

2018

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



Small and Medium Enterprise Administration
Ministry of Economic Affairs

2018 White Paper on Small and Medium Enterprises in Taiwan

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Published by

Small and Medium Enterprise Administration, Ministry of Economic Affairs

3F., No. 95, Section 2, Roosevelt Rd.

Daan Dist., Taipei City 10646

Taiwan, R.O.C.

Edited by

Chung-Hua Institution for Economic Research

No. 75, Chang Hsing St.

Daan Dist., Taipei City 10672

Taiwan, R.O.C.

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Designed and Printed by

Hong You Printing Co., Ltd.

6F., No. 10, Ln. 366, Section 2, Jhongshan Rd.

Jhonghe Dist., New Taipei City 23584

Taiwan, R.O.C.

Foreword

Taiwan's 2018 economic growth is optimistic partly due to the booming of the global economy and partly due to the policies to transform the industries toward more innovative ones and ongoing implementation of the Forward-looking Infrastructure Development Program.

As for the performance of SMEs in 2017, of particular note was the number of SMEs, which reached a record level of 1,437,616 and accounted for 97.7 percent of all enterprises in Taiwan. In addition, the number of employed persons in SMEs rose to 8,904,000 — the highest level in recent years — and represented 78.44 percent of all employed persons in Taiwan. These statistics clearly illustrated that SMEs function as a stabilizing force in the labor market and a key driving force of the country's economic development. The annual sales of SMEs in 2017 came to NT\$12,139.5 billion, up 3.19 percent from 2016, accounting for 30.22 percent of the total annual sales of all enterprises in Taiwan. Domestic sales amounted to NT\$10,717.1 billion and the growth of domestic sales was 3.64 percent higher than that of 2016, which was an excellent performance in recent years. The economic performance mentioned above revealed SMEs' significant contributions to economic growth and job creation.

In order to bear witness to the development of SMEs in Taiwan, the Small and Medium Enterprise Administration, Ministry of Economic Affairs has published the Chinese and English version White Paper on SMEs in Taiwan on an annual basis since 1992 and 1998 respectively.

In Part One of the 2018 White Paper, an extensive array of statistical figures is provided to describe the development of SMEs from a wide variety of perspectives in 2017, which includes a comparison with their performance in previous years, as well as with the performance of large enterprises.

The government has been actively helping SMEs in various ways, ensuring an innovation-driven and business-friendly environment in which necessary resources are available to them. In Part Two, the major government policies and measures related to SMEs over the period of 2017 and 2018 are emphasized. These policies and measures can be categorized into five areas: (1) Improving Financial and Funding Services and Strengthening Investment in SMEs; (2) Enhancing R&D and Promoting Upgrade and Transformation for SMEs; (3) Strengthening Start-ups, and Incubation and Acceleration Mechanisms; (4) Revitalizing Local Industries by In-depth Development, Marketing and Expansion; and (5) Other Government Measures to Support SMEs, such as government procurement, policy loans for special projects, and regulatory flexibility. The Appendix to the 2018 White Paper also provides important SME statistics covering the years from 2015 to 2017 for reference purposes.

Providing guidance to support the development of SMEs requires a long-term effort and commitment. It is hoped that this White Paper will give readers both in Taiwan and overseas a better understanding of Taiwan's SMEs, while at the same time providing a useful reference work to assist SME managers in their decision-making. Your comments on the content of the White Paper would be most welcome and appreciated.

A handwritten signature in black ink, appearing to read 'Ming-Ji Wu', with a stylized, flowing script.

Ming-Ji Wu

Director-General

Small and Medium Enterprise Administration

Ministry of Economic Affairs

November 2018

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Summary

Small and medium-sized enterprises (SMEs) continue to make up the backbone and have been one of the main driving forces of Taiwan's economic development over the past half century: recognized as export vanguard early on, key partners in supply chains and industrial clusters later, and recently focal point of local economy, entrepreneurship, and industrial upgrade and transformation. Even with the ever-increasing export momentum, 2018 Taiwan economic growth will need more bolster from government policy to increase its pace on industrial upgrading and transformation.

2018 White Paper on Small and Medium Enterprises in Taiwan comprises two parts. **Part One** presents an overview and discussion of the most recent operational results and developing trends of SMEs in Taiwan. **Part Two** reviews various government policy measures related to SMEs and examines their goals, implementation and results.

Part One consists of three chapters, covering SMEs' current state on development, financial and funding and human resources.

As for the performance of SMEs in 2017, the number of SMEs reached a record level of 1,437,616 up 2.08 percent from 2016, and accounted for 97.7 percent of all enterprises in Taiwan. In addition, the number of employed persons in SMEs increased to 8,904,000 up 1.07 percent from 2016 and represented 78.44 percent of all employed persons in Taiwan. The annual sales of SMEs in 2017 came to NT\$12,139.5 billion up 3.19 percent from 2016, accounting for 30.22 percent of the total annual sales of all enterprises in Taiwan. In 2017, a total of 101,556 new SMEs were created.

With regard to industrial structure in Taiwan, the number of SMEs is mostly concentrated in the Service sector, with the proportion being 79.58 percent. 47.93 percent of SMEs are in Wholesale and Retail Trade, followed by Accommodation and Food Services industry (10.95 percent), and Manufacturing (9.98 percent). By the forms of organization, 53.32 percent of SMEs are sole proprietorships. By regional distribution, 46.66 percent of all SMEs were concentrated in Northern Taiwan.

In terms of market entry and exit, SMEs often display more flexibility than large enterprises. That explains the concentration of the distribution of the years in existence for SMEs: share of SMEs in existence below 10 years is 48.74 percent (vs. 21.78 percent of large enterprises). However, there were nearly 50 percent SMEs had been going concerns 10 years or more by the end of 2017.

Six Special Municipalities combined represent 76.85 percent sales and 72.93 percent employed persons of SMEs, and have 1,037,195 SMEs, representing 72.15 percent of all SMEs in Taiwan.

Part Two consists of five chapters that review various government policy measures related to SMEs and examine their goals, implementation and results.

Many SMEs in Taiwan possess unique technology and innovative products, but lack the scale, capital, technology, and talents of many large businesses with which they regularly compete. Taiwanese government has been working actively to establish effective policy measures to facilitate the development of SMEs and resolve the hurdles facing SMEs. Multiple policy measures were taken by relevant government departments to assist SMEs in funding and credit guarantee, marketing, talent cultivation, technology upgrading and transformation, start-up promotion, incubation and acceleration mechanism, free trade policy, and improved legal and regulatory environment.

The government's development strategy for SMEs in 2017-2018 has focused on (1) Improving Financial and Funding Services and Strengthening Investment in SMEs; (2) Enhancing R&D and Promoting Upgrade and Transformation for SMEs; (3) Strengthening Start-ups and Incubation & Acceleration Mechanism; (4) Revitalizing Local Industries by In-depth Development, Marketing and Expansion; and (5) Other Government Measures to Support SMEs, such as government procurement, policy loans for special projects and regulatory flexibility. A large number of projects and ancillary measures have been implemented in order to help achieve these goals. Each year, the government revises its SME development strategy to reflect changes in the economic environment in Taiwan and the global economy as a whole and carries out planning and implementation of related ancillary measures to boost the competitiveness of Taiwan's SMEs and contribute to their stable, continued development. New guidance and measures recently instituted by the government include the Project of Enhancing SMEs' Cross-domain Innovation and Value-added Capability and the SME Digital Transformation and Smart Manufacturing Promotion Program, which aim to enhance industries' competitive advantages. The Construct Eco-system for International Incubation and Start-ups Acceleration Program and Angel Investment Program were implemented to strengthen startup incubation and industrial innovation and development.

Part One

Recent Development of SMEs

Chapter 1 Major Trends in the Development of SMEs

Chapter 2 Financial and Funding Analysis of SMEs

Chapter 3 SMEs: Human Resources

Small and medium-sized enterprises (SMEs) continue to make up the backbone and have been one of the main driving forces of Taiwan's economic development over the past half century: recognized as export vanguard early on, key partners in supply chains and industrial clusters later, and recently focal point of local economy, entrepreneurship, and industrial upgrade and transformation. Official data published by central government of R.O.C. are analyzed to facilitate a deep understanding of SMEs. First, four major indicators including the number of enterprises, total annual sales, domestic sales, and export sales are examined for observations in terms of scales, industries, and sectors. Second, SMEs' financial structure and source of finance as well as human resources utilization, working conditions, and talent development are analyzed.

In 2017, Taiwan's economy was recovering, and the number of enterprises, total annual sales, domestic sales, export sales and the number of employed workers of Taiwan's SMEs all grew up. As of 2017, there were a total of 1,437,616 SMEs in Taiwan, accounting for 97.70 percent of the total number of enterprises in Taiwan, 2.08 percent higher than that of 2016; the number of employed workers in SMEs reached 8,904,000, accounting for 78.44 percent of total number of employed workers in Taiwan, 1.07 percent higher than that of 2016; both were record high. The SME's sales totaled NT\$12,139.5 billion, and the growth rate of SMEs sales returned to positive and was 3.19 percent higher than that of 2016; domestic sales totaled NT\$10,717.1 billion and the growth of domestic sales was 3.64 percent higher than that of 2016, which was an excellent performance. In the slow economic recovery, SMEs showed more economic potentials and the ability to create jobs.

CHAPTER 1

Major Trends in the Development of SMEs

With the increasing strength of global economy, Taiwan's economy performance in 2017 is better than previous years. SMEs, the backbone of Taiwan's economy, also revealed its capacity and ability in domestic and international market that pushed the economy moving forward.

This chapter consists of five sections to examine main indicators and survey results from government units to understand the development of Taiwan's SMEs in 2017. Section I mainly discusses the general business performance of SMEs. There are four major indices (number of enterprises, total annual sales, domestic sales, and export sales) for observations in terms of scales, industries, and sectors, as well as a year-by-year comparison. Section II shows the distribution of the number of enterprises, employees, and total annual sales in different regions in terms of sectors and counties/cities. Section III focuses on the current situation of female enterprises based on the four indices mentioned above. Section IV covers the business performance of SMEs in the wholesale and retail trade industry based on the survey results of the Business Survey of Wholesale, Retail and Food Service Activities conducted in May 2017 from the Department of Statistics, Ministry of Economic Affairs. Section V offers an overview of SMEs' R&D expenditure.

Statistics on the number of enterprises and total annual sales in this chapter are from Value-Added Business Tax (VAT) data of Fiscal Information Agency, Ministry of Finance, while statistics on employed persons (not in tax data) comes from Directorate-General of Budget, Accounting and Statistics (DGBAS), *Manpower Survey* data.

I General Business Performance of SMEs

Three major indices —the number of enterprises, total annual sales, domestic sales, the number of employed persons, and paid employees — improved slightly; the export sales declined slightly during the same period.

As of 2017, there were a total of 1,471,433 enterprises in Taiwan, accounting for 97.70 percent of the total number of enterprises in Taiwan (1,437,616), a record high. SMEs are mostly concentrated in the Service sector, with the proportion being 79.85 percent, of which wholesale and retail trade accounts for 47.93 percent. 53.32 percent SMEs are sole proprietorships. One of the major features of SMEs is that they are more flexible in market entry and exit than large enterprises. That explains the concentration of the distribution of the years in existence for SMEs: share of SMEs in existence below 10 years is 48.74 percent while the majority (78.22 percent) of large enterprises have been in existence for at least 10 years. Newly-established SMEs, defined as those that have been in existence for less than one year, account for 7.06 percent; 30.33 percent SMEs have been in

existence for less than 5 years. In 2017, SMEs' sales totaled NT\$12,139.5 billion, accounting for 30.22 percent of total sales of all enterprises; the domestic share of total SMEs' sales accounted for 88.28.

SMEs are heavily concentrated in Northern Taiwan. In 2017, 46.66 percent (671 thousand) of all SMEs were concentrated in Northern Taiwan; in terms of regions, Taiwan's Six Special Municipalities (Taipei, New Taipei, Taoyuan, Taichung, Tainan, and Kaohsiung) are the top six with largest number of SMEs: 1,037 thousand or 72.15 percent of total SMEs combined. Regarding employment, the number of employed persons in SMEs reaches 4,082,000 (45.84 percent) in Northern Taiwan; Taiwan's Six Special Municipalities are the top six employers with total 6,494,000 (72.93 percent) employed persons.

Here are further details of the performance and condition of Taiwan SMEs.

1. A Total of 1,437,616 SMEs in 2017, Keeping Growing

Number of SMEs set records several times after recession during the 2007-2009 global financial crisis. As of 2017, there were a total of 1,437,616 SMEs in Taiwan, accounting for 97.70 percent of the total number of enterprises in Taiwan, a record high. This figure represented an increase of 29,303 enterprises or 2.08 percent from 2016. The number of large enterprises was 33,817, up 3.59 percent from 2016, accounting for 2.30 percent of the total number of enterprises (Table 1-1-1).

2. The Number of Employed Persons in SMEs Reached 8,904,000 in 2017

In 2017, the number of employed persons in SMEs reached 8,904,000 of which 6,560,000 were paid employees. The growth rate was up; the growth rate of employed persons in SMEs in 2017 was 1.07 percent. SMEs contributed 78.44 percent of total employed persons and 72.84 percent of total paid employees (Table 1-1-1).

3. About 80 Percent of SMEs in Service Sector

Regarding the sectors, shares of SMEs by sectors have been quite stable and share of SMEs in the industry grew slightly while the share of SMEs in service decreased slightly after 2011. In 2017, SMEs are mostly concentrated in the service sector, with the proportion being 79.85 percent, and the industrial sector accounts for 19.32 percent. As of 2017, there were a total of 1,147,989 SMEs in the service sector, representing an increase of 24,260 SMEs or 2.16 percent from 2016; there were a total of 277,728 SMEs in the industrial sector, representing growth at 1.66 percent, slightly slower than that in the service sector (Table 1-1-2).

Table 1-1-1 Number of Enterprises, Annual Sales, Number of Employed Persons and Number of Paid Employees in Taiwan, 2016-2017

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

Indicator \ Enterprise size	All enterprises		SMEs		Large enterprises	
	2016	2017	2016	2017	2016	2017
No. of enterprises	1,440,958	1,471,433	1,408,313	1,437,616	32,645	33,817
Share of total	100.00	100.00	97.73	97.70	2.27	2.30
Annual growth rate	1.71	2.11	1.76	2.08	-0.34	3.59
Total sales	38,312,769	40,169,099	11,764,677	12,139,513	26,548,091	28,029,586
Share of total	100.00	100.00	30.71	30.22	69.29	69.78
Annual growth rate	-1.45	4.85	-0.33	3.19	-1.94	5.58
Domestic sales	28,848,507	30,172,981	10,340,886	10,717,138	18,507,621	19,455,843
Share of total	100.00	100.00	35.85	35.52	64.15	64.48
Annual growth rate	-1.06	4.59	0.15	3.64	-1.73	5.12
Export sales	9,464,262	9,996,119	1,423,791	1,422,375	8,040,471	8,573,744
Share of total	100.00	100.00	15.04	14.23	84.96	85.77
Annual growth rate	-2.60	5.61	-3.66	-0.10	-2.41	6.63
No. of employed persons	11,267	11,352	8,810	8,904	1,432	1,425
Share of total	100.00	100.00	78.19	78.44	12.71	12.55
Annual growth rate	0.62	0.75	0.57	1.07	1.2	-0.49
No. of paid employees	8,926	9,006	6,472	6,560	1,429	1,423
Share of total	100.00	100.00	72.50	72.84	16.01	15.80
Annual growth rate	0.74	0.90	0.75	1.36	1.13	-0.42

Note:

1. The annual growth rate is the current year rate of change compared to the previous year.
2. The figures (and percentages) given in the table for the number of employed persons and number of paid employees working in all enterprises include 1,023,000 government employees, accounting for 9.01 percent of all employed persons and 11.36 percent of all paid employees.
3. The term "SME" shall mean an enterprise which has completed company registration or business registration in accordance with the requirements of the laws, and which conforms to the following standards: (1) the enterprise is an enterprise in the manufacturing, construction, mining or quarrying industry with paid-in capital of NT\$80 million or less; (2) the enterprise is an enterprise in the industry other than any of those mentioned above and had its sales revenue of NT\$100 million or less in the previous year, according to the Standards for Identifying Small and Medium Enterprises.

Source:

1. Fiscal Information Agency, Ministry of Finance, Value-Added Business Tax (VAT) data (2016-2017).
2. Directorate-General of Budget, Accounting and Statistics (DGBAS), *Manpower Survey* data (2016-2017).

Table 1-1-2 Shares of SMEs in Taiwan by Sector, 2011-2017

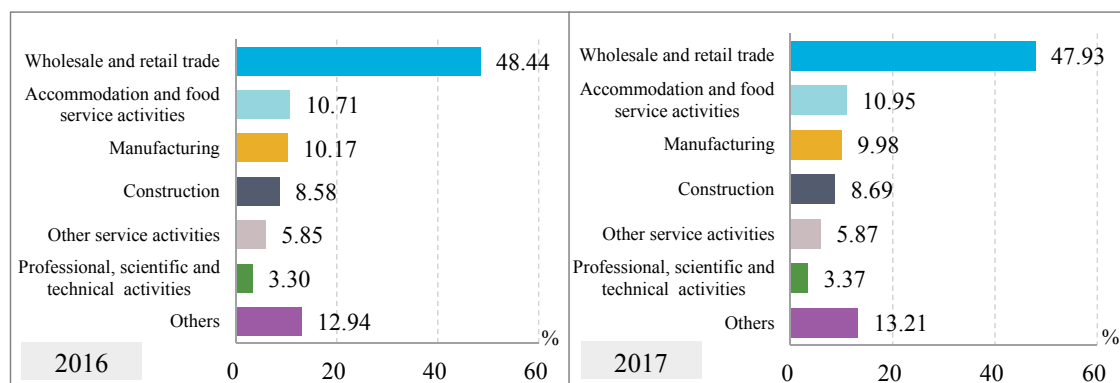
Unit: Enterprises; million NT\$; %

Sector \ Year	2011	2012	2013	2014	2015	2016	2017
All SMEs	1,279,784	1,306,729	1,331,182	1,353,049	1,383,981	1,408,313	1,437,616
Agricultural sector	0.90	0.90	0.90	0.85	0.84	0.81	0.83
Industrial sector	19.01	19.07	19.19	19.43	19.45	19.40	19.32
Service sector	80.09	80.02	79.91	79.72	79.72	79.79	79.85
Total sales	11,226,933	11,381,770	11,321,842	11,839,868	11,803,115	11,764,677	12,139,513
Agricultural sector	0.16	0.18	0.19	0.20	0.20	0.21	0.23
Industrial sector	50.13	50.13	48.67	49.27	48.23	47.41	47.69
Service sector	49.70	49.69	51.13	50.53	51.56	52.38	52.09
Domestic sales	9,567,948	9,633,690	9,897,617	10,345,095	10,325,260	10,340,886	10,717,138
Agricultural sector	0.17	0.19	0.19	0.20	0.20	0.20	0.22
Industrial sector	46.28	45.65	45.72	46.23	45.13	44.35	44.73
Service sector	53.55	54.16	54.09	53.58	54.68	55.45	55.05
Export sales	1,649,985	1,748,080	1,424,225	1,494,773	1,477,855	1,423,791	1,422,375
Agricultural sector	0.12	0.10	0.19	0.22	0.23	0.23	0.27
Industrial sector	72.50	74.82	69.21	70.36	69.94	69.66	69.96
Service sector	27.38	25.08	30.60	29.42	29.83	30.11	29.78

Source: Fiscal Information Agency, Ministry of Finance, VAT data (2011-2017).

4. About 50 Percent SMEs Were in Wholesale and Retail Trade

In terms of the industries, 47.93 percent of SMEs are in wholesale and retail trade, a total of 689,038 in 2017 (up 6,820 from 2016), followed by accommodation and food service activities with 10.95 percent of SMEs, a total of 157,388 (up 6,495), and the third in manufacturing with 9.98 percent, a total of 143,429 followed by construction with 8.69 percent, other service activities with 5.87 percent, professional, scientific and technical activities with 3.37 percent (Figure 1-1-1).

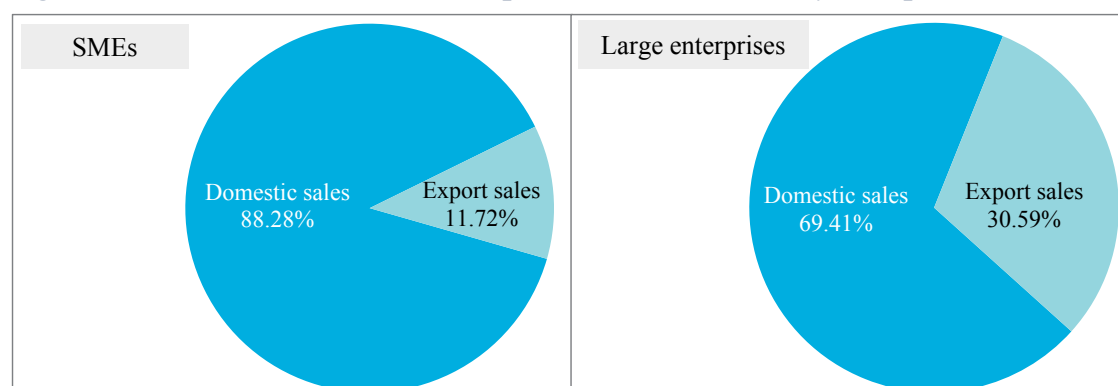
Figure 1-1-1 Number of SMEs Distribution by Industry, 2016-2017

Source: Fiscal Information Agency, Ministry of Finance, VAT data, 2016-2017.

5. Domestic Share of Total Sales of SMEs in 2017 Accounted for 88 Percent

In 2017, SMEs' sales totaled NT\$12,139.5 billion, accounting for 30.22 percent of total sales of all enterprises; domestic share of total SMEs' sales accounted for 88.28 percent (NT\$10,717.1 billion), with SMEs' domestic sales up 3.64 percent from 2016. Large enterprises' sales totaled NT\$28,029.6 billion; domestic share of total large enterprises' sales accounted for 69.41 percent (NT\$19,455.8 billion), showing SMEs were more domestically oriented than large enterprises (Figure 1-1-2 and Table 1-1-1).

Figure 1-1-2 Shares of Domestic and Export Sales in Total Sales by Enterprise Size, 2017



Source: Fiscal Information Agency, Ministry of Finance, VAT data, 2017.

6. Total Export Sales of SMEs Down 0.10 Percent in 2017

In 2017, the economic recovery generally benefited SMEs. The total sales of SMEs, total domestic sales of SMEs, and total export sales of SMEs rose by 3.19 percent, rose by 3.64 percent, and fell by 0.10 percent respectively (Table 1-1-1).

2017 SMEs' export propensity (SME export sales' share of the SMEs' total sales) was at 11.72 percent, down 0.39 percentage points from 2016; 2017 SMEs' export contribution (SME export sales' share of all enterprises' export sales) was at 14.23 percent, down 0.81 percentage points from 2016, which is relatively lower than the historical records, still lower than SMEs' export contribution level in 2010 (Table 1-1-3).

The relatively lower export contribution rate and the low export propensity of SMEs are generally attributed to three reasons. First, the relative strength in New Taiwan Dollar (NTD) weakens the price competitiveness of SMEs. Secondly, the products and services of SMEs are offered to the large enterprises that export, hiding SMEs' direct export figures. Thirdly, the shrinking export sales in the service sector that results from the loss of tourists from mainland China and the boom in online shopping.

Table 1-1-3 Number and Sales Performance of SMEs, 2010-2017

Unit: Enterprises; million NT\$; %

Indicator \ Year	2010	2011	2012	2013	2014	2015	2016	2017
No. of SMEs	1,247,998	1,279,784	1,306,729	1,331,182	1,353,049	1,383,981	1,408,313	1,437,616
Ratio	97.68	97.63	97.67	97.64	97.61	97.69	97.73	97.70
Annual growth rate	1.30	2.55	2.11	1.87	1.64	2.29	1.76	2.08
SME total sales	10,709,005	11,226,933	11,381,770	11,321,842	11,839,868	11,803,115	11,764,677	12,139,513
Ratio	29.55	29.64	30.23	29.44	29.42	30.36	30.71	30.22
Annual growth rate	16.54	4.84	1.38	-0.53	4.58	-0.31	-0.33	3.19
SME domestic sales	9,088,972	9,567,948	9,633,690	9,897,617	10,345,095	10,325,260	10,340,886	10,717,138
Ratio	34.67	34.51	34.66	34.58	34.46	35.41	35.85	35.52
Annual growth rate	15.44	5.27	0.69	2.74	4.52	-0.19	0.15	3.64
SME export sales	1,620,033	1,649,985	1,748,080	1,424,225	1,494,773	1,477,855	1,423,791	1,422,375
Ratio (Export contribution)	16.16	16.29	17.74	14.48	14.62	15.21	15.04	14.23
Export propensity	15.13	14.70	15.36	12.58	12.62	12.52	12.11	11.72
Annual growth rate	23.07	1.85	5.95	-18.53	4.95	-1.13	-3.66	-0.10

Note:

1. The ratio indicates SMEs' share in total enterprises.

2. Export contribution = (export sales value of SMEs / export sales value of all enterprises) × 100%.

3. Export propensity = (export sales value of SMEs / total sales value of SMEs) × 100%.

Source: Fiscal Information Agency, Ministry of Finance, VAT data (2010-2017).

China and other neighboring countries adopted aggressive export expansion and import substitution strategy that posed a significant challenge to Taiwan's export. Some of Taiwan's critical roles in the international supply chain were replaced by competitors.

The low total exports of SMEs in recent years were mainly driven by the manufacturing sector export. We show the breakdown of SMEs exports by industry in the manufacturing sector in Appendix C Table C-9. Regarding export amount within the manufacturing sector, the dominant driver was electronic parts and components during the period from 2014 to 2017. It rose slightly about 2.70 percent to NT\$295.3 billion in 2014 (28.44 percent of all manufacturing sector export), and then declined slightly 1.54 percent in 2015 primarily due to weak global recovery and intensified supply chain competition from developing and emerging markets including mainland China and ASEAN member countries, amounting to NT\$290.75 billion. In 2016, along with the global economic recovery, SMEs' electronic parts and components exports rose again by 4.88 percent, amounting to NT\$304.95 billion. However, in 2017, the exports did not keep the momentum going, it fell by 1.12 percent, amounting to NT\$301.53 billion.

