WTO, Taiwan has repeatedly appealed to other members to submit meaningful request lists – initial or revised – as soon as possible, so as to speed up the liberalization of global trade in services.

(3) The Impact on Taiwan of Service Sector Opening in China

As part of its efforts to stimulate the development of the regional economy, in June and October of 2003, China signed “Closer Economic Partnership Arrangement” (CEPA) agreements with Hong Kong and Macao. These agreements, which came into effect on January 1, 2004, cover the relaxation of regulations governing market entry, bringing forward the timetable for market opening and the dismantling of entry barriers, etc. As the service sector accounts for nearly 90% of Hong Kong’s industry, it is anticipated that the CEPA will have a major impact on Hong Kong. The CEPA will make Hong Kong based service sector enterprises much more competitive than international enterprises when it comes to developing the China market; Taiwanese companies operating in China will also find themselves at a disadvantage. Taiwan will thus need to focus on those industries where it possesses an advantage in key technology.

Taiwanese companies may also wish to consider acquiring Hong Kong enterprises so that they can take advantage of the CEPA to enter the China market more easily or collaborate with local Chinese companies; by leveraging these advantages, Taiwanese firms will significantly increase their chances of success in China.

(4) Recent Developments in the Service Sector in South Korea and Singapore

a. South Korea

In recent years, various aspects of Korean popular culture – including TV series, films and computer games – have attracted a great deal of interest in other parts of Asia. Recognizing the potential for growth in the “cultural industries,” the Korean government has been working to support the growth of the TV, film, entertainment, computer game and Internet-related industries. Considerable resources have been allocated to establish a solid foundation for the development of the cultural industries. It is estimated that the growing popularity of Korean culture overseas has added 39 trillion won (approximately NT\$1.3 trillion) to the annual production value of Korean industry, and that the cultural industries now account for around 6.57% of South Korea’s GDP. The success of Korean popular culture exports in overseas markets has stimulated export growth for other Korean products, such as pickles. At the same time, the exporting of Korean soap operas, music, etc. has helped to create a positive image of Koreans overseas – an image of Koreans as being hard-working and having close family relationships. However, it remains to be seen how long the “Korea boom” will continue; marketing strategy will be the key factor here.

b. Singapore

The Singaporean government attaches great importance to the labor market and to the cultivation of human talent. The service sector (which accounts for over 80% of jobs in Singapore) is a particular focus of attention. In an address given in February 2004, Singapore’s Premier Lee pointed out that, in their efforts to boost labor productivity per worker, multinational corporations were adopting a high value-added strategy, and this move away from labor-intensive production would mean that these transnational corporations would be employing fewer workers. Premier Lee said that, in response to this changing environment, the Singaporean government would be focusing on the

development of Singapore's existing service industries, including international trade, logistics, information technology, financial services and tourism, while working to stimulate the growth of new industries such as education-related industries, healthcare-related industries etc., so as to boost job creation.

IV The Prospects for Service Sector SME Development

1. Development Strategies for Service Sector SMEs

(1) Improvement and Deepening of Business Strategy

The fundamentals of business administration include not only persistence, hard work and attention to detail, but also constant effort to achieve improvements in terms of management philosophy, technology and quality upgrading, manpower quality and funding. The chief foundations on which competitiveness rests are brand development and the encouragement of creativity and innovation. Enterprises need to implement effective quality management systems, build up a reputation for trustworthiness, emphasize standardization and systematic operation (with respect to personnel, operations and material), and ensure that the company's products have a reputation for reliability. They need to focus on the transmission of skills, the cultivation of expertise and technology exchange, so that new vitality is constantly being injected into the technical side of the enterprise's operations. At the same time, the company must ensure that a reasonable rate of return on investment is being maintained.

(2) Collaboration on Marketing

For service sector SMEs, successful market development requires the following: The enterprise needs to focus on building up a strong brand and the related logos; it also needs to establish an effective corporate identification system that can strengthen the company's image. E-enablement of marketing and the establishment of a well-designed company website can be useful both for advertising and for securing on-line purchase orders, thereby giving the company much greater geographical reach. Frequent participation in community activities can strengthen the company's brand

and its intangible assets, while helping to boost visibility. Taking part in competitions and award activities can also strengthen name recognition, while also enhancing the company's reputation within the industry, or even internationally. Cross-industry alliances, where an enterprise collaborates with companies in other industries, can also play an important role in market development. Control over distribution channels facilitates access to the market; distributors and franchise operations can help smaller enterprises to grow by leveraging the brands and training that they provide, and enabling the enterprise to concentrate on serving the customer. By making effective use of these opportunities, smaller enterprises can keep the risk involved in business start-ups to a minimum.

2. How Government Policy Can Create an Environment Conducive to the Growth of Service Sector SMEs

(1) Relaxation and Adjustment of the Legal Framework

With respect to the 12 “Strategic Service Industries,” the Council for Economic Planning and Development (working in collaboration with other government agencies) has embarked on the formulation or revision of 34 items of legislation, including 13 relating to the financial services industry, 2 relating to the distribution sector, 9 relating to the communications and media sector, 5 relating to the manpower cultivation, manpower services and property management industries, 3 relating to the tourism, sports and leisure sector, and 1 each relating to the cultural and creative industries and the engineering consulting industry. It is anticipated that this work of relaxing and adjusting the legal framework will give Taiwan's service industries more room to develop.

(2) Promoting the Adoption of e-Enablement Tools and the Widespread Acquisition of Foreign Language Skills

According to the 2001 *Survey of the Manufacturing and Service Sectors in the Taiwan and Fukien Region*, 31.14% of service sector SMEs in Taiwan were using computers, and 2.97% were using e-commerce. The Small and Medium Enterprise Administration has been encouraging SMEs to implement e-enablement, to make use of e-learning, broadband access and information management applications and to leverage the

government's network building initiatives, with the aim of strengthening SMEs' overall IT capabilities. As regards the cultivation of foreign language capabilities, Taiwan's performance in the "Test of English as a Foreign Language" (TOEFL) examinations has recently been rather unsatisfactory. Although exam performance is not necessarily a good measure of English language capabilities, the government clearly needs to do more to encourage the regular use of foreign languages, so as to boost the competitiveness of Taiwanese industry.

(3) Educating Enterprises Regarding the Importance of CSR

According to the 2005 Survey of Corporate Social Responsibility conducted jointly by *Global Views Monthly* magazine and the Industrial Development and Investment Center, Ministry of Economic Affairs, 92% of stock market-listed companies in Taiwan were interested in acquiring a more in-depth understanding of CSR. 85% of enterprises felt that their greatest responsibility was to their shareholders and employees; there is thus a significant disparity between attitudes in Taiwan and attitudes in other countries. By implementing CSR, enterprises can turn pressure into competitiveness; it is clear that, regardless of industry or enterprise size, CSR is set to become a shared "standard" that all enterprises will need to conform to in the future.

(4) Encouraging the Development of "Mutual Assistance Enterprises"

In 2003, the government introduced the "Job Creation Through Expansion of Public Services" plan, with the aim of reducing the unemployment rate in Taiwan. The idea was to leverage large-scale public service provision to create large numbers of temporary jobs that would ease the problem of structural unemployment. In 2001, the Council of Labor Affairs began implementation of the "Diversified Employment Creation Plan," providing support for 4,284 individual job creation schemes and creating 53,000 new jobs. Members of disadvantaged groups were given priority in the allocation of these jobs, with particular emphasis on helping the middle-aged unemployed to develop new careers.

(5) Seeking to Gain a Clearer Picture of the Pace of Change in the Service Sector as a Whole

The service sector covers an enormous range of industries. Given the current emphasis

on “adding service to manufacturing and stepping up the commercialization of services” and “bringing industry into culture and culture into industry,” it has become increasingly difficult to agree on a precise definition of the term “service industry.” Several government ministries and agencies are involved in the supervision of service sector operations, making it difficult to achieve unified planning or effective integration of resources, and hindering vertical and horizontal communication. With the rapid increase in the number of different service industries and the fluid boundaries between them, the government needs to introduce more flexibility into the categories it employs for the production of statistics, so that these statistics can reflect the changes taking place in Taiwanese industry as rapidly and comprehensively as possible.

(6) Helping Taiwanese Industry to Overcome Barriers to Free Competition

In its participation in WTO negotiations regarding the opening up of the service sector, Taiwan needs to focus on what is actually achievable, identifying those areas where market opening would be both feasible and beneficial to Taiwan. With China leveraging the Closer Economic Partnership Agreement (CEPA) to open up the service sector, Taiwan needs to concentrate on the development of key technologies to strengthen those industries in which it has the potential to remain competitive and fight off the challenge from China. Given the possibility that an “ASEAN + 3” free trade zone may be formed, bringing together the ASEAN member nations, China, Japan and South Korea in a free trade bloc, Taiwan will need to work hard to avoid becoming marginalized. If Japan and South Korea come to enjoy preferential tariff treatment, then Taiwanese manufacturers may find themselves being squeezed out of overseas markets. This is an area to which close attention should be paid.

Part Three

Government SME Policies and Prospects



Chapter 10

SME Guidance Policy and Measures

With the worldwide development of the knowledge economy, innovation and speed have become the two cornerstones that support enterprise value creation and the achievement of perpetual operation. Under these challenging circumstances, besides restructuring, Taiwanese industry also needs to focus on the development of high value-added products and the upgrading of service quality. Faced with the impact of World Trade Organization (WTO) accession, the magnetic pull that China has been exercising on the world's manufacturing industry, and the potential impact of the ASEAN Free Trade Area (AFTA), only those small and medium enterprises (SMEs) that are prepared to be constantly learning, constantly upgrading and transforming themselves and constantly seeking innovation will be truly competitive in global terms.

To build Taiwan into an ideal location for SME startup and development, the main emphasis of the Small and Medium Enterprise Administration (SMEA) of the Ministry of Economic Affairs (MOEA) when formulating SME policy has been to strengthen the overall management guidance function, integrate financial and financing mechanisms, help SMEs to upgrade their IT capabilities, build up SME incubator platforms and create an overall environment conducive to the development of SMEs. The drawing up and revision of SME development strategy takes into account the changes in the economic situation both in Taiwan and in the global economy as a whole, and considers both SMEs' current and future needs. The government also seeks to devise appropriate ancillary measures that will help to boost SME competitiveness, help SMEs to collaborate with and provide mutual assistance to one another, and promote the steady development of Taiwanese industry as a whole.

The guidance policies and measures implemented by the government in 2004 to promote the development of SMEs are discussed in the following sections.

I Creating an Environment Conducive to SME Development

1. Analysis of the SME Business Environment

The promulgation of the SME Development Statute in 1991 marked the beginning of a new era in the government's provision of guidance to SMEs; from now on, SME guidance would be implemented on a systematic basis through carefully formulated plans. The analysis of SME-related activity in this section comprises two main elements: (1) Statistical surveys of SME economic activity, and analysis of the results. (2) Research and planning in the area of SME guidance policy and measures. Implementation results for 2004 are summarized in Table 10-1-1.

2. Implementation of SME Manpower Assistance Plans

On the bases of the discussion of the unemployment problems and related economic issues at a meeting chaired by President Chen Shui-bian on November 18, 2002, the Council for Economic Affairs formulated the concept of "creating jobs through the promotion of public services." Having studied the experience of governments in Europe, the US and South Korea, it was anticipated that the adoption of this strategy would lead to the creation of a large number of jobs in a relatively short time frame, and would serve as a model for other projects. On February 6, 2003, the President promulgated the *Provisional Statute for the Expansion of Employment through Public Services*; the *Measures Relating to SME Manpower Assistance* were subsequently drawn up in accordance with Paragraph 2 of Article 3 of this *Provisional Statute*.

On June 18, 2003, the SMEA began to implement a manpower assistance program in accordance with the above-mentioned *Provisional Statute* and *Measures*. The scope of assistance was expanded from middle-aged and older workers to include all workers aged 18 or over; the government allocated a budget of NT\$3 billion to encourage enterprises to recruit from among the unemployed and among young people who had yet to find their first job. As of the end of 2004, the number of employees recruited by enterprises under this project had reached 51,488, exceeding the target of 32,000 set by the Executive Yuan. Taking the employed population to be approximately 9.6

million people, the program had succeeded in reducing the unemployment rate in Taiwan by around 0.3 percentage points. Enterprises continued to employ 65% of the workers taken on under the project even after the government subsidies ended; the project was thus creating long-term, rather than short-term employment opportunities. Survey results showed that 79.8% of enterprises that applied for employment subsidies under the plan were satisfied with the way the project had been implemented.

Table 10-1-1 Research and Analysis Focusing on the Economic Activity of SMEs in 2004 – Work Items and Implementation Results

Work Item	Explanation	Results
Implementation of statistics surveys relating to SME economic activity, and analysis of the results	<p>1. SME trends survey In order to gain a clearer picture of the current state of SME operation and of the major trends affecting them, the government undertakes statistical surveys and analysis of the results. The <i>White Paper on Small and Medium Enterprises in Taiwan</i> contains 10 chapters focusing on SME finances, marketing, overseas investment, labor utilization etc. The <i>White Paper</i> is published in both English and Chinese versions, and comes with a CD containing supplementary information. All of the information contained in the <i>White Paper</i> is posted on government websites so as make it as widely available as possible.</p>	1,300 copies of the Chinese version published, 800 copies of the English version published, 300 CDs produced
	<p>2. Research on particular issues relating to SMEs The government undertakes research on specific issues relating to SMEs' economic activity in light of the changes taking place in the economic environment as a whole. The studies that have been undertaken include research on the impact of the Severe Acute Respiratory Syndrome (SARS) epidemic on Taiwan's SMEs, and on business start-up by female entrepreneurs in Taiwan. All of the results of this research is included in the <i>White Paper</i>, and is made available to government agencies for their reference when formulating policy.</p>	Three research reports
SME guidance policy measure research and planning	<p>1. Undertaking research on SME guidance policy measures The Small and Medium Enterprise Administration undertakes research on policy issues and issues of immediate importance on an ongoing basis, to serve as a basis for the formulation of SME guidance policy and for the reference of the Executive Yuan when reviewing SME policy. The areas covered by this research include: the planning of guidance strategy for special local industries and community SMEs; feasibility studies for the establishment of local government SME guidance organizations as foundations; multi-level SME guidance strategy planning; the impact of the new state pension system on SMEs; the positioning and promotion of incubator centers for SMEs; feasibility studies for the extension of alternative military service to include R&D work in SMEs; statistical analysis of the standards used to determine SME status; the impact of rising iron and steel prices on SMEs, and the response measures available; the impact of the tax incentives provided for by the section of the SME Development Statute covering start-up and the cultivation of innovation; comparative analysis of the legal framework for SME guidance in Japan; the impact of rising oil prices on SMEs, and the response strategies available.</p>	11 research reports
	<p>2. The holding of conferences to discuss SME guidance strategy and of seminars bringing together representatives of government, industry and universities In line with the needs of SME guidance strategy promotion, SME guidance strategy conferences and seminars bringing together representatives of government, industry and academia are held on a regular basis. The conclusions reached at these conferences and seminars are submitted to the government agencies responsible for SME guidance, to serve as a reference in policy formulation. Topics considered at conferences and seminars in 2004 included the planning of guidance strategy to promote the development of special local industries and community SMEs, and the development, positioning and promotion of SME incubator centers.</p>	Two conferences/ seminars

Source: Small and Medium Enterprise Administration, Ministry of Economic Affairs.

3. Adjusting the Legal Framework for SME Operation

The fairness or lack of fairness of the legal environment has a major impact on SMEs' ability to compete in the marketplace and on whether SMEs are able to survive and flourish. Besides consulting SMEs regarding the need for revision of the law or enactment of new laws, the government also commissions research institutes to study the legal framework under which SMEs operate, and invites academics and experts to attend conferences and public hearings to discuss the adjustments that may need to be made to existing legislation. All completed reports are submitted to the executive branch for its reference when revising existing laws or formulating new legislation. The main work items for 2004 were as follows: (1) Research into the revision of existing SME-related laws and regulations and into ensuring that SMEs' rights are protected. (2) Encouraging the development of legal affairs systems within SMEs and the provision of legal affairs consulting services.

II Building Up the SME Start-up Incubation Platform

1. Establishment of an SME Start-up Knowledge and Information Platform

Given the rapid development of information technology and of the knowledge economy worldwide, entrepreneurial activity today needs to combine innovation with information and knowledge, with a focus on the ongoing development of innovative products and on the transformation of existing industries into knowledge-intensive industries. With the diversification of consumer needs that has accompanied the diversification of society as a whole, new types of service industry have emerged, and there has been a steady increase in the number of Small Office / Home Office (SOHO) type businesses being set up. However, new products and new business areas are generally characterized by a high level of risk. SMEs in these fields are faced with a variety of challenges, including problems with financing, technical obstacles, limited availability of specialist talent, difficulty in securing access to market information, problems with business opportunity matching and with management coordination, etc.

To help overcome these problems, the government has established a comprehensive set of start-up incubation mechanisms, along with channels for supporting the development of specialist technology. There is thus a learning platform in place to assist entrepreneurs looking to establish a new enterprise, making it that much more likely that such entrepreneurial activity will be successful.

The seven main work items in this area in 2004 were as follows: (1) Provision of consulting services for business start-up. (2) Stepping up the publicization of start-up and innovation promotion. (3) Promoting the establishment of business start-up and innovation learning institutes. (4) Establishment of more “Start-up Dream Factories.” (5) The holding of the Third Annual TIC Awards for new businesses. (6) The holding of conferences to exchange experience in the field of business start-up. (7) The holding of training courses for entrepreneurial talent.

2. Strengthening the Functions of the SME Incubation System

Promoting the establishment of new enterprises is a key element in the government’s strategy to reinvigorate Taiwan’s economy, reduce unemployment and boost the competitiveness of Taiwanese industry. In line with its strategy of developing Taiwan into an ideal location for SME start-up, growth and development, in 2002 the government formulated the Asia Entrepreneurial Development Center (AEDC) plan, aiming to build up a comprehensive SME incubation platform that would integrate incubator centers, access to knowledge and information, and venture capital funding. Promotion of incubator center establishment began in 1996; within the space of eight years, a total of 1,883 enterprises had benefited from SME incubation services, of which 12 went on to secure stock market or OTC listing. As of the end of 2004, there were 82 incubator centers in Taiwan. Three of these were established directly by the SME Development Fund, and the Fund provided support for the establishment of 71 others, so as to strengthen Taiwan’s overall incubation capabilities.