The next four industries contributing the most to SMEs' 2017 exports were machinery and equipment, fabricated metal products, plastic products, and other transport equipment manufacturing. Although the total export growth rate was close to zero, some industries including pharmaceuticals and medicinal chemical products manufacturing (up 68.56 percent), repair and installation of industrial machinery and equipment (up 62.21 percent), wood and of products of wood and bamboo (up 19.00 percent), petroleum and coal products manufacturing (up 15.89 percent), chemical material,

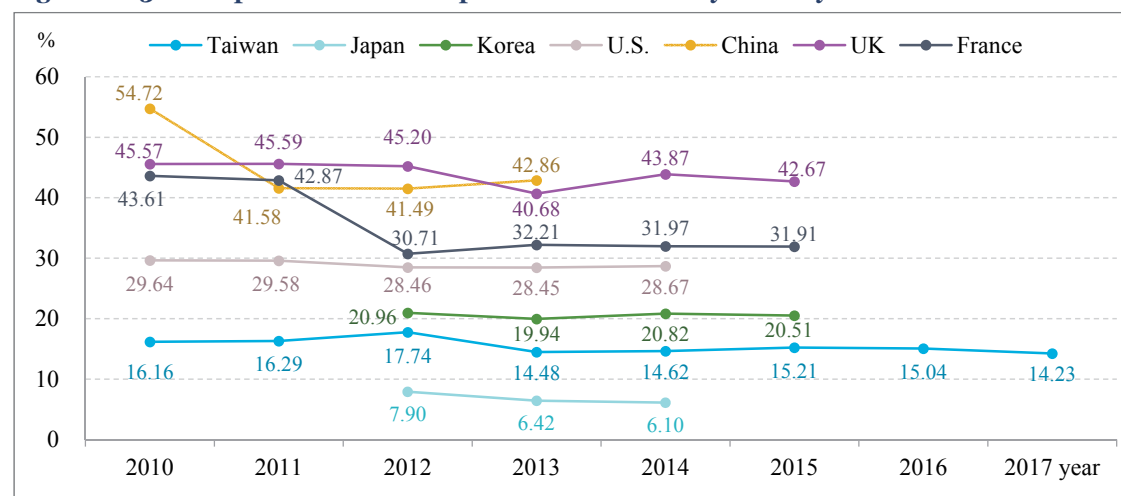
fertilizers and nitrogen compounds, plastic and rubber materials, man-made fibres (up 15.23 percent), and non-metallic mineral products manufacturing (up 13.40 percent) were bright spots with two-digit growing exports in 2017. In contrast, paper and paper products (down 41.64 percent), beverages manufacturing (down 24.95 percent), leather, fur and related products (down 22.59 percent), other manufacturing (down 10.67), and basic metal manufacturing (down 10.19 percent) showed two-digit decrease, implied that the slump of the foreign demand, China's red supply-chain, the emerge and competition of emerging countries (such as South-east countries) might be the reasons for Taiwan's slowdown of export growth.

The total sales of large enterprises, total domestic sales of large enterprises, and total export sales of large enterprises in 2017 rose by 5.58 percent, 5.12 percent, and 6.63 percent respectively, for better than those of SMEs, showing strong resilience to economic uncertainty (Table 1-1-1).

SMEs in different countries play different roles in globalization (measured by export contribution). Take Japan and South Korea, Taiwan's main competitors, for examples:

Japan SMEs used to be domestic market oriented. Due to globalization and cost concern, large Japanese manufacturers have aggressively outsourced and relocated businesses globally. This plus intensified competition from imported products in domestic market with limited growth has made more Japan SMEs turn to overseas markets for expansion. However, after the global financial crisis, while a weak yen was positive for Japan's economy, the slow pace of economic recovery and manufacturing offshoring still contributed to the decreasing export contributions (down to 6.10 in 2014) (Figure 1-1-3).

Figure 1-1-3 Comparison of SME Export Contributions by Country



Note: Export contribution = (the export value of SMEs / the export value of all enterprises) × 100%.

Source: Taiwan data from *White Paper on SMEs in Taiwan*; Japan data collected by the Japan Small and Medium Enterprise Agency; Korean, US's, UK's and French data from OECD database.

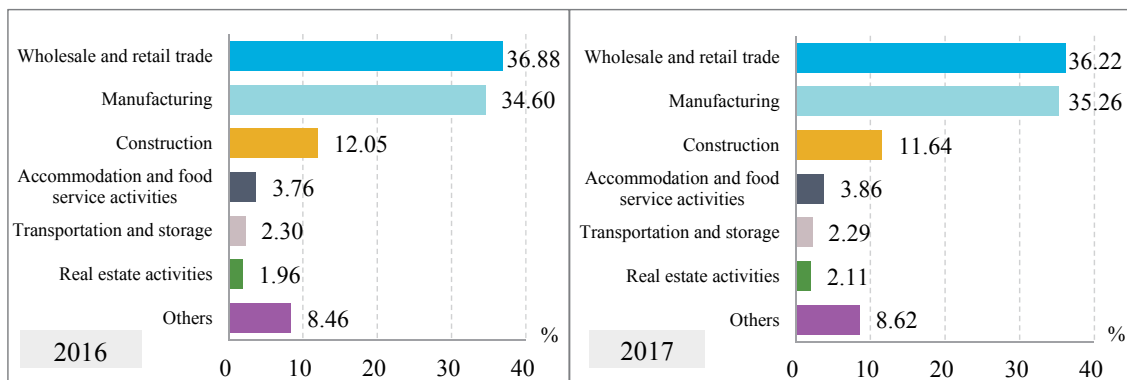
Although the global success of chaebol (a typical business conglomerate structure in South Korea) such as Samsung and Hyundai have boosted South Korea's standing abroad, at home their economic dominance has prompted concerns that they have developed a near-monopoly on the country's most talented workers and capital, while restricting the prospects of SMEs that supply and

compete with them. Since 1980s, the government has pared back the dominance of the chaebol and allocated more resources to SMEs. In 1990s, SMEs' export contribution passed that of large enterprises for the first time. However, in globalization, especially to compete with cheap products of mainland China, shocked SMEs have transformed their business models through cost control and technical upgrade; and South Korea have signed FTAs with many countries including mainland China to heighten price competition of SMEs. Therefore, South Korea SMEs' export contribution remained relatively stable (2012-2015) to that of Taiwan SMEs (2010-2014) (Figure 1-1-3).

7. Wholesale and Retail Trade and Manufacturing Remained Top Contributors of Sales

In terms of shares of sales by industry, top three industries in 2017 were wholesale and retail trade with a share of 36.22 percent (NT\$4,397.1 billion), followed by manufacturing share of 35.26 percent (NT\$4,279.9 billion) and construction share of 11.64 percent (NT\$1,412.5 billion). Sales of the top three industries combined accounted for 83.12 percent of total sales of SMEs (Figure 1-1-4).

Figure 1-1-4 Distribution of Sales in SMEs by Industry, 2016-2017



Source: Fiscal Information Agency, Ministry of Finance, VAT data, 2016-2017.

8. About 102 Thousand New Enterprises in 2017 Were SMEs; Most Sales Came from Domestic Market

Newly-established enterprises are defined as those that have been in existence for less than one year. In 2017, there were 101,556 newly-established SMEs in Taiwan, representing 99.85 percent of the total of 101,710 newly-established enterprises. 95.86 percent newly-established SMEs' total sales came from domestic market in 2017, higher than 84.32 percent for newly-established large enterprises (Table 1-1-4).

9. Service Sector Accounted for the Largest Number of Newly-Established SMEs

Regarding the sectors, the service sector accounted for the largest number of newly-established SMEs (85,838 or 84.52 percent of newly-established SMEs) in 2017 and accounted for about 77.99 percent sales, 78.23 percent domestic sales, and 72.41 percent exports of newly-established SMEs (Table 1-

1-5).

Concerning the industries, 41.26 percent of newly-established SMEs were in wholesale and retail trade, followed by accommodation and food service activities at 18.41 percent, and construction at 9.22 percent in 2017 (Figure 1-1-5).

Table 1-1-4 Number and Sales Performance of Newly-Established Enterprises, 2017

Unit: Enterprises; million NT\$; %

Indicator \ Enterprise size	Total (1)	No. of SMEs (2)	SMEs ratio (3) = (2)/(1)	Share of SMEs total	No. of large enterprises (4)	Large enterprises ratio (5) = (4)/(1)	Share of large enterprises total
No. of enterprises	101,710	101,556	99.85	-	154	0.15	-
Total sales	206,821	168,857	81.64	100.00	37,965	18.36	100.00
Domestic sales	193,886	161,874	83.49	95.86	32,012	16.51	84.32
Export sales	12,935	6,983	53.99	4.14	5,952	46.01	15.68

Note: “-”: not applicable. Source: Fiscal Information Agency, Ministry of Finance, VAT data (2017).

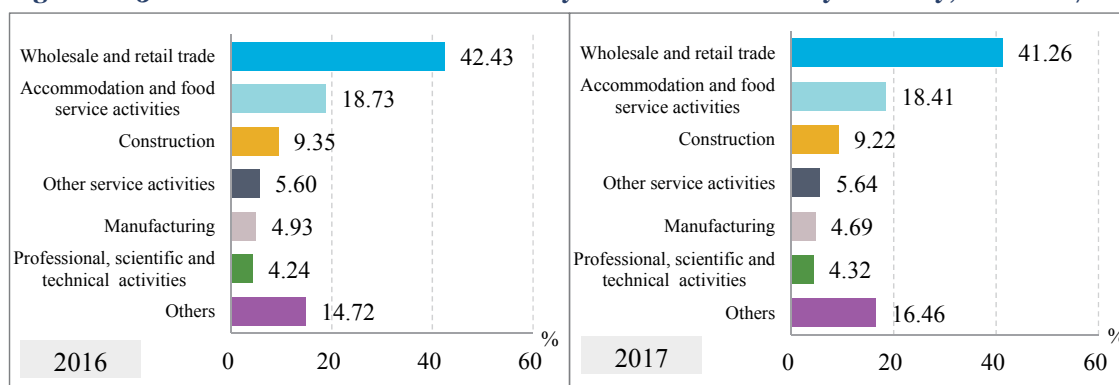
Table 1-1-5 Number and Sales Performance of Newly-Established SMEs by Sector, 2017

Unit: Enterprises; million NT\$; %

Sector \ Indicator	No. of enterprises	Share of total	Total sales	Share of total	Domestic sales	Share of total	Export sales	Share of total
All sectors	101,556	100.00	168,857	100.00	161,874	100.00	6,983	100.00
Agricultural sector	889	0.88	643	0.38	611	0.38	32	0.46
Industrial sector	14,829	14.60	36,531	21.63	34,637	21.40	1,895	27.13
Service sector	85,838	84.52	131,683	77.99	126,627	78.23	5,056	72.41

Source: Fiscal Information Agency, Ministry of Finance, VAT data (2017).

Figure 1-1-5 Distribution of Number of Newly-Established SMEs by Industry, 2016-2017



Source : Fiscal Information Agency, Ministry of Finance, VAT data, 2016-2017.

10. Newly-Established SMEs in Human Health and Social Work Activities Showed Good Growth and Performance

In 2017, the number of newly-established SMEs in Human Health and Social Work Activities was increased by 105.41 percent (or 78 SMEs) from 2016. Compared to 2016, the numbers of newly-established SMEs all grew in 2017 except for water supply and remediation activities. The sales of

newly-established SMEs in agriculture, forestry, fishing and animal husbandry, mining and quarrying, manufacturing, water supply and remediation activities, construction, transportation and storage, financial and insurance activities, education, human health and social work activities, arts, entertainment and recreation, and other service activities grew. Notably, there were triple-digit and above growth in both firm numbers and sales of newly-established SMEs in human health and social work activities (105.41 percent and 1,117.77 percent), showed a potentially bright future.

11. SMEs Are More Flexible in Entry / Exit than Large Enterprises

As of 2017, 7.06 percent of SMEs had been in existence for less than one year. 30.33 percent of SMEs had been operating within five years, and 48.74 percent within 10 years. The corresponding shares for large enterprises were only 0.46 percent, 9.05 percent, and 21.78 percent, respectively. 78.22 percent of large enterprises had been in existence for 10 years or more. These figures show that, in terms of market entry and exit, SMEs display more flexibility than large enterprises.

However, the share of SMEs in existence for 20 years or more was 25.95 percent, far below 46.33 percent of large enterprises in 2017 (similar comparison seen in previous years). It shows that business succession/transition remains a major challenge to SMEs as going concerns. Further, compared to large enterprises, SMEs in existence for 20 years or more suffered significant sales decline and “the crisis of the elderly age” as their first-generation entrepreneurs got into old age and lost their vitality and creativity. It has become an important issue for the sustainable development of SMEs to rediscover and activate the entrepreneurial spirit, combined with sound “second-generation succession” and business transformation strategy. To upgrade SMEs with high potential to Mittelstand, the government has launched programs recently to offer guidance and assistance to 50 SMEs with high potential per year, by effectively using talent, technology, intellectual property, and brand marketing guidance resources, in combination with alliance companies to build a supply chain ecosystem (Table 1-1-6).

Table 1-1-6 Shares of SMEs by Particular Ages, 2012-2017

Age \ Year	2012	2013	2014	2015	2016	Unit: Enterprises; %	
						2017	
						SMEs	Large enterprises
Total no. of SMEs	1,306,729	1,331,182	1,353,049	1,383,981	1,440,958	1,437,616	33,817
Less than 1 year	7.34	7.42	6.94	7.10	6.63	7.06	0.46
1 – 2 years	7.44	7.12	7.59	6.86	6.93	6.73	1.69
2 – 3 years	6.15	6.37	6.16	6.62	5.83	6.09	2.15
3 – 4 years	5.14	5.39	5.61	5.46	5.77	5.21	2.21
4 – 5 years	4.51	4.59	4.80	5.03	4.87	5.24	2.54
5 – 10 years	21.53	20.43	19.57	18.50	18.19	18.41	12.73
10 – 20 years	24.93	25.17	25.03	25.47	25.98	25.31	31.89
20 years or more	22.95	23.52	24.30	24.96	25.80	25.95	46.33

Source : Fiscal Information Agency, Ministry of Finance, VAT data (2012-2017).

12. About 53 Percent SMEs Are Sole Proprietorships

Sole proprietorships constituted the largest group of SMEs, with 766,470 firms or 53.32 percent of the total, followed by limited corporations, with 444,797 firms (30.94 percent of the total), and corporations limited, with 121,538 firms (8.45 percent). These three types accounted for a combined total of 92.71 percent of all SMEs in Taiwan. On the other hand, corporations limited constituted the largest group of larger enterprises, at 54.80 percent of the total, followed by limited corporations at 22.95 percent and subsidiaries of the domestic company at 10.91 percent. These three types accounted for a combined total of 88.66 percent of all larger enterprises in Taiwan (Table 1-1-7).

Table 1-1-7 Number and Share of Enterprises in Taiwan by Form of Organization, 2017

Unit: Enterprises; %

Organization	Enterprise size	SMEs		Large enterprises	
		Number of enterprises	Share of total	Number of enterprises	Share of total
Total		1,437,616	100.00	33,817	100.00
Corporation limited		121,538	8.45	18,533	54.80
Limited corporation		444,794	30.94	7,760	22.95
Unlimited corporation		103	0.01	0	0.00
Unlimited corporation with limited liability shareholders		21	0.00	0	0.00
Partnership		30,005	2.09	106	0.31
Sole proprietorship		766,470	53.32	133	0.39
Subsidiary of domestic company		33,254	2.31	3,690	10.91
Subsidiary of foreign company		4,581	0.32	865	2.56
Others		36,850	2.56	2,730	8.07

Note: 1. Others in the form of organization denote business entities not in the form of any type of companies, partnership or sole proprietorship. 2. Majority of business entities in this form is the offices, branches or retail shops of domestic companies, not counted as subsidiaries of those companies. Source: Fiscal Information Agency, Ministry of Finance, VAT data (2017).

II SMEs and the Regional Development

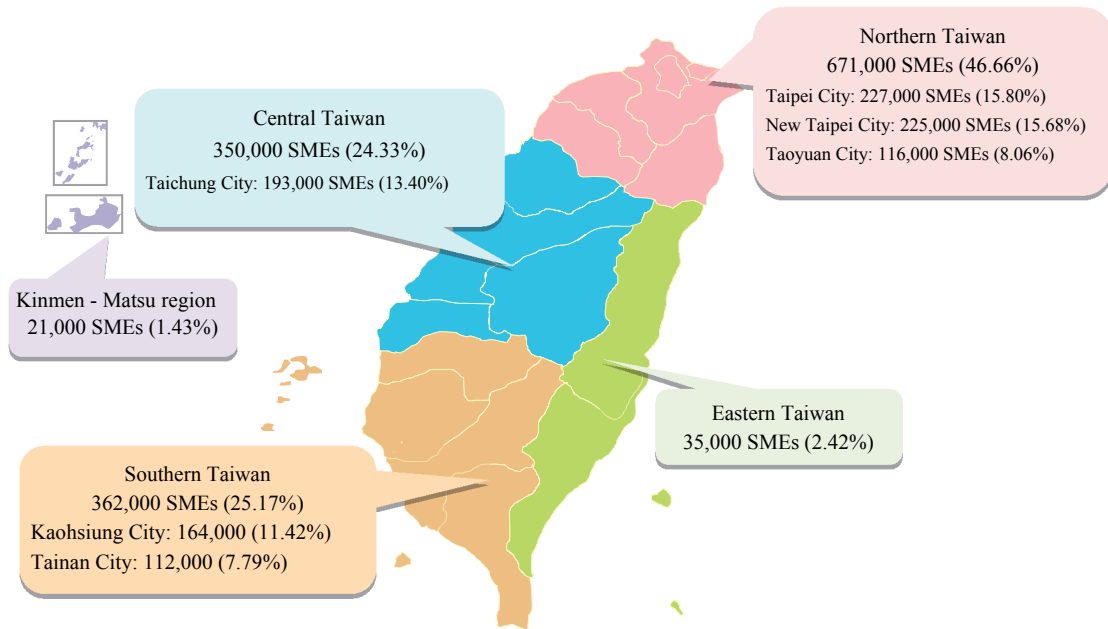
1. About 47 Percent SMEs Are Concentrated in Northern Taiwan

In regional terms, in 2017, 46.66 percent (671 thousand) of SMEs were concentrated in Northern Taiwan; 24.33 percent (350 thousand) were located in Central Taiwan and 25.17 percent (362 thousand) in Southern Taiwan (Figure 1-2-1).

Taiwan's Six Special Municipalities are the top six with the largest number of SMEs: 1,037 thousand or 72.15 percent of total SMEs combined in 2017. As can be seen from the data presented in Table 1-2-1, of the Six Special Municipalities, Taipei City had the largest number of SMEs: 227 thousand or 15.80 percent of all SMEs, followed by 225 thousand or 15.68 percent in 2nd ranked New Taipei City, 13.40 percent in 3rd ranked Taichung City, 11.42 percent in 4th ranked Kaohsiung City, 8.06 percent in 5th ranked Taoyuan City, and 7.79 percent in 6th ranked Tainan City. Compared to 2016, the Six Special Municipalities reported rising numbers of SMEs. Taoyuan City showed the

largest growth (3.37 percent) in number of SMEs, followed by Taichung City (2.94 percent) (Table 1-2-1).

Figure 1-2-1 The Distribution of SMEs by Region in 2017



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

Source: Fiscal Information Agency, Ministry of Finance, VAT data, 2017.

Table 1-2-1 Number and Total Sales of SMEs in Taiwan's Six Special Municipalities by Size of Enterprise, 2017

Unit: Enterprises; million NT\$; %

Major cities Enterprise size	Total	Combined total for the Six Special Municipalities	Taipei City	New Taipei City	Taoyuan City	Taichung City	Tainan City	Kaohsiung City
Number of enterprises								
All enterprises	1,471,433	1,065,288	237,730	230,720	118,812	196,493	113,933	167,600
SMEs	1,437,616	1,037,195	227,140	225,450	115,859	192,621	111,969	164,156
Share of total	100.00	72.15	15.80	15.68	8.06	13.40	7.79	11.42
Annual growth rate	2.08	2.20	1.72	2.00	3.37	2.94	1.93	1.69
Large enterprise	33,817	28,093	10,590	5,270	2,953	3,872	1,964	3,444
Total sales								
All enterprises	40,169,099	31,464,439	12,422,229	4,740,371	3,528,932	3,972,434	2,294,041	4,506,432
SMEs	12,139,513	9,329,179	1,927,712	1,976,675	1,292,633	1,801,148	931,116	1,399,895
Share of total	100.00	76.85	15.88	16.28	10.65	14.84	7.67	11.53
Annual growth rate	3.19	2.96	-0.19	2.05	4.88	4.34	2.33	5.73
Large enterprise	28,029,586	22,135,260	10,494,517	2,763,697	2,236,299	2,171,286	1,362,925	3,106,536

Source: Fiscal Information Agency, Ministry of Finance, VAT data (2017).

Examination of the distribution of SMEs by sectors in 2017 shows that Kaohsiung City had the largest share of agricultural SMEs at 27.80 percent, followed by Ilan County (10.68 percent), and Changhua County (6.77 percent). New Taipei City had the largest share of industrial SMEs, accounting for 25.70 percent, especially, while Taipei City, the commercial and financial center of Taiwan, had the largest share of service SMEs, accounting for 90.92 percent. Moreover, Taipei City had the largest shares of all industries of service SMEs except for transportation and storage. The shares of SMEs of knowledge-based service industries including information and communication (45.30 percent), financial and insurance (62.81 percent), professional, scientific and technical activities (31.71 percent), education (31.57 percent), human health and social work activities (23.08 percent) were far larger than those of other cities and counties.

Industry clusters or concentration usually lead to positive economic benefits but at the same time widens the gap between urban and rural areas. However, a more feasible development strategy is not to reverse the rural-urban gap, but to take a deep dive into the characteristics of rural counties and help local SMEs develop products of local specialties.

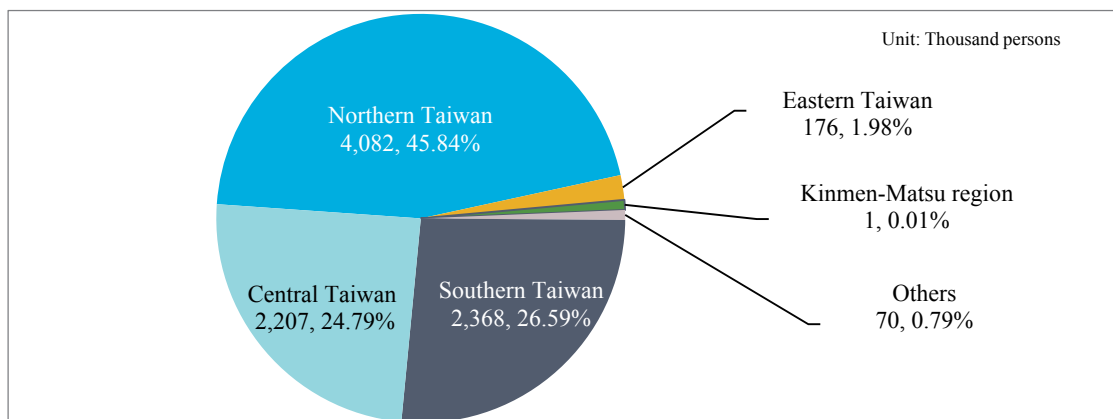
2. SME Sales by City: 77 Percent from Six Special Municipalities

Examination of SME sales in 2017 by cities shows that about 77 percent of all SME sales came from the Six Special Municipalities. The largest share of overall SME sales was in New Taipei City with 16.28 percent of total sales, followed by Taipei City with 15.88 percent, Taichung City (14.84 percent), Kaohsiung City (11.53 percent), Taoyuan City (10.65 percent), and Tainan City (7.67 percent).

3. Northern Region Had about 46 Percent of Employed Persons by SMEs

As can be seen from the 2017 data presented in Figure 1-2-2, of the four regions, Northern Taiwan had the largest number of employed persons by SMEs (4,082 thousand or 45.84 percent), followed by Southern Taiwan (2,368 thousand or 26.59 percent), and Central Taiwan (2,207 thousand or 24.79 percent).

Figure 1-2-2 Distribution of SME Employment by Region, 2017



Notes: Others denote domicile record of an employed person is in Taiwan but works for SMEs overseas in 2017.

Source: Directorate-General of Budget, Accounting and Statistics, *Manpower Survey* data (2017).

4. New Taipei and Taipei City Combined Had over 35 Percent of Employed Persons by SMEs

Of the Six Special Municipalities, New Taipei City had the largest number of employed persons by SMEs (1,405 thousand or 15.78 percent), followed by Taipei City (1,338 thousand or 15.03 percent), and Taichung City (1,194 thousand or 13.41 percent). The Six Special Municipalities had combined employment of 6,494 thousand or 72.93 percent of all people employed by SMEs (Table 1-2-2).

Table 1-2-2 Number of Employed Persons in Taiwan's Six Special Municipalities, 2017

Unit: Thousand persons; %

Enterprise size \ Major cities	Total	Combined total for the Six Special Municipalities	Taipei City	New Taipei City	Taoyuan City	Taichung City	Tainan City	Kaohsiung City
All enterprises	11,352	8,282	1,877	1,649	1,090	1,415	942	1,309
SMEs	8,904	6,494	1,338	1,405	765	1,194	757	1,035
Share of total	100.00	72.93	15.03	15.78	8.59	13.41	8.50	11.62
Large enterprises	1,425	1,066	289	132	253	116	120	157
Share of total	100.00	74.84	20.25	9.23	17.77	8.13	8.42	11.03
Government employees	1,023	720	251	113	72	104	64	117

Note: Share of total in the table represents the percentage of employed persons in the certain city (or cities) of all employed persons.

Source: Directorate-General of Budget, Accounting and Statistics, *Manpower Survey* data (2017).

III Female-Owned SMEs

Based on data from the Fiscal Information Agency, Ministry of Finance, the gender of a person is identified by the first digit of her (his) identity card number. Therefore, enterprises where the owner is a juridical person or foreigner have to be excluded from the calculations. Also, it is not possible to eliminate those enterprises where a woman is the nominal owner but is not actually running the business, or where the female “owner” actually controls only a minority of the firm’s shares. It follows that the total number of SMEs in Section I may not match the sum of female-owned SMEs and male-owned SMEs.

1. Female-Owned Enterprises Account for over 36 Percent of All Enterprises; about 99 Percent Female-Owned Enterprises Are SMEs

In 2017, there were 1,455,592 enterprises in Taiwan for which the sex of the business owner could be identified. Of these, 530,030 (36.41 percent of the total) were owned by women. Female-owned enterprises increased by 13,781 or 2.67 percent from 2016. 98.73 percent (523,274) of female-owned enterprises were SMEs (Table 1-3-1).