3. Focusing on Human Resources Development and Training

With the changes that have been taking place in the international business environment, helping SMEs to keep their finger on the pulse of change in the knowledge economy and to implement lifelong learning have become key elements in the process of

boosting SMES' core competitiveness. The small size of SMEs, coupled with their high employee turnover rates, has made the issue of manpower quality that much more important. The government in Taiwan has been working to promote lifelong learning mechanisms, encouraging the adoption of diversified manpower cultivation planning, and encouraging the sharing of experience, so as to help SMEs to upgrade the quality of their employees and of their specialist expertise, thereby contributing to the formation of a consensus regarding industrial development and instilling new vitality into Taiwanese SMEs as a whole. The five main work items in this area in 2004 were as follows: (1) Promoting plans for training center establishment. (2) Organizing training courses for specialist talent. (3) Cultivation of management guidance experts. (4) The holding of conferences to forecast future development and propose response strategies. (5) Ongoing promotion of the lifelong learning system.

4. Active Participation in International SME Activities

The important role that SMEs have played in Taiwan's economic development is widely recognized all over the world. Participation in the activities of international organizations not only helps to increase the visibility of Taiwan's SMEs, it also gives Taiwan the opportunity to share with other countries its experience in SME development, to learn from the experience of others, and to develop new business opportunities and new opportunities for international collaboration, thereby furthering the achievement of perpetual development by Taiwan's SMEs. Taiwan has participated actively in the activities of APEC and in OECD-related activities; it also participates in the activities of non-governmental organizations such as the ICSB, ISBC and APO. In 2004, Taiwanese delegations attended international conferences in Amman and in Russia, and Taiwan hosted an APEC forum on incubator center development. The key work items undertaken in 2004, and the implementation results, are summarized in Table 10-2-1.

Table 10-2-1 Taiwan's Participation in International SME Activities in 2004

Work Item	Explanation
Participation in SME-related international conferences organized by APEC	<p>1. Participation in the APEC SME ministerial meeting</p> <p>The 11th APEC SME Ministerial Meeting was held in October 2004 in Santiago, Chile. Deputy Minister Shih Yen-shiang of the MOEA led the Taiwanese delegation. Vice Minister Shih gave the introductory address – "Policies and Measures for Promoting Development" on the section of "Innovation and Technology," to an enthusiastic response. The other participants supported the proposal that the 2005 APEC SME Work Team Meeting should be co-hosted by Taiwan and South Korea; there was also support for the holding of bilateral negotiations between Taiwan and Chile, South Korea, Peru and Vietnam.</p>

Table 10-2-1 Taiwan's Participation in International SME Activities in 2004 (continued)

Work Item	Explanation
Participation in SME-related international conferences organized by APEC	<p>2. Participation in APEC meetings relating to private-sector economic and trade collaboration Twenty Taiwanese SMEs formed an SME delegation to attend the APEC "Expo Alimenta 2004" agricultural and food exhibition in Chile. Together with representatives of Taiwan's Chinese International Economic Cooperation Association (CIECA), they took part in bilateral private sector economic and trade collaboration discussions with several countries, including Peru, Chile and Colombia. As a result of the Taiwanese SMEs' participation in the exhibition, Taiwanese firms secured business opportunities in Chile worth approximately US\$7.5 million.</p>
	<p>3. Participation in APEC work meetings Taiwanese delegations participated in the 18th and 19th APEC SME Work Team Meetings, an APEC conference on the entrepreneurial spirit, and the 3rd Micro-enterprise Work Team Meeting, etc.</p>
	<p>4. Participation in APEC SME conferences Taiwan sent delegations to attend the APEC IBIZ Coordination Committee Meeting held in Canada in March 2004, the APEC SME Interaction Conference held in Russia in June 2004, the APEC SME e-Enablement Policy Forum held in South Korea in July 2004, the APEC SME Network Promotion Forum held in Japan in October 2004, the APEC SME Policy Implementation Collaboration Meeting, etc. The papers read out at these meetings by the Taiwan delegations helped to publicize Taiwan's achievements in SME development.</p>
Attendance at OECD meetings and the meetings of various SME related organizations	<p>1. Attendance at OECD meetings The OECD is an organization in which Taiwan is actively seeking to secure participation. In June 2004, Deputy Minister Yen-shiang Shih of the Ministry of Economic Affairs led a Taiwanese delegation to attend the 23rd OECD SME Work Team Meeting, the 2nd OECD SME Ministerial Meeting and four related meetings (a conference on innovation and information and communications technology, a conference on SME statistics, a female entrepreneurship forum and a global business opportunity matching meeting), all held in Istanbul, Turkey, with the status of observers.</p>
	<p>2. Participation in ICSB, ISBC and APO meetings Taiwanese delegations attended the 49th Annual Meeting of the International Council for Small Business (ICSB), held in South Africa in June 2004, the 31st International Small Business Congress (ISBC), held in Poland in September 2004, and an Asia Productivity Organization (APO) conference on enterprise innovation held in Singapore in October 2004.</p>
	<p>3. Participation in international conferences Taiwanese delegations attended the Small and Medium Enterprise Conference held in Amman, Jordan in February 2004 and the 3rd Annual Saudi Arabia Science and Technology Conference held in Riyadh in November 2004 to read papers on Taiwan's experience in SME development, thereby contributing to the development of international collaboration.</p>
Hosting of international SME conferences and other exchange activities	<p>1. Hosting the 2nd APEC Incubator Forum Reflecting Taiwan's enthusiasm for participation in international SME activities and its desire to share its experience in incubator center operation with others, the 2nd APEC Incubator Forum was organized by Taiwan, with assistance from the US and South Korean incubator center associations. The Forum, which was held at the Westin Taipei over the period August 30 to September 2, 2004, was attended by 110 Taiwanese participants and 40 from 17 other APEC member economies, for a total of 150 participants. The theme of the Forum was the provision of assistance to start-ups with respect to marketing and international trade; the participants were full of praise for the organization of the event.</p>
	<p>2. Bilateral collaboration As part of Taiwan's efforts to promote international collaboration and the formation of international strategic alliances by Taiwan's SMEs, a number of collaborative agreements were reached through bilateral negotiations and discussions (in some cases at the ministerial level) between Taiwan and Malaysia, the Philippines, France, Panama, Israel, Mexico, Guatemala, Peru, Vietnam, Germany, Russia and the state of California, thereby helping to strengthen bilateral trading relations with these countries.</p>
	<p>3. Visits by foreign dignitaries Approximately 30 groups of foreign visitors were received at the offices of the SMEA, where they were given presentations on Taiwan's SME guidance policies and measures.</p>

Source: Small and Medium Enterprise Administration, Ministry of Economic Affairs.

III Upgrading SMEs' IT Capabilities

1. Strengthening SMEs' Information Management Capabilities

By improving their capabilities on internal information management and their online

marketing capabilities SMEs will be able to maintain their core competitiveness, improve their positioning and strengthen their operational performance. The government has been working actively to provide guidance to SMEs in the areas of e-enablement and Internet technology, encouraging them to make full use of the Internet to develop new distribution channels, and stepping up the provision of guidance to promote e-business and the enhancement of competitiveness, etc. The key work items for 2004 in this respect were as follows: (1) Promoting e-enablement among SMEs. (2) Encouraging SMEs to make use of the Internet for e-learning purposes. (3) Raising the broadband penetration rate among SMEs. (4) Encouraging the adoption of information management applications by SMEs. (5) Stepping up the development of enterprise services under the government's "e-Plans."

(1) Promoting e-Enablement among SMEs

The main objectives, and results achieved, in the promotion of e-enablement among SMEs in 2004 are summarized in Table 10-3-1.

Table 10-3-1 SME e-Enablement – Objectives and Results in 2004

Work Item	Explanation	Results
Provision of guidance for the establishment of industry-specific online databases and e-business systems	In July 1999, the government began to use the SME Information Management Guidance System to promote the establishment of e-business systems among SMEs. As of 2004, industry-specific online databases and e-business mechanisms (including online request for quote, quotation, price negotiation, technology news and market information provision, etc.) had been established for 58 industries, including the metal casting industry, shoe manufacturing, silk weaving, woven fabric production, cotton fabric dyeing and finishing, the food and pharmaceuticals production machinery manufacturing industry, etc.	10 projects implemented
E-Enablement Service Team activities	The SME e-Enablement Service Team and e-Enablement Deepening Service Team have been set up as a joint effort between government, industry and academia. Besides providing on-site diagnostics service and offering SMEs guidance with respect to e-enablement, the Teams also formulate e-enablement processes and model mechanisms for individual industries, provide assistance with e-enablement appraisal operations, and investigate the degree of improvement that enterprises experience after implementing e-enablement. The e-Enablement Service Team makes use of several different forms of guidance, including short-term diagnostic guidance, regular guidance for individual enterprises, and model enterprise guidance.	Seven service teams established, 700 enterprises assisted, e-Enablement Deepening Guidance provided to 40 enterprises
Expanding the cultivation of e-enablement talent	SME e-enablement talent cultivation has been integrated with e-learning and the provision of guidance by the e-Enablement Service Teams to create a hybrid mechanism for SME e-enablement talent training and SME e-enablement promotion, thereby helping SMEs to cultivate the human resources they require for successful e-enablement.	1,981 instances of cultivation
Making effective use of online marketplaces for market development purposes	The SMEA has provided assistance to several industries (including the hand tool industry, the satin fabric industry and the fastenings industry) in the setting up of online marketplaces, helping them to make use of the relevant mechanisms, and assisting with the collection of information regarding foreign buyers, domestic manufacturers, request for quote and quotations, so as to boost the competitiveness of Taiwan's SMEs in international markets. (1) Assisting with the collection of foreign buyer data. (2) Assisting with the production of lists of domestic manufacturers. (3) Assisting with the organization of request for quote and quotation information.	1,458 enterprises 687 enterprises 260 enterprises

Source: Small and Medium Enterprise Administration, Ministry of Economic Affairs.

(2) Strengthening SMEs' e-Learning Capabilities

The main work items and implementation results in the promotion of e-learning among SMEs in 2004 are summarized in Table 10-3-2.

Table 10-3-2 SME e-Learning Promotion – Objectives and Results in 2004

Work Item	Explanation	Results
Maintenance of e-learning platforms	Strengthening of system functions, development of a "Business Zone," establishment of new e-learning courses, and integration with online publicization efforts. Besides providing online course selection and e-learning implementation, provision has also been made for tailor-made service functions to meet the needs of individual enterprises.	151,273 visitors to the site
	(1) Establishment of an e-learning "Business Zone" for enterprises. (2) Implementation of two online marketing management courses, one online health and safety education course, and one online enterprise management class. A total of 51,335 individuals took online course in 2004, of which 28,905 completed their courses.	124 enterprises received assistance Four courses provided
Enhancement of e-learning content	(1) Integration of training course information between the SME e-Learning Institute and the Lifelong Learning Network.	3,481 items of information
	(2) Production of teaching materials based on e-adoption case studies.	Seven sets of materials
	(3) Production of case studies based on cases handled by the SME Troubleshooting Center.	Two sets of materials
	(4) Conversion of teaching materials for online use.	23 sets of materials
Selection of e-learning courses and materials	(1) Establishment of a selection committee to improve the selection of materials; holding of related presentations.	Two sessions with 35 attendees
	(2) Public selection of e-learning courses and materials.	66 sets of materials
Vocational skills planning and system development	Content planning for SME e-learning in the areas of information management, finance management and quality management, development of vocational learning guidance and establishment of learning guidance systems.	20 categories
SME e-learning publicization and promotion	(1) Promotion in the media.	Two instances
	(2) Holding of presentations, including presentations focusing on case studies of successful utilization of the SME e-Learning Institute and the SME e-Learning Institute Business Zone. A display of achievements in this area was included in the Taipei Information Month Exhibition.	Six presentations, with 217 visitors
	(3) Printing of direct marketing materials for distribution during publicization and promotion activities.	6,000 copies

Source: Small and Medium Enterprise Administration, Ministry of Economic Affairs.

(3) Raising the Broadband Penetration Rate among SMEs

The main work items and implementation results in the government's efforts to increase the broadband penetration rate among SMEs in 2004 are listed in Table 10-3-3.

(4) Promoting the Adoption of Information Management Applications by SMEs

The main work items and results achieved in the promotion of information management application adoption among SMEs in 2004 are summarized in Table

10-3-4.

Table 10-3-3 Raising the Broadband Penetration Rate among SMEs – Objectives and Results in 2004

Work Item	Explanation	Results
Helping SMEs to adopt broadband e-enablement infrastructure	Assisting SMEs with the adoption of broadband e-enablement infrastructure, market research and work planning; monitoring the rate at which SMEs are implementing e-enablement through the establishment of broadband Internet access, and adjusting the annual work plans in light of this information.	Provision of assistance to 2,001 enterprises
Establishment of model applications for SME clusters	Organization of service teams to provide consulting and network establishment services for broadband e-enablement infrastructure, and development of model applications for regional and industry-based SME clusters.	Two projects
Publicization of broadband e-enablement applications for SMEs	(1) Holding of presentations and of conferences to discuss case studies. (2) Holding of broadband e-enablement application presentations. (3) Integrating the operations of application service providers (ASPs) and Internet service vendors (ISVs) to collate and organize broadband application solutions and produce broadband e-enablement solution manuals for the reference of business enterprises.	10 conferences with 424 participants Three presentations with 108 participants 2,000 copies

Source: Small and Medium Enterprise Administration, Ministry of Economic Affairs.

Table 10-3-4 Promoting the Adoption of Information Management Applications among SMEs in 2004 – Objectives and Results

Work Item	Explanation	Results
Provision of SME e-enablement consulting and diagnostic guidance services	Implementation of short-term diagnostic guidance involving both industry consultants and IT consultants, to assist SMEs with the process of e-enablement, while at the same time collecting information on information management utilization among SMEs for future reference.	100 enterprises
Helping industry associations to leverage the Internet to develop overseas markets	Integration of companies' internal information systems, and leveraging of existing industry-specific online databases and e-commerce systems to provide online request for quote, quotation and price negotiation services, along with mechanisms for the provision of technology and business news, so that SMEs can exploit the potential of e-business in their market development efforts.	6 projects
Exploiting e-learning for manpower cultivation	Utilization of an e-learning environment (with multi-point connections) to promote new IT concepts, and implement manpower cultivation, online seminars etc. (50-hour course)	20 sessions, 2,190 trainees
Information management application guidance	Presentations of results achieved, exhibitions and other promotional activities. The 2004 Information Month activity included a display of SMEs' achievements in the field of e-enablement.	7 sessions, 65,000 visitors

Source: Small and Medium Enterprise Administration, Ministry of Economic Affairs.

(5) “e-Land” Project Promotion

The main “e-Land” project promotion items (with respect to enterprise management) and the results achieved are summarized in Table 10-3-5.

Table 10-3-5 Major Enterprise Management Related “e-Land” Project Work Items and Results Achieved in 2004

Work Item	Explanation	Results
Strengthening the provision of e-Land system platform functions to business enterprises	The government will continue to maintain the enterprise management service e-Land systems established in the previous year, and will expand the software and hardware equipment and network content to improve the functioning of these systems.	—
Development of application systems for enterprise management service e-Land networks	As part of the efforts to develop shared platforms – see http://esmenet.moeasmea.gov.tw (Chinese-language site) – the government is developing application systems for use with enterprise management service e-Land networks. These include e-Land portal site member and billing management systems, online analysis systems, online training systems, data mining systems, data warehousing management systems, value-added information analysis operations, content management systems, knowledge management application systems, database inquiry systems for information search systems, desktop systems for integrated customer services, customer relations and project management systems, etc. (1) Establishment of information service website alliances. (2) Publication of SME service magazines. (3) Publication of e-papers. (4) Production of value-added research reports.	4 alliances 11 issues 20 issues 20 reports
Business operation information service network call center	Establishment of an information service call center (0800-221-512) to provide information on SME operation in a timely manner by fax, telephone, over the Internet etc.	—
Collection, processing and adding of value to business data	(1) Collection of business data through surveys and interviews; this information is then collated, classified and put on file. The model used for adding value to the information includes the publication of SME service magazines and e-papers, the establishment of alliances with websites, and the promotion of enterprise management service e-Land network service operations. (2) Visitors to portal site.	29,000 items of data 233,500 hits
Promotional and publicization activities	(1) Holding of conferences and project presentations. (2) Collaborative promotional activities with information websites and the media. (3) Implementation of a user satisfaction survey by the e-Land portal site. 630 valid questionnaires were returned, with the overall satisfaction rate being 89%. The portal site received an average of around 700 hits per day.	10 conferences and presentations, attended by 500 individuals 44 collaborative activities One survey

Source: Small and Medium Enterprise Administration, Ministry of Economic Affairs.

2. Promoting Knowledge Management Guidance Service for SMEs

Focusing on “knowledge management and innovation,” the government is promoting the development of SMEs that can make effective use of knowledge to boost their competitiveness. The key work items, and the results achieved in 2004, are shown in Table 10-3-6.

Table 10-3-6 2004 SME Knowledge Management Plan Work Items and Implementation Results

Work Item	Explanation	Results
Establishment and maintenance of an SME knowledge management service website	(1) Selection and registration of application software. (2) No. of visitors to site.	22 items 11,000 hits
Diagnostic and guidance service for SMEs in the area of knowledge management utilization and adoption	(1) Diagnostic evaluation and analysis reports for SMEs. (2) Open selection of model SME knowledge management projects. (3) Preparation of digital teaching materials based on case studies of SME knowledge management applications. (4) Open selection of consultants. (5) Holding of consultant training activities. (6) Holding of 45-hour training programs for "seed consultants" in both North and South Taiwan.	300 cases 25 projects 10 sets of materials 120 consultants 3 activities 2 courses, with a total of 64 trainees
Study and analysis of knowledge management application technology	Three SME knowledge management research projects and one SME knowledge management demand and trends analysis project.	4 projects
Cultivation of knowledge management talent	(1) Holding of 90-hour training courses in Northern, Central and Southern Taiwan. (2) Production of digital teaching materials for introductory knowledge management training programs.	30 sessions, with a total of 1,152 trainees 4 sets of materials
Knowledge Management Promotion and Publicization Activities	(1) Holding of knowledge management policy presentations in Northern, Central and Southern Taiwan. (2) Holding of conferences and international forums on current trends in knowledge management. (3) Participation in the Information Month exhibition in Taipei, with the holding of a knowledge management achievements presentation. (4) Production of a knowledge management promotion video. (5) Printing of SME knowledge management application handbooks. (6) Preparation of practical guides to knowledge management implementation. (7) Printing of collected results of SME knowledge management implementation projects.	4 sessions, with 282 participants 1 conference, with 290 participants 1 exhibition, with 115 participants 1 video 1,000 copies 3 guides 200 copies

Source: Small and Medium Enterprise Administration, Ministry of Economic Affairs.

3. Provision of Guidance to Help SMEs to Strengthen Their Quality Management Capabilities

In order to speed up the process of industrial upgrading and transformation, and to strengthen the competitiveness of Taiwanese products, the government has been aggressively promoting the adoption of quality management concepts among SMEs. By providing assistance in the establishment of quality management systems and the cultivation of quality management talent, the government is helping SMEs to improve their operational performance, and to upgrade the quality of the products and services they provide. Key work items in 2004 included the promotion of ISO9000

certification, encouragement of innovation in the field of quality management, strengthening of quality management guidance service, implementing quality management training and undertaking consumer protection publicity campaigns, etc.

IV Strengthening SME Management

1. Improving the Quality of SME Management so as to Promote the Upgrading and Transformation of the SME Sector as a Whole

For many years, the vitality of Taiwan's SMEs and their constant striving for innovation was a major factor behind Taiwan's rapid economic development. Recently, however, following the changes that have taken place in both the domestic and international business environment, SMEs have been forced to pay more attention to strengthening the quality and to enhancing their specialist capabilities, so as to be able to keep pace with changes in market demand, develop new products, and increase the value-added of existing products. In 1992, the government established an SME Management Guidance System in the hope that, by putting in place the necessary guidance mechanisms, it could encourage SMEs to strengthen their own management capabilities and upgrade the overall quality of their operations. The six key work items for 2004 were as follows: (1) Strengthen the provision of management guidance to SMEs. (2) Help SMEs to develop their marketing capabilities. (3) Implement a turnkey factory exportation guidance program. (4) Help SMEs to strengthen their technical capabilities. (5) Utilize technology adoption teams to enhance SMEs' competitiveness. (6) Coordinate the integration of guidance system functions.

2. Stepping Up Promotional Activities Relating to SME Management

In its efforts to strengthen the provision of services to SMEs, besides working to enhance the functioning of the government service network, the government has also been working with SME organizations to organize activities that can be used to spread

awareness of new legislation and new guidance measures. At the same time, the government has been making active use of both electronic and print media to transmit information that will help SMEs to make more effective use of their existing resources. Various awards are held to honor the achievements of SMEs that have achieved particular success in innovation, R&D or enterprise upgrading, and to honor those individuals and groups that have made an outstanding contribution towards the provision of service to SMEs. These awards include the Little Giant Award, the National Award of Small and Medium Enterprises, the Small and Medium Enterprise Innovation Research Award, and the Outstanding Service Commendation Awards. By publicly honoring these enterprises, groups and individuals, the government hopes to draw attention to their efforts and to the results they have achieved.

3. Helping SMEs to Participate in Government Procurement

Government procurement (including expenditure on construction work, materials and labor) accounts for over 40% of the government's annual budget (with most of the rest going on personnel related expenses). However, SMEs' efforts to secure government procurement business opportunities often end in failure because of unfamiliarity with the relevant laws, regulations and procedures. To help SMEs to participate in government procurement, Articles 37 and 38 of the section of the SME Development Statute covering public purchasing and public construction were formulated to provide a basis for SME participation in these activities. In addition, the July 1997 revision of the Constitution included a clause intended to protect SMEs' rights in this area. Article 97 of the Government Procurement Law, which was promulgated in May 1999, clearly stipulates that the regulatory authorities may take appropriate measures to help SMEs to secure a specified share of government procurement business opportunities. The SMEA has been working actively to help overcome the various problems that have inhibited SME participation in government procurement in the past. The Administration's key work items for 2004 were as follows: (1) Provision of information regarding government procurement opportunities and provision of consulting services relating to the Government Procurement Law. (2) Holding of seminars regarding SME participation in government procurement activities. (3) Ongoing statistical analysis of the level of SME participation in government procurement in Taiwan.

4. Ensuring Effective Utilization of SME Service Resources at the Local Level

In order to expand both the depth and breadth of SME service work, beginning in 1992 the government (working through the Industrial Development and Investment Promotion Committees in each county and city) began to establish SME Service Centers in every county and city in Taiwan to serve as a “service window” and facilitate the integration of local resources. In 1996, Taiwan adopted a system that had previously been used in the US and Japan, appointing “honorary SME guidance personnel” who would provide assistance to SMEs on a voluntary basis to help them strengthen their competitiveness. The key work items for 2004 in this area were as follows: (1) Strengthening the functions of the local SME Service Centers. (2) Continuing with the promotion of the “honorary SME guidance personnel” system.

5. Expanding the Development of Traditional and Special Local Industries

In recent years, examples of the successful development of traditional and special local industries have been found in countries all over the world. Taiwan is no exception to this trend; regions that had been in decline due to the outflow of population to other parts of the country have seen traditional industries revive, and have seen the development of new industry clusters that make effective use of local resources. In order to foster the growth of local industries and help in the rebuilding of local communities, the government implemented two programs to provide guidance for the development of local industries and community enterprises, with implementation beginning in 1989 and 1994 respectively. In 2003 these programs were incorporated into the New Home Community Development Plan forming part of the government’s Challenge 2008 National Development Plan. Under this new Plan, the government has worked to build up the infrastructure and mechanisms needed to promote the formation of alliances among traditional and special local industries and among community industries. A variety of guidance measures are being used to help upgrade the capabilities of small enterprises, and to revitalize both local industries and local communities as a whole. It is estimated that, in 2004, the implementation of this Plan helped to boost the operating revenue of the industries concerned by NT\$150 million, and created 1,400 new jobs.

6. Promoting the Establishment of Networks for Mutual Assistance and Collaboration among SMEs

In the face of today's rapidly changing business environment, besides working to strengthen their own capabilities, SMEs also need to make effective use of strategic alliances, intra-industry collaboration and cross-industry exchange. By collaborating with one another, SMEs can build economies of scale; by sharing technical, production, sales and IT resources, they can compensate for those areas in which, individually, they are weak, working together to boost competitiveness. Recognizing that the establishment of mutual assistance networks among enterprises is no easy task, the government has sought to play the role of enabler, or a bridge between enterprises. The four main work items in this area in 2004 were: (1) The provision of guidance for collaboration and exchange associations. (2) Guidance for individual collaborative projects. (3) Guidance for industry cluster formation. (4) Promotion and publicization of mutual assistance and collaboration efforts.

V Integration of SME Financing Mechanisms

1. Provision of Consulting and Guidance Services for Financing

To help overcome the various problems relating to SME investment, upgrading, transformation and guidance, such as availability of land for factory construction, access to market and technical information, the tax burden (including import duty) etc., in May 1996 the SMEA established the SME Troubleshooting Center to handle queries, appeals and requests for assistance from SMEs. During the past nine years, the Center has provided service to more than 20,000 SMEs. Over 80% of the problems for which the Center provided assistance were related to financial matters; more than 500 SMEs that would otherwise have been forced to close down were able to remain in business, thereby protecting the jobs of almost 30,000 workers. With the changes in the structure of the Taiwanese economy, unemployment has become a serious issue. The SMEA has begun providing business start-up guidance service for the unemployed to help the middle-aged unemployed set up their own businesses. The two key work items in 2004 were: (1) Improving the service provided by the SME Troubleshooting Center; (2) Provision of guidance and consulting services with

respect to micro-enterprise start-up by the middle-aged unemployed.

2. Helping SMEs to Strengthen Their Accounting Systems and Improve Their Financial Management Capabilities

To help SME owners and their accounting or bookkeeping personnel to establish appropriate accounting systems, in 2003 the government began planning work for the “SME Finance College – Manpower Cultivation Plan for the Establishment of Sound Accounting Systems.” This Plan provides for a series of training and publicization activities, together with the strengthening of financial consulting services, so as to make it easier for SMEs to obtain funding.

The plan focuses mainly on SMEs in the manufacturing sector with paid-in capital of at least NT\$30 million, or with at least 50 full-time employees, and those in the service sector that posted annual operating revenue of at least NT\$30 million in the previous year, or that have at least 20 full-time employees, giving priority to the training of accounting managers or chief accountants.

In 2004 implementation of “sound corporate accounting system, financial manager and financial management consultant training” programs began in Northern, Central and Southern Taiwan, with a total of 919 individuals receiving training. The training course content included: methods whereby SMEs can establish a sound accounting system in response to the changes in the business environment, the Commercial Accounting Law and Commercial Accounting Principles (including the principles governing cross-investment accounting), the types of internal auditing and internal control systems that SMEs should seek to establish, cost management and target cost accounting systems, financial accounting and financial report preparation, accounting practice, the legal framework, etc.

3. Helping SMEs to Secure Financing

(1) Helping SMEs to Obtain Financing through the SME Financing Guidance System

Prior to the establishment of the SME Financing Guidance System, the SME Joint Guidance Center was responsible for providing general guidance and financing

assistance. Financing assistance targeted those SMEs in strategically important industries and industries with significant development potential that had sought financing from banks and been refused; the Center also provided management and financing diagnostic services. The SME Financing Guidance System was set up in July 1992 to coordinate the activities of the relevant guidance providers and encourage their participation in SME financing guidance. In recent years, the System has handled an average of nearly 300 SME financing diagnostics cases a year. The provision of financing was recommended in around one third of these cases, with the average total amount of recommended financing exceeding NT\$1 billion per year.

(2) Project Financing Loans

SME Project Financing Loans use various government funds to achieve specific objectives or guide the direction taken by industrial development; they may be employed independently or in collaboration with bank loans. The number of project financing loans awarded as of the end of 2004, along with the number of enterprises receiving loans and the total amount of loans, are shown in Table 10-5-1.

Table 10-5-1 SME Project Loan Financing Cases and Loan Amounts as of the End of 2004

Loan type	Cumulative cases of approved loans (cases)	Cumulative amount of approved loans (NT\$ million)
SME Upgrading Loans	27,712	177,121
Loans for the Purchase of Automation Equipment	6,575	350,973
September 21, 1999 Earthquake Reconstruction Loans	1,933	16,069
Loans for the Revitalization of Traditional Industries	3,071	29,548
SME Development Fund Project Loans	3,302	46,845
SME Root Establishment Project Loans	10,607	142,641
SME Mini-Loans	118,262	118,053
Young Entrepreneur Loans	17,806	22,075
Traditional Industry Project Loans	198,801	1,609,906
Micro-enterprise Start-up Loans	4,631	3,837

Source: Small and Medium Enterprise Administration, Ministry of Economic Affairs.

(3) Helping SMEs to Secure Financing through the Provision of Credit Guarantees by the SME Credit Guarantee Fund

SMEs are the foundation on which the Taiwanese economy rests. However, SMEs often find it difficult to secure financing from financial institutions, it is because of

their small size, concerns about repayment ability, lack of collateral, or their unsound accounting systems. To help overcome this problem, in 1974 the government established the SME Credit Guarantee Fund to implement government policy with respect to SMEs, help SMEs to overcome the problems they were experiencing due to lack of collateral when trying to secure financing, increase financial institutions' willingness to lend to SMEs, and help other guidance providers to improve the effectiveness of their SME guidance.

In January 2004, the Executive Yuan formulated a development plan for the SME Credit Guarantee Fund. This plan encompassed five main development and transformation strategies – expansion of the direct credit guarantee mechanism, promotion of new appraisal systems, development of innovative new credit guarantee services, putting the SME Credit Guarantee Fund on a sound financial footing, and enhancing the efficiency of service provision. It was anticipated that the implementation of these strategies would help to improve SMEs' ability to secure financing, open up new financing channels, facilitate the implementation of the government's industrial policy, bring about better coordination of guidance resources, leverage the power of centralized credit databases, and help to improve risk management techniques. As part of the transformation program, besides working to develop new revenue sources and cut back on unnecessary expenditure, the SME Credit Guarantee Fund will also be setting up a new risk management department, and introducing new performance appraisal systems, so as to gradually reduce the loss that the Fund makes and improve the performance of its staff, so that it can continue to function as an important source of support for Taiwan's SMEs.

a. The Functions of the SME Credit Guarantee Fund

SME credit guarantee mechanisms can now be found all over the world; they are particularly high developed in Asia. The chief functions of such mechanisms are summarized in Table 10-5-2.

b. Developing New Types of Credit Guarantee Service at the Government's Request

Besides providing regular credit guarantee service for SMEs, the SME Credit Guarantee Fund has expanded the scope of its operations at the government's request

to include various new types of credit guarantee service. These new services are listed in Table 10-5-3.

Table 10-5-2 The Functions of Taiwan's SME Credit Guarantee Fund

Function	Explanation
Bridge function	The main function of the SME Credit Guarantee Fund is to serve as a financing bridge between banks and SMEs. By providing credit guarantees for those SMEs that are unable to provide sufficient collateral of their own, the Fund helps these SMEs to secure financing. From its establishment in July 1974 until the end of December 2004, the Fund provided a total of 2,598,154 credit guarantees, amounting to NT\$3,001.5 billion. These guarantees helped SMEs to secure financing worth NT\$4,287.6 billion; they have thus made a significant contribution to the growth of Taiwan's SMEs and to the development of the Taiwanese economy as a whole.
Acquiring new collaborative partners	Taiwan's SME Credit Guarantee Fund has signed agreements for the provision of credit guarantee services with 45 Taiwanese financial institutions. In December 2004, the Hualien Second Credit Cooperative Association signed an agreement to join the credit guarantee mechanism, becoming the first credit cooperative in Taiwan to provide SME financing through this mechanism. Subsequently, the Tainan Third Credit Cooperative Association joined the SME credit guarantee mechanism too, on February 23, 2005. SMEs can now take advantage of the credit guarantee system to obtain financing at more than 4,000 financial institution branches throughout Taiwan. At the same time, collaboration with financial institutions enables the SME Credit Guarantee Fund to extend its reach throughout the country while at the same time maintaining a lean, vigorous organizational structure. As of the end of 2004, the amount of outstanding credit guarantees provided by the Fund exceeded NT\$1 billion in every county and city in Taiwan except Taitung County, Penghu County and Kinmen County, reflecting the high level of penetration that the credit guarantee system has achieved.
Staged assistance function	Most enterprises find that, after using the credit guarantee mechanism for several years, as the enterprise's financial health improves and it begins to establish a more impressive credit record, it is able to secure financing directly from banks, or from the capital markets, without the need for credit guarantees. The SME Credit Guarantee Fund thus provides credit guarantees to SMEs when the level of risk is highest. Once an SME grows strong enough to secure financing directly from the banks without needing a credit guarantee, the Fund's task is over with respect to that SME.
Credit guarantees are provided mainly to small enterprises	According to the SME Credit Guarantee Fund's statistics, as of the end 2004, 69.46% of outstanding credit guarantees granted to SMEs were for NT\$2 million or less, 88.56% were for NT\$5 million or less, and 95.65% were for NT\$10 million or less. 96.56% of the enterprises that had been granted credit guarantees had capitalization of NT\$30 million or less. It can thus be seen that small enterprises continue to constitute the main recipients of SME Credit Guarantee Fund credit guarantees.

Source: Small and Medium Enterprise Administration, Ministry of Economic Affairs.

c. Provision of Credit Guarantees by the SME Credit Guarantee Fund – Achievements

In 2004, the SME Credit Guarantee Fund provided 265,139 credit guarantees with a combined value of NT\$315,658 million, helping 126,457 enterprises to secure financing worth NT\$517,037 million from financial institutions. 256,767 of the credit guarantees were not supported by special government funds; these guarantees had a combined value of NT\$300,278 million, and helped SMEs to secure financing worth NT\$494,524 million from financial institutions. As of the end of 2004, the total amount of outstanding credit guarantees was NT\$292,650 million, representing an

increase of NT\$94,396 million (or 47.61%) on the end of 2003. The amount of loans outstanding stood at NT\$464,703 million, representing an increase of NT\$140,358 million (or 43.27%) on the end of 2003. The number and value of the various types of credit guarantees as of the end of 2004 are shown in Table 10-5-4.

Table 10-5-3 Types of Credit Guarantee in Taiwan

Credit Guarantee Item	Explanation
Credit guarantees for Young Entrepreneur Loans	In October 1986, the SME Credit Guarantee Fund began to provide credit guarantees for Young Entrepreneur Loans, with the aims of helping young people to set up their own businesses, creating new jobs, and contributing to national economic construction.
Credit guarantees for Brand Development Loans	In October 1990, the SME Credit Guarantee Fund began to provide credit guarantees for Brand Development Loans, with the aim of helping Taiwanese enterprises to establish and promote their own brands for the development of international markets; the scope of implementation of these credit guarantees included not only SMEs but also large enterprises.
Credit guarantees for Traditional Industry Loans	In line with the government's policy of encouraging the upgrading and transformation of traditional industries, in October 2000 the SME Credit Guarantee Fund began to provide credit guarantees for Traditional Industry Loans. The reaction to this new service was extremely positive, and the outstanding credit guarantee balance has risen to NT\$1.7 trillion. Financing categories include short and medium-term working capital loans and also capital expenditure financing.
Credit guarantees for Earthquake Reconstruction Loans	In addition to providing credit guarantees for Earthquake Reconstruction Loans following the September 21, 1999 earthquake (and the October 22 earthquake that followed), beginning in June 2001 this was expanded to include provision of credit guarantees for Loans for Enterprises Affected by Earthquakes, with the aim of helping both enterprises that had been directly affected by the earthquakes and those that had been indirectly affected to rebuild their productivity and competitiveness. Provision of credit guarantees under this program was not limited to SMEs; the Ministry of Economic Affairs allocated NT\$2 billion to cover the credit guarantee risk.
Credit guarantees for Micro-enterprise Start-up Loans	In order to help the middle-aged unemployed to start new businesses (thereby creating new jobs), in January 2003 the SME Credit Guarantee Fund began to provide credit guarantees for Micro-enterprise Start-up Loans.
Credit guarantees for R&D Loans for Industrial Upgrading	In line with the government's policy of helping business enterprises to secure financing for R&D activity, in January 2003 the SME Credit Guarantee Fund began to provide credit guarantees for R&D Loans for Industrial Upgrading
First-stage Direct Credit Guarantees	In line with the government's efforts to strengthen the provision of financing to SMEs, a new initiative was introduced whereby those SMEs that display strong capabilities in the areas of R&D, operational management or marketing can apply directly to the SME Credit Guarantee Fund for credit guarantees, and then use these credit guarantees to secure financing from financial institutions.
Credit guarantees for Knowledge Economy Enterprise Financing	With the dawning of the era of the knowledge economy, the SME Credit Guarantee Fund has begun to provide credit guarantees for Knowledge Economy Enterprise Financing loans to help enterprises with strong capabilities in the areas of innovation, R&D, new product development or new technology development to secure financing.
Batch-type Credit Guarantees	In order to meet the development needs of Taiwanese industry and help SMEs to secure the low- interest loans that they need, batch-type credit guarantee provision based on overall risk has been introduced.