Table 1-3-1 Number and Sales Performance of Enterprises by Sex of Business Owner, 2017

Unit: Enterprises; million NT\$; %

Indicator \ Enterprise size	All enterprises	SMEs	Large enterprises
No. of enterprises	1,455,592	1,424,138	31,454
Female-owned enterprises	530,030	523,274	6,756
Share of total ¹	100.00	98.73	1.27
Share of total ²	36.41	36.74	21.48
Male-owned enterprises	925,562	900,864	24,698
Total sales	35,295,232	11,725,989	23,569,243
Female-owned enterprises	5,822,127	2,984,260	2,837,867
Share of total ¹	100.00	51.26	48.74
Share of total ²	16.50	25.45	12.04
Male-owned enterprises	29,473,105	8,741,729	20,731,376
Domestic sales	27,362,702	10,464,646	16,898,056
Female-owned enterprises	5,017,951	2,725,876	2,292,075
Share of total ¹	100.00	54.32	45.68
Share of total ²	18.34	26.05	13.56
Male-owned enterprises	22,344,751	7,738,770	14,605,981
Export sales	7,932,530	1,261,343	6,671,187
Female-owned enterprises	804,176	258,384	545,792
Share of total ¹	100.00	32.13	67.87
Share of total ²	10.14	20.48	8.18
Male-owned enterprises	7,128,354	1,002,959	6,125,395

Note:

1. Whether an enterprise should be classified as male-owned or female-owned was determined using the registered identity of the business owner.

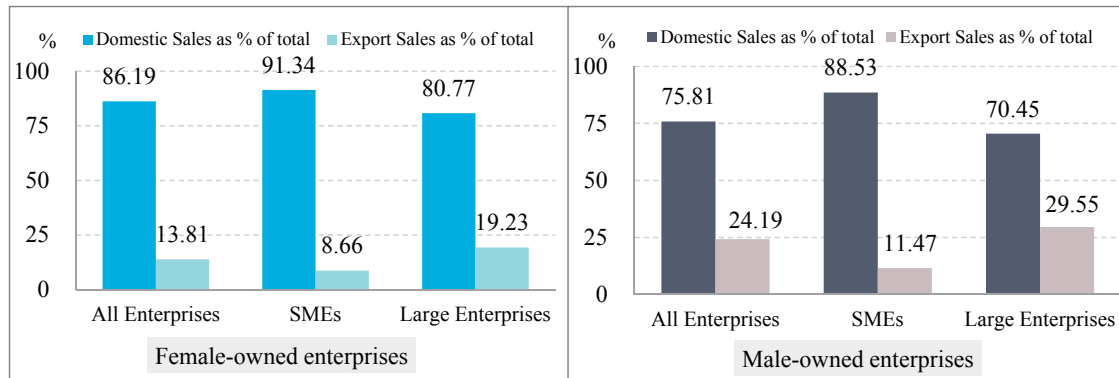
2. The totals for all enterprises given in this table do not conform to those given in Table 1-1-1 because some enterprises are registered as being owned by other enterprises or by foreigners; these enterprises were excluded from the data used in this table.

3. Share of total 1 in the table represents the percentages of SMEs (large enterprises) in all female-owned enterprises; share of total 2 represents the percentage of female-owned enterprises in all enterprises.

Source: Fiscal Information Agency, Ministry of Finance, VAT data (2017).

2. Female-Owned Enterprises Are More Oriented toward Domestic Market, Female-Owned SMEs in Particular

In 2017, domestic sales accounted for a dominant 91.34 percent of the total sales of female-owned SMEs, with export sales accounting for only 8.66 percent, (giving a disparity of 82.68 percentage points). For male-owned SMEs, export sales accounted for 11.47 percent and domestic sales accounted for 88.53 percent, giving a disparity of 77.06 percentage points (Figure 1-3-1).

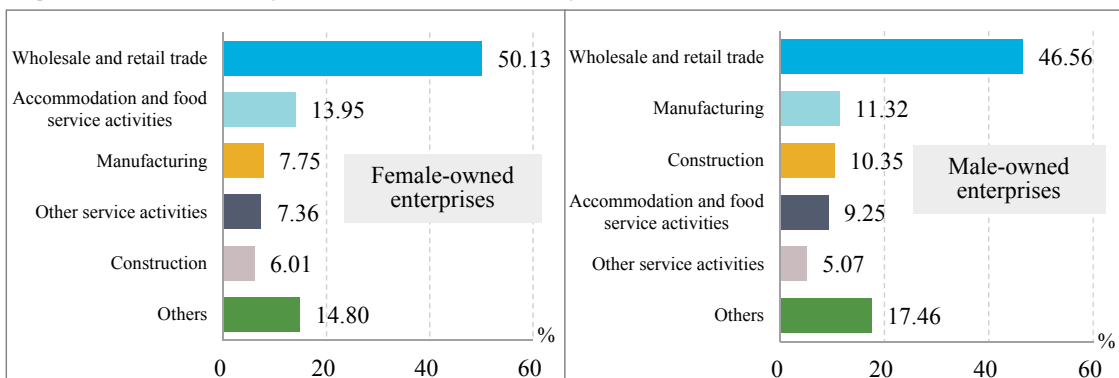
Figure 1-3-1 Shares of Domestic Sales and Export Sales by Sex of Business Owner, 2017

Note and source: See Table 1-3-1.

3. Female-Owned SMEs Are Heavily Concentrated in the Wholesale and Retail Trade

The service sector accounts for the largest share of the total number of female-owned enterprises at 85 percent, compared to 77 percent share of male-owned enterprises. The wholesale and retail trade industry accounted for the largest share of the total number of female-owned SMEs, and also for the largest share of female-owned SMEs in total sales, and domestic sales, at 50.13 percent, 42.98 percent, and 42.64 percent in 2017. Manufacturing industry accounted for the largest share of female-owned SMEs in export sales, at 49.51 percent, followed by the wholesale and retail trade industry (46.65 percent) in 2017 (Appendix C Table C-8).

The same top five industries accounts for the largest share of the total number of both male and female-owned SMEs but with the slightly different order. For female-owned SMEs in 2017, the order is wholesale and retail trade at 50.13 percent, followed by accommodation and food service activities at 13.95 percent, manufacturing at 7.75 percent, other service activities at 7.36 percent, and construction at 6.01 percent. For male-owned SMEs, the order is wholesale and retail trade at 46.56 percent, followed by manufacturing at 11.32 percent, construction at 10.35 percent, accommodation and food service activities at 9.25 percent, and other service activities at 5.07 percent (Figure 1-3-2).

Figure 1-3-2 Industry Distribution of SMEs by Sex of Business Owner, 2017

Note and source: See Table 1-3-1.

4. 60 Percent of Female-Owned Enterprises Are Sole Proprietorships

Sole proprietorships were the most common form of organization for both female-owned enterprises (60.31 percent) and male-owned enterprises (49.98 percent), followed by limited corporations at 28.55 percent and 32.18 percent, and corporation limited at 6.01 percent and 9.71 percent respectively (Table 1-3-2).

Table 1-3-2 Number of Different Form of Enterprises by Sex of Business Owner, 2017

Unit: Enterprises; %

Indicator \ Sex of owner	Total men and women	Female-owned enterprises		Male-owned enterprises	
		No. of enterprises	Share of total	No. of enterprises	Share of total
Total	1,424,138	523,274	100.00	900,864	100.00
Corporation limited	118,890	31,448	6.01	87,442	9.71
Limited corporation	439,340	149,412	28.55	289,928	32.18
Unlimited corporation	99	40	0.01	59	0.01
Unlimited corporation with limited liability shareholders	20	6	0.00	14	0.00
Partnership	29,981	10,906	2.08	19,075	2.12
Sole proprietorship	765,803	315,574	60.31	450,229	49.98
Subsidiary of domestic company	32,119	6,077	1.16	26,042	2.89
Subsidiary of foreign company	2,643	971	0.19	1,672	0.19
Others	35,243	8,840	1.69	26,403	2.93

Note: Others in the form of organization denote business entities not in the form of any type of companies, partnership or sole proprietorship. Majority of business entities in this form is the offices, branches or retail shops of domestic companies, not counted as subsidiaries of those companies.

Source: Fiscal Information Agency, Ministry of Finance, VAT data (2017).

5. 50.34 Percent of Female-Owned SMEs Had Been in Existence within 10 Years, Higher Than That of Male-Owned SMEs

In 2017, there were 38,404 newly-established female-owned SMEs, less than 61,479 newly-established male-owned SMEs. In terms of longevity, 50.34 percent of female-owned SMEs had been in existence within 10 years, higher than 47.43 percent of male-owned SMEs in the same category; 52.57 percent of male-owned SMEs had been in existence for 10 years or longer, high than 49.66 percent of female-owned SMEs in the same category (Table 1-3-3).

These figures show, regarding market entry and exit, that female-owned SMEs display more flexibility and resilience than male-owned SMEs.

Table 1-3-3 Shares of SMEs in Particular Ages by Sex of Business Owner, 2017

Unit: Enterprises; %

Sex of owner Age	Total men and women	Female-owned enterprises		Male-owned enterprises	
		No. of enterprises	Share of total	No. of enterprises	Share of total
Total no. of SMEs	1,424,138	523,274	100.00	900,864	100.00
Less than 1 year	99,883	38,404	7.34	61,479	6.82
1 – 2 years	95,032	36,466	6.97	58,566	6.50
2 – 3 years	86,064	32,911	6.29	53,153	5.90
3 – 4 years	73,677	27,469	5.25	46,208	5.13
4 – 5 years	74,330	28,269	5.40	46,061	5.11
5 – 10 years	261,671	99,877	19.09	161,794	17.96
10 – 20 years	361,655	131,517	25.13	230,138	25.55
20 years or more	371,826	128,361	24.53	243,465	27.03

Source : Fiscal Information Agency, Ministry of Finance, VAT data (2017).

IV Business Performance for SMEs

To provide a clear picture of the current state of Taiwanese SMEs in wholesale, retail and food service activities industry, this section presents business performance of SMEs in the wholesale and retail industry based on the results of Business Survey of Wholesale, Retail and Food Service Activities conducted in June 2017 by the Department of Statistics, Ministry of Economic Affairs. In this survey, SME is defined as a business entity with less than 100 regular employees, and a large enterprise is defined as a business entity with 100 or more regular employees).

1. SMEs in Wholesale: Business Performance

(1) SMEs in Wholesale: Basic Operation Types

Most SMEs in wholesale operated as wholesalers (54.5 percent) and importers and exporters (44.3 percent). Only 2.5 percent of SMEs in wholesale had foreign subsidiaries. The structure of operation types in large enterprises and SMEs were similar, but large enterprises had a larger share in the agent type (Table 1-4-1).

(2) SMEs in Wholesale: Business Predicaments

The main business predicaments facing wholesale in both SMEs and large enterprises were “intensified industrial competition and diminished profits,” which share 70.4 percent and 66.7 percent respectively. The second to the fifth difficulty in both SMEs and large enterprises were “difficulty to develop new markets,” “exchange rate risk,” “increased purchase cost and personnel expense,” and “diverse customer needs,” but the ranking in SMEs and large enterprises is somewhat different (Table 1-4-2).

Table 1-4-1 Basic Operation Types in Wholesale, 2017

Unit: Enterprises; %

Basic operation types	Total	SMEs	Large enterprises
Sample size	1,924	1,657	267
Operations	100.0	100.0	100.0
Wholesalers	54.1	54.5	51.7
Importers and exporters	43.3	44.3	37.1
Dealers	17.3	16.8	20.6
Agents	12.4	10.7	22.9
General agent	5.8	5.1	10.5
With or without foreign subsidiary	100.0	100.0	100.0
No	3.4	2.5	9.0
Yes	96.6	97.5	91.0

Source: Department of Statistics, Ministry of Economic Affairs, *Business Survey Report of Wholesale, Retail and Food Service Activities* (October 2017).

Table 1-4-2 Operation Dilemmas in Wholesale, 2017 (Multiple Choices)

Unit: %

Items	Total	SMEs	Large enterprises
Intensified industrial competition and diminished profits	69.9	70.4	66.7
Difficulty to develop new markets	38.0	38.3	36.3
Exchange rate risk	36.7	36.0	40.8
Increased purchase cost and personnel expense	36.7	35.3	45.3
Diverse customer needs	24.1	22.9	31.5
Lack of talent	14.9	13.6	22.9
Small operation scale	12.0	13.5	3.0
Short product life cycle	10.3	9.9	13.1
Tariff barriers	8.4	7.4	15.0
Difficulties in financing	6.8	6.9	6.4
Right of agency is not easy to hold long	4.1	4.3	2.6
Other	8.7	8.6	9.7

Source: Department of Statistics, Ministry of Economic Affairs, *Business Survey Report of Wholesale, Retail and Food Service Activities* (October 2017).

2. SMEs in Retail: Business Performance

(1) SMEs in Retail: Business Location

No matter what the size of the enterprise was, enterprises in retail were mainly located domestically (99.8 percent for SMEs; 99.9 percent for large enterprises). Most (56.3 percent) SMEs in retail operated as franchises, higher than 41.4 percent for large enterprises in retail. 43.6 percent of SMEs in retail operated as company stores, lower than 58.4 percent for large enterprises (Table 1-4-3).

Table 1-4-3 Basic Operation Types in Retail, 2017

Unit: Enterprises; %

Basic operation types	Total	SMEs	Large enterprises
Sample size (number)	1,097	787	310
Total	100.0	100.0	100.0
Domestic	99.8	99.9	99.8
Company store	55.1	43.6	58.4
Franchise	44.7	56.3	41.4
Overseas	0.2	0.1	0.2
Company store	0.1	0.1	0.1
Franchise	0.1	0.0	0.1

Source: Department of Statistics, Ministry of Economic Affairs, *Business Survey Report of Wholesale, Retail and Food Service Activities* (October 2017).

(2) SMEs in Retail: Business Predicaments

No matter what the size of the enterprise was, the first business predicament facing retail was “fierce price competition and low gross margin” (62.8 percent for SMEs; 53.6 percent for large enterprises). “Increased personnel expense” in large enterprises was 53.6 percent and ranked first as well. For SMEs, the item was 44.0 percent and ranked second. The third to the fifth business predicament facing retail in SMEs and large enterprises were “diverse customer needs,” “high product homogeneity and substitutability,” and “turnover rate of personnel is too high” (Table 1-4-4).

Table 1-4-4 Operation Dilemmas in Retail, 2017 (Multiple Choices)

Unit: %

Items	Total	SMEs	Large enterprises
Fierce price competition and low gross margin	60.2	62.8	53.6
Increased personnel expense	46.7	44.0	53.6
Diverse customer needs	34.6	30.1	46.1
High product homogeneity and substitutability	27.8	26.7	30.7
Turnover rate of personnel is too high	27.0	25.5	30.7
Rising rent	21.2	17.9	29.7
Electricity business catching a share of market	16.8	14.2	23.2
Cross industries competition	9.5	8.6	11.6
Other	10.1	11.7	6.1

Source: Department of Statistics, Ministry of Economic Affairs, *Business Survey Report of Wholesale, Retail and Food Service Activities* (October 2017).

(3) SMEs in Retail: Future Management Strategies

No matter what the size of the enterprise was, the future management strategy in retail was service upgrade (42.2 percent for SMEs; 70.2 percent for large enterprises). The second future management strategy in SMEs was “maintaining the status quo,” followed by “creating product differentiation;” the second in large enterprises was “creating product differentiation,” followed by “adding items” (Table 1-4-5).

Table 1-4-5 Future Management Strategies in Retail, 2017 (Multiple Choices)

Unit: %

Items	Total	SMEs	Large enterprises
Service upgrade	50.1	42.2	70.2
Creating product differentiation	30.3	22.8	49.5
Maintaining the status quo	29.5	37.7	8.7
Adding items	23.6	19.9	33.0
Specialist training	18.1	16.2	23.0
Electricity business	16.7	12.3	27.8
Expansion of the franchise	12.6	7.6	25.2
Private brand development	10.8	9.5	13.9
Cross-industry alliance	7.7	6.5	10.7
Overseas investment	2.8	2.0	4.9
M & A	1.1	0.5	2.6
Other	1.3	1.2	1.6

Source: Department of Statistics, Ministry of Economic Affairs, *Business Survey Report of Wholesale, Retail and Food Service Activities* (October 2017).

3. SMEs in Food and Beverage Service Activities: Business Performance

(1) SMEs in Food and Beverage Service Activities: Business Operation

SMEs in retail were mainly located overseas (72.3 percent vs. 27.7 percent domestically); large enterprises in retail were mainly located domestically (83.7 percent). Most overseas SMEs were franchise (72.2 percent), compared to company store (0.1 percent). In contrast, the share of company store and of franchise in domestic SMEs were very close (Table 1-4-6).

Table 1-4-6 Basic Operation Types in Food and Beverage Service Activities, 2017

Unit: %

Basic operation types	Total	SMEs	Large enterprises
Sample size (number)	292	191	101
Total	100.0	100.0	100.0
Domestic	67.2	27.7	83.7
Company store	49.2	14.1	63.9
Franchise	18.0	13.6	19.9
Overseas	32.8	72.3	16.3
Company store	4.0	0.1	5.7
Franchise	28.0	72.2	10.6

Source: Department of Statistics, Ministry of Economic Affairs, *Business Survey Report of Wholesale, Retail and Food Service Activities* (October 2017).

Regardless of the size of the enterprise, the closed days of enterprises in food and beverage service activities mainly were “open all year round,” and the business hours mainly were “more than 8 hours and within 12 hours” (Table 1-4-7).

Table 1-4-7 Shares of Closed Days and Business Hours in Food and Beverage Service Activities, 2017

Unit: %

Items	Total	SMEs	Large enterprises
Closed days	100.0	100.0	100.0
Open all year round	49.0	39.8	66.3
2 days per week	16.4	17.3	14.9
1 day per week	13.0	18.9	2.0
1 day per month	1.7	1.6	2.0
Other	19.9	22.5	14.9
Business hours	100.0	100.0	100.0
More than 8 hours and within 12 hours	48.0	44.9	53.9
Within 8 hours	30.4	41.2	9.8
More than 12 hours and within 16 hours	15.9	10.3	26.5
Open round-the-clock	4.1	2.1	7.8
Other	1.7	1.6	2.0

Source: Department of Statistics, Ministry of Economic Affairs, *Business Survey Report of Wholesale, Retail and Food Service Activities* (October 2017).

The share of newly established SMEs in food and beverage service activities accounted for 0.5 percent, higher than that of newly established large enterprises. In terms of longevity, 44.3 percent of SMEs in food and beverage service activities had been in existence within 10 years, higher than large enterprises (23.8 percent); 76.2 percent of large enterprises in food and beverage service activities had been in existence for 10 years or longer, higher than SMEs (55.7 percent) (Table 1-4-8).

Table 1-4-8 Establishment in Food and Beverage Service Activities, 2017

Unit: %

Basic operation types	Total	SMEs	Large enterprises
Total	100.0	100.0	100.0
Within 1 year	0.3	0.5	0.0
More than 1 year and within 5 year	17.6	21.7	9.9
More than 5 year and within 10 year	19.3	22.2	13.9
More than 10 years	62.7	55.7	76.2

Source: Department of Statistics, Ministry of Economic Affairs, *Business Survey Report of Wholesale, Retail and Food Service Activities* (October 2017).

The top three main business models of SMEs in food and beverage service activities were “Chinese restaurant” (35.1 percent), “exotic restaurant” (15.5 percent), and “catering service” (11.3 percent); The primary business model of large enterprises in food service activities was “exotic restaurant” (26.5 percent), followed by “Chinese restaurant” (25.5 percent), and “catering service” (9.8 percent).

Table 1-4-9 Main Business Models in Food and Beverage Service Activities, 2017

Unit: %

Basic operation types	Total	SMEs	Large enterprises
Total	100.0	100.0	100.0
Chinese restaurant	31.8	35.1	25.5
Exotic restaurant	19.3	15.5	26.5
Catering service	10.8	11.3	9.8
Café	8.5	9.8	5.9
Fruit ice desserts ,beverage shop and ice cream shop	4.1	5.2	2.0
Fast food restaurant chain and pizzeria	3.7	0.5	9.8
Tea house	2.7	3.1	2.0
Brunch restaurant	2.4	3.1	1.0
Bar	2.0	3.1	0.0
Institutional restaurant	1.7	2.6	0.0
Eatery	1.0	0.5	2.0
Other	12.2	10.3	15.7

Source: Department of Statistics, Ministry of Economic Affairs, *Business Survey Report of Wholesale, Retail and Food Service Activities* (October 2017).

(2) SMEs in Food and Beverage Service Activities: Future expand plan and priority locations

In food and beverage service activities, the share of SMEs having a future extend plan was 22.6 percent, much lower than 70.6 percent of large enterprises. Regarding priority locations, the first three in SMEs were “commercial area,” “department store business district,” and “MRT business district,” for large enterprises, the first was “department store business district,” followed by “commercial area” and “MRT business district” (Table 1-4-10).

Table 1-4-10 Future Expand Plan and Priority Locations in Food and Beverage Service Activities, 2017 (Multiple Choices)

Unit: %

Items	Total	SMEs	Large enterprises
Future Expand Plan	100.0	100.0	100.0
Yes	39.1	22.6	70.6
No	60.9	77.4	29.4
Priority Locations			
Commercial area	61.2	59.1	62.5
Department store business district	65.5	50.0	75.0
MRT business district	47.4	43.2	50.0
Campus business district	14.7	13.6	15.3
Night market business district	6.9	9.1	5.6
Industrial area	6.9	9.1	5.6
Scenic area	4.3	6.8	2.8
Other	5.2	6.8	4.2

Source: Department of Statistics, Ministry of Economic Affairs, *Business Survey Report of Wholesale, Retail and Food Service Activities* (October 2017).

(3) SMEs in Food and Beverage Service Activities: Operation Development Plan

Regardless of the size of the enterprise, the main operation development plan in food and beverage service activities was “improving food safety control,” followed by “reducing raw material and personnel cost,” and “new product development” (Table 1-4-11).

Table 1-4-11 Operation Development Plan in Food and Beverage Service Activities, 2017 (Multiple Choices)

Unit: %

Items	Total	SMEs	Large enterprises
Improving food safety control	62.8	57.4	73.5
Reducing raw material and personnel cost	46.3	44.6	50.0
New product development	40.6	37.4	47.1
Inventing new brands or new type of shops	17.5	10.3	31.4
Strategic alliance with distributor	10.4	9.2	12.8
Developing or expanding network sales	14.4	8.2	26.5
Accelerating domestic expansion	17.1	8.2	33.3
Offering home delivery service	7.7	6.7	9.8
Overseas territory expansion	4.0	1.0	9.8
Other	9.7	12.8	3.9

Source: Department of Statistics, Ministry of Economic Affairs, *Business Survey Report of Wholesale, Retail and Food Service Activities* (October 2017).

(4) SMEs in Food and Beverage Service Activities: Business Predicaments

The main business predicament facing food service activities in SMEs was “fierce inter-industry competition” which was 61.0 percent, followed by “high turnover rate of personnel” and “fluctuations in food prices;” for large enterprises, the main difficulty facing food service activities was “high turnover rate of personnel” which was 66.7 percent, followed by “fluctuations in food prices,” and “fierce inter-industry competition” (Table 1-4-12).

Table 1-4-12 Operation Dilemmas in Food and Beverage Service Activities, 2017 (Multiple Choices)

Unit: %

Items	Total	SMEs	Large enterprises
Fierce inter-industry competition	60.4	61.0	59.8
High turnover rate of personnel	63.4	60.0	69.6
Fluctuations in food prices	58.1	55.4	63.7
Rising cost and hard cost shift	47.0	49.7	42.2
High rent	47.3	42.1	56.9
Customer preference changing fast	32.2	33.9	29.4
Cheap pricing and low gross margin	26.9	28.7	23.5
Food quality control is difficult	18.1	15.9	22.6
No proper location	7.4	8.2	5.9
Competition with other industries (includes non-store)	11.4	7.7	17.7
Hard to Manage Offshore Business	0.3	0.0	1.0
Other	7.4	8.7	4.9

Source: Department of Statistics, Ministry of Economic Affairs, *Business Survey Report of Wholesale, Retail and Food Service Activities* (October 2017).

V Overview of SMEs' Expenditure on R&D

Expenditure on R&D is significant for enterprises' upgrade and transformation to remain competitive and profitable. To measure enterprises' innovation and, the most commonly used indicator is firms' R&D expenditure. This section will explore the R&D spending of the nation as a whole and the corporate sector. At the same time, to gain a clear understanding of the R&D strategies of SMEs, we will also analyze the original data from *the Science and Technology Statistics 2017 Edition Highlights* published by the Ministry of Science and Technology.

1. R&D Expenditure of SMEs Grew Higher

In terms of size, total R&D expenditure by SMEs (defined as enterprises with fewer than 200 employees) had risen consistently for three years in a row from 2012 to 2014 and turned into decline in 2015, which is 1.6 percent lower than in 2014. The decline was probably explained by the bad business environment in both domestic and overseas markets. Total R&D expenditure by large enterprises had also risen from 2012 to 2016 and rose 6.31 percent in 2016. All in all, R&D expenditure of business sector showed stable growth (Table 1-5-1).

Table 1-5-1 Business Sector R&D Expenditure by Enterprise Size, 2012-2016

Unit: Million NT\$, %

Item	2012	2013	2014	2015	2016	Share of total	Growth rate
Total	322,111	346,206	373,019	397,163	419,989	100.00	5.75
SME sub-total	45,558	47,725	52,709	51,873	52,917	12.60	2.01
0 – 99 employees	24,725	24,701	26,462	27,574	27,908	6.64	1.21
100 – 199 employees	20,833	23,024	26,247	24,299	25,009	5.95	2.92
Large enterprises sub-total	276,554	298,480	320,310	345,290	367,072	87.40	6.31
200 – 499 employees	45,561	46,593	50,210	49,984	52,513	12.50	5.06
500 employees or above	230,993	251,887	270,100	295,306	314,559	74.90	6.52

Source: Ministry of Science and Technology, *Science and Technology Statistics 2017 Edition Highlights* (December 2017).

CHAPTER 2

Financial and Funding Analysis of SMEs

Financial analysis plays a vital role in the understanding of the current state of Taiwan's SMEs and the outlook for their future development. The first two sections of this chapter presents an overview of the financial status of Taiwan's SMEs as well as ratio analysis, using Business Income Tax Return data for 2016 provided by the Fiscal Information Agency of the Ministry of Finance; there is thus a one-year time lag as compared with the data presented in the other chapters of this White Paper. The third section examines the interaction between SMEs and the banking sector, using survey data from the Central Bank of the Republic of China (Taiwan) or statistics collected by the Financial Supervisory Commission.

I SMEs: Consolidated Financial Analysis

In this section, consolidated balance sheet and income statement data (where the figures for each account are converted into percentages of total assets for balance sheet and percentages of net operating revenue for income statement) are used to examine the fund utilization, asset allocation and operating performance of SMEs, so as to gain an overall understanding of SMEs' financial and business condition.