Source: Small and Medium Enterprise Administration, Ministry of Economic Affairs.

There is good evidence to show that the availability of credit guarantees helps SMEs to grow stronger. Of the 138 SMEs that have won the National Award of Small and Medium Enterprises over the years, 108 had previously been recipients of credit guarantees from the SME Credit Guarantee Fund; the same was true of 92 of the 125

winners of the Little Giant Award and 251 out of the 435 winners of the Small and Medium Enterprise Innovation Research Award. Furthermore, more than 2,000 of the SMEs that have been granted credit guarantees in the past have since grown sufficiently large to be classed as “large enterprises” rather than SMEs; 663 have secured stock market or OTC listing.

Table 10-5-4 Cases and Value of Individual Types of Credit Guarantee as of the End of 2004

Type of Credit Guarantee	Cases of Guarantees Provided	Value of Guarantees Provided (NT\$ million)
Credit guarantees for Young Entrepreneur Loans	7,570	4,959
Credit guarantees for Brand Development Loans	91	2,046
Credit guarantees for Traditional Industry Loans	31,469 (19,470)	114,328 (57,623)
Credit guarantees for Earthquake Reconstruction Loans	313	1,895
Credit guarantees for Micro-enterprise Start-up Loans	4,412	3,641
Credit guarantees for R&D Loans for Industrial Upgrading	106	1,543
First-stage Direct Credit Guarantees	13	59
Credit guarantees for Knowledge Economy Enterprise Financing	8	140
Batch-type Credit Guarantees	–	43,000

Note: Figures in parentheses are the data for SMEs in the case of loans available to both SMEs and large enterprises.
Source: Small and Medium Enterprise Administration, Ministry of Economic Affairs.

4. Helping Newly Established SMEs to Secure Working Capital

At the 30th Meeting of the SME Development Fund Management Committee it was decided that, in order to channel investment towards newly established SMEs with strong growth potential, thereby contributing to the upgrading of Taiwanese industry, funds would be allocated from the SME Development Fund to set up “SME Incubation Investment Trust Accounts.” Having secured the approval of the Executive Yuan, a group of trust banks and asset management companies were selected (through an open, transparent process) to manage these accounts. At the same time, platforms such as the Taiwan Innovation Competition and innovation fairs would be used to establish “seed capital” investment benchmarks, thereby helping to stimulate exchange in the area of enterprise start-up and to encourage venture capital firms (both in Taiwan and overseas) to invest in new start-ups.

In October 2003, “SME Incubation Investment Trust Accounts” began to be

established for newly established SMEs that had been in existence for less than five years, SMEs that were being cultivated by incubator centers and SMEs that had been implementing a process of transformation or upgrading – with new products, new technology, new production equipment or a new brand – for a period of less than five years. It was anticipated that NT\$2 billion would be allocated to this program over a period of four years. As of the end of 2004, 28 SMEs with strong development potential had already received investment through this program; with the addition of investment from private venture capital firms, these 28 SMEs had received cumulative investment in excess of NT\$1,220 million.

VI The Resources Allocated by the Government to SME Development

Paragraph 3 of Article 4 of the *SME Development Statute* stipulates that the *White Paper on SMEs in Taiwan* should list all government resources allocated for SME development. Since 2001, the *White Paper* has contained a section describing these resources. However, the paragraph in question does not clearly define the scope of “resources allocated for SME development.” For the purposes of this section, “resources allocated for SME development” include all resources allocated for this purpose by central government agencies. These resources fall into three categories: government purchasing of goods, construction work or services from SMEs; the resources allocated by the government for SME guidance; resources allocated by the government for project financing loans to SMEs. The data presented in this section is based on the actual amounts spent. **In total, government resources allocated for SME development in 2004 came to NT\$742,425 million.** The items that made up this total are outlined below.

1. Government Purchasing from SMEs – NT\$712,458 million

Tender award statistics from the Government Procurement Information System show that, in 2004, total government purchasing from SMEs (regardless of whether the SMEs were being used as contractors or subcontractors) came to NT\$712,458 million), as compared to approximately NT\$653,000 million in 2003. The share of total

government procurement going to SMEs (whether as contractors or subcontractors) rose from 60.92% in 2003 to 75.74%. As the Government Procurement Information System covers all levels of government, this procurement data includes both central government and local government purchasing.

2. Government Spending on the Provision of Guidance to SMEs – NT\$15,284 million

The agencies involved in the Ten Major Guidance Systems established by the MOEA to provide guidance to SMEs include the SMEA itself, the Industrial Development Bureau, the Bureau of Foreign Trade, the Commerce Department, the Department of Industrial Technology, the Industrial Development and Investment Center, etc. Table 10-6-1 shows the settled account of expenditures for each of these agencies in 2004. The grand total comes to NT\$26,774 million, of which NT\$14,996 million (56.01% of the total) was applied to SME guidance. The Department of Industrial Technology made the single largest contribution to SME guidance, at NT\$10.2 billion, followed by the Industrial Development Bureau with NT\$1.6 billion and the Bureau of Foreign Trade with NT\$1.5 billion. The entire expenditure of the SMEA – NT\$1.2 billion – was allocated to SME guidance.

Table 10-6-1 Resources Allocated to SME Guidance by the MOEA

Agency	Annual Amount	Units: NT\$ thousand; %	
		Settled Account of Expenditures – 2004	Total Expenditure on SMEs
Small and Medium Enterprise Administration (including the SME Development Fund)		1,156,869	1,156,869 (100.00)
Industrial Development Bureau (industrial technology guidance and the Industrial District Development Fund)		3,834,871	1,595,270 (41.5)
Bureau of Foreign Trade (overseas marketing guidance and Trade Promotion Fund)		2,420,412	1,541,375 (64.00)
Commerce Department (promoting the modernization of commercial operations and the development of relevant technology)		1,123,756	441,979 (39.33)
Department of Industrial Technology		18,097,561	10,198,295 (56.35)
Industrial Development and Investment Center (overseas investment guidance and overseas hi-tech talent recruitment)		140,546	62,275 (44.31)
Total		26,774,015	14,996,063 (56.01)

Note: Figures in parentheses are the percentage of the total settled account of expenditures for the agency in question.
Source: The respective agencies.

Although implementation of the Plan for Raising the Competitiveness of the Distribution Sector and the Plan for Promoting the Development of Commerce-related Technology caused the Commerce Department's expenditure on SME guidance to rise to NT\$5.6 million, while increased spending on the recruitment of overseas hi-tech talent by the Industrial Development and Investment Center caused SMEs' share of total procurement to rise, for most agencies the amount spent on SME guidance fell in 2004. In particular, the SMEA's settled account of expenditures fell by NT\$3.2 billion compared to 2003, mainly because 2003 had seen the spending of more than NT\$3 billion on the SME Manpower Assistance Plan.

Besides the expenditure outlined above, the Council of Labor Affairs also spend approximately NT\$288 million on SME manpower cultivation. Total government spending on SME cultivation was therefore approximately NT\$15,284 million.

3. SME Project Financing Loans – Approximately NT\$14,683 million

The types of project financing that mainly target SMEs include: SME Upgrading Loans, National Youth Commission Young Entrepreneur Loans, SME Development Fund Project Loans, Agricultural Development Fund Agricultural Machinery Loans, SME Root Establishment Project Loans, Loans for Indigenous People, and Micro-Enterprise Start-up Loans. Although those types of loans targeting farmers, fisherman and members of indigenous communities are available to large enterprises as well as SMEs, in practice the enterprises that receive these loans are almost all SMEs, so these loan types have been included in the calculations. Total government spending on SME project financing loans in 2004 was approximately NT\$9,813 million (Table 10-6-2).

SMEs can also obtain financing through the SME Credit Guarantee Fund. The amount that the Fund was required to pay to cover delinquent loans in 2004 totaled NT\$4.87 billion; adding this figure to government spending on SME project financing loans, the total amount spent by the government on loans to SMEs in 2004 was approximately NT\$14,683 million.

Table 10-6-2 Government Spending on SME Project Financing Loans in 2004

Unit: NT\$ million

Loan Type	Targets	Method	Amount	
			Total Loan Amount	Government Expenditure
SME Upgrading Loans	SMEs	The Executive Yuan Development Fund provides one quarter of the funds for each loan, with the remaining three quarters being provided by banks.	10,263	2,566
National Youth Commission Young Entrepreneur Loans	Young entrepreneurs	The Sino-American Fund for Economic and Social Development provides half of the funds for each loan, with the other half being provided by banks.	1,301	650
SME Development Fund Project Loans	SMEs	The SME Development Fund provides all funding.	369	369
Agricultural Development Fund Agricultural Machinery Loans	Farmers and fishermen actually involved in agricultural or fisheries production, along with farmers' or fishermen's organizations involved in agricultural or fisheries production contracting work.		1,190	102
SME Root Establishment Project Loans	SMEs	The Council for Economic Planning and Development provides funding support from medium and long-term funds.	5,858	5,858
Loans for Indigenous Peoples	Member of indigenous communities		148	148
Micro-enterprise Start-up Loans	Enterprises established by the middle-aged or elderly unemployed (aged 45–65) that have been in existence for less than one year.		1,806	120
Total			20,935	9,813

Source: The respective agencies.

Chapter 11

An Appraisal of the Government's SME Policy and the Prospects for the Future

The government's SME policy has for many years focused on helping SMEs to achieve development, and particularly on helping them to strengthen their operations. Faced with the emergence of the knowledge economy and the changes taking place in Taiwan's industrial structure, SMEs now have to operate in an increasingly difficult environment. The areas on which the government needs to focus in its provision of assistance to SMEs in this new era are strengthening the fundamentals of organizational structure and raising competitiveness. Chapter 10 described the results achieved in the implementation of the government's SME policy in 2003; this chapter will attempt a comprehensive appraisal of SME policy in Taiwan in light of the changes in the overall business environment, and will attempt to forecast the changes that can be anticipated in SME policy in the future.

I An Appraisal of the Government's SME Policy

1. Building an Environment Conducive to SME Development

(1) Formulation of Development Strategy

The Small and Medium Enterprise Administration (SMEA) of the Ministry of Economic Affairs (MOEA) is the government agency responsible for the provision of guidance to SMEs in Taiwan. Through the implementation of various strategies aimed at building up an environment favorable to SME development, strengthening the technological and IT capabilities of Taiwan's SMEs, improving the provision of

management guidance, achieving more effective integration of the various financing mechanisms available to SMEs, and setting up start-up incubator platforms, etc., the Administration seeks to make its vision of establishing “an environment in which SMEs can grow and thrive” a reality. Given the rapid pace of change in the business environment, policy planning needs to focus on four key areas: transformation, innovation, incubation and clustering. Policy implementation must be systematic, starting from environmental analysis and moving through the stages of policy measure planning, execution and performance appraisal. In this way, it should be possible to create an environment in which Taiwan’s SMEs have more room for growth and more opportunity to innovate, while providing the guidance necessary to support the development of properly-functioning value chains in emerging industries.

(2) Providing Assistance for SMEs in the Area of Human Resources

To determine how effective the implementation of the Plan to Expand Employment Through Public Service Provision had been, the Council for Economic Planning and Development commissioned a group of scholars led by Lin Shao-yin to produce an appraisal report: *Appraisal of the Results of Implementation of the Plan to Expand Employment Through Public Service Provision (Incorporating the SME Manpower Assistance Implementation Plan)*. This report was taken as the basis for the analysis of the implementation results of the SME Manpower Assistance Implementation Plan presented in this section.

a. Paid Employees

The following points were noted in the report: (a) Of the increase in the number of paid employees resulting from the implementation of the Plan, only 18.54% were middle-aged or elderly, and only 13.71% belonged to the specific groups targeted by the Plan. (b) According to the results of the paid employee questionnaire survey, for 25.45% of the respondents the main reason for leaving their previous job was that their contract had expired or they had been laid off; i.e. they had left their previous job involuntarily. The main reasons given for seeking new employment were that the individual was about to be made redundant, that they were already unemployed, or that they had graduated from school or university and needed to find a job; these three reasons combined accounted for 19.65% of all respondents. 29.05% of the

respondents agreed with the suggestion that, if it had not been for the SME Manpower Assistance Implementation Plan, they would have still been unemployed. (3) The results of in-depth interviews showed that 33.33% of the respondents were seeking new employment because they had been laid off by their previous employers.

As regards the attitude taken towards the Plan by the involuntarily unemployed and those individuals belonging to the particular groups targeted by the Plan, it appears that the Plan was felt to be a worthwhile initiative for the following reasons:

- i. Of those who had been hired by new employers under the Plan, only 13.13% expected to be laid off again. Furthermore, only 8.53% of the employers expected to have to lay off some of the newly recruited employees. The chances of the new employees being able to retain their jobs over the long term thus appeared to be relatively high.
- ii. Cross-tabulation analysis of sex, age, education, industry and nature of work performed with “whether the individual felt that, without the Plan, he or she would have remained unemployed,” “whether the individual expected to be able to keep his or her new job,” “how long the individual expected to be able to keep his or her new job,” and “whether the individual felt that the Plan would help to solve the problem of unemployment in Taiwan” gave rise to the following results:
 - Of those who “strongly agreed” that, without the Plan, they would have remained unemployed, the largest shares were held by those aged 45 or over (40.23%), those educated to the junior high school level or below (41.73%), and those in unskilled occupations (25.00%).
 - Of those who felt that the Plan would be “very helpful” towards solving the unemployment problem, the largest share was held by those aged 45 or over (34.48%).
 - Of those who reported that they would continue in the job after the trial employment period was over (assuming that the employer was willing to keep them on), the largest shares were found among those respondents who were female (92.58%), aged 25–35 (94.80%) or over 45 (91.95%), and those in service sector occupations (90.11%).
 - Of those were reported that they would like to keep their job until retirement,

the largest shares were held by those respondents who were female (32.23%), 45 or over (60.92%), or educated to the junior high school level or below (50.39%).

During in-depth interviews and seminars, several employers reported that, having experimented with hiring the middle-aged unemployed and high-school dropouts under the Plan, they had discovered that the middle-aged unemployed made solid, reliable workers, while high-school dropouts were grateful for having been given a job and were determined to make the most of the opportunity. Overall, the SME Manpower Assistance Implementation Plan appears to have been an extremely effective measure for helping women, the middle-aged, those with a limited education, service-sector workers and unskilled workers to find employment.

b. Employers

i. Employer Satisfaction

The SMEs that had benefited from the SME Manpower Assistance Implementation Plan were generally very positive about the prospects for retaining the additional employees they had taken on through the Plan's implementation, and expressed a high level of satisfaction with the Plan. A full 68.05% of respondent companies reported that they were satisfied with the Plan, and 18.54% expressed a high level of satisfaction.

Nearly 85% of respondent enterprises felt that the Plan would help to ameliorate the problem of unemployment in Taiwan, mainly by encouraging business enterprises to take on more workers, but also by helping them to reduce personnel costs. Approximately 60% of respondent companies were strongly in favor of the continued implementation of the Plan.

Among those SMEs that were not satisfied with the Plan, the main reason given for this dissatisfaction was that the application procedures were excessively complex (with too many forms to fill out, and too many supplementary documents required); 53.47% of the dissatisfied enterprises gave this as a reason. The next most commonly given reason was that the time required for approval of applications was too long (36.81% of dissatisfied enterprises), followed by the requirement that the additional employees recruited under the Plan had to be employed for a period of at least six

months before the government subsidy was to be paid to the enterprise concerned, and that the time required for a review of subsidy applications was too long (33.92%).

ii. The Increase in Production Value among Participating Enterprises

Following participation in the SME Manpower Assistance Implementation Plan, participating enterprises' average production value per worker increased by 1.19%, which is not a particularly high figure. However, 12% of participating enterprises reported that the additional employees recruited under the Plan had made a major contribution towards boosting the enterprise's production value, and 56.29% reported that they had made some contribution.

(3) Adjusting the Legal Framework for SME Operation

The objectives behind the reworking of the legal framework governing SME operation are to revise those laws and regulations that have come to constitute a hindrance to SME development, and to establish new laws and regulations that will be conducive to SME development; the overall goal is thus to create a new legal environment that will facilitate the growth of Taiwan's SMEs. As a rule, laws and regulations make no distinction between large enterprises and SMEs, or else are formulated with the needs of large enterprises in mind; the special characteristics and requirements of SMEs are often neglected, creating a situation in which SMEs are obliged to compete in an environment that is biased against them.