1. Asset Allocation Analysis

(1) Both Current Assets and Current Liabilities Were Down

As can be seen from Table 2-1-1, for SMEs in 2016, the share of total assets accounted for by current assets was down 1.54 percentage points, mainly caused by decreased shares of inventories (down 2.35 percentage points), advance payments (down 0.13 percentage points) and other current assets (down 0.16 percentage points), while the share of cash was up 0.1 percentage points and the share of accounts receivable increased 1 percentage points. The share of liabilities was down by 1.8 percentage points. Moreover, the share of current liabilities was down 1.1 percentage points, similar to the change of current assets.

In terms of cash ratio, 2016 saw an increased share of cash in over half of the 18 industries, showing increasing short-term liquidity in 2016 from 2015. These industries were manufacturing, electricity and gas supply, water supply and remediation activities, construction, wholesale and retail trade, information and communication, real estate activities, human health and social work activities, and other service activities (Table 2-1-2).

Table 2-1-1 Consolidated Balance Sheet for Taiwanese Enterprises, 2015-2016

Unit: %

Enterprise size / year Item	SMEs		Large enterprises	
	2015	2016	2015	2016
Current assets	54.05	52.51	45.66	43.99
Cash	18.13	18.23	16.81	14.81
Accounts receivable	12.80	13.80	15.35	15.13
Inventories	18.81	16.46	10.69	11.00
Advance payments	1.72	1.59	1.00	1.09
Other current assets	2.59	2.43	1.80	1.96
Non-current assets	45.95	47.49	54.34	56.01
Long-term investment	18.50	19.59	24.33	23.20
Fixed asset	23.07	22.78	22.50	24.18
Land and buildings	15.34	14.89	11.53	11.84
Machinery	6.33	6.62	9.23	9.47
Other fixed assets	1.41	1.28	1.75	2.87
Intangible and other assets	4.37	7.89	7.51	12.34
Total assets = Liabilities + Net worth	100.00	100.00	100.00	100.00
Liabilities	62.22	60.42	52.18	52.24
Current liabilities	51.66	50.56	37.00	35.28
Short-term loans	15.37	15.49	14.83	12.10
Accounts payable	13.65	13.65	14.21	15.00
Income received in advance	4.17	4.10	3.21	3.25
Other current liabilities	18.48	17.32	4.74	4.93
Non-current liabilities	10.56	9.86	15.18	16.96
Net worth	37.78	39.58	47.82	47.76

Source: Fiscal Information Agency, Ministry of Finance, Business Income Tax Return data, 2015-2016.

(2) Long-Term Investment Increased

Funds and long-term investments are investments undertaken by an enterprise for financial or operational reasons, where the investments are held over the long term in forms of stocks, bonds, and so on, that the enterprise does not intend to convert into cash within one year. As can be seen from Table 2-1-1, 2016 saw the long-term investments share of total assets increased for SMEs, compared to the decreased share of large enterprises. For SMEs, the long-term investments share increased slightly by 1.09 percentage points (vs. a 1.13 percentage point decrease for large enterprises) in 2016, likely indicating SMEs were more willing to embrace risks than large enterprises in the stable business environment (Table 2-1-1).

(3) SMEs' Fixed Assets decreased Modestly

Fixed assets share of total declined modestly by 0.29 percentage points in 2016 for SMEs, impelled by a decrease in land and buildings (down 0.45 percentage points) and other fixed assets (down 0.13 percentage points), as well as slightly increase in machinery (Table 2-1-1).

Table 2-1-2 Consolidated Balance Sheet for Taiwanese SMEs by Industry, 2016

Unit: %

Item \ Industry	Agriculture, forestry, fishing and animal husbandry	Mining and quarrying	Manufacturing	Electricity and gas supply	Water supply and remediation activities	Construction	Wholesale and retail trade	Transportation and storage	Accommodation and food service activities
Current assets	40.69	52.22	58.06	22.83	42.34	84.84	66.84	45.41	27.21
Cash	14.85	18.19	19.25	13.26	20.55	20.26	24.25	23.60	13.70
Accounts receivable	11.53	11.67	19.39	4.70	13.28	19.77	17.03	15.74	4.95
Inventories	5.68	16.23	16.11	0.63	5.07	40.82	21.22	0.70	4.60
Advance payments	6.56	3.65	1.97	1.57	1.58	1.92	2.07	2.78	1.73
Other current assets	2.07	2.49	1.36	2.67	1.85	2.07	2.27	2.60	2.22
Non-current assets	59.31	47.78	41.94	77.17	57.66	15.16	33.16	54.59	72.79
Long-term investment	5.75	1.34	1.60	6.94	11.88	0.89	8.79	10.12	3.82
Fixed asset	47.27	38.06	37.87	67.45	39.92	10.65	19.95	39.08	60.86
Land and buildings	13.62	18.42	23.78	7.97	20.22	4.39	13.53	10.96	41.60
Machinery	27.28	17.57	12.37	51.18	18.18	5.50	5.20	26.18	13.12
Other fixed assets	6.37	2.07	1.72	8.31	1.52	0.76	1.22	1.94	6.13
Intangible and other assets	6.29	8.38	2.46	2.77	5.86	3.62	4.43	5.39	8.11
Total assets = Liabilities + Net worth	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Liabilities	73.80	59.72	66.37	63.29	52.68	68.63	66.21	45.95	72.89
Current liabilities	57.05	54.58	57.19	38.75	45.18	65.12	58.22	37.59	48.46
Short-term loans	18.73	15.05	16.91	11.45	10.31	8.77	14.78	9.32	14.20
Accounts payable	11.67	15.72	20.29	19.37	12.80	14.20	19.27	15.86	9.50
Income received in advance	1.08	0.56	2.63	0.37	3.68	29.93	0.94	0.44	1.02
Other current liabilities	25.57	23.25	17.36	7.54	18.39	12.22	23.24	11.98	23.75
Non-current liabilities	16.75	5.14	9.18	24.55	7.50	3.51	7.99	8.36	24.43
Net worth	26.20	40.28	33.63	36.71	47.32	31.37	33.79	54.05	27.11

Table 2-1-2 Consolidated Balance Sheet for Taiwanese SMEs by Industry, 2016(Continued)

Unit: %

Item \ Industry	Information and communication	Financial and insurance activities	Real estate activities	Professional, scientific and technical activities	Support service activities	Education	Human health and social work activities	Arts, entertainment and recreation	Other service activities
Current assets	60.37	28.02	52.15	52.14	52.36	42.35	40.36	23.19	58.97
Cash	32.13	14.66	9.56	25.85	24.68	29.52	20.41	11.88	26.85
Accounts receivable	15.48	8.97	4.52	13.96	20.59	8.35	17.82	5.69	12.34
Inventories	5.40	0.76	33.43	7.42	3.14	0.91	0.75	1.45	14.30
Advance payments	3.29	0.25	1.45	2.23	1.63	1.92	0.91	2.34	2.35
Other current assets	4.07	3.37	3.18	2.69	2.31	1.66	0.46	1.82	3.12
Non-current assets	39.63	71.98	47.85	47.86	47.64	57.65	59.64	76.81	41.03
Long-term investment	12.20	67.18	6.72	23.28	19.94	16.53	4.45	7.81	8.72

Item \ Industry	Information and communication	Financial and insurance activities	Real estate activities	Professional, scientific and technical activities	Support service activities	Education	Human health and social work activities	Arts, entertainment and recreation	Other service activities
Fixed asset	19.34	2.76	25.69	16.89	21.35	32.38	53.20	57.73	28.04
Land and buildings	12.00	2.52	22.96	11.81	7.73	18.09	43.83	44.87	19.70
Machinery	5.17	0.21	1.75	4.03	10.00	9.71	6.50	8.20	6.84
Other fixed assets	2.17	0.03	0.98	1.05	3.61	4.58	2.88	4.66	1.49
Intangible and other assets	8.09	2.04	15.45	7.69	6.35	8.74	1.99	11.28	4.28
Total assets = Liabilities + Net worth	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Liabilities	70.62	36.31	77.61	52.28	50.01	78.11	48.00	77.20	65.14
Current liabilities	62.89	30.61	56.67	43.19	37.67	64.15	35.88	47.84	57.60
Short-term loans	8.46	18.59	17.80	8.11	9.09	17.83	4.45	13.58	7.78
Accounts payable	20.78	4.38	9.65	10.78	11.92	10.15	16.39	10.57	12.08
Income received in advance	2.86	0.02	2.41	5.49	2.59	7.56	2.08	1.08	4.02
Other current liabilities	30.79	7.62	26.80	18.81	14.07	28.61	12.95	22.61	33.73
Non-current liabilities	7.73	5.70	20.94	9.09	12.34	13.96	12.12	29.36	7.54
Net worth	29.38	63.69	22.39	47.72	49.99	21.89	52.00	22.80	34.86

Source: Fiscal Information Agency, Ministry of Finance, Business Income Tax Return data, 2016.

2. Analysis of SME Financial Structure

Looking at the SMEs' debt structure with above examination of the asset allocation of SMEs can give a more comprehensive picture of the SMEs' overall financial status.

(1) Share of Current Liabilities Declined at Almost the Same Pace as Share of Current Assets

As can be seen from Table 2-1-1, the share of current liabilities decreased at almost the same pace as share of current assets in 2016 for SMEs (1.1 vs. 1.54 percentage points), showing stable short-term debt servicing capability. Moreover, the share of current liabilities decreased by 1.72 while the share of current assets for large enterprises decreased by 1.67.

(2) Declining Non-current Liabilities in SMEs

In 2016, SMEs' non-current liabilities ratio declined by 0.7 percentage points to 9.86 percent, while large enterprises non-current liabilities rose by 1.78 percentage points to 16.96 percent. Non-current liabilities represent debt that does not have to be repaid within one year, such as bonds payable and long-term bills payable. Most SMEs are family businesses that lack scale, financial transparency, and management skills. Financial institutions are often reluctant to lend to SMEs, hence low long-term liabilities ratio, reflecting inadequate capitalization. A noticeable change was the slight decrease of long-term liabilities ratio in SMEs that suggested a relatively pessimistic stance to the economy (Table 2-1-1).

3. Analysis of SMEs' Profit and Loss

(1) Gross Margin Improved as Operating Costs Declined for SMEs

Regarding operating costs share of net revenue, operating costs of large enterprises decreased largely while operating costs of SMEs declined slightly from 2015 to 2016. As a result, SMEs' gross margin (referring to "gross operating profit" item in Table 2-1-3) increased modestly by 0.35 percentage points while large enterprises' gross margin improved by 1.16 percentage points in 2016 (Table 2-1-3).

Table 2-1-3 Profit and Loss of Taiwanese Enterprises, 2015-2016

Unit: %

Enterprise size / year Item	SMEs		Large enterprises	
	2015	2016	2015	2016
Net operating revenue	100.00	100.00	100.00	100.00
Minus: Operating costs	77.52	77.17	84.21	83.05
Gross operating profit	22.48	22.83	15.79	16.95
Minus: Operating expenses	19.98	20.33	11.11	11.80
Net operating profit	2.49	2.50	4.68	5.15
Plus: Non-operating revenue	1.74	1.58	2.92	3.19
Minus: Interest expenses	0.63	0.59	0.49	0.47
Minus: Other non-operating expenses	0.66	0.73	1.72	2.20
Current term profit (before tax)	2.94	2.76	5.39	5.67

Source: Fiscal Information Agency, Ministry of Finance, Business Income Tax Return data, 2015-2016.

(2) Operating Expense Rose Slightly

The term "operating expenses" is used to refer to expenditure derived from an enterprise's selling, general & administrative (SG & A) activities, including sales, management, and R&D expenses, and so on. Regardless of size, firms need to continually think of ways to cut costs and reduce operating expenses.

In 2016, SMEs' operating expenses rose slightly by 0.35 percentage points to 20.33 percent; large enterprises' operating expenses was up by 0.69 percentage points to 11.08 percent. The obvious disparity between the operating expenses ratio of SMEs and that of large enterprises is mainly due to SMEs' limited scale to reduce average expense and limited bargaining power to lower funding cost. Therefore, SMEs operation results often are highly sensitive to variable costs (Table 2-1-3).

(3) Net Operating Profit Stay the Same for SMEs

In 2016, SMEs' net operating profit increased only by 0.01 percentage points to 2.50 percent with slightly lower operating costs almost as the same as offsetting slightly higher operating expenses; large enterprises' net operating profit improved 0.47 percentage points to 5.15 percent with lower operating costs more than offsetting slightly higher operating expenses (Table 2-1-3).

(4) Half Industries Have Higher Personnel Costs

An enterprise's operating costs are the sum of business costs and operating expenses, personnel costs is included. In 2016, the personnel costs as a percentage of operating expenses or operating costs rose in almost half industries, especially for SMEs. For SMEs, the industries with increasing personnel costs percentage are: agriculture, forestry, fishing and animal husbandry, mining and quarrying, manufacturing, transportation and storage, financial and insurance activities, education, arts, entertainment and recreation, and other service activities (Table 2-1-4).

Table 2-1-4 Personnel Costs as a Percentage of Operating Costs and Operating Expenses in 2015 and 2016 Unit: %

Industry \ Year	Personnel Costs as a Percentage of Operating Expenses				Personnel Costs as a Percentage of Operating Costs			
	SMEs		Large Enterprises		SMEs		Large Enterprises	
	2015	2016	2015	2016	2015	2016	2015	2016
Total	35.29	34.92	31.87	33.59	7.23	7.28	3.72	4.18
Agriculture, forestry, fishing and animal husbandry	27.98	28.38	35.17	35.86	5.00	5.16	4.07	4.48
Mining and quarrying	16.33	16.99	13.64	20.24	2.55	2.78	2.11	2.52
Manufacturing	32.44	32.64	26.45	29.09	4.99	5.17	2.37	2.81
Electricity and gas supply	19.00	17.59	47.63	51.32	5.42	5.21	1.46	1.84
Water supply and remediation activities	23.23	23.15	45.71	49.97	7.03	7.04	4.77	5.51
Construction	31.83	30.63	49.97	50.89	3.96	3.74	2.45	2.68
Wholesale and retail trade	38.38	37.70	33.84	34.42	8.17	8.25	4.21	4.45
Transportation and storage	31.00	32.02	45.00	43.30	9.66	9.91	4.66	4.86
Accommodation and food service activities	33.69	33.66	37.46	37.87	14.65	14.05	16.38	16.06
Information and communication	46.29	45.20	31.98	33.84	24.03	23.40	9.18	9.59
Financial and insurance activities	34.53	34.85	35.58	38.46	14.62	15.69	5.72	7.50
Real estate activities	29.10	27.64	23.16	22.22	11.60	10.91	2.89	2.96
Professional, scientific and technical activities	39.25	39.25	36.21	37.88	18.88	18.65	9.00	10.26
Supporting service activities	44.84	44.02	41.33	52.34	20.30	19.78	10.60	10.44
Public administration and defense; compulsory social security	46.74	47.31	49.64	51.59	33.35	34.27	21.94	23.75
Education	49.52	49.14	40.10	40.87	30.45	26.08	3.86	3.93
Human health and social work activities	32.70	32.77	36.78	37.38	16.04	16.32	15.22	15.48
Arts, entertainment and recreation	32.76	33.16	34.66	31.43	14.90	14.66	9.03	8.52

Note: 1. Operating costs include business costs and operating expenses.

2. Operating Expenses include salary, rent, travel freight, advertising, utilities, postal fees, insurance, entertainment expense, training fees, etc.

Source: Fiscal Information Agency, Ministry of Finance, Business Income Tax Return data, 2015-2016.

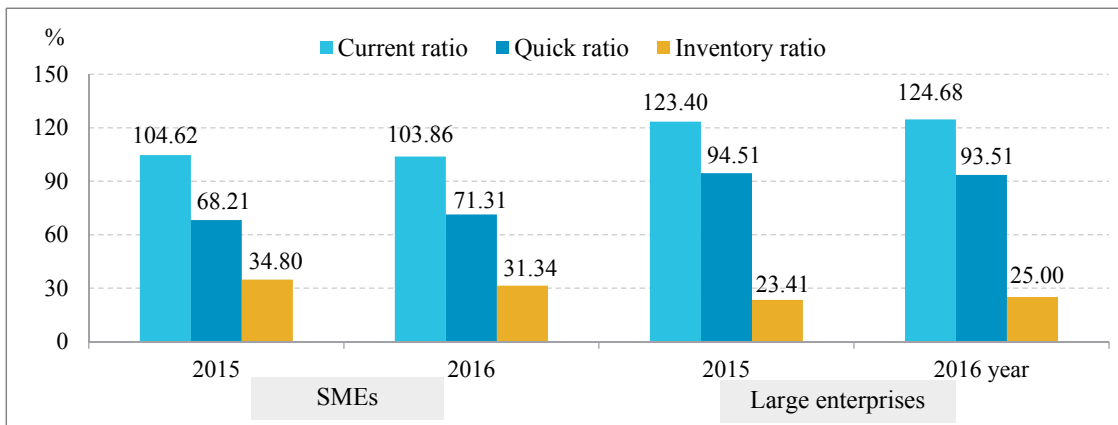
II Analysis of SMEs' Financial Ratios

1. SMEs' Short-Term Debt Servicing Ability Decreased Slightly

The current ratio is a measure of enterprises' short-term repayment ability. Ideally, a company that is in good financial health should have a current ratio of around 200 percent, indicating that the enterprise has NT\$2 of current assets available to repay every NT\$1 in current liabilities (exception: companies with superior cash generation capability and/or fast turnover ratios could maintain much lower current ratio, hence superior financial efficiency). The reference value for the quick ratio is 100 percent, indicating that the enterprise has NT\$1 of current assets that can be quickly converted to cash at close to their book values to repay every NT\$1 in current liabilities.

In 2016, there were little changes in the current ratio (down 0.76 percentage points) and inventory ratio (down 3.46 percentage points) of SMEs, they stood at 103.86 percent and 31.34 percent respectively, showing weakening short-term debt servicing capability and improving inventory management. The quick ratio (up 3.10 percentage points) stood at 71.31 percent, showing the ability of a company to use its near cash to extinguish its current liabilities strengthened. While there was a rise in the current ratio (up 1.28 percentage points) for large enterprises, the quick ratio of large enterprises decreased slightly from 94.51 percent to 93.51 percent, a decrease of 1 percentage points, indicating much higher short-term liquidity and debt servicing ability but lower extremely short-term liquidity and debt servicing ability. 2016 also saw a rise of large enterprises' inventory ratio (up 1.59 percentage points), showing deteriorating inventory management and/or turnover rate. However, the inventory ratio of large enterprises was still far below than that of SMEs, indicating the relative strength of large enterprise in inventory management (Figure 2-2-1).

Figure 2-2-1 Short-Term Liquidity of Taiwanese Enterprises, 2015-2016



Note:

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

Source: Fiscal Information Agency, Ministry of Finance, Business Income Tax Return data, 2015-2016.

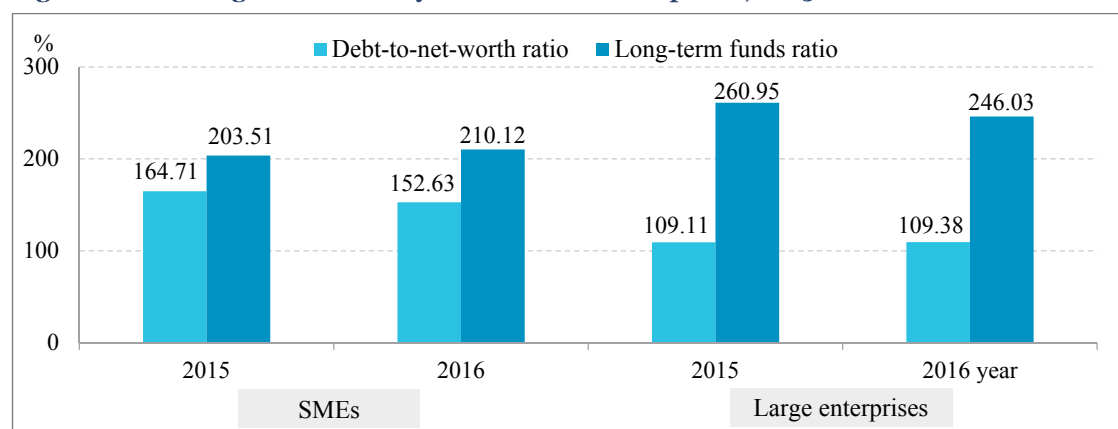
The current ratio remained above 100 but well below 200 for both SMEs and large enterprises. The quick ratio remained below the reference value of 100 percent for both SMEs and large enterprises. However, the quick ratio of large enterprises stood at 93.51 percent in 2016, far above the quick ratio of SMEs at 71.31 percent, indicating relatively poor extremely short-term debt servicing capability of SMEs.

2. SMEs: Declining Debt-to-Net-Worth Ratio and Rising Long-Term Funds Ratio

For the debt-to-net-worth ratio, a reference value of 100 percent is normally used, indicating that the enterprise has NT\$1 of capital available for every NT\$1 of debt. The higher the debt-to-net-worth ratio, the more heavily leveraged the enterprise is.

In 2015, the average debt-to-net-worth ratio of SMEs was 164.71 percent; in 2016 it declined by 12.08 percentage points to 152.63 percent. For large enterprises, the debt-to-net-worth ratio in 2016 rose slightly to 109.38 percent (Figure 2-2-2).

Figure 2-2-2 Long-Term Stability of Taiwanese Enterprises, 2015-2016



Note: 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 funds ratio = $(\text{equity} + \text{long-term debt}) \div \text{fixed assets} \times 100\%$ (reference value = 100; ideally, the ratio should be above the reference value).

Source: Fiscal Information Agency, Ministry of Finance, Business Income Tax Return data, 2015-2016.

The fact that the SMEs' debt-to-net-worth ratio was higher than the reference value meant higher credit risk, and potentially declining long-term financial stability. The debt-to-net-worth ratio of large enterprises is down slightly but still higher than the reference value, indicating that large enterprises were resorting to a high level of financial leverage. In an era of low interest rates, when the economy is starting to pick up again, taking on a reasonable level of leverage through low-interest borrowing can help firms to achieve higher earnings; however, enterprises must be careful not to become over-leveraged. Otherwise, the firm's financial health may be threatened.

The long-term funds ratio is mainly used to gauge whether a firm's long-term funding operations are appropriate. Ideally, enterprises should rely mainly on long-term funds for their funding of fixed asset purchases. In 2016, the long-term funds ratio of SMEs rose to 210.12 percent, up 6.61 percentage points. During the same period, the long-term funds ratio of large enterprises fell to

246.03 percent, down 14.92 percentage points. Both ratios were much higher than the reference value of 100 percent. The ratios indicated that SMEs assumed less credit risk year on year. However, they were still far financially unstable than large enterprises which had a much higher debt-to-net-worth ratio, but at the same time, had less resource in investment as shown by lower long-term funds ratio (Figure 2-2-2).

3. SMEs' Operational Efficiency up Modestly

An enterprise's operational efficiency can be gauged by examining its efficient utilization of merchandise, fixed asset, and capital, as well as the efficiency of collections. Merchandise turnover is an indicator that can be used to determine whether an enterprise is managing to achieve a reasonable balance between inventory and sales; fixed asset turnover is used to measure the efficiency of utilization of a firm's buildings, machinery, land, and other fixed assets; receivables turnover measures the efficiency of a company's collection activities. Net worth turnover denotes the ratio of net sales to net worth; if this figure is too high, it could imply that the enterprise has insufficient capital and is too aggressive; if it is too low, it may indicate that the firm has too much capital, or that its sales revenue is too low. Other things being equal, a company with a high net worth turnover rate is earning a higher rate of income on its net worth than a company with a low turnover rate.

Examination of the data in 2016 shows that receivables turnover for SMEs decreased slightly from 4.67 to 4.40 in 2016, and merchandise turnover rose modestly from 3.18 to 3.69. In the meantime, receivables turnover for large enterprises rose mildly from 4.39 to 4.41 in 2016, and merchandise turnover also decreased modestly from 6.30 to 6.06, suggesting that the SMEs' merchandise efficiency was up modestly while that of the large enterprises decreased slightly in 2016 (Figure 2-2-3).

Examination of the net worth turnover and fixed asset turnover indicators shows that, for SMEs, fixed asset turnover rose from 2.59 in 2015 to 2.67 in 2016, while net worth turnover declined from 1.58 to 1.53. For large enterprises, fixed asset turnover declined from 2.99 in 2015 to 2.76 in 2016, and net worth turnover also declined slightly from 1.41 to 1.40. It shows that the funds of SMEs came from non-owned funds decreased suggesting increased stability (Figure 2-2-3).