SME legal framework adjustment measures in 2004 focused on three key areas: (1) Aggressive promotion of the establishment of new analytical mechanisms with respect to the adjustment of the legal framework for SME operation, and ensuring that the rights of SMEs under the law are protected. (2) Undertaking research in four major areas: laws and regulations governing the appraisal of intangible assets and their use as collateral; laws and regulations governing the protection and management of intellectual property rights in the e-learning industry; the development of analytical mechanisms for legal framework adjustment; and laws and regulations for preventing delay in payment. This research will help to identify the main problem areas in the process of legal framework adjustment, and the areas where work will need to be done in the future. (3) Helping SMEs to establish legal affairs systems: this work included the holding of legal affairs training courses, and the provision of legal affairs

consulting services. These three key areas are examined separately below:

a. Promoting the Establishment of a New Analytical System for the Adjustment of the Legal Framework for SME Operation

To bring about the establishment of new analytical mechanisms for the adjustment of the legal framework for SME operation, in 2003 the SMEA embarked on the necessary preparatory work, holding several consultative meetings.

The Proposal for Promoting the Establishment of New Analytical Mechanisms for the Adjustment of the Legal Framework for SME Operation was approved at the 11th Meeting of the Executive Yuan SME Policy Review Committee on December 21, 2004. The decisions reached were as follows:

- i. The MOEA would be asked to add a provision to the effect that “when formulating new legislation, government agencies should take into consideration the size and special characteristics of SMEs, so as to facilitate SME compliance with the new legislation” to the revised text of Paragraph 4 of Item 3 of the Points to Note for Executive Yuan Agencies When Submitting Draft Legislation to the Executive Yuan for Approval, and to draw up and submit to the Executive Yuan the relevant standard operating procedures and self-appraisal forms.
- ii. The MOEA would be asked to formulate plans for the establishment of a legal framework adjustment analysis consulting center that could set up the necessary shared databases and platforms, and could implement an annual survey of the obstacles encountered by SMEs in the area of laws and regulations and of their needs in this regard, thereby helping other government agencies to undertake analysis regarding the adjustment of the legal framework. The SMEA was to be required to monitor all additions and revisions made to existing laws and regulations that might impact SMEs, to ensure that the rights of SMEs are protected.

b. Helping to Ensure that the Legal Rights of SMEs are Protected

- i. Helping SMEs to Adjust to the Introduction of the New Labor Pension System

With the *Labor Pension Act* scheduled to come into effect on July 1, 2005, the stipulation that the old labor pension system will continue to operate alongside the new

system has put business enterprises under heavy pressure. In the short term, enterprises will find that the funds available to them have decreased, creating a heavy financial burden. The SMEA's SME Troubleshooting Center provides a one-stop service window to help SMEs adjust to the introduction of the new pension system. If SMEs need special assistance, the SMEA's Operational Management and Finance Guidance Systems can provide guidance and consulting services in the areas of manpower adjustment, salary structure, financial planning, operational management, etc.

As regards other measures introduced to help SMEs adapt to the new labor pension system, besides arranging for the provision of small working capital loans to SMEs by Taiwan's banks, the Executive Yuan has agreed to allocate a budget of NT\$5 billion for loan guarantees. The MOEA has completed the drawing up of the Guidelines for Labor Pension Fund Loans, which are due to come into effect simultaneously with the new labor pension system on July 1, 2005. The loans are available both to enterprises paying into labor pension funds under the new system and those paying into them under the old system. Loans to SMEs are capped at NT\$5 million per loan; those to large enterprises are capped at NT\$30 million per loan. Being listed on the stock market or the OTC exchange does not disqualify a company from applying for one of these loans. To ensure the smooth implementation of the Labor Pension Fund Loan system simultaneously with the introduction of the new labor pension system, the SMEA will be drawing up detailed explanatory notes for applicants, striving to maximize communication with banks and with industry, and setting up the necessary mechanisms for publicizing the availability of the loans.

ii. The Legislative Yuan SME Development Promotion Group

The Members of the Legislative Yuan SME Development Promotion Group include Legislators from all parties within the Legislative Yuan. The Group's aims are to make sure that consideration is given to SMEs' needs with respect to legal framework adjustment, to encourage the executive branch to pay due attention to SMEs, and to work together to promote SME development.

The Group's meetings provide a mechanism for communication between the regulatory authorities and SMEs; the Group can present SMEs' concerns regarding legal framework adjustment on their behalf. The Group gives SMEs a channel for

expressing complaints regarding the obstacles that particular laws and regulations put in their way, and for presenting explanations and suggestions to the Legislative Yuan and the various regulatory authorities, thereby ensuring that Legislators and government agencies have a clear understanding of the difficulties that enterprises are experiencing, and providing a basis for future revisions of the law or the establishment of new legislation.

In 2004, enterprises raised a series of points related to the Construction Management Regulations, Water Pollution Control Act, Tobacco and Alcohol Tax Act, Pharmaceutical Affairs Law, Waste Disposal Act, etc. Over the period from September to December 2004, the Convenor of the Legislative Yuan SME Development Promotion Group arranged for the companies that had raised these issues to meet with representatives of the regulatory authorities concerned to discuss the issues. The regulatory authorities provided the enterprises with guidance, and agreed to study the suggestions for the revision of laws and regulations made by the enterprises. In the case of those problems reflecting a need for more effective guidance on the part of the regulatory authorities, the regulatory authorities were asked to help business enterprises to conform to the requirements of the law.

The Legislative Yuan SME Development Promotion Group has helped to build a preliminary consensus between business enterprises and the regulatory authorities with regard to suggestions for the revision of laws and regulations. The regulatory authorities have in many cases agreed to undertake revisions of the laws and regulations concerned, or to provide assistance to help business enterprises to conform to them; where necessary, in-depth discussions have been held with the enterprises' representatives. So far, the results achieved by the operation of the Group have been very impressive. A further expansion of this system would be advisable, so that the Group can continue to provide SMEs with input into the removal of obstacles to SME development that arise from problems in the legal framework.

However, given the miscellaneous nature of the issues raised during the "Legislative Yuan SME Development Promotion Group Discussion Meetings" and the lack of an opportunity to undertake prior coordination work with other government agencies, after intensive discussion it was decided that "SME Legal Affairs Discussion Meetings" would be held at the local level, providing an opportunity to

find out the issues that local SMEs are concerned with; an “SME Legal Affairs Coordination Meeting” could then be held to coordinate the activities undertaken by the various different government agencies concerned, before making a formal submission of recommendations to the “Legislative Yuan SME Development Promotion Group Discussion Meeting.”

2. Development of Incubation Platforms

(1) The Entrepreneur Success Plan

The Entrepreneurial Activity Success Plan incorporates three sub-plans: the Start-up Consulting Service Plan, the Start-up and Innovation Cultivation Institute Plan, and the Entrepreneur Success Plan. Currently, there are four main problems affecting the implementation of these plans: (1) Entrepreneurs in Taiwan tend to be insufficiently aware of the content that a proper business plan should contain; they are usually unable to provide quantified forecasts for future market demand, cash flow, when the enterprise will break even, when it will start to make a profit, or prepare own capital and financing ratios, etc. (2) The Plan focuses on those enterprises with significant development potential that have just been established or that are about to be established. However, the resources available to the SMEA are limited, and its contacts with banks and venture capital firms are insufficiently well developed, making it difficult to provide follow-up support. (3) There is a general lack of awareness of the fact that entrepreneurial skills need to be learnt. (4) The scope of publicization efforts needs to be expanded.

The response of the SMEA to these problems has been as follows:

a. Establishing a Clear Division of Labor between the Three Sub-plans

The Start-up Consulting Service Plan should focus mainly on the integration of websites and databases between the three sub-plans, while supplementing this with a telephone consulting service. The emphasis in the Start-up and Innovation Cultivation Institute Plan should be on getting university professors to write teaching materials for courses on business plan preparation, while the third sub-plan – the Entrepreneur Success Plan – should focus on guidance services, supplementing this with the integration of guidance resources.

b. Adoption of a Dual-track System for Advertising and Publicization to Ensure Maximum Access to Local Communities for Minimal Effort

Publicization and advertising will employ an easy-to-understand strategy based on a toll-free start-up consulting hotline. Advertising and publicization with respect to strategic alliance partners will rely on close collaboration with the SME Service Centers in Taiwan's 23 counties and cities and with incubator centers. In this way, the limited resources available can be used to maximum effect.

c. Leveraging Website Resources to Educate Entrepreneurs

E-Learning can be used to educate the public as to how important it is to have a carefully written business plan when starting up a business.

d. Providing Courses in Areas with Significant Business Start-up Potential to Encourage the Public to Educate Themselves**e. Making Use of Embedded Marketing by Providing the Media with Success Stories****(2) Incubator Center Promotion and Management**

Over 90% of incubator centers in Taiwan receive funding support from the SME Development Fund; the total amount of funding that the Fund is required to provide for incubator centers every year runs to nearly NT\$200 million. Given that the Fund is already making a loss, there is clearly a need to review the necessity for the current subsidy mechanism. In the future, more emphasis should be placed on performance appraisal and on developing procedures for terminating support for non-performing incubator centers. The SMEA has already established an incubator center performance appraisal mechanism, but more needs to be done in terms of weeding out ineffective incubator centers. The government should also be helping incubator centers to access alternative funding sources, so as to reduce the burden on the SME Development Fund.

(3) SME Manpower Cultivation

Currently, the manpower cultivation work undertaken by the SMEA still consists mainly of traditional training programs. Furthermore, there is considerable overlap between the courses, raising concerns that resources may be being wasted. In the

future, the SMEA will need to overhaul its manpower cultivation programs, by aiming to reduce duplication, and leveraging information technology to improve the courses provided both quantitatively and qualitatively.

3. Upgrading IT Capabilities

(1) Providing e-Enablement Guidance for SMEs

When selecting industry associations to undertake industry-specific online database and e-commerce projects, there appears to be a strong bias towards selecting industry associations in Northern Taiwan; insufficient attention has been given to the need to achieve balanced regional development between the north and south. In the selection of websites to participate in e-commerce promotion and the establishment of targets for the government's marketing guidance mechanism, so far little attention has been paid to the promotion of supply chain integration, clustering effects or international marketing.

(2) Upgrading the Quality of the Guidance Provided

The underlying vision behind the government's planning in this area is to help Taiwan's SMEs build an image of quality. The specific objectives include strengthening the innovation system, achieving sustainable development through value creation, implementing industrial upgrading through reorientation towards the service sector, and revitalizing local industries to simulate the growth of the economy as a whole. The four main problems that have been encountered in the course of plan implementation include the following: (1) There is a clear need to introduce quality management systems and to improve quality management in the service sector; the government should continue to implement quality surveys, to assist in the formulation of quality strategies, to draw up quality standards and quality-related Key Performance Indicators (KPI), and to make revisions to relevant laws and regulations where necessary. (2) Taiwan needs to build a sound management environment and to strengthen the links between the various sectors that are involved, for example by helping SME business owners to recognize the importance of total quality, and providing quality enhancement guidance to industry clusters. (3) So far, Taiwan has failed to make effective use of international resources or to bring its SMEs into line with global trends. More should be done to introduce new quality concepts from

overseas, and to undertake localization of both quality management and related technology, while leveraging collaboration between industry and academia to establish quality databases. (4) Demand for quality management talent among SMEs currently outstrips supply. Measures that can be implemented to solve this problem include the cultivation of personnel with key skills, the provision of training for quality management personnel at all levels, the cultivation of quality management instructors and consultants, and sending top-flight talent overseas for training. (5) Overall quality awareness is still too low. Ways to combat this problem include the cultivation of quality benchmarkers, and publicization of the key factors behind examples of successful quality improvement; effective use should be made of the media in these publicization efforts.

(3) Cultivation of e-Enablement Talent

As regards the cultivation of human talent in the field of e-enablement, the three main issues here are as follows: (1) Improving the mechanisms for the selection and cultivation of e-enablement consultants and establishing an e-enablement consultant database, while at the same time working to strengthen community exchange. (2) Differentiating training courses from other e-enablement training programs. (3) Establishing review mechanisms in those cases where a steering committee has not been established.

With regard to the cultivation of e-enablement consultants, the emphasis should be on the selection of consultants with prior experience in e-enablement guidance projects. Experts familiar with the special needs of SMEs should be invited to participate in the planning of training course content, and the curriculum should be reviewed and revised on a regular basis. Different levels of training can be instituted to develop specialized and advanced instruction, as opposed to the basic courses provided by universities and commercial training providers. Furthermore, training should be provided not only to individuals, but also to entire enterprises. A steering committee should be established to engage in regular review of the relevant mechanisms and the results of implementation.

(4) Planning, Establishment and Maintenance of the Management Information Sources Required by SMEs

This work area falls under the framework of the government's e-Life plans. The aim is

to establish an effective, comprehensive SME information service network that can provide SMEs with a convenient, one-stop portal for their decision-making needs. Planning in this area will need to focus on making the system meet SMEs' special requirements, providing industry-specific business information, and value-added services targeting business strategy and policy formulation. SMEs will be able to access all of the information they require for the entire operational cycle from a single portal. During the implementation process, representatives of industry associations will be invited to form a promotion committee; this will be supplemented by regular visits to industry associations to undertake surveys of SMEs' IT needs, thereby enhancing both the depth and breadth of the project.

4. Strengthening Guidance in the Area of Operational Management

(1) Provision of Guidance with Respect to SME Production and Sales and Technology Management Applications

The limited funding available for individual projects often hinders implementation. Coordination meetings should be held on a regular basis to discuss the results of implementation and the difficulties encountered, to strengthen horizontal communication, integration and publicization, and to arrange for the sharing of resources with other agencies, so as to ensure that maximum synergy is created by each project.

(2) SME Awards and Commendations

a. The National Award of Small and Medium Enterprises

The percentage of SMEs entering for the National Award of Small and Medium Enterprises that fall under the category of service sector enterprises is very small. With the ongoing transformation of Taiwan's economic structure into a service economy, the production value of the service sector has been rising steadily. However, service sector enterprises are often unable to participate in the National Award of Small and Medium Enterprises because they do not meet the qualifications with respect to operating revenue (less than NT\$100 million per year) or number of employees (no

more than 50 employees). Ideally, the definition of SMEs in the service sector should be amended to facilitate service sector enterprises' participation in the Award.

b. The Small and Medium Enterprise Innovation Research Award

Efforts should be made to encourage participation in this Award by service sector enterprises, in light of the anticipated trends in service sector development. Particular emphasis should be placed on encouraging participation by enterprises that have the potential to make a significant contribution to the development of Taiwanese industry as a whole, and that are involved in the provision of cutting-edge knowledge-intensive services, technical services or business services, thereby helping Taiwanese industry to develop new sources of competitive advantage and enhancing the growth potential of the service sector.

c. The Master's and Ph.D. Thesis Award

2004 saw a dramatic increase in the number of people registering to participate in this Award; there was also a significant broadening in the scope of topics covered by the theses entered for the Award. As a result, both the judges' workload and the difficulty of judging the contest increased. The fact that the Award is restricted to topics relating to SMEs has tended to restrict its growth. In addition, more needs to be done to publicize the results of the Award, so that the knowledge embodied in the winning theses can be more widely disseminated.

d. The Golden Book Award

In 2004, business book publishing saw an increase in the percentage of books that were returned to publishers, a decrease in the number of bestsellers, and a fall in profits for publishers. Overall, the number of business books published was lower than in previous years. Another problem affecting the Golden Book Award was that publishers tend to display different attitudes regarding the types of books that should be entered for the Award; this has a negative impact on the Award results. In the future, a review committee should revise the qualifications for entry for this award on a regular basis.

e. The Little Giant Award

Relatively few of the SMEs that enter for the Little Giant Award are service sector

enterprises. This may be related to the lack of uniformity in the definition of export ratios for service sector enterprises; in the future, efforts should be made to coordinate the establishment of a unified standard by the various regulatory authorities. In 2005, the awards ceremony for the Little Giant Award will be combined with that for the Bureau of Foreign Trade's Golden Trade Award. The collaboration between the two agencies will need to be carefully planned to ensure that maximum synergy is created through the integration of the awards ceremonies.

(3) Helping SMEs to Participate in Government Purchasing

The SMEA's inquiry hotline often receives calls from SMEs complaining about bid-rigging and other abuses. When these are reported to the regulatory authority concerned, in many cases no action is taken, and the problem continues to exist.

(4) The SME Service Network

The amount of funding available for the SME Development Fund has been falling steadily in recent years. This has had a knock-on effect in reducing the funding that can be provided for SME service centers at the county and city level, industry associations and chambers of commerce. The positioning of the SME service centers, industry associations and chambers of commerce needs to be reassessed, their performance appraised, and funding re-allocated, while encouraging them to reorganize themselves in accordance with their own particular strengths and special functions. In this way, it should be possible to avoid duplication of effort and to enhance the efficiency of resource utilization.

(5) Provision of Guidance for Traditional and Special Local Industries

There are four key problems affecting the development of Taiwan's traditional and special local industries: (1) Enterprises in traditional and special local industries tend to be very conservative in their methods, demonstrating little enthusiasm for innovation. (2) Efforts to encourage integration and create synergy within local industries have had little success. (3) Autonomous local industry organizations have generally failed to develop a comprehensive range of functions. (4) Excessive emphasis on commercialization has destroyed much of the cultural value of traditional local industries. The fourth problem is a particularly serious one. Looking back over

the efforts that have been made in the past few years to develop local industries and implement community-building activities, the projects that most impressed observers were generally those that were firmly rooted in the cultural essence of local traditions, while at the same time accepting the need for innovation to adapt to changing times. The provision of guidance to traditional and special local industries should therefore focus on the cultivation and leveraging of these industries' cultural content.

(6) The SME Honorary Instructor System

The SME Honorary Instructors at the county and city level often find that they cannot find the time to attend training courses, or that they are too busy with other affairs to continue working as an Honorary Instructor. As a result, the turnover rate among Honorary Instructors is excessively high, and it is difficult for the county and city-level SME Service Centers and the SME Honorary Instructor Associations to gain a clear picture of the manpower resources available to them; this in turn reduces the effectiveness of the Honorary Instructor system.

(7) Guidance in the Area of Mutual Assistance and Collaboration

Collaborative exchange is the foundation for practical collaboration. Currently, limited availability of funds has obliged the government to cut back on the provision of funding for exchange activities, thereby reducing the opportunities for SMEs to come up with new ideas through collaborative brainstorming.