Figure 2-2-3 Operating Capability of Taiwanese Enterprises, 2015-2016

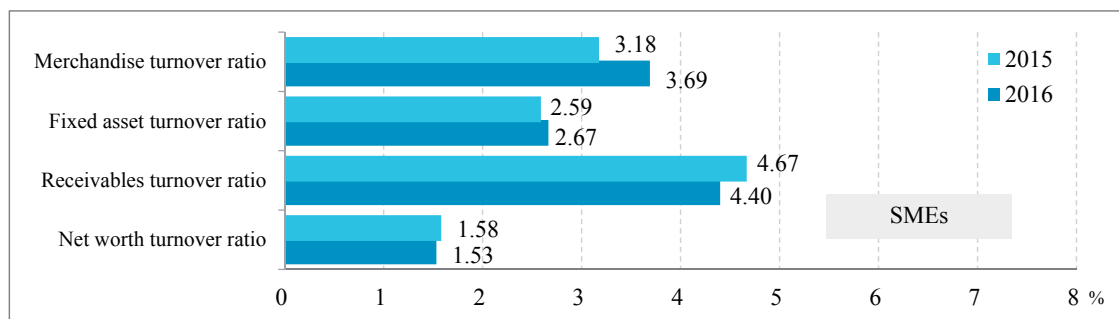
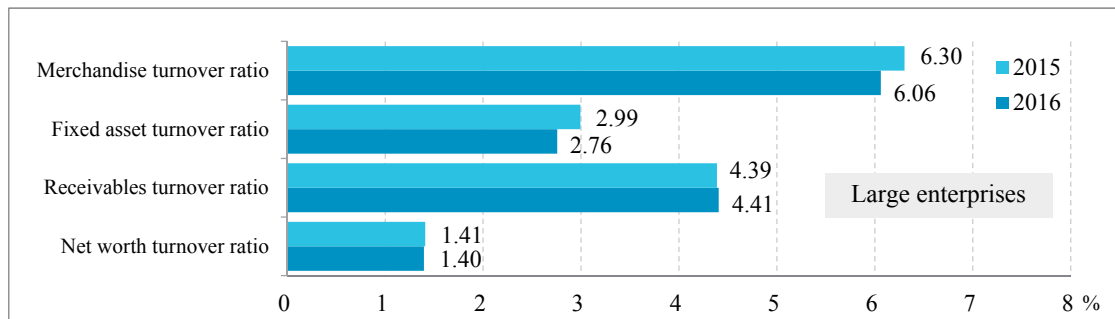


Figure 2-2-3 Operating Capability of Taiwanese Enterprises, 2015-2016 (Continued)



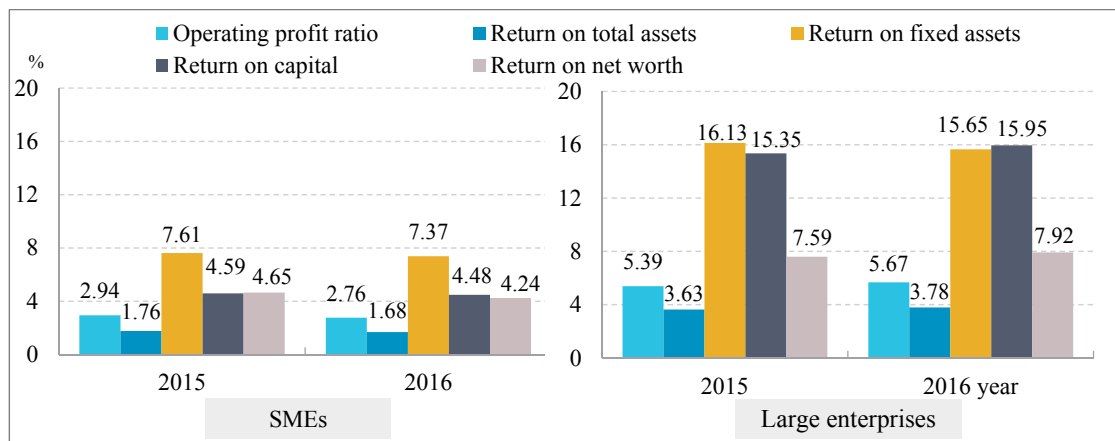
Note: 1. Net worth turnover ratio = net sales / net worth. 2. Receivables turnover ratio = net sales / receivables. 3. Fixed asset turnover ratio = net sales / fixed assets. 4. Merchandise turnover ratio = net sales / inventories

Source: Fiscal Information Agency, Ministry of Finance, Business Income Tax Return data, 2015-2016.

4. SMEs' Profitability Declined Slightly

2016 saw all five indicators modestly declined in SMEs. Operating profit ratio declined to 2.76 from 2.94 in 2015, return on total assets declined to 1.68 from 1.76 in 2015, return on fixed assets declined to 7.37 from 7.61 in 2015, return on capital declined to 4.48 from 4.59 and return on net worth declined to 4.24 from 4.65 in 2015. Relatively, large enterprises had better performance because of scale advantage (Figure 2-2-4).

Figure 2-2-4 Profitability of Taiwanese Enterprises, 2015-2016



Note: 1. Operating profit ratio = current profit ÷ net operating income × 100%. 2. Return on total assets = current profit ÷ total assets × 100%.

3. Return on fixed assets = current profit ÷ fixed assets × 100%. 4. Return on capital = current profit ÷ net worth × 100%.

5. Return on net worth = current profit ÷ net worth × 100%.

Source: Fiscal Information Agency, Ministry of Finance, Business Income Tax Return data, 2015-2016.

III SME Funding and Financing

Funding is the lifeline of an enterprise, and this is particularly true for SMEs that typically lack adequate funds. Ready access to funds and efficient fund management are among the keys to the successful operation of SMEs.

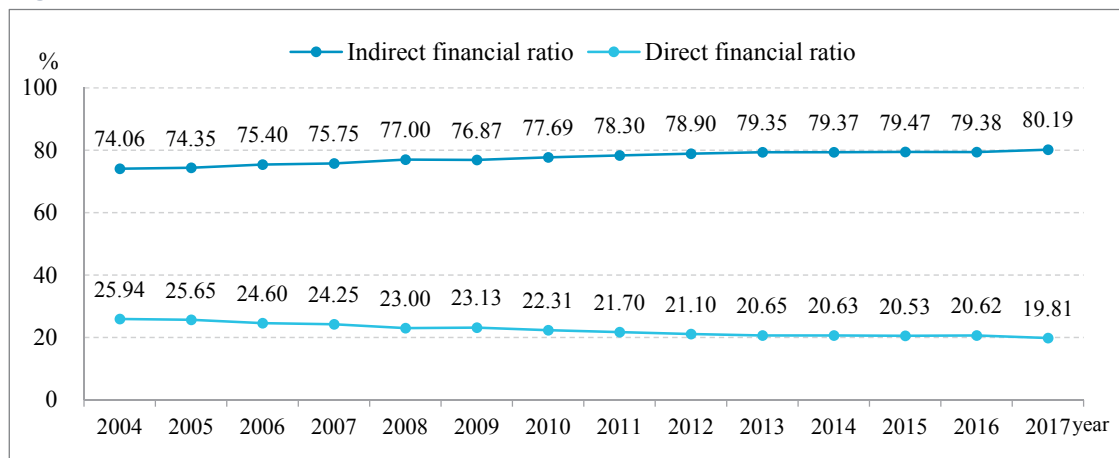
The sources of SME finance are from internal organic growth and/or external funding such as private lending, commercial loans, bond or equity financing, and government programs; the channels of finance are direct financing through financial markets (stock and bond) and indirect financing through financial intermediaries, such as banks and finance companies. SMEs are typically heavily reliant on indirect financing as compared to their larger counterparts.

1. Indirect Financing Remains Main Funding Source

The trend towards diversification in financial services has been accompanied by a similar broadening of the funding channels available to business enterprises. However, SMEs and their owners tend to have insufficient knowledge of the range of financing tools that are now available, and in many cases, they are unable to provide the comprehensive financial statements needed to secure direct financing. As a result, indirect financing has been growing for SMEs with the help from the government policy measures, while direct financing currently accounts for only a very small percentage of overall SME financing.

According to the report *Direct Financial and Indirect Financial Stock Analysis*, compiled by the Central Bank of the Republic of China (Taiwan), since 2004, the proportion of indirect financing continued to show steady growth while the proportion of direct financing has been declining, but the growing pace of indirect financing slowdown in recent years. In 2017, the proportion of indirect financing accounted for 80.19 percent while the remaining 19.81 percent was direct financing (Figure 2-3-1).

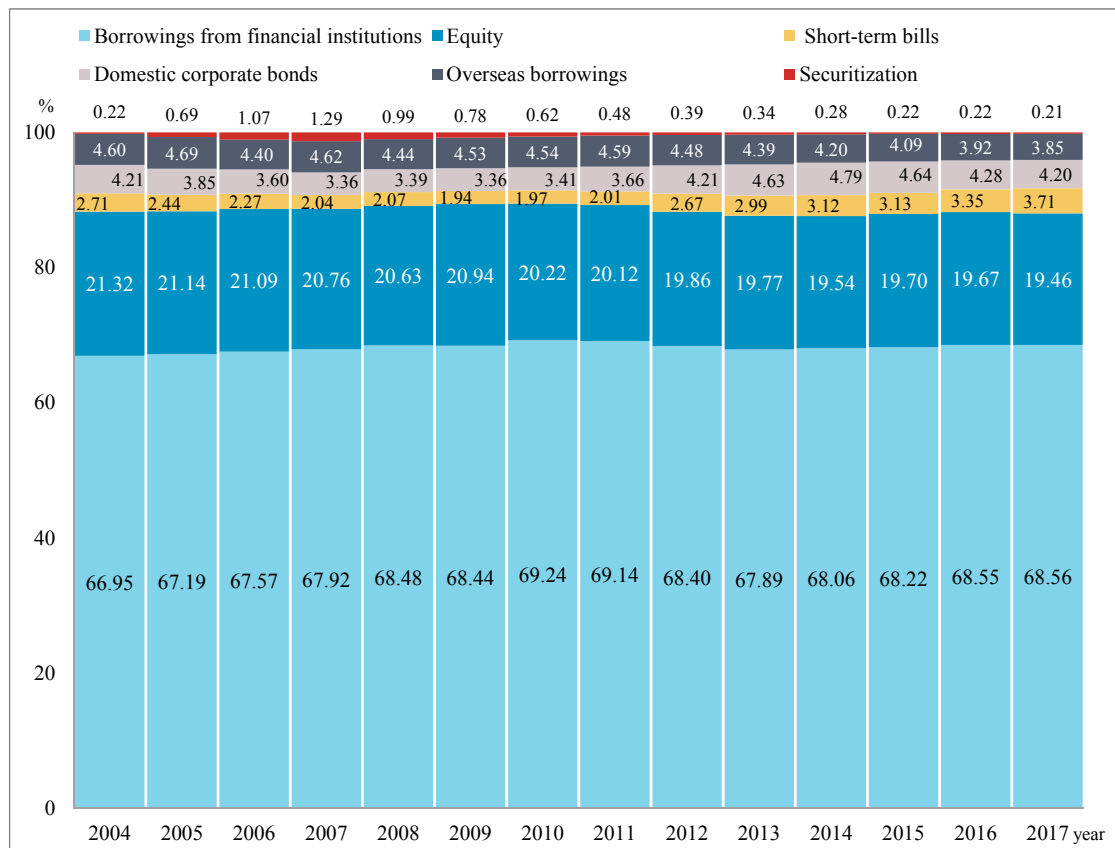
Figure 2-3-1 Direct and Indirect Financial Ratios, 2004-2017



Source: Central Bank of the Republic of China, *Direct Financial and Indirect Financial Stock Analysis*, June 2018.

Regarding the structure of their liabilities, large, medium- and small-sized enterprises in Taiwan are all heavily reliant on borrowings from financial institutions and accounting for 68.56 percent of the total debt in 2017 for all enterprises (up 0.01 percentage points from 2016). The direct financing through equity accounted for 19.46 percent in 2017, down slightly from 19.67 percent in 2016. The direct financing through securitization accounted for a mere 0.21 percent in 2017 (Figure 2-3-2).

Figure 2-3-2 Comparison of Enterprise Financing Channels, 2004-2017



Note: 1. Financial institutions include Central Bank, other monetary institutes and life insurance companies.

2. Financial institutions loan includes collection and bad debt write-off.

3. Enterprise financing channels do not include financial institutions investments and government bond.

Source: Central Bank of the Republic of China, *Direct Financial and Indirect Financial Stock Analysis*, June 2017.

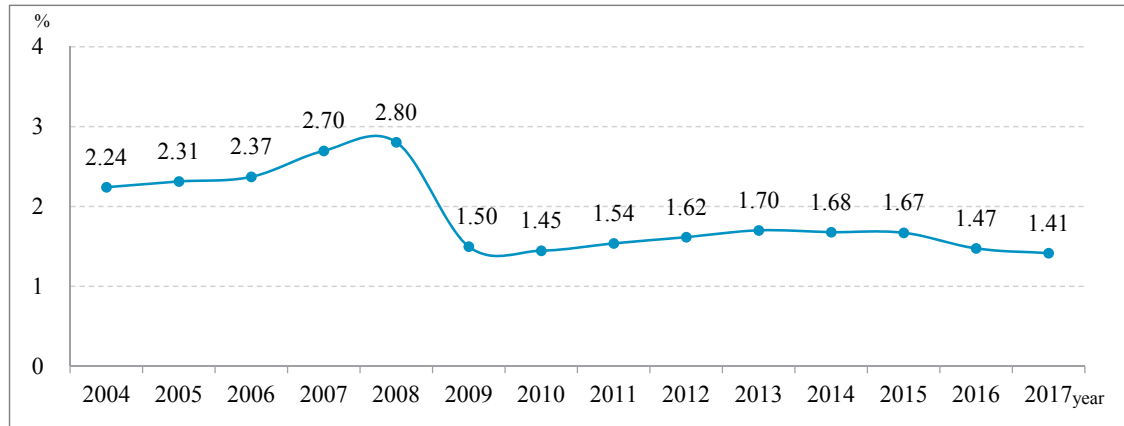
The share of domestic corporate bonds declined modestly to 4.20 percent while the share of short-term bills picked up slightly to 3.71 percent. Since 2011, the share of overseas borrowings has been down from 4.59 percent to 3.85 percent in 2016 (Figure 2-3-2).

2. Borrowing Cost Has Been Down

From June 2010 to July 2011, the Central Bank increases its benchmark discount rate five times from 1.250 percent to 1.875 percent in order to avoid economic overheating and counter rising inflation expectation. It had held the discount rate steady until 2015, during which the Central Bank cut its benchmark discount rate from 1.875 percent to 1.625 percent in order to fight economic recession in Taiwan while global economic growth slowed down. The Central Bank data show that the average interest rate on new loans (weighted averages for the month of December in each year) extended by Taiwan's five largest banks had fallen steadily from 8.26 percent in 1998 to 2.24 percent in 2004. In 2005, the rate rose to 2.31 percent, and in 2008 it climbed further to 2.80 percent. The average interest rate on new loans then fell back to 1.50 percent in 2009 due to the aggressive easing of the Central Bank amid the global financial crisis and recession. In 2017, the average interest rate on new loans

was modestly down to 1.41 percent from 1.47 percent in 2016 (Figure 2-3-3).

Figure 2-3-3 The Average Interest Rate on New Loans Extended by Taiwan's Five Largest Banks, 2004-2017



Note: 1. The interest rates given in the figure are weighted averages for the month of December in each year.

2. Up until October 2008, the five largest banks in Taiwan were the Bank of Taiwan, Taiwan Cooperative Bank, First Commercial Bank, Hua Nan Commercial Bank and Chang Hwa Commercial Bank; from November 2008 onwards the five largest banks were the Bank of Taiwan, Taiwan Cooperative Bank, First Commercial Bank, Hua Nan Commercial Bank and Land Bank of Taiwan.

Source: Central Bank of the Republic of China, Statistical database, accessed June 2018.

3. SMEs: Narrow Funding Sources

SMEs and their owners tend to have insufficient knowledge of the range of financing tools that are now available, and in many cases, they are unable to provide the comprehensive financial statements needed to secure direct financing. As a result, small-sized enterprises' funding sources were mostly limited to borrowings from financial institutions (down to 50.30 percent from 2015) and commercial credit (up to 48.71 percent from 2015), a combined share of 99.01 percent in 2016. The medium-sized enterprises' funding sources were also mostly limited to borrowings from financial institutions (down to 50.25 percent from 2015) and commercial credit (up to 48.24 percent from 2015), a combined share of 98.49 percent in 2016. Large enterprises' funding sources were not as heavily reliant on indirect financing as SMEs, but still highly dependent on borrowings from financial institutions (down slightly to 38.64 percent from 2015) and commercial credit (slightly up to 49.56 percent from 2015), a combined share of 88.20 percent in 2016 (Table 2-3-1).

4. Continuous Increase in Total Bank Loans to SMEs in 2017

As of the end of 2017, the total outstanding loans of SMEs from ordinary commercial banks in Taiwan (including the Taiwan branches of foreign banks, but excluding overseas loans) came to NT\$6.13 trillion, a record high, representing an increase of 6.52 percent compared to the end of 2016, significantly higher than the 4.21 percent overall growth rate of outstanding loans to all enterprises from ordinary commercial banks in Taiwan, mostly driven by government measures to strengthen SME financing from domestic banks. The share of total outstanding loans for SMEs also increased to 25.38 percent from 24.83 percent in 2016 (Figure 2-3-4).

Table 2-3-1 Corporate Liability Structure as of the End of 2016

Unit: Million NT\$, %

Item	Large enterprises		Medium-sized enterprises		Small-sized enterprises	
	Amount	Share	Amount	Share	Amount	Share
Total liabilities	22,198,539	100.00	5,143,512	100.00	800,523	100.00
Borrowings from financial institutions	8,578,488	38.64	2,584,721	50.25	402,668	50.30
Government loans	9,271	0.04	1,775	0.03	40	0.01
Borrowings from firms and individuals	255,364	1.15	46,172	0.90	6,317	0.79
Overseas borrowings	143,556	0.65	5,677	0.11	1,200	0.15
Transactions with repurchase clause	-	-	-	-	-	-
Short-term bills	567,442	2.56	5,332	0.10	55	0.01
Domestic corporate bonds	1,069,503	4.82	-	-	2	0.00
Overseas securities	56,866	0.26	-	-	-	-
Commercial credit (Trading liabilities)	11,000,505	49.56	2,481,252	48.24	389,917	48.71
Provisions and other liabilities	517,545	2.33	18,584	0.36	324	0.04

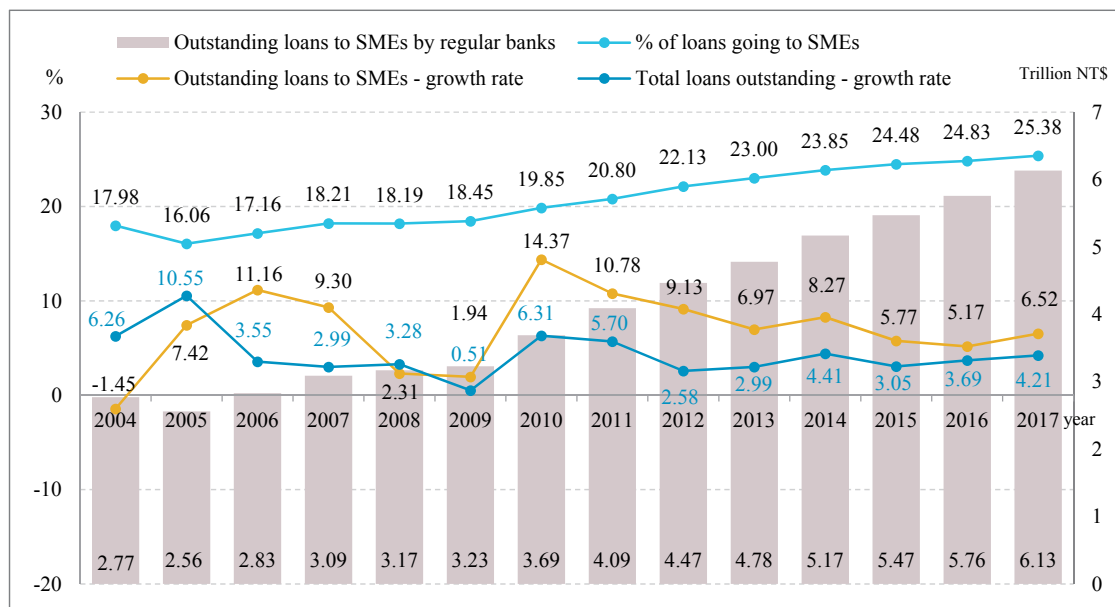
Note: 1. “-” denotes no data available or data uncertain; “0” is used to denote any figure of less than NT\$500.

2. Data may not sum to total due to rounding.

3. An enterprise with total asset NT\$300 million or more is classified as a large enterprise; a medium-sized enterprise: between NT\$25 million and NT\$300 million; a small enterprise: less than NT\$25 million.

Source: Central Bank of the Republic of China, *Survey Report of the Financial Conditions of Private and Public Enterprises* (January 2018).

Figure 2-3-4 Changes in Bank Loans to SMEs by Regular Banks, 2004-2017



Note: Total loans outstanding= (regular banks' outstanding loans to SMEs, overdue loans included) ÷ (loans to SMEs as a percentage of total loans).

Source: Banking Bureau, Financial Supervisory Commission, *Statistics of Banking Business*, consecutive years.

5. The Concentration — Share of Top 10 and Top 8 Banks Was Down

The top 10 banks with loans outstanding to SMEs are half state-run banks, with the market share up to 70.81 percent in 2017, of which 62.20 percent came from the top 8 state-run banks. The concentration, share of top 10 and top 8 banks was down slightly from the previous year, at 71.53 percent and 63.22 percent, respectively (Table 2-3-2).

Table 2-3-2 Top 10 Banks by Amount of Loans to SMEs in 2017

Unit: Million NT\$; %

Bank	Loans outstanding	Market share	Loans to SMEs as percent of total loans
Total	43,427.09	70.81	-
First Commercial Bank	6,578.42	10.73	51.06
Taiwan Cooperative Bank	6,039.65	9.85	33.30
Hua Nan Commercial Bank	4,874.93	7.95	35.30
Taiwan Business Bank	4,675.74	7.62	45.42
Mega International Commercial Bank	4,594.94	7.49	37.10
Chang Hwa Commercial Bank	4,295.98	7.01	35.98
Bank of Taiwan	3,697.11	6.03	21.03
Land Bank of Taiwan	3,384.47	5.52	15.98
E. Sun Commercial Bank	3,283.76	5.35	31.63
The Shanghai Commercial & Savings Bank	2,002.09	3.26	41.20

Note: “-”: not applicable. Source: Banking Bureau, Financial Supervisory Commission, *Statistics of Banking Business* (2018).

6. Private Banks Active in Lending to SMEs

Along with the introduction of various government measures of providing preferential loans to SMEs, private banks' SME loans increased substantially in 2016 and 2017 as shown in Financial Supervisory Commission data. In terms of annual growth rate from 2016 to 2017, the top ten private banks saw SME loans growth between 1.79 percent and 22.03 percent (except the slight drop of two bank: Taichung Commercial Bank and Taiwan Shin Kong Commercial Bank) with loan balances between NT\$117 billion and NT\$328 billion (Table 2-3-3).

Table 2-3-3 Top 10 Private Banks by Amount of Loans to SMEs in 2017

Unit: Million NT\$; %

Bank	Loans outstanding by the end of 2016	Loans outstanding by the end of 2017	Annual growth rate
E. Sun Commercial Bank	295,034	328,376	11.30
The Shanghai Commercial & Savings Bank	182,848	200,209	9.49
CTBC Bank	166,818	184,285	10.47
Taichung Commercial Bank	177,488	176,878	-0.34
Cathay United Bank	130,895	151,919	16.06
Bank SinoPac	143,398	145,969	1.79
Taishin International Bank	107,641	131,351	22.03

Bank	Loans outstanding by the end of 2016	Loans outstanding by the end of 2017	Annual growth rate
Taipei Fubon Bank	123,159	131,325	6.63
Taiwan Shin Kong Commercial Bank	121,341	119,200	-1.76
Sunny Bank	100,930	117,705	16.62

Source: Banking Bureau, Financial Supervisory Commission, *Statistics of Banking Business* (2018).

CHAPTER 3

SMEs: Human Resources

In 2017, human resources in Taiwan also showed steady growth. According to Directorate-General of Budget, Accounting and Statistics of Executive Yuan, the number of employed persons increased by about 68,000 people (0.58 percent) to 11,795,000 with a modest improved participation rate at 58.83, higher than that of last year. The unemployment rate decreased to 17,000 people (3.52 percent) and averaged 3.76 percent over the course of the year, 0.16 percent lower than that in 2016.

This chapter is divided into three sections. Section I examines SME human resources utilization (in terms of scales, industries, and characteristics of employed and unemployed persons such as age, sex, and education); Section II discusses working conditions (including average working hours and salary by industries).

An SME is defined as an enterprise with less than 200 regular employees in mining and quarrying, manufacturing, and construction industries, or an enterprise with less than 100 regular employees in other industries.

I Labor Utilization by SMEs

1. SMEs Provided Labor Market Stability

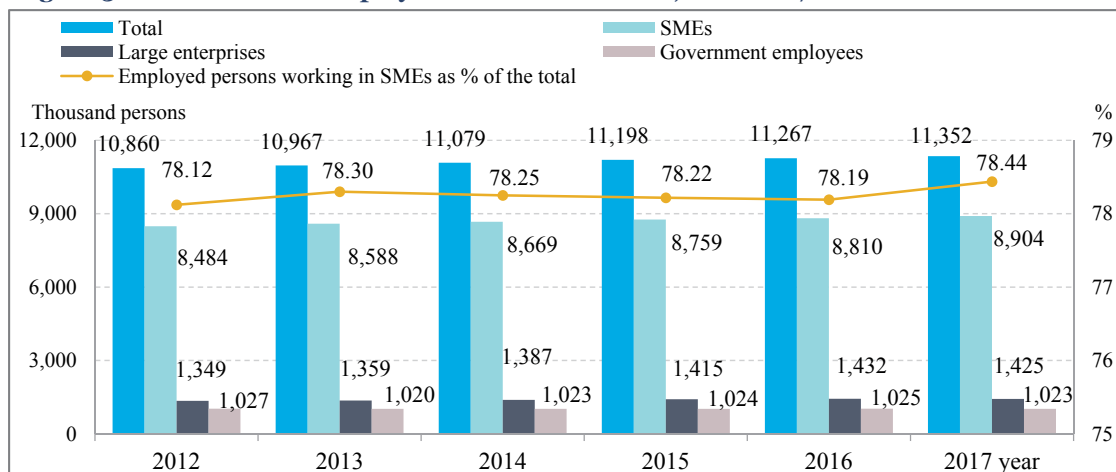
In 2017, employed persons (including employers, own-account workers, paid employees and unpaid family workers) in Taiwan totaled 11,352,000 people. The number of employed persons working in SMEs in Taiwan totaled 8,904,000, accounted for 78.44 percent of all employed persons in Taiwan, up 1.07 percent; large enterprises employed 1,425,000 persons and accounted for 12.55 percent, down 0.49 percent; the government employed 1,023,000 persons and accounted for 9.01 percent, down 0.20 percent.

Compared to large enterprise, SMEs have functioned as a more stabilizing force in the labor market through many business and economic cycles. Since the global financial crisis in 2009, the total number of employed persons in SMEs has been rising slightly for 8 consecutive years; while the share of employed persons in SMEs fell to 78.19 percent in 2016 from 78.30 percent in 2013, then bounced to 78.44 percent in 2017 (Figure 3-1-1).

In terms of industries, the number of employed persons working in SMEs in the manufacturing industry in 2017 stood at 2,218,000, accounting for 24.91 percent of all SME employed persons. The wholesale and retail trade industry had the second largest number of employed persons working in SMEs, or 1,801,000 (20.23 percent), followed by the construction industry, with 886,000 employees

(9.95 percent). 2017 saw employment growth in all sectors with stable distribution (Appendix C Table C-5, Figure 3-1-2).