5. Integration of Financing Mechanisms

(1) Consulting, Assistance and Guidance Services Provided by the SME Troubleshooting Center

In 2004, the SMEA received a series of complaints from SMEs to which the SMEA had previously provided guidance. In most cases, the letter expressed dissatisfaction with the company's failure to pass the Joint Diagnostic Guidance Review under the new dual-track SME financing guarantee system.

The SMEA dispatched personnel to visit the companies concerned and determine the veracity of their complaints. The companies were also invited to submit new

applications under the dual-track system. The enterprises concerned were generally quite satisfied with this solution, and no further complaints were received. By opening up channels for direct communication with business enterprises, the SMEA was able to reduce the likelihood of similar disruptive interference by financial advisors in the future.

(2) Credit Guarantees

The effectiveness of the SME Credit Guarantee Fund has for many years been reduced by limited funding and limited manpower that have prevented the Fund from doing more than passively responding to applications from financial institutions. In April 2003, the Executive Yuan gave its approval for a new measure whereby the MOEA replaced the Ministry of Finance as the regulatory authority for the SME Credit Guarantee Fund; it was anticipated that this move would help to ensure that Taiwan's credit guarantee system and industry guidance mechanisms were more in tune with the needs of government policy, while helping to ensure a smooth transition from policy formulation to policy implementation. At the same time, it was decided that in the future the Fund would simultaneously provide both direct and indirect credit guarantees. While working to keep pace with the changes taking place in the financial sector, the regulations that govern the Fund's operations would be reviewed, so that those regulations that no longer conform to the needs of today's Taiwan would be revised. In addition, the Fund will be focusing on the development of new, innovative financing services so that it can provide a more diversified range of services and contribute to the building of an environment more conducive to SME development.

The SME Credit Guarantee Fund is currently faced with various problems, including the lack of stable funding sources, the need to make credit guarantee authorization processes more rigorous, unsatisfactory risk control mechanisms and the need to bring income and expenditure into balance. As regards funding sources, the higher the Fund's credit guarantee multiple, the greater the level of risk that the Fund has to bear. While the government wants the Fund to expand the scope of its credit guarantee provision, stable funding sources will need to be found if the Fund's net worth is to be prevented from falling.

a. Developing Stable Funding Sources to Make the SME Credit Guarantee Fund a More Effective Institution

On December 17, 2003, a presidential decree was issued that made several revisions to the *SME Development Statute*. Paragraphs 2 and 3 of Article 13 of the *SME Development Statute* were revised to read 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 repayments, 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 2004, the total of NT\$265,672 million in loan guarantees that the Fund had provided to SMEs was equivalent to 19.53 times the Fund’s net value of NT\$13,603 million (excluding separate funds set up in accordance with the requirements of government policy). 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. The number of credit guarantees provided in the last four years and the total value of these guarantees are shown in Table 11-1-1. In the past, the delinquent loan ratio for loans obtained using credit guarantees provided by the SME Credit Guarantee Fund has generally been around 4.38%. In 2004, the ratio was 2.76%, representing a significant improvement on the figure of 4.97% recorded in 2002 (Table 11-1-2).

Table 11-1-1 Cases and Value of Credit Guarantees Provided by the SME Credit Guarantee Fund in Recent Years

Year	Cumulative credit guarantee cases	Cumulative amount of credit guarantees provided (NT\$ million)	Cumulative amount of financing secured (NT\$ million)	Cumulative number of enterprises receiving credit guarantees	No. of credit guarantee cases provided	Value of credit guarantees provided (NT\$ million)	Value of financing provided (NT\$ million)
2001	1,973,109	2,329,640	3,171,829	144,402	149,610	147,804	233,913
2002	2,133,232	2,480,668	3,422,806	162,293	160,123	151,028	250,977
2003	2,333,015	2,685,848	3,770,659	185,517	199,783	205,179	347,852
2004	2,598,334	3,001,506	4,287,696	214,964	265,139	315,658	517,037

Source: SME Credit Guarantee Fund, *Credit Guarantee Bulletin* (consecutive issues).

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, while at the same time expanding the provision of batch-type credit guarantees and strengthening risk control, so as to create a win-win-win situation for SMEs, banks and the Fund itself.

(3) Trust-type Investment Accounts

The main purpose of the trust-type investment accounts is to support the growth of start-ups and strengthen the competitiveness of Taiwanese industry. The targets for investment are newly-established SMEs and those in the process of transforming themselves. With these types of company there is the potential for high profitability

once the enterprise has grown to a reasonable size, but there is also a significant risk that all the funds invested in the enterprise will be lost.

Table 11-1-2 Delinquent Loan Ratios for Loans Obtained through Credit Guarantees Provided by the SME Credit Guarantee Fund

Unit: %

Year	Ratio of new delinquent loans	Year	Ratio of new delinquent loans
1975	14.79	1991	2.46
1976	4.21	1992	2.87
1977	2.68	1993	4.51
1978	1.64	1994	4.42
1979	2.00	1995	6.13
1980	1.06	1996	6.48
1981	1.34	1997	4.83
1982	2.98	1998	5.41
1983	3.46	1999	5.97
1984	3.05	2000	4.92
1985	6.06	2001	7.25
1986	3.64	2002	4.97
1987	2.77	2003	2.75
1988	2.01	2004	2.76
1989	2.32		
1990	3.03	Average	4.38

Notes: 1. The ratio of new delinquent loans = the amount of new delinquent guaranteed loans / the total amount of loans that 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 those loans that have not yet been repaid three months after becoming due. The basis for calculation of delinquent loans used by the Fund is thus different from that used by the banks.

Source: SME Credit Guarantee Fund.

(4) Promoting the Growth of the SME Development Corporations

Although the three SME Development Corporations' business areas include five other areas besides investment and advisory services, in reality most of their operating revenue is derived from investment activity. This investment activity is vulnerable to the ups and downs of the business cycle, and in the last few years the SME Development Corporations' operational performance has been disappointing.

(5) The SME Development Fund

Given the limited size of the SME Development Fund and the current low level of market interest rates, interest income is not enough to meet the Fund's steadily increasing expenditure. As a result, the Fund has been in the red for several years in a

row. The loans and investment that the Fund provides fall under the category of long-term financing, with little chance of making a significant return on investment in the short term, so the Fund's ability to use profits from previous investment to support new investment is limited. It would also be difficult for the Fund to get the banks to increase their interest rates as a means of boosting its income.

II SME Policy in Taiwan – the Future

Taiwan's SMEs have to contend with a constantly changing business environment, including the rapid development of both regional and bilateral trade, the implementation of the New Basel Capital Accord (Basel II), the increase in environmental awareness worldwide, the emergence of the New Economy, and the changes in both the scale of, and the form taken by, global business competition. The government needs to consider how it can best leverage its existing guidance resources to strengthen SMEs' ability to achieve sustainable growth; for the SME guidance system, this will constitute a major challenge. This section will examine the future of SME policy in Taiwan, by focusing on five aspects: the business environment, marketing, industry clusters, business start-up and incubation, and finance.

1. Creating an Environment Conducive to Perpetual Operation

(1) Active Participation in International Economic Organizations, While Helping SMEs to Respond to Changes in the International Business Framework

Active participation in international economic organizations – particularly the World Trade Organization (WTO) – can help SMEs to grasp emerging business opportunities. However, while participation in international organizations can give access to new business opportunities, it also implies increased responsibility, particularly with regard to the implementation of environmental protection measures. The Taiwanese government will need to help Taiwan's SMEs to conform to the requirements of green production and to international environmental protection standards. In particular, the coming into effect of the Kyoto Protocol will have a major impact on SMEs. Although Taiwan is not a signatory of the United Nations Framework Convention on Climate

Change, which would suggest that the coming into force of the Kyoto Protocol should have no immediate impact on Taiwan, nevertheless, in order to fulfill its responsibilities as a member of the international community, Taiwan is working to reduce greenhouse gas emissions. Although the high-energy-consumption industries that will feel the impact of the Kyoto Protocol most severely are generally dominated by large enterprises rather than SMEs, Taiwan's industrial structure is characterized by strong relationships (particularly supply chain relationships) between large enterprises and SMEs. SMEs in Taiwan will therefore be subject to a knock-on effect from the efforts that large enterprises are making to reduce greenhouse gas emissions. Not only can SMEs not afford to ignore the Kyoto Protocol, they will need to be prepared to absorb its impact very soon.

(2) Creating the Legal and Regulatory Framework Needed to Foster the Growth of an “Innovation Society”

In order to build an environment that will enable SMEs to compete on a level playing field, the SMEA began some time ago to examine those laws and regulations that create unfairness for SMEs. However, standard operating procedures for the appraisal and analysis of legislation have yet to be established, and there is no “handbook” to follow. Looking ahead to the future, in order to ensure that SMEs' legal rights are protected, besides working to prevent abuses, attention will also need to be paid to the establishment of an appropriate legal framework for promoting innovation among SMEs.

2. Strengthening SME Start-up and Innovation Platforms

(1) Enhancing Incubator Center Guidance Capabilities

Currently, the incubator sector in Taiwan is still dominated by incubator centers attached to universities. One way to strengthen the guidance capabilities of incubator centers would be to foster private-sector participation in incubator center operation, and to encourage foundations to set up new incubator centers. Incubator center operation needs to be closely integrated with the development of local industries; at the same time, more should be done to strengthen the incubation functions of the Nankang Software Park, the Nankang Biotechnology Park and the Tainan

Science-based Industrial Park. To achieve these goals, the government will need to devise appropriate incentive mechanisms and ancillary measures.

(2) Strengthening Start-up and Innovation Networks and Building a Knowledge-intensive, Entrepreneurial Society

Start-ups are the lifeblood of any economy; their importance cannot be overstated. In recent years, entrepreneurial activity in Taiwan has remained strong; a total of 108,610 new enterprises were set up in 2004, with most of the entrepreneurs being young people in the 20–40 age range. While the abundance of young entrepreneurs is to be welcomed, there are two main problems affecting Taiwan's new start-ups. First, most of the newly-established enterprises fall under the category of micro-enterprises; many one-person operations. This can lead to an excessive dispersal of resources. Another problem is that the percentage of start-ups that manage to stay in business is still too low.

Leading management theorist Peter Drucker has pointed out that business risk in start-ups is generally derived from a “heroic,” macho attitude towards management. Someone setting up a new business will almost always have some innovative ideas, but this alone may not be enough to ensure success. The SMEA has been implementing the Entrepreneur Success Plan to provide progressive, step-by-step guidance. The existence of this guidance network increases an entrepreneur's chances of success at every stage of the start-up process. However, there is a need for a more comprehensive approach, and for the establishment of a follow-up system. At the same time, entrepreneurial knowledge and experience should be more widely disseminated so as to build a knowledge-intensive, entrepreneurial society.

(3) Developing New Financing Channels for Start-ups

For a start-up or an enterprise undergoing incubation, the potential sources of funding include own capital, loans and direct investment. As far as loans are concerned, the government currently provides special loans for young entrepreneurs and for micro-enterprises. On the investment side, in 2003 the MOEA began to allocate funds from the SME Development Fund for the establishment of “SME Start-up and Incubation Trust Investment Accounts,” targeting those SMEs that had been in existence for less than five years or that were currently located in an incubator center.

The SME Development Corporations and private venture capital firms also constitute potential sources of investment for SMEs. To maximize their ability to secure funding, SMEs need to focus on strengthening their overall financial structure.

3. Integration of Industry Clustering Models and Strengthening of Supply Chain Management

The integration of industry cluster models will involve the restructuring of center-satellite systems, while at the same time encouraging more intensive utilization of the Internet and of advanced communication tools. Particularly in the areas of marketing and knowledge management, this can help to stimulate the industry cluster effect.

The main emphasis in supply chain management guidance in 2005 has been on helping SMEs to join the global supply chains of transnational corporations. In this area, the SMEA has been working with the Industrial Development Bureau, which has been implementing a Car Part Industry Development Plan. The Plan comprises two main parts: (1) Establishing a quality guarantee system for small and medium-sized car part manufacturers, and helping them to upgrade their production technology and quality management capabilities. (2) Planning and developing new interfaces for linking the operations of part suppliers with those of center manufacturers and trading companies in the areas of inventory management, order processing, purchasing, production scheduling, purchase order forecasting, money flow and information flow. It is anticipated that the implementation of this plan will help SMEs to improve the quality of their products, strengthen their technology development capabilities, reduce inventory costs, cut lead time, and integrate the different standards adopted for e-enablement, thereby reducing the overall cost of e-enablement for SMEs.

4. Strengthening Marketing Capabilities to Take Advantage of Business Opportunities All Over the World

(1) Upgrading Marketing Capabilities

Currently, the manufacturing sector still accounts for the largest share of Taiwan's SMEs. Their small size makes it difficult for these firms to keep up to date with the changes in markets and distribution channels. To help SMEs to secure business

opportunities on a worldwide basis, the government will need to arrange for the relevant agencies to supervise marketing integration. This could include strengthening the functions of industry associations and improving their ability to provide services to SMEs, integrating the specialist capabilities of universities and research institutes, and establishing marketing platforms for individual industry networks to help SMEs develop new markets.

Helping SMEs to bring their operations into line with market needs is another important issue. Some of the strategies that could be adopted in this area would include: helping SMEs to become key suppliers for international corporations, so as to integrate Taiwanese SMEs into global supply chains; providing SMEs with assistance for the establishment of overseas marketing offices to develop new distribution channels; and encouraging SMEs to participate in international activities that can help to strengthen their visibility in international markets.

(2) Developing Community Enterprises and Traditional and Special Local Industries to Create New Jobs at the Local Level

As part of the Executive Yuan's New Home Community Development Plan, the government has been providing guidance for community enterprise development and for the restructuring of traditional commercial districts, while also working to revitalize local industries, encouraging local industries to leverage the potential of local culture, and providing resources for R&D targeting traditional local specialties, so as to help enterprises in rural communities to upgrade and transform themselves. The development of local industries also helps to create a wider range of new jobs in local communities, encouraging young people to come back to these communities to work or to start their own businesses.

5. Helping SMEs to Secure Financing

(1) Development of a Comprehensive SME Finance Guidance Network

Difficulty in securing financing by SMEs is often related to unsatisfactory financial management systems. However, examination of the guidance mechanisms as they exist today shows that the guidance resources applied to financing issues have not been sufficiently well integrated with the SMEs' own financial management resources,

making it difficult to create synergy. In the future, more attention will need to be paid to ensuring flexible guidance system interaction.

(2) Helping SMEs to Obtain Working Capital

a. Strengthening the Intermediary Role of the Banks

In order to strengthen the banks' ability to provide SMEs with working capital, the Financial Supervisory Commission (FSC) will be drawing up performance appraisal standards with respect to the provision of loans to SMEs. The appraisal results will be used as the basis for applying different levels of incentive measures, so as to encourage banks to be more active in the provision of financing to SMEs. The aim is to increase total outstanding bank loans to SMEs by NT\$200 billion.

The government will also need to review the various categories of low-interest loans that are currently available to SMEs, including loans for reducing environmental pollution, reducing operating costs, helping SMEs to secure factory sites, and strengthening their competitiveness, etc. Those schemes that have proved successful should be expanded, so as to enhance the range of funding channels available to SMEs.

b. Developing a More Diversified Range of Financing Channels to Help SMEs Obtain Working Capital

In the last few years, direct financing has come to play an increasingly important role in the Taiwanese economy. This has helped to increase the range of funding channels available to SMEs; enterprises can adjust their financing strategy depending on the stage that they have reached in the enterprise growth process. For example, in the early stages of business start-up an enterprise will be mainly dependent on own capital, in the growth stage it will be able to access bank loans, and once the enterprise has reached maturity it will be able to obtain financing from the capital markets or make use of other financial products.

Many SMEs have reported that the main problem they experience when trying to secure financing is that the banks' criteria for approving loans are too rigorous. In some cases, financial statements do not provide an accurate picture of an enterprise's true worth. To get round this problem, SMEs need to achieve higher levels of transparency, and to strengthen their internal controls and accounting systems, thereby

making it easier for themselves to secure financing. At the same time, the government should be working to educate SMEs regarding the importance of having an impressive balance sheet.