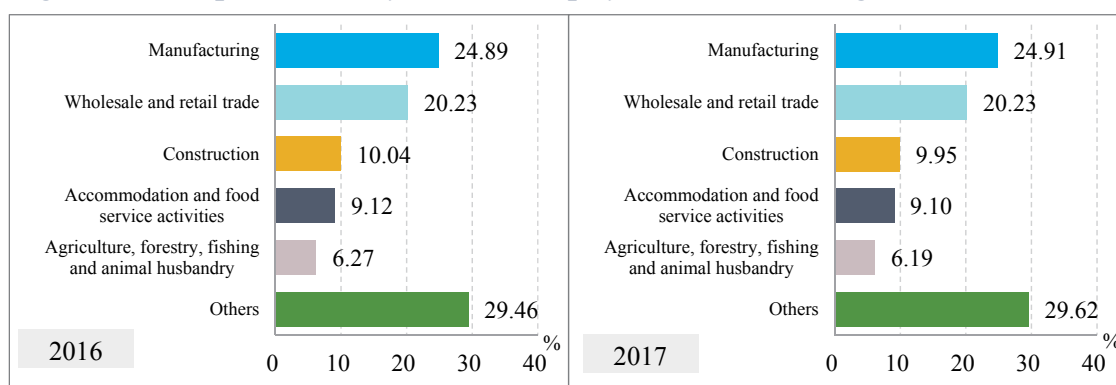
Figure 3-1-1 Number of Employed Persons in Taiwan, 2012-2017



Note: An SME is defined as an enterprise with less than 200 paid employees in Mining and Quarrying, Manufacturing, and Construction industries, or an enterprise with less than 100 paid employees in other industries.

Source: Directorate-General of Budget, Accounting and Statistics (DGBAS), Manpower Survey data, 2012-2017.

Figure 3-1-2 Top Five Industry Shares of Employed Persons Working in SMEs, 2016-2017



Note: An SME is defined as an enterprise with less than 200 paid employees in Mining and Quarrying, Manufacturing, and Construction industries, or an enterprise with less than 100 paid employees in other industries.

Source: Directorate-General of Budget, Accounting and Statistics (DGBAS), Manpower Survey data, 2016-2017.

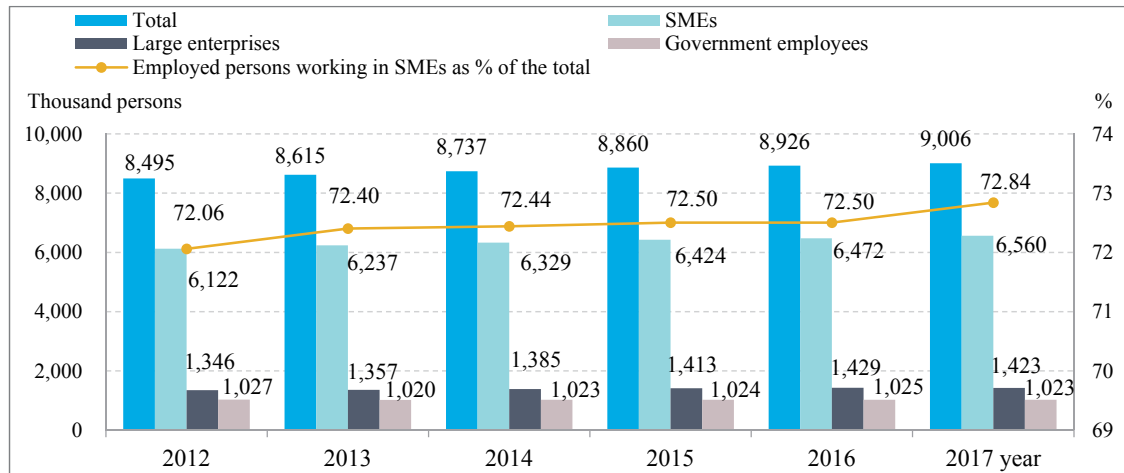
In terms of shares of employed persons by sector, there has been a clear trend of a decreased share of the Industrial sector in the period from 2013 to 2017 and increased share of Service sector in the same period.

2. More Than 72 Percent Paid Employees Working for SMEs in 2017

The total number of paid employees in Taiwan averaged 9,006,000 in 2017 (including government employees and private company employees), representing an increase of 0.90 percent or 80 thousand people from 2016; the number of paid employees, 6,560,000 or 72.84 percent were working in SMEs, up 1.36 percent compared to 2016; paid employees working in large enterprises and government fell

0.42 percent and 0.20 percent respectively. The number of paid employees working in SMEs as well as in large enterprises has increased consistently since the global financial crisis of 2009. The share of paid employees working in SMEs rose consistently since 2011 as well (Figure 3-1-3).

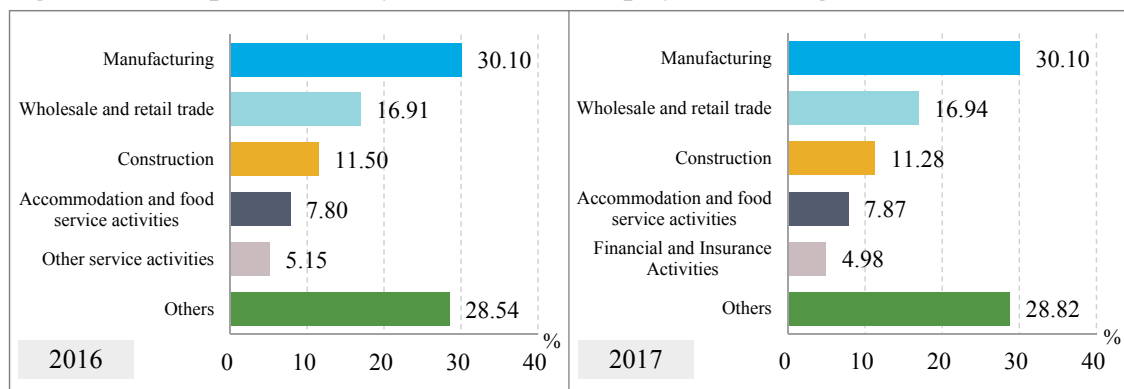
Figure 3-1-3 Number of Paid Employees in Taiwan, 2012-2017



Note and source: See Figure 3-1-1.

In terms of industry distribution, the number of paid employees working in SMEs in the manufacturing industry in 2017 stood at 1,975,000, accounting for 30.10 percent of all SME paid employees. The wholesale and retail trade industry had the second largest number of paid employees working in SMEs, or 1,111,000 (16.94 percent), followed by the construction industry, with 740,000 employees (11.28 percent) (Appendix C Table C-6, Figure 3-1-4).

Figure 3-1-4 Top Five Industry Shares of Paid Employees Working in SMEs, 2016-2017



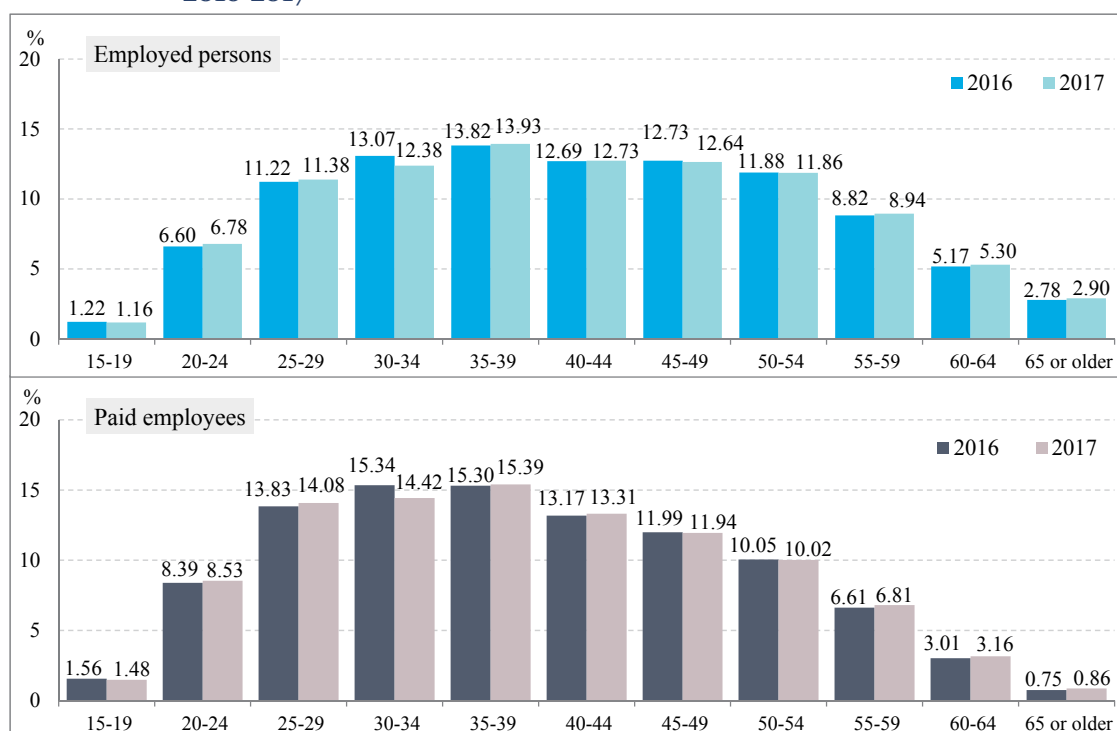
Note and source: See Figure 3-1-2.

In terms of shares of paid employees by sector, there has been a clear trend of a decreased share of the Industrial sector in the period from 2013 to 2017 and an increased share of the Service sector in the same period.

3. The Share of SMEs' Manpower with College Education Increased Gradually

In 2017, the proportion of employed persons working in SMEs was highest at 13.93 percent in between the ages of 35 and 39, followed by those between 40 and 44 at 12.73 percent and those between 45 and 49 at 12.64 percent; the proportion of paid employees working in SMEs was also highest at 15.39 percent between the ages of 35 and 39, followed by those between 30 and 34 at 14.42 percent and those between 25 and 29 at 14.08 percent (Figure 3-1-5).

Figure 3-1-5 Age Structure of Employed Persons and Paid Employees Working in SMEs, 2016-2017



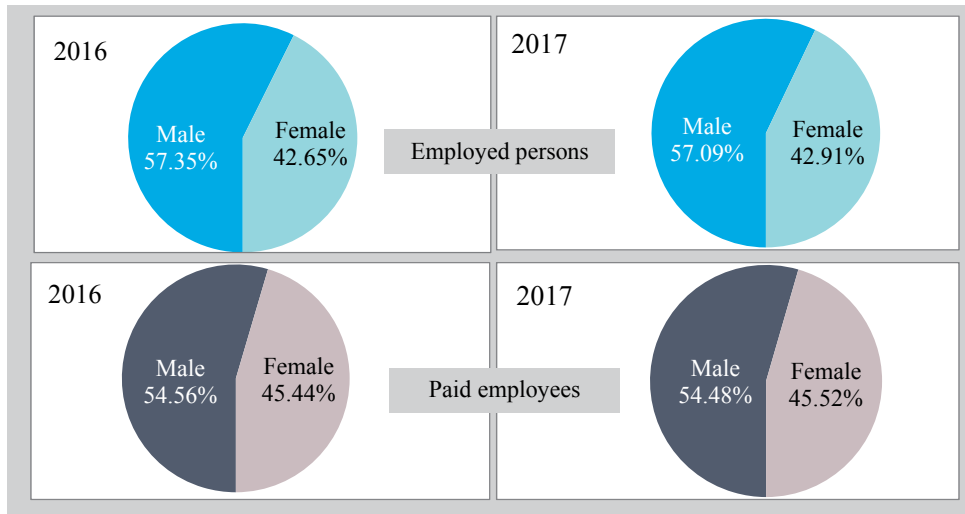
Note and source: See Figure 3-1-2.

The male / female ratio of employed persons (57.09 percent / 42.91 percent) or paid employees (54.48 percent / 45.52 percent) in SMEs was far greater than one and less so in 2017; in 2016, the male / female ratio of employed persons (57.35 percent / 42.65 percent) or paid employees (54.56 percent / 45.44 percent) in SMEs was also greater than one, which shows that employment continues to be male-oriented and less so in 2017 (Figure 3-1-6).

As can be seen from the educational structure, the highest proportion of employed persons working in SMEs consisted of those with vocational education in 2017 at 26.90 percent, followed by those with university education (23.40 percent) and by those with junior college education (15.18 percent). The highest proportion of paid employees working in SMEs consisted of those with university education at 27.45 percent, followed by those with vocational education (26.65 percent) and by those with junior college education (15.65 percent). Moreover, the increase in the share of

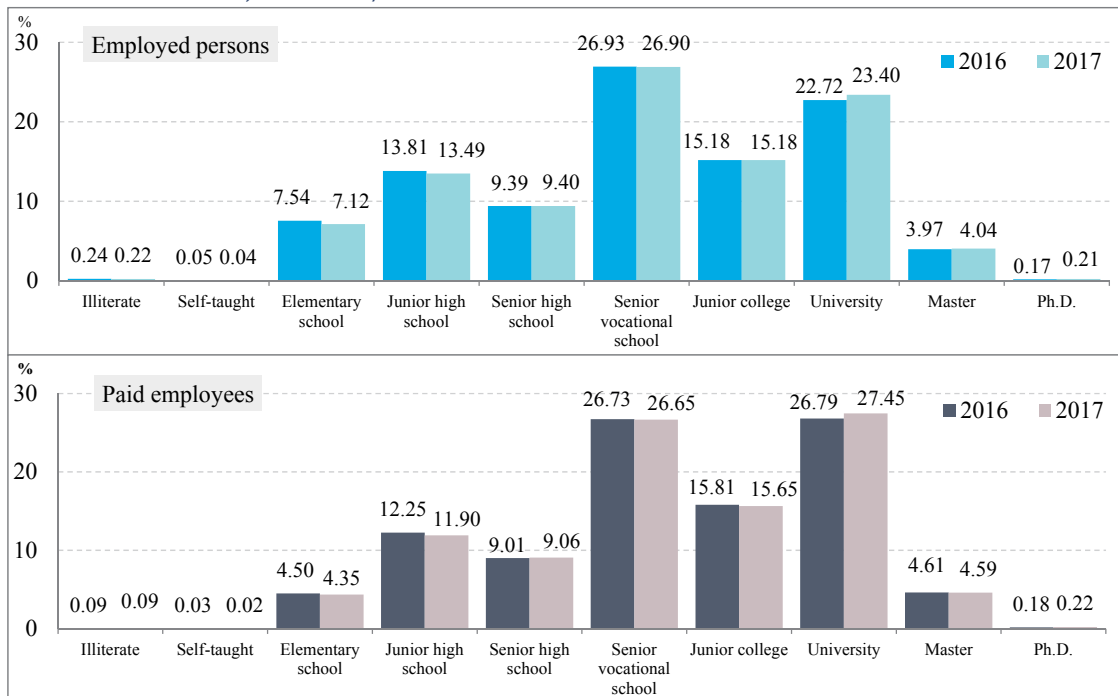
employed persons and paid employees with university education and higher education showed the education level of employed persons and paid employees in SMEs both rose in recent years. That was consistent with Taiwan's higher education expansion policy (Figures 3-1-7).

Figure 3-1-6 Male / Female Ratio of Employed Persons and Paid Employees Working in SMEs, 2016-2017



Note and source: See Figure 3-1-2.

Figure 3-1-7 Educational Structure of Employed Persons and Paid Employees Working in SMEs, 2016-2017



Note and source: See Figure 3-1-2.

4. The Number of SME Employers Increased Slightly in 2017

There were around 443,000 SME employers and approximately 1,550 large enterprise employers in 2017. The number of SME employers rose by about 500 or 0.12 percent from 2016 while the number of large enterprise employers declined by about 750 or 32.61 percent. The age structures of SME employers showed that they were younger than large enterprise employers, and the educational structure distribution was broader (Table 3-1-1).

Table 3-1-1 Characteristics of Employers, 2016-2017

Unit: Thousand persons; %

Item \ Year	2016		2017	
	SMEs	Large enterprises	SMEs	Large enterprises
No. of employers	442.96	2.30	443.47	1.55
Share of total	99.48	0.52	99.65	0.35
Age	100.00	100.00	100.00	100.00
15 – 19	0.00	-	-	-
20 – 24	0.37	-	0.29	1.04
25 – 29	1.70	-	1.96	-
30 – 34	5.26	-	5.54	-
35 – 39	9.40	12.01	9.51	-
40 – 44	12.98	3.87	12.77	9.78
45 – 49	16.95	4.80	16.47	5.18
50 – 54	19.39	8.54	19.02	16.64
55 – 59	16.79	37.53	17.39	34.18
60 – 64	11.33	8.61	11.18	10.07
65 or older	5.84	24.64	5.86	23.11
Sex	100.00	100.00	100.00	100.00
Male	79.85	82.37	79.22	80.09
Female	20.15	17.63	20.78	19.91
Education	100.00	100.00	100.00	100.00
Illiterate	0.09	-	0.02	-
Self-taught	0.01	-	0.00	-
Elementary school	6.62	-	5.94	2.43
Junior high school	14.02	1.80	13.33	8.74
Senior high school	9.78	12.52	9.37	12.81
Senior vocational school	26.24	19.09	25.48	17.10
Junior college	20.26	12.95	20.38	9.68
University	17.59	16.96	19.14	17.58
Master	4.94	32.90	5.82	17.68
Ph.D.	0.44	3.78	0.51	13.99

Note: “-” denotes no available data.

Source: Directorate-General of Budget, Accounting and Statistics, *Manpower Survey* data (2016-2017).

5. The Number of Self-Employed Persons Rose Slightly; the Share of Self-Employed with University and higher education Increased in 2017

The self-employed either work alone or as part of a partnership, but they do not have any paid employees. Self-employed persons can thus all be classified as SMEs. The number of self-employed persons in Taiwan peaked in 1991-1992 at around 1,572,000 and then declined consistently, dropping to 1,310,000 in 2014. However, the number of self-employed persons in Taiwan reached 1,319,000 in 2016, as well as rose by 3,000 persons and reached 1,322,000 in 2017.

As can be seen from the age structure, the shares of self-employed in the 50-54 age group was the highest at about 17.61 percent in 2017, followed by the 55-59 age group (15.67 percent), and the 45-49 age group (14.63 percent). The share of self-employed in the 20-39 age group increased slightly in 2017. In terms of education, the share of self-employed with senior vocational education was the highest at 26.83 percent, followed by those with junior high school education at 20.46 percent, and by those with elementary school education at 18.79 percent. Compared to 2016, the shares of self-employed with university and higher education degree which includes master and Ph.D. education degree increased slightly in 2017 (Table 3-1-2).

Table 3-1-2 Characteristics of Self-Employed Persons, 2016-2017

Unit: Thousand persons; %

Item \ Year	2016	2017
No. of self-employed persons	1,319	1,322
Age	100.00	100.00
15 – 19	0.03	0.06
20 – 24	0.74	0.84
25 – 29	2.77	2.56
30 – 34	5.69	5.79
35 – 39	8.94	9.04
40 – 44	10.78	10.43
45 – 49	14.71	14.63
50 – 54	17.62	17.61
55 – 59	15.76	15.67
60 – 64	12.46	12.55
65 or older	10.50	10.82
Sex	100.00	100.00
Male	75.16	74.29
Female	24.84	25.71
Education	100.00	100.00
Illiterate	0.72	0.69
Self-taught	0.13	0.11
Elementary school	20.35	18.79

Item \ Year	2016	2017
Junior high school	20.91	20.46
Senior high school	10.37	10.29
Senior vocational school	25.68	26.83
Junior college	11.74	12.13
University	8.46	8.72
Master	1.56	1.88
Ph.D.	0.07	0.10

Source: Directorate-General of Budget, Accounting and Statistics, *Manpower Survey* data (2016-2017).

6. Number of Unemployed Persons Previously Working for SMEs Declined in 2017

In 2017, the number of unemployed persons in Taiwan declined by approximately 16,000 (or 3.52 percent), and the unemployment rate declined 0.16 percent to 3.76 percent. Apart from the first time job-seekers, the number of unemployed persons who had previously been working for SMEs declined significantly by 3 percent to 291,000 in 2017 from 300,000 in 2016; the number of unemployed who had previously been working for large enterprises declined by 8.33 percent to 33,000 in 2017 from 36,000 in 2016; the number of unemployed who had previously been working for the government declined 6.67 percent to 14,000 in 2017 from 15,000 in 2016; and the number of unemployed who were the first time job-seekers declined by 4.59 percent to 104,000 in 2017 from 109,000 in 2016 (Table 3-1-3).

In terms of age distribution of unemployed persons: those who had previously been working for SMEs or government, most (19.64 percent and 26.61 percent, respectively) were in age 25-29 group while those who had previously been working for large enterprise, most (21.41 percent) were in age 30-34 group. For first time job-seekers, most unemployed were in age 20-24 group, accounting for 60.82 percent in 2016, showing serious youth unemployment problem (Table 3-1-3).

Regarding sex distribution of unemployed persons: those who had previously been working for the government, most were women while those who had previously been working for large enterprise or SMEs, most were men (Table 3-1-3).

In terms of education distribution of unemployed persons: those who had previously been working for SMEs, most were people with vocational education (28.36 percent), followed by people with university education (26.67 percent); those who had previously been working for large enterprises or government, or were first time job-seekers, most were with university education (34.81 percent, 49.64 percent, and 64.41 percent, respectively). The youth unemployment problem seemed getting worse in 2017 as 64.41 percent of first time job-seekers who were unemployed had university education, higher than the ratio in 2016 (Table 3-1-3).

Table 3-1-3 Characteristics of the Unemployed, 2016-2017

Unit: Thousand persons; %

Item \ Year	2016				2017			
	SMEs	Large enterprises	Government	First time job-seekers	SMEs	Large enterprises	Government	First time job-seekers
No. of the unemployed	300	36	15	109	291	33	14	104
Share of total	65.22	7.83	3.26	23.70	65.84	7.47	3.17	23.53
Age	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
15 – 19	1.47	0.44	-	6.08	1.36	0.21	-	6.37
20 – 24	10.35	8.02	10.58	60.13	11.60	11.41	4.69	60.82
25 – 29	18.56	19.93	21.22	26.30	19.64	17.65	26.61	24.97
30 – 34	14.80	23.49	19.65	5.19	13.38	21.41	21.07	5.05
35 – 39	15.46	22.10	8.30	1.87	15.97	17.53	13.04	1.50
40 – 44	11.80	8.84	9.09	0.33	10.92	16.84	16.30	0.87
45 – 49	10.54	10.07	11.74	0.10	10.13	8.28	6.78	0.32
50 – 54	8.59	4.95	6.09	-	8.72	2.63	6.65	-
55 – 59	5.40	2.15	10.06	-	5.20	2.19	2.23	-
60 – 64	2.87	-	3.25	-	2.97	1.86	2.62	0.11
65 or older	0.15	0.01	0.03	-	0.11	-	0.02	-
Sex	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Male	62.20	59.05	38.03	56.25	62.94	54.81	48.69	52.14
Female	37.80	40.95	61.97	43.75	37.06	45.19	51.31	47.86
Education	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Illiterate	0.04	-	-	0.05	0.02	-	-	-
Self-taught	0.00	-	0.28	-	0.01	-	0.36	-
Elementary school	5.52	-	1.43	-	4.97	0.80	3.83	-
Junior high school	14.26	5.04	4.26	1.69	13.31	5.22	4.83	1.82
Senior high school	10.14	7.24	3.08	5.55	10.33	6.67	3.19	5.27
Senior vocational school	28.43	28.51	17.14	11.25	28.36	24.64	8.43	12.62
Junior college	13.35	16.85	13.03	5.43	13.18	19.06	11.19	4.92
University	25.08	37.44	47.70	63.50	26.67	34.81	49.64	64.41
Master	3.11	4.85	12.58	12.31	3.14	8.69	18.08	10.81
Ph.D.	0.06	0.08	0.50	0.22	0.01	0.11	0.48	0.16

Note: 1. “-” denotes no available data. 2. The enterprise size in the table is the size of the last company where the unemployed worked.

Source: Directorate-General of Budget, Accounting and Statistics, *Manpower Survey* data (2016-2017).

In terms of the reasons for leaving the previous jobs, “Dissatisfaction with previous jobs” was the No. 1 reason for leaving SMEs (47.93 percent) or large enterprises (60.49 percent). However, the No. 1 reason for leaving government was “End of seasonal or temporary jobs” (57.10 percent) (Table 3-1-4).

Besides, the number of unemployed due to “Downsizing or out of business” declined consistently from the peak at 337,000 in 2009 to 113,000 in 2017, 8,000 people lower than that of 2016.

Table 3-1-4 Reasons for Leaving the Previous Jobs, 2016-2017

Unit: Thousand persons; %

Item \ Year	2016			2017		
	SMEs	Large Enterprises	Government	SMEs	Large Enterprises	Government
No. of persons	299.84	36.01	14.70	291.17	33.35	14.44
Downsizing or out of business	35.72	34.77	8.44	35.57	25.61	10.49
Dissatisfaction with previous Jobs	46.55	54.48	17.86	47.93	60.49	24.91
Poor health	2.61	3.46	5.86	1.89	3.68	1.37
End of seasonal or temporary jobs	12.12	3.19	62.18	12.26	5.03	57.10
Women: marriage or giving birth	0.68	1.36	-	0.70	0.98	-
Retired	0.17	0.39	2.57	0.02	1.46	3.39
Housework too busy	0.83	1.07	-	0.60	1.04	0.36
Others	1.33	1.27	3.10	1.02	1.72	2.40

Note: 1. “-” denotes no available data.

2. The enterprise size in the table is the size of the last company where the employee worked.

Source: Directorate-General of Budget, Accounting and Statistics, *Manpower Survey* data (2016-2017).

7. Near 60 Percent Foreign Employees Worked in SMEs

2017 saw a continuous increase in the number of foreign laborers working in the manufacturing and construction industries in Taiwan. The number of foreign laborers working in Taiwan rose to 413,685, up 37,080 from 2016.

Regardless of the size of enterprises that employ foreign laborers, both the number of applications to employ foreign laborers and the number of foreign laborers working in Taiwan rose in 2017. The number of foreign laborers working for SMEs rose by 18,335 (up 8.52 percent) in 2017, while the number of foreign laborers working for large enterprises rose by 18,745 (up 11.61 percent).

Table 3-1-5 Number of Foreign Workers Introduced by Enterprise Size, 2013-2017

Unit: Persons; %

Year \ Size	Total	SMEs	Large enterprises
2013	269,131	159,334 (59.20)	109,797 (40.80)
2014	321,269	187,159 (58.26)	134,110 (41.74)
2015	353,686	200,714 (56.75)	152,972 (43.25)
2016	376,605	215,145 (57.13)	161,460 (42.87)
2017	413,685	233,480 (56.44)	180,205 (43.56)

Note:

1. Figures only include foreign workers in both the manufacturing and construction industries. Hence, an SME is defined as an enterprise with less than 200 regular employees in mining and quarrying, manufacturing, and construction industries.

2. The figure in the parentheses denotes share of total by enterprise size.

Source: Figures provided by Workforce Development Agency, Ministry of Labor.