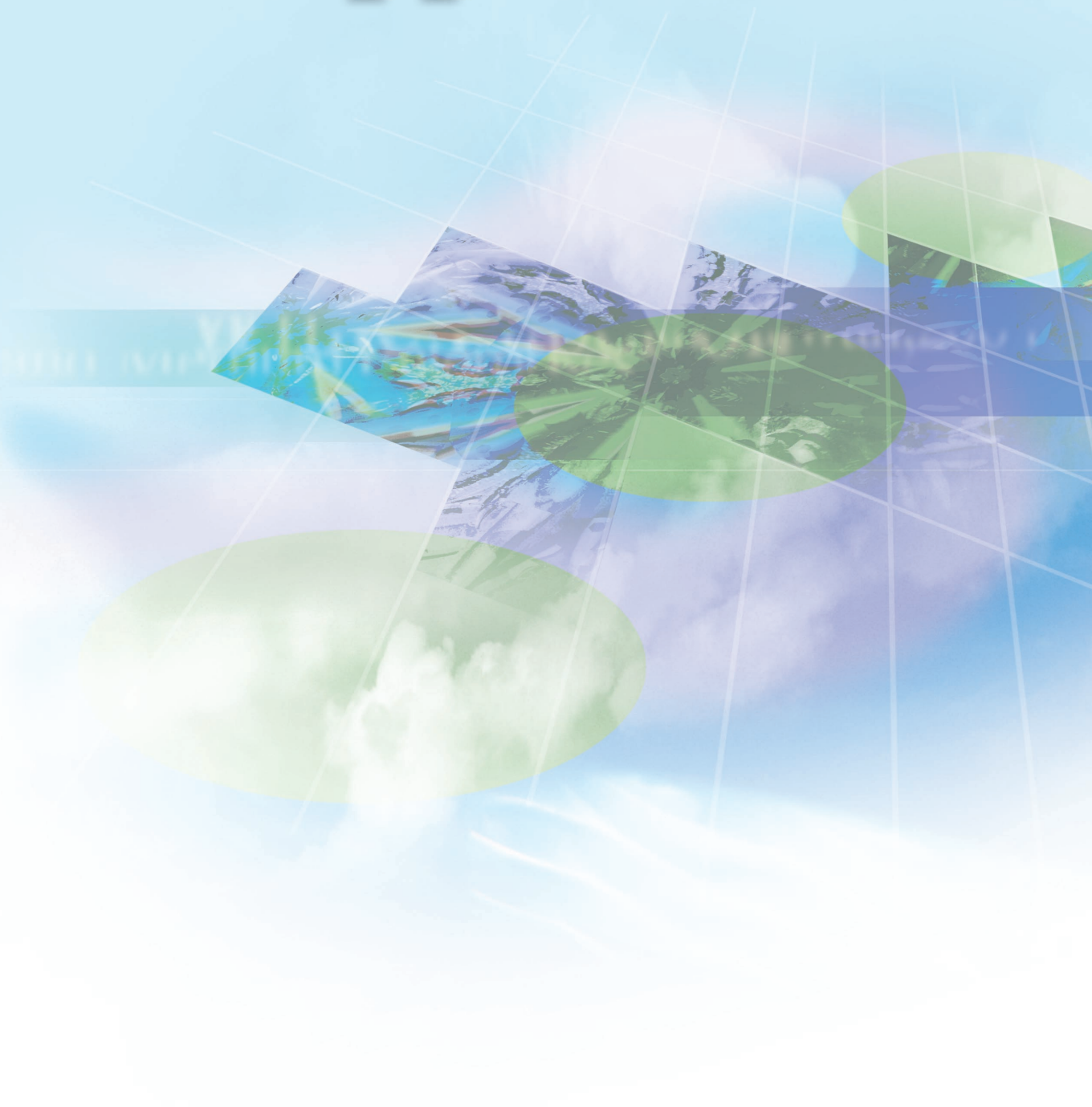
As part of its efforts to support industrial development and create an environment conducive to the development of knowledge-intensive industries, the government, working through Taiwan's financial institutions, has been working to develop innovative new channels for SME financing. These include the introduction by the SME Credit Guarantee Fund of batch-type credit guarantees, whereby risk control measures for individual guarantees are relaxed, thus simplifying the procedures that financial institutions have to complete and helping SMEs to obtain the financing they need.

c. The SME Credit Guarantee Fund – Focusing on Diversification

In January 2004, the Executive Yuan approved a plan for the transformation of the SME Credit Guarantee Fund. Five main strategies would be adopted to achieve this transformation: expansion of the direct credit guarantee mechanism; the introduction of new enterprise appraisal systems; diversification through the rollout of innovative new credit guarantee services; putting the Fund's operations on a sound financial footing; and strengthening the service capabilities. It was anticipated that the implementation of these strategies would help to give SMEs easier, smoother access to financing, while at the same time contributing to the achievement of the government's industrial policy goals, and achieving more effective integration of guidance resources, including the centralization of credit databases and the development of more advanced credit risk management techniques.

In line with the adoption of the new transformation strategy, the SME Credit Guarantee Fund has adopted various measures to develop new funding sources and reduce expenditure. The Fund has also set up a dedicated risk control department, and has introduced new human resources performance appraisal systems. It is anticipated that these measures will help to gradually reduce the Fund's deficit and improve the quality of the service that it provides.

Appendix



Appendix Contents

Table A-1	Number of Enterprises and Sales Value by Industry, 2003–2004	298
Table A-2	Domestic Sales Value and Export Sales Value by Industry, 2003–2004	300
Table A-3	Overview of Newly Established SMEs in 2004 – by Industry	302
Table A-4	Total Employment by Industry, 2000–2004	304
Table A-5	Number of Paid Employees by Industry, 2000–2004	306
Table A-6	Women Owned Enterprises – Number of Enterprises and Sales Value by Industry, 2003–2004	308
Table A-7	Women Owned Enterprises – Domestic Sales Value and Export Sales Value by Industry, 2003–2004	309
Table B	The Evolving Definition of SMEs in Taiwan	310

Table A-1 Number of Enterprises and Sales Value by Industry, 2003–2004

Industry/Size		Number of enterprises		Sales value	
		2003	2004	2003	2004
Total	Total	1,171,780	1,190,176	27,670,606	30,561,185
	Large enterprises	25,428	26,167	18,963,546	21,208,708
	SMEs	1,146,352	1,164,009	8,707,060	9,352,477
	SMEs' share	97.83	97.80	31.47	30.60
Agriculture, forestry, fishing and animal husbandry	Total	10,751	10,679	26,013	31,113
	Large enterprises	33	29	12,514	18,262
	SMEs	10,718	10,650	13,499	12,851
	SMEs' share	99.69	99.73	51.89	41.30
Mining and quarrying	Total	1,414	1,403	38,526	41,774
	Large enterprises	21	22	4,878	6,441
	SMEs	1,393	1,381	33,648	35,333
	SMEs' share	98.51	98.43	87.34	84.58
Manufacturing	Total	137,681	137,158	9,247,779	11,009,615
	Large enterprises	4,121	4,318	6,101,656	7,488,315
	SMEs	133,560	132,840	3,146,123	3,521,301
	SMEs' share	97.01	96.85	34.02	31.98
Water, electricity and gas	Total	718	633	384,154	360,107
	Large enterprises	125	113	376,436	353,499
	SMEs	593	520	7,718	6,608
	SMEs' share	82.59	82.15	2.01	1.83
Construction	Total	77,494	80,801	1,391,166	1,561,913
	Large enterprises	1,633	1,489	540,241	635,597
	SMEs	75,861	79,312	850,925	926,316
	SMEs' share	97.89	98.16	61.17	59.31
Wholesale and retail	Total	624,234	633,370	10,199,072	11,320,809
	Large enterprises	12,895	13,845	6,817,168	7,766,990
	SMEs	611,339	619,525	3,381,904	3,553,820
	SMEs' share	97.93	97.81	33.16	31.39
Accommodation and eating-drinking places	Total	85,300	91,510	262,682	285,391
	Large enterprises	239	258	85,475	94,438
	SMEs	85,061	91,252	177,207	190,954
	SMEs' share	99.72	99.72	67.46	66.91

Note: The industries are classified according to the 7th revision of Industry Classification Standard.
Source: Ministry of Finance Tax Data Center, VAT data for consecutive years.

Unit: Number of enterprises; NT\$ million; %

Industry/Size		Item/Year	Number of enterprises		Sales value	
			2003	2004	2003	2004
Transportation, warehousing and communications	Total		46,288	41,792	1,915,987	1,320,134
	Large enterprises		1,567	1,407	1,558,947	993,995
	SMEs		44,721	40,385	357,039	326,139
	SMEs' share		96.61	96.63	18.63	24.70
Finance and insurance	Total		12,853	12,364	1,823,436	2,475,827
	Large enterprises		2,340	2,124	1,658,392	2,315,932
	SMEs		10,513	10,240	165,044	159,895
	SMEs' share		81.79	82.82	9.05	6.46
Real estate and rental	Total		23,603	24,658	518,608	578,344
	Large enterprises		800	885	395,633	442,936
	SMEs		22,803	23,773	122,976	135,408
	SMEs' share		96.61	96.41	23.71	23.41
Professional, scientific and technical services	Total		45,171	45,791	814,878	799,003
	Large enterprises		873	924	605,148	571,528
	SMEs		44,298	44,867	209,731	227,474
	SMEs' share		98.07	97.98	25.74	28.47
Educational services	Total		465	409	4,362	3,456
	Large enterprises		6	6	2,470	1,942
	SMEs		459	403	1,891	1,513
	SMEs' share		98.71	98.53	43.36	43.79
Medical, healthcare and social services	Total		378	261	11,448	3,486
	Large enterprises		11	4	10,229	2,505
	SMEs		367	257	1,220	981
	SMEs' share		97.09	98.47	10.65	28.13
Cultural, sporting and leisure services	Total		26,971	28,007	481,164	254,646
	Large enterprises		359	353	405,319	175,814
	SMEs		26,612	27,654	75,844	78,832
	SMEs' share		98.67	98.74	15.76	30.96
Other service industries	Total		78,459	81,340	551,331	515,567
	Large enterprises		405	390	389,040	340,515
	SMEs		78,054	80,950	162,291	175,052
	SMEs' share		99.48	99.52	29.44	33.95

Table A-2 Domestic Sales Value and Export Sales Value by Industry, 2003–2004

Industry/Size		Domestic sales value		Export sales value	
		2003	2004	2003	2004
Total	Total	20,337,864	22,128,280	7,332,742	8,432,906
	Large enterprises	12,958,640	14,202,164	6,004,906	7,006,544
	SMEs	7,379,224	7,926,116	1,327,836	1,426,362
	SMEs' share	36.28	35.82	18.11	16.91
Agriculture, forestry, fishing and animal husbandry	Total	22,359	28,307	3,654	2,807
	Large enterprises	10,707	17,486	1,807	776
	SMEs	11,651	10,821	1,847	2,031
	SMEs' share	52.11	38.23	50.55	72.35
Mining and quarrying	Total	37,680	40,943	846	831
	Large enterprises	4,445	6,073	434	368
	SMEs	33,235	34,870	413	463
	SMEs' share	88.20	85.17	48.76	55.69
Manufacturing	Total	5,001,269	5,965,210	4,246,510	5,044,405
	Large enterprises	2,696,856	3,380,668	3,404,800	4,107,646
	SMEs	2,304,413	2,584,542	841,710	936,759
	SMEs' share	46.08	43.33	19.82	18.57
Water, electricity and gas	Total	378,704	353,416	5,450	6,690
	Large enterprises	371,119	346,986	5,317	6,513
	SMEs	7,585	6,431	133	177
	SMEs' share	2.00	1.82	2.45	2.64
Construction	Total	1,372,039	1,533,729	19,127	28,185
	Large enterprises	533,103	622,361	7,138	13,236
	SMEs	838,936	911,368	11,989	14,949
	SMEs' share	61.15	59.42	62.68	53.04
Wholesale and retail	Total	7,739,365	8,541,112	2,459,707	2,779,697
	Large enterprises	4,763,463	5,405,029	2,053,705	2,361,960
	SMEs	2,975,902	3,136,083	406,002	417,737
	SMEs' share	38.45	36.72	16.51	15.03
Accommodation and eating-drinking places	Total	254,277	281,085	8,405	4,306
	Large enterprises	79,239	91,948	6,235	2,489
	SMEs	175,038	189,137	2,169	1,817
	SMEs' share	68.84	67.29	25.81	42.19

Note: The industries are classified according to the 7th revision of Industry Classification Standard.
Source: Ministry of Finance Tax Data Center, VAT data for consecutive years.

Unit: NT\$ million; %

Industry/Size	Item/Year	Domestic sales value		Export sales value	
		2003	2004	2003	2004
Transportation, warehousing and communications	Total	1,490,508	900,769	425,479	419,364
	Large enterprises	1,181,685	611,437	377,262	382,558
	SMEs	308,823	289,333	48,217	36,806
	SMEs' share	20.72	32.12	11.33	8.78
Finance and insurance	Total	1,810,190	2,466,838	13,245	8,989
	Large enterprises	1,645,362	2,307,250	13,030	8,682
	SMEs	164,828	159,589	216	307
	SMEs' share	9.11	6.47	1.63	3.41
Real estate and rental	Total	499,260	556,495	19,348	21,849
	Large enterprises	377,094	421,871	18,539	21,065
	SMEs	122,166	134,624	809	785
	SMEs' share	24.47	24.19	4.18	3.59
Professional, scientific and technical services	Total	699,139	699,295	115,740	99,707
	Large enterprises	501,194	483,825	103,954	87,703
	SMEs	197,945	215,470	11,786	12,004
	SMEs' share	28.31	30.81	10.18	12.04
Educational services	Total	4,247	3,384	115	72
	Large enterprises	2,404	1,887	67	56
	SMEs	1,843	1,497	48	16
	SMEs' share	43.40	44.24	41.99	22.48
Medical, healthcare and social services	Total	11,331	3,441	117	45
	Large enterprises	10,119	2,468	110	37
	SMEs	1,212	972	7	8
	SMEs' share	10.70	28.26	6.04	18.73
Cultural, sporting and leisure services	Total	477,493	250,718	3,671	3,928
	Large enterprises	402,432	172,616	2,888	3,198
	SMEs	75,061	78,102	783	730
	SMEs' share	15.72	31.15	21.33	18.59
Other service industries	Total	540,004	503,539	11,327	12,029
	Large enterprises	379,419	330,259	9,621	10,256
	SMEs	160,585	173,280	1,706	1,773
	SMEs' share	29.74	34.41	15.06	14.74

Table A-3 Overview of Newly Established SMEs in 2004 – by Industry

Industry/Size	Item/Year	Number of enterprises	Sales value	Domestic Sales Value	Export Sales Value
Total	Total	1,086.10	358,679.87	307,961.69	50,718.17
	Large enterprises	3.75	97,868.53	75,947.16	21,921.37
	SMEs	1,082.35	260,811.33	232,014.53	28,796.80
	SMEs' share	1.00	0.73	0.75	0.57
Agriculture, forestry, fishing and animal husbandry	Total	2.45	184.60	184.51	0.09
	Large enterprises	0.00	0.00	0.00	0.00
	SMEs	2.45	184.60	184.51	0.09
	SMEs' share	1.00	1.00	1.00	1.00
Mining and quarrying	Total	1.00	750.96	750.96	0.00
	Large enterprises	0.00	0.00	0.00	0.00
	SMEs	1.00	750.96	750.96	0.00
	SMEs' share	1.00	1.00	1.00	0.00
Manufacturing	Total	51.16	51,636.56	30,249.43	21,387.13
	Large enterprises	0.71	11,643.16	6,517.83	5,125.33
	SMEs	50.45	39,993.40	23,731.60	16,261.80
	SMEs' share	0.99	0.77	0.78	0.76
Water, electricity and gas	Total	0.27	189.60	189.60	0.00
	Large enterprises	0.00	0.00	0.00	0.00
	SMEs	0.27	189.60	189.60	0.00
	SMEs' share	1.00	1.00	1.00	0.00
Construction	Total	87.19	32,855.63	30,633.14	2,222.49
	Large enterprises	0.18	219.05	219.05	0.00
	SMEs	87.01	32,636.58	30,414.10	2,222.49
	SMEs' share	1.00	0.99	0.99	1.00
Wholesale and retail	Total	540.30	205,953.87	180,343.53	25,610.34
	Large enterprises	2.20	68,525.11	52,690.77	15,834.35
	SMEs	538.10	137,428.75	127,652.77	9,775.99
	SMEs' share	1.00	0.67	0.71	0.38
Accommodation and eating-drinking places	Total	164.11	13,628.93	13,628.39	0.55
	Large enterprises	0.04	561.75	561.21	0.55
	SMEs	164.07	13,067.18	13,067.18	0.00
	SMEs' share	1.00	0.96	0.96	0.00

Note: The industries are classified according to the 7th revision of Industry Classification Standard.
Source: Ministry of Finance Tax Data Center, VAT data for consecutive years.

Unit: Number of enterprises; NT\$ million; %

Industry/Size	Item/Year	Number of enterprises	Sales value	Domestic Sales Value	Export Sales Value
Transportation, warehousing and communications	Total	9.98	5,577.22	4,860.77	716.45
	Large enterprises	0.08	1,110.37	587.33	523.04
	SMEs	9.90	4,466.85	4,273.44	193.41
	SMEs' share	0.99	0.80	0.88	0.27
Finance and insurance	Total	9.80	8,344.57	8,343.18	1.39
	Large enterprises	0.09	5,199.50	5,199.50	0.00
	SMEs	9.71	3,145.06	3,143.67	1.39
	SMEs' share	0.99	0.38	0.38	1.00
Real estate and rental	Total	34.02	10,474.46	10,470.90	3.55
	Large enterprises	0.19	3,970.63	3,970.63	0.00
	SMEs	33.83	6,503.83	6,500.27	3.55
	SMEs' share	0.99	0.62	0.62	1.00
Professional, scientific and technical services	Total	55.87	14,153.27	13,494.94	658.33
	Large enterprises	0.14	3,300.51	2,862.41	438.10
	SMEs	55.73	10,852.77	10,632.54	220.23
	SMEs' share	1.00	0.77	0.79	0.33
Educational services	Total	0.62	122.30	122.30	0.00
	Large enterprises	0.00	0.00	0.00	0.00
	SMEs	0.62	122.30	122.30	0.00
	SMEs' share	1.00	1.00	1.00	0.00
Medical, healthcare and social services	Total	0.30	11.59	11.59	0.00
	Large enterprises	0.00	0.00	0.00	0.00
	SMEs	0.30	11.59	11.59	0.00
	SMEs' share	1.00	1.00	1.00	0.00
Cultural, sporting and leisure services	Total	39.35	4,857.26	4,847.25	10.01
	Large enterprises	0.07	1,221.34	1,221.34	0.00
	SMEs	39.28	3,635.92	3,625.91	10.01
	SMEs' share	1.00	0.75	0.75	1.00
Other service industries	Total	89.68	9,939.05	9,831.19	107.86
	Large enterprises	0.05	2,117.10	2,117.10	0.00
	SMEs	89.63	7,821.95	7,714.09	107.86
	SMEs' share	1.00	0.79	0.78	1.00