8. Part-Time Workers Decreased Slightly in SMEs

According to the data presented in the 2017 Manpower Utilization Survey, the part-time workers in SMEs fell by 1,000 to 363,000, while in large enterprises the part-time manpower fell by 1,000. There was an increase of 96,000 full-time workers in SMEs, a decrease of 5,000 in large enterprises and a decrease of 13,000 for government in 2017. The utilization of part-time workers is most common in the SMEs in the service sector, especially in the accommodation and food service activities and the wholesale and retail trade industry, followed by the wholesale and retail trade industry (Table 3-1-6).

Table 3-1-6 Full-Time and Part-Time Manpower Utilization by Industry and Enterprise Size, 2016-2017

Unit: Thousand persons

Industry	Year / size	2016						2017					
		SMEs		Large enterprises		Government		SMEs		Large enterprises		Government	
		Full - time	Part - time	Full - time	Part - time	Full - time	Part - time	Full - time	Part - time	Full - time	Part - time	Full - time	Part - time
Total		8,459	364	1,368	29	1,009	17	8,555	363	1,363	28	996	26
Agriculture, forestry, fishing and animal husbandry		544	11	1	-	2	-	536	13	2	-	4	-
Mining and quarrying		3	-	-	-	1	-	3	0	-	-	0	-
Manufacturing		2,167	50	790	1	15	-	2,188	43	779	10	19	-
Electricity and gas supply		2	0	5	-	23	-	3	-	5	-	22	-
Water supply and remediation activities		38	0	1	-	42	-	31	1	1	-	49	1
Construction		857	30	8	-	4	-	859	27	9	-	5	-
Wholesale and retail trade		1,690	76	65	7	7	1	1,721	67	67	10	5	1
Transportation and storage		319	7	63	2	50	-	313	12	75	1	41	1
Accommodation and food service activities		714	85	24	1	0	-	721	85	24	1	0	-
Information and communication		182	6	55	-	2	-	183	10	57	-	2	-
Financial and insurance activities		321	3	78	3	17	-	334	3	74	0	16	-
Real estate activities		94	0	2	-	3	-	98	3	1	-	1	-
Professional, scientific and technical activities		291	10	42	1	21	-	299	8	41	0	20	-
Supporting service activities		244	18	22	2	-	-	246	22	22	-	1	-
Public administration and defense; compulsory social security		2	-	-	-	372	1	0	-	-	-	371	1
Education		203	28	55	12	344	14	208	26	59	5	339	18
Human health and social work activities		195	12	147	0	89	2	215	10	138	1	81	4
Arts, entertainment and recreation		79	5	4	1	14	-	76	5	5	-	18	1
Other service activities		514	23	6	-	3	-	517	27	5	-	1	-

Note: “-” denotes no available data; “0” denotes a figure is less than one unit (one unit=1000 persons).

Source: Directorate-General of Budget, Accounting and Statistics, *Manpower Utilization Survey* data (2016-2017).

9. A significant Decrease in the Number of SME Employees Changing Jobs

In 2017, a total of 470,000 SME employees changed jobs; this figure was down about 63,000 from 2016. The rate of those taking up a position with another SME remained high at 90.57 percent, while only 6.52 percent took a job in large enterprises or 2.91 percent in the government. The figure suggests that it is not easy for former SME employees to find jobs in large enterprises or public sector, but it could also mean that SMEs offer more opportunities than government or large enterprises for job seekers (Table 3-1-7).

Table 3-1-7 Choice of New Employer by Former SME Employees, 2009-2017

Unit: Thousand persons; %

Year	Total	Going to work for another SME		Going to work for a large enterprise		Going to work for a government agency	
		No. of persons	Share of total	No. of persons	Share of total	No. of persons	Share of total
2009	518	472	91.14	24	4.69	22	4.17
2010	536	471	87.80	42	7.82	23	4.38
2011	532	461	86.75	48	9.03	22	4.22
2012	507	444	87.60	46	8.98	17	3.42
2013	509	453	88.99	38	7.38	18	3.63
2014	514	460	89.46	43	8.30	11	2.24
2015	571	505	88.45	49	8.52	17	3.02
2016	533	472	88.56	48	9.01	13	2.44
2017	470	425	90.57	31	6.52	14	2.91

Note: An SME is defined as an enterprise with less than 200 regular employees in mining and quarrying, manufacturing, and construction industries, or an enterprise with less than 100 regular employees in other industries.

Source: Directorate-General of Budget, Accounting and Statistics, *Manpower Utilization Survey* data (2009-2017).

II Labor Conditions in SMEs

1. SMEs in Electricity and Gas Supply Had the Longest Average Working Hours

In 2017, for SMEs, the transportation and storage industry had the longest average working hours at 43.45 hours per week (and employed 325,000 workers, accounting for 3.64 percent of all employed workers in SMEs), followed by the other service activities industry at 43.35 hours per week (and employed 544,000 workers, accounting for 6.11 percent of all employed workers in SMEs), and the real estate activities at 42.90 hours per week (and employed 101,000 workers, accounting for 1.13 percent of all employed workers in SMEs). The education had the shortest average working hours at 38.16 hours per week (and employed 234,000 workers, accounting for 2.63 percent of all employed workers in SMEs) (Table 3-2-1).

Table 3-2-1 Working Hours per Week and Number of Employed Workers by Enterprise Size and Industry, 2017

Unit: Thousand persons; hours / per week

Item Industry	No. of employed worker			Weekly working hours		
	SMEs	Large enterprises	Government employees	SMEs	Large enterprises	Government employees
Agriculture, forestry, fishing and animal husbandry	548.95	6.16	1.99	4.16	40.32	40.00
Mining and quarrying	3.59	0.04	-	0.33	39.26	-
Manufacturing	2,231.60	25.02	788.76	18.68	40.97	41.85
Electricity and gas supply	3.36	0.04	4.53	21.90	40.64	40.08
Water supply and remediation activities	32.26	0.36	0.88	49.18	42.53	40.00
Construction	886.42	9.94	8.58	5.27	40.75	40.32
Wholesale and retail trade	1,788.24	20.05	76.43	6.23	42.61	38.92
Transportation and storage	325.03	3.64	76.29	42.10	43.45	42.27
Accommodation and food service activities	806.52	9.04	24.49	0.32	42.58	41.32
Information and communication	192.54	2.16	56.58	1.88	40.46	42.56
Financial and insurance activities	336.49	3.77	74.62	16.19	40.91	41.69
Real estate activities	101.11	1.13	1.50	0.63	42.90	41.92
Professional, scientific and technical activities	307.66	3.45	41.39	19.94	40.90	41.63
Supporting service activities	268.41	3.01	21.53	1.09	41.68	45.24
Public administration and defense; compulsory social security	0.49	0.01	-	372.42	40.00	-
Education	234.49	2.63	63.92	356.33	38.16	38.01
Human health and social work activities	224.66	2.52	139.27	85.13	40.85	42.33
Arts, entertainment and recreation	81.79	0.92	5.09	18.51	41.99	40.47
Other service activities	544.52	6.11	5.23	1.41	43.35	42.63

Note:

1. Employed persons with non-zero main working hours are classified as employed workers. Hence the figure of the sum of employed workers in each industry is different from the number of employed persons by enterprise size as noted in Figure 3-1-1.

2. “-” denotes no available data.

Source: Directorate-General of Budget, Accounting and Statistics, *Manpower Survey* data (2017).

2. The Highest Average Salary Level for SME Employees Was in the Electricity and Gas Supply Industry

In 2017, the highest average salary level for SME employees was in the electricity and gas supply industry at over NT\$67,000 per month (0.04 percent of all SMEs' paid employed persons), followed by the professional, scientific and technical activities industry at about NT\$47,000 per month (3.56 percent of all SMEs' paid employed persons), and the financial and insurance activities industry at about NT\$46,000 per month (4.03 percent of all SMEs' paid employed persons). The lowest average salary level for SME employees was in the agriculture, forestry, fishing and animal husbandry industry at about NT\$27,000 per month (5.10 percent of all SMEs' paid employed persons) (Table 3-2-2).

The average monthly salary level for SME employees rose in most industries in 2017 from 2016 except for mining and quarrying, construction, transportation and storage, accommodation and food service activities, financial and insurance activities, public administration and defense; compulsory social security, and other service activities. The average monthly salary level for SME employees rose most at around NT\$21,000 in the electricity and gas supply, followed by the water supply and remediation activities at NT\$2,900. The sharpest decline came from the public administration and defense; compulsory social security, down NT\$12,000, followed by the mining and quarrying, down NT\$1,000 (Table 3-2-2).

Table 3-2-2 Number of Paid Employed Persons and Average Wage of Main Work by Enterprise Size and Industry, 2017

Unit: Thousand persons; thousand NT\$ / per month

Industry \ Item	No. of paid employed persons				Average wage of main work			
	SMEs	Share	Large enterprises	Government employees	Total	SMEs	Large enterprises	Government employees
Agriculture, forestry, fishing and animal husbandry	425.34	5.10	1.99	4.16	27.37	27.25	34.28	36.35
Mining and quarrying	3.59	0.04	-	0.33	38.34	36.73	-	55.66
Manufacturing	2,156.20	25.85	788.76	18.68	38.05	36.43	42.19	50.65
Electricity and gas supply	3.09	0.04	4.53	21.90	57.03	66.86	56.77	55.70
Water supply and remediation activities	32.13	0.39	0.88	49.18	37.87	39.81	52.10	36.35
Construction	855.17	10.25	8.58	5.27	38.26	38.11	47.79	47.50
Wholesale and retail trade	1,617.34	19.39	76.43	6.23	36.06	35.94	38.82	34.72
Transportation and storage	317.39	3.81	76.29	42.10	41.29	38.77	49.68	45.09
Accommodation and food service activities	703.61	8.44	24.49	0.32	30.73	30.60	34.04	53.67
Information and communication	192.31	2.31	56.58	1.88	47.03	43.89	57.54	51.31
Financial and insurance activities	336.26	4.03	74.62	16.19	48.08	46.55	53.29	55.90
Real estate activities	101.11	1.21	1.50	0.63	39.25	39.07	56.51	27.60
Professional, scientific and technical activities	297.02	3.56	41.39	19.94	49.64	47.42	61.21	58.70
Supporting service activities	263.75	3.16	21.53	1.09	30.66	30.57	31.52	35.85
Public administration and defense; compulsory social security	0.49	0.01	-	372.42	48.62	29.60	-	48.65
Education	230.16	2.76	63.92	356.33	45.84	34.95	51.81	51.80
Human health and social work activities	217.89	2.61	138.83	85.13	46.23	41.18	47.24	57.52
Arts, entertainment and recreation	76.63	0.92	5.09	18.51	34.34	33.34	31.54	39.23
Other service activities	511.37	6.13	5.23	1.41	32.14	32.09	38.34	26.02

Note:

1. Employed persons with working hours 15 or more are classified as paid employed persons here. Hence the figure of the sum of paid employed persons in each industry is different from the number of employed persons by enterprise size as noted in Figure 3-1-1.
2. “-” denotes no available data.

Source: Directorate-General of Budget, Accounting and Statistics, *Manpower Survey* data (2017).

Generally, compared to 2016, the average monthly salary level and the average working hours for SME employees in 2017 rose around NT\$260 and declined 1.3 hours per week respectively.

3. Manpower Demand Expected to Rise

According to the results from the *2018 Manpower Requirements Survey* (conducted over the period April 23 to May 11 by the Ministry of Labor, targeting enterprises with 30 or more employees; a total of 3,168 SMEs answered the survey), it is anticipated that net manpower demand will rise by around 47,316 net jobs (adding 51,477 while eliminating 4,161 persons) from the end of April to the end of June 2018. For the same period, 63.24 percent of enterprises will keep the same level of manpower; 27.8 percent of enterprises will add net manpower; 6.2 percent of enterprises choose “Unpredictable,” and only 2.76 percent of enterprises will reduce net manpower (Table 3-2-3).

Table 3-2-3 Anticipated Changes in the Number of Personnel Employed by Business Enterprises during the Period from April 31, 2017 to June 31, 2018

Unit: Persons

Industry	Item	Net increase in no. of employees	Change in manpower demand		Top 4 occupational categories			
			New positions	Positions eliminate	Craftsmen, machinery operators and assembly line workers	Technicians and assistant specialists	Service and sales personnel	Professional specialists
Total		47,316	51,477	4,161	18,015	9,843	9,095	4,627
Manufacturing		22,491	24,221	1,730	14,879	3,413	81	1,623
Remediation activities		938	1,204	266	7	578	0	255
Construction		7,003	7,496	493	14,61	2,180	2,061	402
Wholesale and retail trade		1,356	1,566	210	716	134	4	0
Transportation and storage		4,875	5,050	175	22	-26	4,261	-7
Accommodation and food service activities		2,144	2,202	58	200	1,291	117	370
Information and communication		748	883	135	8	588	0	77
Financial and insurance activities		529	559	30	-10	363	41	29
Real estate activities		1,228	1,348	120	40	731	160	205
Professional, scientific and technical activities		2,167	3,069	902	552	331	1,127	62
Support service activities		2,303	2,312	9	34	200	322	1,579
Human health and social work activities		1,082	1,082	-	45	66	689	9
Arts, entertainment and recreation		452	485	33	61	-6	232	23
Other service activities		47,316	51,477	4,161	18,015	9,843	9,095	4,627

Source: Ministry of Labor, *2018 Report of Manpower Requirements Survey* (April 2018).

The most increase in demand will be in the manufacturing, with a net increase of about 22,500, followed by about 7,000 in the wholesale and retail trade activities, and about 4,900 in the accommodation and food service activities. Most of the increased demand by occupation will be for craftsmen, machinery operators and assembly line workers (about 1,800), followed by technicians and assistant specialists (about 9,843), and services and sales (about 9,095).



Part Two

Government SME Policies and Prospects

Chapter 4 Improving Financial and Funding Services and Strengthening Investment in SMEs

Chapter 5 Enhancing R&D and Promoting Upgrade and Transformation for SMEs

Chapter 6 Strengthening Start-ups and Incubation & Acceleration Mechanism

Chapter 7 Revitalizing Local Industries by In-depth Development, Marketing and Expansion

Chapter 8 Other Government Measures to Support SMEs

Many SMEs in Taiwan possess unique technology and innovative products but lack the scale, capital, technology, and talents of many large businesses with which they regularly compete. The Taiwanese government has for many years been implementing policies designed to resolve the hurdles facing SMEs and provide proactive support and assistance to them.

The government's development strategy for SMEs in 2017-2018 has focused on (1) Financial Services and Investment in SMEs; (2) R&D, Upgrade and Transformation for SMEs; (3) Start-ups and Incubation & Acceleration Mechanism; (4) Local Industries, Regional Branding; and (5) Other Government Measures to Support SMEs, such as government procurement, policy loans for special projects and regulatory flexibility.

A large number of projects and ancillary measures have been implemented in order to help achieve these goals. Each year, the government revises its SME development strategy to reflect changes in the economic environment in Taiwan and the global economy as a whole and carries out planning and implementation of related ancillary measures to boost the competitiveness of Taiwan's SMEs and contribute to their stable, continued development. The government makes timely adjustments to its small and medium enterprise (SME) development strategy in response to changes in the domestic and foreign economic situation. In addition to guidance and support measures, the government is actively implementing numerous new programs, including the Project of Enhancing SMEs' Cross-domain Innovation and Value-added Capability and the SME Digital Transformation and Smart Manufacturing Promotion Program, which aim to enhance industries' competitive advantages. The Construct Eco-system for International Incubation and Start-ups Acceleration Program and Angel Investment Program were implemented to strengthen startup incubation and industrial innovation and development.

CHAPTER 4

Improving Financial and Funding Services and Strengthening Investment in SMEs

In order to provide comprehensive assistance for SME development, and achieve a further strengthening of financing channels, the Small and Medium Enterprise Administration, Ministry of Economic Affairs (SMEA, MOEA) has been working actively to provide financial and funding services such as credit guarantees, short-term financing, and funding guidance. These measures are aimed at helping SMEs obtain financing; arrange the provision of direct credit guarantees by the SME Credit Guarantee Fund; provide assistance to business startup; launch the Phoenix Loan scheme for micro-enterprises; use the Firefly Mutual Guarantee scheme to help SMEs in the upstream, midstream and downstream segments of particular industries to obtain loans at preferential interest rates; and organize SME investment plans, thereby giving SMEs a wider range of financing channels to choose from.

This chapter is divided into three sections. Section I discusses measures to improve financial and funding services. Section II focuses on SME credit guarantees. Section III covers government's measures to strengthen investment in SMEs.

I Improving Financial and Funding Services

1. Providing SME Financing Counseling and Value Added Service

(1) SME Financing Service Windows: SME Instant Solution Service Center

The Small and Medium Enterprise Administration (SMEA) has established the SME Instant Solution Service Center to provide SMEs with consulting services in line with their individual needs. It provide quick and effective assistance in a wide range of areas, including financing diagnosis and consulting, financing and loans related referral, guidance, refinance, extension, line of credit, and so on for both borrowers and creditors to enhance SMEs' financing capacity and risk management.

(2) SME Financing Diagnostic Service Plan

SME Financing Diagnostic Service was set up through the SME Financing Services Platform to improve SMEs' condition, provide financing, and offer financial diagnosis and counseling service. The Plan's two main work items are: (1) professional consulting service: consulting service for real-time business issues, and (2) in-depth diagnosis and counseling that include general financing, corporate field visits, debt restructuring and/or refinance, and accounting and business management counseling (plan site: <http://smefinance.moeasmea.gov.tw/>).

(3) SMEs' Value and Innovation Application Plan

In order to improve the matchmaking process for connecting startups with the financial resources of investors, provide financing services needed for business development, and help newly-established companies become globally-connected, in 2016 this project utilized the Platform for Financing Data and Innovative Trends (“FinDIT”) along with big data analytics techniques through a customizable search service to provide more than one hundred news articles and early stage capital monitoring, research reports on the latest trends in the most popular fields, as well as leadership seminars and promotional seminars. In addition, the Global Angel & Early Stage Investment Summit was held, which featured a panel of international experts who shared their experiences with participants (plan site: <http://findit.org.tw>).

(4) Project of Strengthen the Capability of SMEs Accounting Application

The Small and Medium Enterprise Administration (SMEA) of the Ministry of Economic Affairs (MOEA) implemented this project between 2015 and 2017 to help SMEs understand investing in overseas markets, taxes, risk management, and how to use different funding channels. The project helps SMEs gain better knowledge and capabilities relating electronic accounting and finance and reinforces their risk management strengths, so that SMEs can achieve stable development and drive the nation's economic growth.

(5) Project of Improving SMEs on Mastering Financial Affairs

The SMEA implemented this project between 2014 and 2017 to help SMEs develop good financial habits, establish their accounting systems, improve their financial condition, and respond to new accounting regulations. The project helps SMEs successfully gain access to a variety of resources, so that they will be able to operate independently in financial affairs.

This project was merged with the Project of Strengthen the Capability of SMEs Accounting Application in 2018 and renamed the Project for Promoting SMEs Development of Sound Finance. Main tasks for 2018 include: Providing SMEs with new accounting knowledge/risk management information; helping SMEs resolve financial issues they encounter during different stages of development through guidance for the overall industry, and individual guidance during on-site visits; providing SMEs with guidance for mergers and acquisition, mentoring information, and individual projects; compiling manuals on accounting/financing applications and e-learning materials (plan site: <https://friap.moeasmea.gov.tw/index.php>).

2. SME Financing Services Platform

SME Financing Services Platform was established by SMEA, MOEA to make it easier for SMEs to secure bank loans by providing financial diagnosis and clear, transparent details about SME operations that banks can use as a basis for decision-making when determining whether or not to grant loans to SMEs. If banks have a clearer picture of the business models that SMEs are using and of what their funding needs are, they are more likely to expand the provision of loans to SMEs, creating a win-win situation for SMEs and the creditors.

3. Policy Loans for Special Projects to Help SMEs

The government provides SMEs with various types of policy loans, either directly or through collaboration with banks. What distinguishes these loans from ordinary loans is that the loans are granted for specific purposes, and have preferential interest rates. In 2018, altogether, 17 different types of policy loan are available in 11 categories: SME upgrading loans, loans for the purchase of production equipment, business start-up loans, R&D loans, tourism development loans, export and overseas investment loans, loans for entrepreneurs who have returned to Taiwan from overseas, and other loans.

4. Plan for Increasing Loans to SMEs by Domestic Banks

To encourage the development of a long-term partnership relationship between SMEs and banks, and thus help SMEs obtain working capital, the Financial Supervisory Commission (FSC) decided that implementation of the Plan for Increasing Loans to SMEs by Domestic Banks should continue into the thirteenth stage in 2018 with the plan target of NT\$270 billion. In 2017 (twelfth stage), domestic banks made loans to SMEs amounting to net increase of NT\$367 billion from 2016 (plan site: <http://www.banking.gov.tw/>).

5. Policy-based Loans and Financial Services for Enterprises Owned by Indigenous Peoples

The Council of Indigenous Peoples began recruiting financial counselors in 2011 to provide loan-related guidance services for economic industry loans, young entrepreneur loans, and micro-economic activity loans for indigenous people, which are provided by the Comprehensive Development Fund for Indigenous Peoples. The Council also established a toll-free hotline to provide financial services to indigenous people at 0800-508-188. The financial counselors provide indigenous people with loan advice, guidance and assistance during visits, and negotiate with local financial institutions to help indigenous people successfully gain funding.

II SME Financing and Credit Guarantees

1. SME Credit Guarantee Fund: Operating Mechanism and Application Process

To help strengthen the provision of credit guarantees to SMEs, the government established the SME Credit Guarantee Fund in 1974. The main purpose that the SME Credit Guarantee Fund was established to provide credit guarantees to SMEs, and to work closely with financial institutions in the development of financing guidance services for SMEs, helping SMEs obtain the funding they need from financial institutions and thereby contributing to the healthy development of Taiwan's SME sector and promoting Taiwan's economic growth and social stability. The SME Credit Guarantee Fund's main functions are as follows:

- (1) Helping SMEs overcome the difficulties that they experience when trying to provide the collateral needed to secure loans.
- (2) To make financial institutions more willing to provide loans to SMEs.
- (3) To maximize the efficacy of guidance projects undertaken by other SME guidance organizations.

The mechanisms for the establishment and operation of the SME Credit Guarantee Fund involved the allocation of a supporting budget by the government and the signing of contracts with financial institutions whereby they agree to provide additional funding to boost the Fund's ability to provide credit guarantees, and to share some of the potential loss, thereby enabling the Fund to continue providing guarantees and helping SMEs that have significant development potential but lack sufficient collateral secure the financing they need from financial institutions.

Application for a credit guarantee can be made either via a financial institution, or directly to the SME Credit Guarantee Fund, or a dedicated window, depending on the requirements of the individual enterprise making the application (plan site: <http://www.smeg.org.tw/>).

2. The Benefits Achieved through Credit Guarantee Fund

(1) Help SMEs Secure Funding

As of the end December of 2017, the SME Credit Guarantee Fund had helped a total of 397,197 enterprises. The total number of credit guarantees provided through financial institutions was over 6.78 million with a cumulative credit guarantee volume of NT\$12,315.1 billion for loans of NT\$16,678.1 billion. The performance of the SMES Credit Guarantee Fund in the last 5 years is outlined in Table 4-2-1.

Table 4-2-1 The Performance of the Credit Guarantee Fund in Credit Guarantee Provision, 2013-2017

Unit: Recipients; items; million NT\$

Year \ Item	No. of credit guarantee recipients	No. of credit guarantee applications accepted	Combined value of credit guarantees	Total amount of financing secured	Outstanding credit guarantees at year-end	Outstanding financing at year-end
2013	145,648	394,645	1,056,065	1,312,363	681,357	851,181
2014	115,879	405,113	1,140,854	1,425,826	698,933	885,961
2015	118,309	382,936	1,020,753	1,336,580	634,274	838,395
2016	118,517	366,221	964,912	1,291,398	609,951	818,340
2017	116,097	345,805	969,806	1,287,392	602,037	802,044

Source: Credit Guarantee Fund (2018).

(2) SME Credit Guarantee Fund Has Great Impact on the Growth of SMEs

The vast majority of SMEs that received credit guarantees from the SME Credit Guarantee Fund find that, within a few years, they were able to raise money on the capital markets or obtain loans directly from banks. Furthermore, As of December 2017, 2,735 of the SMEs that have been granted credit guarantees in the past have since grown sufficiently large to be classed as “large enterprises,” and 890 have secured a stock market, OTC, or GISA listing .

3. Government Policy Measures Being Implemented and Supported by Credit Guarantee Fund

(1) Counterpart Guarantee

Beginning in 2006, the Small and Medium Enterprise Growth Fund (SMEG) launched a service for providing counter guarantees in which an earmarked fund was established through cooperation between SMEG and key leading enterprises. SMEG then provided corresponding financial support for fund matching services in the form of credit guarantees to upstream, midstream, and downstream enterprises, third-party vendors, distributors, and affiliated enterprises. In May 2007, the scope of eligibility of program participants was extended to encompass relevant ministries and councils of the central government as well as local government authorities. Subsequently, earmarked funds were allocated by relevant government agencies, and these funds which were then matched by SMEG. By working together to provide credit guarantees and consolidate the government's guidance policies and credit guarantee schemes, the program provided a means to jointly aid SMEs and micro enterprises as well as individual entrepreneurs to secure funds from financial institutions needed to found new startups and maintain current operations, reinvigorating local economies and achieving a multiplier effect through resource sharing.

The SMEG collaborated with the Council of Indigenous Peoples in April 2018 to provide counter guarantees tailored to enterprises owned by indigenous people. The SMEG collaborated with New Taipei City Government in June 2018 to provide loans that will aid the development of enterprises owned by indigenous people in New Taipei City.

As of December 2017, the SME Credit Guarantee Fund had helped (1) collaborated with central government, a total of 14,432 loans, amounted to a total of NT\$10,941 million; (2) collaborated with local government, a total of 6,549 loans, amounted to a total of NT\$4,563 million; and (3) collaborated with companies, a total of 34,875 loans, amounted to a total of NT\$28,471 million.

(2) Credit Guarantee for Young Entrepreneur Dream Building Financing Loans

The MOEA launched the Young Entrepreneur Dream Building Financing Loans in August 2012 and later merged with the Young Entrepreneur Financing Loans in 2014 into Young Entrepreneur Start-up Financing Loans. Young entrepreneurs aged between 26 and 45 who are eligible for the Young Entrepreneur Start-up Financing Loans can apply for this start-up loans at preferential interest rates when they are getting their new businesses off the ground, and benefit from the provision of direct credit guarantees to the 80%-95% range by the SME Credit Guarantee Fund with the maximum loan amount at NT\$18 million. The loan is limited to reserve required by the business, registration fees, working capital, and capital expenditures.