Table A-4 Total Employment by Industry, 2000–2004

Industry/Size		Year				
		2000	2001	2002	2003	2004
Total	Total	9,491	9,383	9,454	9,573	9,786
	Government	955	961	946	988	995
	Large enterprises	1,126	1,134	1,147	1,159	1,238
	SMEs	7,410	7,288	7,361	7,425	7,553
	SMEs'share	78.06	77.67	77.86	77.56	77.18
Agriculture, forestry, fishing and animal husbandry	Total	738	706	709	696	642
	Government	7	6	5	6	6
	Large enterprises	2	2	1	2	2
	SMEs	729	698	703	688	635
	SMEs'share	98.75	98.87	99.08	98.94	98.82
Mining and quarrying	Total	11	10	9	8	7
	Government	2	2	1	1	1
	Large enterprises	0	0	0	0	0
	SMEs	9	8	8	7	6
	SMEs'share	80.44	80.31	84.06	84.61	81.22
Manufacturing	Total	2,655	2,587	2,563	2,590	2,671
	Government	42	42	39	31	30
	Large enterprises	489	477	490	508	547
	SMEs	2,124	2,067	2,035	2,051	2,095
	SMEs'share	80.01	79.92	79.38	79.18	78.41
Water, electricity and gas	Total	36	35	35	35	35
	Government	33	32	31	30	30
	Large enterprises	2	2	2	3	3
	SMEs	2	2	2	2	2
	SMEs'share	4.19	5.67	6.30	5.91	5.30
Construction	Total	832	746	725	702	732
	Government	14	13	14	13	11
	Large enterprises	7	6	8	8	8
	SMEs	812	727	703	681	713
	SMEs'share	97.54	97.48	96.99	97.01	97.40
Wholesale and retail	Total	1,701	1,679	1,693	1,698	1,727
	Government	10	10	10	9	9
	Large enterprises	105	108	97	92	96
	SMEs	1,586	1,561	1,585	1,596	1,621
	SMEs'share	93.24	92.97	93.65	94.03	93.90
Accommodation and eating-drinking places	Total	500	528	575	585	602
	Government	1	0	0	0	0
	Large enterprises	24	27	28	24	23
	SMEs	475	500	546	561	578
	SMEs'share	95.00	94.70	95.09	95.85	96.14

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

Unit: thousand persons; %

Industry/Size		Year	2000	2001	2002	2003	2004
Transportation, warehousing and communications	Total		481	487	477	484	489
	Government		102	99	91	88	85
	Large enterprises		74	80	79	84	83
	SMEs		304	308	307	313	321
	SMEs'share		63.20	63.24	64.33	64.67	65.68
Finance and insurance	Total		367	371	378	376	386
	Government		35	32	30	30	29
	Large enterprises		157	156	153	145	157
	SMEs		176	182	195	201	199
	SMEs'share		47.96	49.06	51.54	53.49	51.61
Real estate and rental	Total		66	61	60	66	74
	Government		1	2	1	2	1
	Large enterprises		5	4	3	4	5
	SMEs		59	55	56	60	67
	SMEs'share		89.39	90.16	92.78	91.17	91.37
Professional, scientific and technical services	Total		250	267	285	285	302
	Government		11	11	11	13	12
	Large enterprises		38	44	48	46	49
	SMEs		201	213	226	226	241
	SMEs'share		80.40	79.78	79.34	79.20	79.77
Educational services	Total		479	483	487	512	533
	Government		278	274	272	282	289
	Large enterprises		65	65	67	69	72
	SMEs		137	143	148	161	171
	SMEs'share		28.60	29.61	30.49	31.52	32.18
Medical, healthcare and social services	Total		252	266	279	290	305
	Government		57	59	62	62	61
	Large enterprises		83	82	88	94	103
	SMEs		112	126	129	133	141
	SMEs'share		44.44	47.37	46.27	45.86	46.25
Cultural, sporting and leisure services	Total		165	169	184	187	192
	Government		10	10	9	11	12
	Large enterprises		47	48	50	48	50
	SMEs		108	111	125	128	130
	SMEs'share		65.45	65.68	67.55	68.46	67.66
Other service industries	Total		643	660	666	692	716
	Government		38	42	40	43	44
	Large enterprises		29	33	33	32	40
	SMEs		576	585	593	617	632
	SMEs'share		89.58	88.64	89.07	89.15	88.26
Public administration	Total		315	327	329	369	373
	Government		315	327	329	369	373

Table A-5 Number of Paid Employees by Industry, 2000–2004

Industry/Size \ Year		2000	2001	2002	2003	2004
Total	Total	6,746	6,727	6,771	6,898	7,131
	Government	955	961	946	988	995
	Large enterprises	1,121	1,129	1,143	1,156	1,234
	SMEs	4,668	4,636	4,682	4,754	4,903
	SMEs'share	69.19	68.93	69.15	68.92	68.74
Agriculture, forestry, fishing and animal husbandry	Total	82	77	75	79	75
	Government	7	6	5	6	6
	Large enterprises	2	2	1	2	2
	SMEs	73	69	69	71	68
	SMEs'share	89.01	89.89	91.36	90.63	90.06
Mining and quarrying	Total	10	9	8	8	7
	Government	2	2	1	6	1
	Large enterprises	0	0	0	0	0
	SMEs	8	7	7	6	5
	SMEs'share	78.64	79.13	83.01	83.45	79.14
Manufacturing	Total	2,327	2,284	2,274	2,301	2,382
	Government	42	42	39	31	30
	Large enterprises	487	476	489	507	546
	SMEs	1,798	1,765	1,747	1,763	1,806
	SMEs'share	77.26	77.31	76.82	76.63	75.83
Water, electricity and gas	Total	36	35	35	35	35
	Government	33	32	31	30	30
	Large enterprises	2	2	2	3	3
	SMEs	1	2	2	2	2
	SMEs'share	3.97	5.38	6.30	5.86	5.08
Construction	Total	700	622	600	586	609
	Government	14	13	14	13	11
	Large enterprises	7	6	8	8	8
	SMEs	680	603	578	565	590
	SMEs'share	97.08	96.99	96.37	96.42	96.89
Wholesale and retail	Total	850	863	875	886	917
	Government	10	10	10	9	9
	Large enterprises	104	108	96	91	96
	SMEs	736	745	769	785	812
	SMEs'share	86.59	86.33	87.83	88.65	88.57
Accommodation and eating-drinking places	Total	244	258	280	277	290
	Government	1	0	0	0	0
	Large enterprises	24	27	28	24	23
	SMEs	219	231	252	252	267
	SMEs'share	89.75	89.53	89.94	91.29	92.08

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

Unit: thousand persons; %

Industry/Size		Year	2000	2001	2002	2003	2004
Transportation, warehousing and communications	Total		352	361	352	363	366
	Government		102	99	91	88	85
	Large enterprises		74	79	78	83	83
	SMEs		175	184	182	192	198
	SMEs'share		49.72	50.97	51.71	52.93	54.21
Finance and insurance	Total		364	368	374	372	383
	Government		35	32	30	30	29
	Large enterprises		156	156	153	145	157
	SMEs		173	180	191	197	196
	SMEs'share		47.53	48.91	51.16	53.02	51.19
Real estate and rental	Total		45	43	43	48	56
	Government		1	2	1	2	1
	Large enterprises		5	4	3	4	5
	SMEs		39	37	38	42	50
	SMEs'share		86.67	86.05	89.78	87.93	89.08
Professional, scientific and technical services	Total		189	206	219	222	230
	Government		11	11	11	13	12
	Large enterprises		38	43	47	46	49
	SMEs		140	152	161	162	170
	SMEs'share		74.07	73.79	73.38	73.29	73.63
Educational services	Total		457	460	464	485	505
	Government		278	274	272	281	289
	Large enterprises		65	65	66	69	72
	SMEs		115	121	126	135	143
	SMEs'share		25.16	26.30	27.17	27.76	28.43
Medical, healthcare and social services	Total		216	229	240	250	265
	Government		57	59	62	62	61
	Large enterprises		82	82	88	94	103
	SMEs		76	88	90	93	102
	SMEs'share		35.19	38.43	37.36	37.36	38.31
Cultural, sporting and leisure services	Total		146	151	160	159	162
	Government		10	10	9	11	12
	Large enterprises		46	48	50	48	50
	SMEs		89	93	100	101	100
	SMEs'share		60.96	61.59	62.69	63.26	61.69
Other service industries	Total		411	434	443	460	476
	Government		38	42	40	43	44
	Large enterprises		28	33	32	32	39
	SMEs		345	359	371	386	393
	SMEs'share		83.94	82.72	83.61	83.76	82.50
Public administration	Total		315	327	329	369	373
	Government		315	327	329	369	373

Table A-6 Women Owned Enterprises – Number of Enterprises and Sales Value by Industry, 2003–2004

Unit: Number of enterprises; NT\$ million; %

Industry/Size	Item	Number of enterprises			Sales value		
		Total	Women owned enterprises	Women owned enterprises' share	Total	Women owned enterprises	Women owned enterprises' share
Total	Total	704,296	265,207	37.66	12,671,542	1,568,562	12.38
	SMEs	693,591	263,336	37.97	3,952,326	864,848	21.88
	Large enterprises	10,705	1,871	17.48	8,719,217	703,714	8.07
Agriculture, forestry, fishing and animal husbandry	SMEs	9,378	2,006	21.39	5,167	1,077	20.84
	Large enterprises	16	2	12.50	14,252	838	5.88
Mining and quarrying	SMEs	443	93	20.99	9,453	1,177	12.45
	Large enterprises	8	0	0	4,009	0	0
Manufacturing	SMEs	61,823	15,305	24.76	1,647,170	229,399	13.93
	Large enterprises	1,706	116	6.80	3,018,414	91,438	3.03
Water, electricity and gas	SMEs	244	79	32.38	2,276	250	11.00
	Large enterprises	37	3	8.11	48,508	1,230	2.54
Construction	SMEs	25,660	6,184	24.10	314,885	68,337	21.70
	Large enterprises	741	149	20.11	219,020	27,598	12.60
Wholesale and retail	SMEs	376,224	150,489	40.00	1,440,732	407,883	28.31
	Large enterprises	5,787	1,224	21.15	3,316,149	440,068	13.27
Accommodation and eating-drinking places	SMEs	77,269	38,044	49.24	95,871	38,248	39.90
	Large enterprises	91	15	16.48	38,468	3,406	8.86
Transportation, warehousing and communications	SMEs	23,998	4,816	20.07	125,889	33,276	26.43
	Large enterprises	604	113	18.71	307,359	31,772	10.34
Finance and insurance	SMEs	4,737	1,360	28.71	56,836	11,214	19.73
	Large enterprises	750	99	13.20	1,283,880	46,642	3.63
Real estate and rental	SMEs	12,307	3,928	31.92	58,034	13,948	24.03
	Large enterprises	394	61	15.48	220,316	29,396	13.34
Professional, scientific and technical services	SMEs	17,874	5,703	31.91	76,658	20,012	26.10
	Large enterprises	312	45	14.42	150,802	18,605	12.34
Educational services	SMEs	164	82	50.00	395	184	46.73
	Large enterprises	2	0	0	220	0	0
Medical, healthcare and social services	SMEs	156	58	37.18	409	150	36.66
	Large enterprises	0	0	0	0	0	0
Cultural, sporting and leisure services	SMEs	156	58	31.22	39,487	10,529	26.66
	Large enterprises	156	58	15.25	48,030	6,077	12.65
Other service industries	SMEs	62,188	28,593	45.98	79,065	29,165	36.89
	Large enterprises	139	26	18.71	49,792	6,643	13.34

Note: The figures in total do not include those enterprises that owners are legal persons or foreigners for which gender cannot be identified.

Source: Ministry of Finance Tax Data Center, business income tax data (original data), 2004.

Table A-7 Women Owned Enterprises – Domestic Sales Value and Export Sales Value by Industry, 2003–2004

Unit: Number of enterprises; NT\$ million; %

Industry/Size	Item	Domestic sales value			Export sales value		
		Total	Women owned enterprises	Women owned enterprises' share	Total	Women owned enterprises	Women owned enterprises' share
Total	Total	8,800,319	1,276,793	14.51	3,871,223	291,769	7.54
	SMEs	3,292,068	762,828	23.17	660,258	102,021	15.45
	Large enterprises	5,508,251	513,965	9.33	3,210,966	189,748	5.91
Agriculture, forestry, fishing and animal husbandry	SMEs	4,362	935	21.43	805	142	17.64
	Large enterprises	13,985	748	5.35	267	90	33.88
Mining and quarrying	SMEs	9,441	1,177	12.47	12	0	1.42
	Large enterprises	4,009	0	0	0	0	0
Manufacturing	SMEs	1,195,705	188,308	15.75	451,465	41,091	9.10
	Large enterprises	1,274,048	54,845	4.30	1,744,366	36,593	2.10
Water, electricity and gas	SMEs	2,252	250	11.11	23	0	0
	Large enterprises	48,508	1,230	2.54	0	0	0
Construction	SMEs	311,602	67,664	21.71	3,283	673	20.50
	Large enterprises	211,427	27,560	13.04	7,592	38	0.50
Wholesale and retail	SMEs	1,261,520	354,998	28.14	179,212	52,884	29.51
	Large enterprises	2,025,402	299,825	14.80	1,290,747	140,243	10.87
Accommodation and eating-drinking places	SMEs	95,172	38,141	40.08	699	107	15.35
	Large enterprises	37,627	3,344	8.89	841	63	7.47
Transportation, warehousing and communications	SMEs	106,990	27,489	25.69	18,899	5,787	30.62
	Large enterprises	202,766	21,957	10.83	104,592	9,815	9.38
Finance and insurance	SMEs	56,704	11,193	19.74	132	20	15.43
	Large enterprises	1,276,613	46,642	3.65	7,267	0	0
Real estate and rental	SMEs	57,630	13,904	24.13	404	44	10.82
	Large enterprises	204,461	29,335	14.35	15,855	61	0.38
Professional, scientific and technical services	SMEs	72,486	18,939	26.13	4,173	1,072	25.69
	Large enterprises	115,599	17,741	15.35	35,203	864	2.45
Educational services	SMEs	394	184	46.64	1	1	100.00
	Large enterprises	220	0	0	0	0	0
Medical, healthcare and social services	SMEs	402	149	37.14	6	0	4.98
	Large enterprises	0	0	0	0	0	0
Cultural, sporting and leisure services	SMEs	39,091	10,453	26.74	395	76	19.16
	Large enterprises	46,548	5,977	12.84	1,482	99	6.71
Other service industries	SMEs	78,317	29,043	37.08	748	122	16.37
	Large enterprises	47,037	4,761	10.12	2,754	1,882	68.34

Note: The figures in total do not include those enterprises that owners are legal persons or foreigners for which gender cannot be identified.

Source: Ministry of Finance Tax Data Center, business income tax data (original data), 2004.

Table B The Evolving Definition of SMEs in Taiwan

Year of modification	Industry	Manufacturing	Construction	Mining and quarrying	Commerce, transportation services and other services
September 1967		Capital under NT\$ 5 million; and regular employees under 100 persons.			Annual operating revenue under NT\$ 5 million; and regular employees under 50 persons.
March 1973		Registered capital under NT\$ 5 million and total assets not exceeding NT\$ 20 million, or registered capital under NT\$ 5 million and the number of regular employees in accordance with the standards as below: (1) under 300 persons for garments, clothing and electronics industry; (2) under 200 persons for food products industry; (3) under 100 persons for others.			No change
August 1977		Paid-in capital under NT\$ 20 million and total assets amount not exceeds NT\$ 60 million, and the number of regular employees not exceeds 300 persons.		Paid-in capital under NT\$ 20 million and the number of regular employees not exceed 500 persons.	Annual operating revenue under NT\$ 20 million; and regular employees under 50 persons.
February 1979		No change		Paid-in capital under NT\$ 40 million.	No change
July 1982		Paid-in capital under NT\$ 40 million and total assets amount not exceed NT\$ 120 million.		No change	Annual operating revenue under NT\$ 40 million.
November 1991		No change, except for extending industry terms into construction.		No change	No change
September 1995		Paid-in capital not exceeds NT\$ 60 million; or regular employees not exceed 200 persons.			Total operating revenue in the preceding year not exceeds NT \$80 million; or its regular employees not exceed 50 persons (extending industry terms to agriculture).
May 2000		Paid-in capital not exceeds NT\$ 80 million; or regular employees not exceed 200 persons.			Total operating revenue in the preceding year not exceeds NT\$ 100 million; or its regular employees not exceed 50 persons (extending industry terms to agriculture).

Source: Small and Medium Enterprise Administration, Ministry of Economic Affairs.

Index



C

Challenge 2008: National Development Plan 91, 149–150, 157, 178, 217–218, 255

E

e-enablement 248
 in supply chains 196–202

e-learning 249
 as training activity 106, 107–108

emerging service industry
 definition 215, 219
 current state 220–228

employment 84–86, 88–91, 93–94, 95
 in cultural and creative industries 91–92
 in hi-tech and knowledge-intensive industries 86–88
 in new emerging industries 89–91
 in service industries 221–222, 225, 227–228
 international comparison 51

export 14–15, 22–24, 27, 39–41, 43–45
 in manufacturing industries 141–147
 in service industries 223, 224–225, 226, 228
 international comparison 52
 newly-established enterprise 45–48
 SMEs contribution 129–140
 to mainland China 17–18

F

financing 75–82
 appraisal of, mechanism 282–287, 291–293
 in guidance policy and measures 257–263, 265–266
 in service industries 217–219
 in SME supply chains 201–202

fund utilization	54–57
funding	
in manufacturing industries	72–75
source of	57–58
G	
globalization, impact of	116–117, 135, 179–180
H	
hi-tech industry	
employment	86–88
I	
import	
from mainland China	17–18
information technology capability	247–253, 277–279
innovation	
in traditional and special local industries	167
platform	288–290
innovative life industries	157, 164
integrated service	180–181
marketing	181–194
manufacturing	194–205
manufacturing and marketing	206–210
K	
knowledge-intensive industry	
employment	86–88

L

Local Industry Innovation and Transformation
Development Plan 156, 173

M

marketing
 models 125–126
 overseas operation 122–124

N

New Home Community Development Plan 149–150, 255, 291

R

R&D
 in traditional and special local industries 173–174

S

service industry
 scope 214–219
 challenge 228–236
 current state 219–228
 prospect 236–239

Small and Medium Enterprise Administration
 efforts of 153–154, 162, 201, 242–243, 254, 256,
 264–265, 267, 272, 273, 275–277, 281,
 282–283, 290

SME Credit Guarantee Fund 81, 82, 217, 258–262, 265, 283–286, 293

SME Development Fund 245, 262, 265, 276, 281, 286–287, 289–290

SME Financing Guidance System 201–202, 217, 257–258

SME Troubleshooting Center	75, 256, 273, 282–283
supply chain	179–181, 210–212
see also integrated service	
and integration	206–210
policy prospects of, management	290
strategy models in integrated manufacturing	
service	202–206

T

traditional and special local industry	
definition	150–151
development problem	167–170
future guidance policy	170–178
guidance mechanism	156–161
guidance result	161–167
management in	257, 283–284
prospects in	293

U

unemployment	94–95, 102
rate	83
characteristics of the unemployed	92–93