(3) Credit Guarantee for SME Innovation Development Project Loans

In order to shore up the innovative capabilities of SMEs, provide SMEs with the funds they need to achieve innovative management and spur development, and help SMEs employ innovation and advanced technology service models to expand into international markets, the Ministry of Economic Affairs (MOEA) launched the "SME Innovation Development Project Loan" on January 27, 2014. The program facilitates the provision of loan facilities to eligible applicants of up to NT\$20 million

for working capital and up to NT\$80 million for capital expenditures. In addition, SMEG provides a minimum credit guarantee of 80% for each loan, thereby increasing the willingness of banks to make such loans. In addition, the SMEG provides a minimum credit guarantee of 90% for loans to startups established for less than 5 years, which helps the startups gain working capital.

(4) Credit Guarantee for Small Enterprise Loans

To make it easier and more convenient for small businesses to access financing in the form of small advances of working capital from financial institutions, the Small and Medium Enterprise Administration under the Ministry of Economic Affairs has continued to implement the “Small Enterprise Loans” program, wherein participating financial institutions independently formulate the loan rates but handle collections of loans guaranteed by SMEG based on the individual guarantee percentages of each case. In addition, the SMEG provides a minimum credit guarantee of 90% for loans to startups established for less than 5 years, which helps the startups gain working capital.

(5) Preferential Guarantee Measures for Innovative Industries

In coordination with the Financial Supervisory Commission (FSC)’s Incentives for Domestic Banks to Provide Innovative Industries Loans, the SMEG has implemented Preferential Guarantee Measures for Innovative Industries for Asia•Silicon Valley, biomedical, green energy, smart machinery, defense technology, agricultural modernization, and the circular economy, under the 5+2 Innovative Industries Plan, and offering credit guarantees of up to 90%.

(6) Guarantee Measures for Forward-Looking Infrastructure and Green Energy Technology Loans

In coordination with the government’s Forward-looking Infrastructure Development Program and green energy policy, preferential guarantee measures are provided to SMEs participating in government procurements under the Forward-looking Infrastructure Development Program or SMEs that are in the green energy technology industry. The SMEG hopes to thereby drive industrial development, attract investments from Taiwan and overseas, and increase employment by offering credit guarantees of up to 90%.

(7) Export Loan Preferential Credit Guarantee Project

Starting in January 2016, the SMEG and the MOEA’s Bureau of Foreign Trade began jointly implementing the Export Loan Preferential Credit Guarantee Project. This provides additional guarantees for loans and credit guarantees in the 80-90% range, helping SMEs gain the capital required for exports. Depending on the region exported to, the SMEG provides a guaranteed commission exemption or reduction for loan periods of less than one year. Starting July 12, 2018, the additional guarantee was also increased from NT\$60 million NT\$100 million for SMEs exporting to New Southbound countries.

(8) Helping SMEs Acquire Financing Guarantees for Investments in New Southbound Countries

In order to accommodate the government's New Southbound Policy and help SMEs secure the funds they need to make investments in New Southbound countries, beginning in 2017, SMEG appropriated a sum of NT\$2 billion, the Agricultural Credit Guarantee Fund (ACGF) appropriated a sum of NT\$1 billion, and the Overseas Credit Guarantee Fund (OCGF) appropriated a sum of NT\$2 billion, resulting in a total of NT\$5 billion in earmarked funds. In turn, this collectively enabled a total of NT\$50 billion in financing guarantees to be provided. The scope of eligible financing options for the financing guarantees was also expanded to allow domestic businesses to apply for capital financing guarantees for making overseas investments.

Numerous regulations were relaxed in November 2017 to better meet the investment needs of SMEs. With the considerable influence of domestic enterprises on which overseas businesses receive investment, the amount of capital contribution to be transferred was significantly reduced from 50% to 20%; in addition, the capital may be used for equity investment or for mergers and acquisitions. Regardless of whether the overseas business is newly established or already established, it will be eligible once the investment proposal is approved by the Investment Commission. The annual rate of guarantee commission was lowered to 0.1-0.3% in May 2018. Furthermore, to encourage enterprises to utilize this measure, the annual rate of guarantee commission is set at 0.1% for loans approved before the end of 2018 or the first 50 loans after project implementation.

(9) Direct Guarantee Project to Promote Business Innovation

For SMEs approved for subsidies and recommended by 12 MOEA projects, including the Small Business Innovation Research (SBIR) (central government), A+ Industrial Innovation R&D Program, and Industrial Energy Technology Program, the SMEG began providing the Direct Guarantee Project to Promote Business Innovation in October 2017. The SMEG aims to assist innovation research projects and help the SMEs obtain capital needed for innovation or business development, by providing credit guarantees of 95%.

III Strengthening Investment in the SMEs

1. Establishment of the SME Startup Incubation Investment Trust Account

In October 2003, the Small and Medium Enterprise Administration under the Ministry of Economic Affairs established the "Investment and Trust Account for Incubation and Start-up of SMEs" for the purpose of facilitating investment in domestic SMEs which show potential for development and thus increasing the national competitiveness of Taiwan's industries. The program includes specific criteria for the use of trust assets and retains development firms specializing in SME investment along with financial institutions and venture capital enterprises to serve as management consultants for handling investment management affairs. The scope of investment comprises newly-established SMEs, SMEs formed through incubator centers, and SMEs undergoing upgrade and transformation. In addition, to help SMEs raise funds to execute international technology transfers and engage in

various activities such as technical cooperation, production, channel development, marketing, branding, and joint ventures, as well as to facilitate the stable development of enterprises through cooperation with participating management consultant firms and guidance units, a sum of NT\$900 million was appropriated for the “Investment and Trust Account for Incubation and Start-up of SMEs,” and the “Project for Cooperation on International Investments” was launched in May 2015 (<http://www.moeasmea.gov.tw/ct.asp?xItem=1284&ctNode=609&mp=1>).

2. The National Development Fund’s Plan for Promoting Investment in SMEs

To stimulate investment in the SME sector by venture capital firms and other private-sector companies, on April 17, 2007 the National Development Fund approved the Plan for Promoting Investment in SMEs; the Fund allocated NT\$10 billion for investment in SMEs. The SMEA selected a total of 28 venture capital firms to make collective investments in domestic SMEs, helping SMEs gain capital in the early stages. The SMEA also assigned designated personnel to provide investment services, including investment advice, diagnosis, and guidance, and organizing investment courses, business meetings, and investment fairs.

(plan site: <http://www.moeasmea.gov.tw/ct.asp?xItem=1283&ctNode=609&mp=1>)

3. The National Development Fund’s Plan for Promoting Investment in Strategic Service Industries

To stimulate investment in the strategic service industries to promote service industries and employment, service exports, and the financing of SMEs in service industries, on May 2012, the National Development Fund approved the Plan for Promoting Investment in Strategic Service Industries. The key elements of the Plan are: the Fund was allocated NT\$10 billion for investment in strategic service industries.

This Plan is expected to be implemented over a period of 13 years, with the actual investment taking place during the first ten years, and the remaining three years being devoted to the disposal of remaining investments. This is a mutual investment of government and private venture capital firms, in 2013 this plan has picked up 15 qualified private venture capital firms and has invested 55 domestic companies in the service sector (plan site: <http://www.issip.org.tw>).

4. Implementation Project for Strengthening Investment in Strategic Manufacturing Industries

In order to copy the successful model of venture capital firms investing in high-tech industries, enhance the competitiveness of manufacturers, and accelerate industrial transformation and enhancement, in 2015, the National Development Fund (NDF) specially allocated NT\$10 billion to the Ministry of Economic Affairs’ Industrial Development Bureau to realize the Implementation Project for Strengthening Investment in Strategic Manufacturing Industries. The funds are used exclusively with the domestic manufacturing industry. Features of this project include an investment period reaching 10 years (investments are made in the first 7 years, and stakes are sold in the last 3

years), and establishing an advisory unit to conduct broad searches for potential investment projects. The project encourages venture capital firms to make investments and provides policy incentives to increase the effectiveness of investment (<http://www.psism.org.tw/cht/index.php>).

5. Project to Increase Investment in the Cultural and Creative Industry

The Ministry of Culture began implementing the Project to Increase Investment in the Cultural and Creative Industry in 2010, and allocated NT\$10 billion to invest in the domestic cultural and creative industry. The funds were invested in proportion with private investments, to find suitable cultural and creative companies to provide guidance on a corporate scale, thus giving cultural and creative companies greater market value. The Cultural Content Investment Project was implemented under this project in 2018, and encouraged content industry investors to apply to the Ministry of Culture for joint ventures (<http://cci.culture.tw/cht/index.php?code=list&ids=21>).

6. Fundraising Guidance Mechanism – GISA

TPEX launched the Go Incubation Board for Startup and Acceleration Firms (GISA) in 2014. GISA offers fundraising guidance mechanisms and equity fundraising that is untradeable to innovative micro-enterprises and SMEs that have creative ideas and development potential but which have not yet gone public. It thereby provides micro-enterprises and SMEs with a low-cost method for raising the funds they need to sustain and grow their operations and increase their brand awareness. This will help them recruit outstanding talent, expand their marketing channels, and further enhance their competitiveness to maintain corporate sustainability. The standard listing requirement is for paid-up capital reaching a minimum threshold of NT\$50 million; in contrast to this, the GISA does not set any requirements on the company's paid-up capital. In addition, such companies are exempted from various other requirements such as having to undergo an initial public offering or comply with profitability requirements.

7. Equity Crowdfunding Program for Securities Dealers

In order to help more young people engage in entrepreneurial activities, the Financial Supervisory Commission (FSC) began allowing securities dealers to implement equity crowdfunding services in 2015 for joint-stock companies which (1) have a paid-up capital of less than NT\$50 million and (2) have not yet gone public. Such companies are permitted to utilize an approved crowdfunding platform to raise funds, wherein total funding may not exceed NT\$30 million within a one-year period. General investors are limited to making a maximum of NT\$50,000 per investment proposal, and total investments on a single platform may not exceed NT\$100,000 within a 1-year period. In addition to giving startup teams another outlet to obtain the funding they need, these rules also serve to protect the rights and interests of investors.

CHAPTER 5

Enhancing R&D and Promoting Upgrade and Transformation for SMEs

The government has launched various measures to promote SMEs' R&D, upgrade and transformation. This chapter is divided into four sections. Section I covers actual / virtual integration and various network resource applications for SMEs; Section II examines measures to enhance SME operation, quality and innovation; Section III reviews guidance on energy conservation, green opportunities, and sustainable growth models; Section IV discusses measures to promote up-, mid-, and down-stream cooperation and innovation, in pursuit of high-value transformation and upgrade for SMEs.

I Measures Related to Actual / Virtual Integration and Network Resource Applications for SMEs

1. Digital Outreach Program for SMEs

The SMEA implemented the Digital Outreach Program for SMEs in 2016 to help launch clusters of co-op networks, facilitate digital outreach in rural communities, encourage the use of digital applications among early-stage SMEs, and increase the use of virtual channels and digital business methods by small businesses. 2018 main action items include (1) further promoting digital applications in remote or rural areas, (2) establishing e-clusters, (3) assisting in cluster expansion and marketing, (4) fostering SMEs' information technology upgrade, and (5) cultivating sustainable development of clusters (plan site: <http://e98.sme.gov.tw/>).

2. SME Mobile Payment Popularization and Promotion Plan

The SMEA began implementing the SME Mobile Payment Popularization and Promotion Plan in 2017 to achieve the Executive Yuan's goal that mobile payment adoption reach 90% by 2025. Action plans in 2018 include completing the infrastructure for mobile payment, expanding the field of applications for mobile payment, and enhancing experiential marketing of mobile payment. The purposes of this are to broaden the scope of mobile payment services, offer citizens a more in-depth experience of cashless consumption, and provide convenient access.

3. SMEs' Cloud Innovative Application Development Plan

The SMEA began implementing the Plan to Develop SMEs' Cloud-based Innovative Applications in 2016 with the goal of providing cloud services with featured applications that make a perceptible

difference for enterprises. In 2018, large driving enterprises led SMEs in the industry through alliances that focused on innovative cloud applications, and increased the utilization of cloud application services and commercial benefits.

4. SME Digital Broadband Applications Popularization and Promotion Plan

The SMEA began implementing the SME Digital Broadband Applications Popularization and Promotion Plan in 2017. The purposes of this Plan are to popularize digital broadband applications among SMEs and micro-enterprises in remote areas, and to enhance their digital capabilities, which will drive digital development in such areas. Main work items in 2018 include: (1) Promoting digital applications for innovative business models of SMEs and micro-enterprises in remote areas; (2) Organizing seminars and training related to digital applications; (3) Reinforcing digital broadband signals.

5. ICT Applications for Manufacturing Industries: Moving Upward along the Value Chain from OEM toward ODM and OBM

The manufacturing industries ICT value-added application plan launched by Industrial Development Bureau (IDB), MOEA, focuses on helping manufacturing industries move upward along the value chain from OEM model toward ODM and OBM through ICT applications and pro-innovation, pro-business environment. In 2018, a project was executed to provide guidance to companies on product ICT value-added services and value chain extension services with an aim to develop customer-oriented operating models for “intelligent manufacturing” and “manufacturing services” (plan site: <http://www.ecos.org.tw>).

II Promote Operational Excellence and Innovation

1. SME IP Value-added Program

The SMEA began implementing the SME IP Value-added Program in 2014, providing IP consulting to enterprises in the product or service development process through IP projects. The program helps enterprises gain the ability and mechanisms necessary for managing and using their IP, and also enhances their R&D efficiency. The program was merged into the SBIR in 2018. Action plans for 2018 include customized guidance, general services, and IP-related knowledge and capacity enhancement services (plan site: <http://ipcc.moeasmea.gov.tw/>).

2. Project of Enhancing SMEs’ Cross-domain Innovation and Value-added Capability

In coordination with Theme 4 of the Digital Nation & Innovative Economic Development Program (DIGI+) – Intelligent Cities Action Plan, the MOEA began implementing the Project of Enhancing SMEs’ Cross-domain Innovation and Value-added Capability in 2017. The project integrates resources and member expertise across government departments, legal persons, and domains, and

utilizes value-added technologies, service innovation, and business model changes to create a cross-domain ecosystem for SMEs. This will help SMEs utilize technologies as they create greater value and develop innovative business models; it will also allow them to build connections with international startup clusters or industry alliances, which will increase their contributions to overall exports. Strategies for 2018 include promoting an ecosystem for software/hardware innovation, regional growth, value growth, and export potential.

3. SME Digital Transformation and Smart Manufacturing Promotion Program

The SMEA implemented the SME Digital Transformation and Smart Manufacturing Promotion Program in 2018 to enhance SMEs and help them transition to innovative business models. The program establishes an SME growth support system for SMEs to play a key role in providing innovative services, and also drives the enhancement and transformation of supply chains in related industries. The main work items for 2018 include on-site diagnosis of digital transformation for individual or groups of SMEs; diagnosing applications of smart manufacturing by individual or groups of SMEs; and organizing the Manufacturing Day event.

4. Project for Promoting Smart Commercial Services in the Asian Silicon Valley Project

In 2017, the MOEA's Department of Commerce executed the "Project for Promoting Smart Commercial Services in the Asian Silicon Valley Project" which is designed to support the launch of the "Asian Silicon Valley Promotional Plan" and ensure that the program has a wider range of effectiveness by integrating the local and global resources of Taiwan's commercial service industry and incorporating them into various intelligent and innovative solutions. Action plans for 2018: (1) Developing intelligent commercial service solutions; (2) Establishing intelligent commercial service case studies; (3) Carrying out talent cultivation, and organizing innovation and startup activities (plan site: <https://like.logistics.org.tw/>).

III Guidance to SMEs on Energy Conservation, Green Opportunities, and Carbon Emission

1. Project for Energy Saving and Carbon Emissions Reduction Consulting for SMEs

The SMEA began implementing the Guidance Program to Enhance Energy-Saving Capacity and Carbon Reduction for SMEs in 2014 to help SMEs become more energy efficient and environmentally friendly, as well as to reduce costs. The program improves SMEs' ability to respond to sustainability trends and creates new business opportunities. The project was merged with the Guidance Program for Rising Stars in SME Green Innovation in 2018 to more effectively integrate government resources (plan site: <http://ghginfo.moeasmea.gov.tw>).

2. Guidance Program for Rising Stars in SME Green Innovation

The Small and Medium Enterprise Administration under the Ministry of Economic Affairs launched the “Guidance Program for Rising Stars in SME Green Innovation” to help SMEs work toward developing environmental sustainability and value innovation and enhance their ability to adopt eco-friendly policies, business continuity management practices, and engage in corporate social responsibility. Action plans for 2018 include (1) Green sustainability / Energy conservation management, consultation, and diagnosis; (2) Green marketing / energy conservation management guidance for individual enterprises; (3) Green supply chain guidance; (4) Work with associations to enhance the industry’s overall green capacity; (5) Green talent cultivation (plan site: <http://green2.pidc.org.tw/#/home>).

3. Taiwan Industrial Greenhouse and Energy Reduction Services Corps Program

The Industrial Development Bureau under the Ministry of Economic Affairs launched the “Taiwan Industrial Greenhouse and Energy Reduction Services Corps” program to help companies adopt energy-saving and carbon reduction measures which in turn offer various benefits such as increasing energy efficiency, reducing greenhouse gas emissions, and cutting costs. Action plans for 2018: (1) Forming relationships with industrial chain energy conservation and carbon reduction partners; (2) Energy conservation and carbon reduction visits; (3) Other services: Energy conservation and carbon reduction technology exchanges, talent training, and diagnostic tools and applications for energy efficiency (plan site: <http://www.ftis.org.tw/tigers/>).

4. Green Technology Advancement Program

The Industrial Development Bureau under the Ministry of Economic Affairs launched the “Green Technology Advancement Program” to help various industries develop green technologies and comply with environmental regulations and standards. Action plans for 2018: (1) guidance to help various industries upgrade and reinforce their environmental protection policies; (2) study and formulate response measures to the latest trends in environmental regulations; (3) investigate and examine relevant environmental issues; and (4) issue electronic newsletters concerning the latest technical and regulatory information, issue publications on industrial pollution prevention, and hold related seminars and conferences (plan site: <https://proj.ftis.org.tw/eta/>).

IV SMEs: R&D Enhancement and Technology Upgrade

1. Small Business Innovation Research Program (SBIR)

To encourage SMEs to engage in innovating industrial technologies, products and services, Taiwan’s government has continually promoted the “Small Business Innovation Research Program” (SBIR) in February 1999. In 2008, the “Promotion of Innovative R&D for Local Industries

Program” (Local SBIR) was implemented, which is to assist in funding so that each municipal, county, city government can allocate more funds for R&D addressing the needs of industries with local characteristics (plan site: <http://www.sbir.org.tw/SBIR/Web/Default.aspx>).

SBIR process applications by SMEs for conducting innovative research on industry technologies and products; businesses can file applications with the MOEA’s SBIR program office to participate.

Local SBIR use supportive funding provided by the Ministry of Economic Affairs to promote an innovative R&D program aimed at local cultural industries; businesses can file applications with their respective municipal, county, and city governments to participate.

The New Generation SBIR Program was planned and implemented in 2017 in coordination with the 5+2 Industrial Innovation Policy, as well as with the policy goals of innovation, startups, and industry enhancement and transformation. This includes SBIR that focuses on startups, providing incentives and subsidies in 3 stages, and providing theme-based subsidies and assistance to existing enterprises based on their industry’s specific characteristics. The first SBIR for Startups – Creativity Selection Plan (Stage 1) was held and received 1,289 proposals, in which 60 proposals were selected to receive an R&D grant in the amount of NT\$600,000. (plan site: <http://www.sbir.org.tw/index>)

2. Industrial Working Environment Improvement Project

In order to reduce industrial occupational hazards in the country, the IDB, MOEA has implemented the “Industrial Working Environment Improvement Project” with the following key tasks in 2018: (1) technical guidance to achieve baseline improvement; (2) technical guidance on risk management; (3) training and promotions; and (4) efforts to promote previous achievements (plan site: <http://www.cesh.twmail.org>).

3. Industrial Upgrade and Innovation Platform Counseling Program

In order to help industries upgrade and transform, the IDB, MOEA has launched the “Industrial Upgrade and Innovation Platform Counseling Program” by industry promotion measures to help firms to develop competitive products and services, and further to increase added value of industries and to connect with international market. The main areas of program are: (1) high-end products plan (for improving added value and shaping the high-value product image), (2) innovation and optimization plan (for encouraging firms to own core technologies and products and build up systematic solution methods), (3) new industry development plan (for encouraging firms to develop new products and services), and (4) theme-based development plan (themes initiated by IDB) (plan site: <https://tiip.itnet.org.tw/>).

4. Instant Technical Assistance to SMEs

In order to help SMEs upgrade and transform, the IDB, MOEA has implemented the “Instant Technical Assistance Program of SME” since 1999 by utilizing existing mature technological capabilities of the corporate world, academic community and technical services industry to provide

R&D, design, production, logistics, automation and electronic technologies necessary for upgrading the industry and to provide real-time, small scale, short-term technical guidance, so that the technology levels of SMEs can be upgraded and their competitiveness enhanced. The 2018 priorities are: (1) case counseling management and promotion, and (2) one on one short-term, small scale, or comprehensive counseling on technological upgrade (plan site: <https://www.itap.tw/>).

5. Conventional Industry Technology Development (CITD)

Most Taiwanese exporters have traditionally engaged in OEM, under which products ordered are designed mainly by customers who usually own a brand name. Suppliers only focus on the manufacturing process, and the keys to success are low cost and high flexibility in response to customer demand. However, competition from suppliers in developing Asia, especially mainland China, has been rising, initially in terms of price, later in quality and other aspects over time. Taiwanese SMEs are therefore continually compelled to develop strategies that help them stay ahead of competitors.

CITD is a government-funded program that provides enterprises with R&D subsidies which are used to encourage conventional industries to develop new products and new technologies to expand service offerings and make R&D endeavors more prevalent in conventional industries. The 2016 priorities are: (1) product development, (2) product design, (3) R&D alliance: joint development model for industrial clusters, and (4) Industry-Academy R&D cooperation: using the model — industries ask, academies answer — to improve traditional industries' core technology capabilities (plan site: <http://www.citd.moeaidb.gov.tw/CITDweb/Web/Default.aspx>).

6. A⁺ Industrial Innovation R&D Program

To lead businesses into investing potential technologies in advanced industries, the DOIT announced that it would replace “Industrial Technology Development Program (TDP)” with “A⁺ Industrial Innovation R&D Program” to constantly encourage businesses into innovation in 2014. In the hope of guiding businesses to invest in high-end technology with higher industrial value, the DOIT encourages vertical- and cross-domain cooperation in order to tap industrial demands and develop comprehensive industrial ecosystem and the maximum efficiency.

In 2018, A⁺ Industrial Innovation R&D Program can be divided into five types of programs: (1) Industrial Technology Foresight Research Program (emerging technologies, products, and services), (2) Integrated R&D Program (vertical- and cross-domain cooperation to tap industrial demands and develop comprehensive industrial ecosystem and the maximum efficiency), (3) Industrial Technology Innovation Center Program (R&D management system, encouraging foreign firms to set up R&D in Taiwan, intellectual property right, etc.), (4) Special Programs, and (5) Global R&D New Partnership Program (plan site: <http://aiip.tdp.org.tw/index.php>).

7. Methods for Promoting Technical Innovation in Traditional Industries

The Department of Industrial Technology under the Ministry of Economic Affairs implemented “Methods for Promoting Technical Innovation in Traditional Industries” in the form of a project which integrates relevant research institutions, combines resources from industry, academic, and research sectors, and helps traditional industries complete technical developments and upgrades.

Main action plans in 2018 are:

- (1) Value Added Transformation Plan for Conventional Industry: Selecting nine industries to support for their value added transformation, including various industries ranging from eyewear, industrial energy-saving technologies, vehicle frames, filtering equipment, materials processing for thermoplastic composites, air compressors, sports/leisure/health products, etc (plan sites: <http://tipo.stars.org.tw/>).
- (2) Plan for the Provision of Assistance to SME Technology Development by the University Sector: Providing special project counseling and (6 month free) one on one counseling (plan sites: <http://sita.stars.org.tw/>).

8. Service Industry Innovation Research Program (SIIR)

In order to foster the development of the commercial services industry and encourage enterprises to engage in research on “new service products,” “new business models” and “new marketing models” or the development of “new business application technologies,” the Department of Commerce has initiated the “SIIR” program to provide case-based subsidies, thus facilitating the introduction of new aspects and categories of business activities and enhancing the core competitiveness of the industry, while increasing its added value and creating a competitive advantage. In 2018, there are two subsidy categories which are “innovative operations” and “integrated alliance” (plan site: <http://gcis.nat.gov.tw/neo-s>).

9. Value-added Program for Industry by Indigenous People – Subsidies for Innovation R&D

The Council of Indigenous Peoples began providing innovation R&D subsidies for the first time in 2018 under the Value-added Program for Industry by Indigenous People. The subsidies aim to help indigenous enterprises engage in technology or service innovation and thereby create a competitive advantage. Subsidies are provided to industry alliances formed under the Industry Demonstration Zone Project previously implemented by the Council of Indigenous Peoples, or to indigenous enterprises, which are each eligible for a maximum subsidy of NT\$2.5 million; syndicates of indigenous enterprises are eligible for a maximum subsidy of NT\$7.5 million. (<https://www.apc.gov.tw>).

CHAPTER 6

Strengthening Start-ups and Incubation & Acceleration Mechanism

To further the development of a high-quality environment for new business creation in Taiwan, and facilitate the identification of promising early-stage start-ups so that they can be matched with “angel” investors and benefit from regional industrial resources, while at the same time putting in place a comprehensive support network, the Small and Medium Enterprise Administration, Ministry of Economic Affairs (SMEA, MOEA) launched various programs such as Emerging Industries Accelerator Program and Entrepreneur Visa, to establish a complete ecosystem for stimulating innovative ideas and strengthening the start-up function, improving incubation to speed up new business growth, and optimizing the support network for new businesses.

This chapter consists of three sections. Section I discusses incorporation of online-offline systems into the innovation incubation ecosystem; Section II focuses on strengthening the Incubation Support System; Section III covers strategy optimization to meet international standards.

I Incorporation of Online-Offline Systems into the Innovation Incubation Ecosystem

1. Project for Integrating the Infrastructure of Service Platform in the Taiwan Entrepreneurial Ecosystem

The SMEA is promoting the establishment of the Project for Integrating the Infrastructure of Service Platform in the Taiwan Entrepreneurial Ecosystem, and integrates innovation and startup resources in various fields through a strategic alliance, which also involves international organizations. The SMEA hopes to create new capacity through accelerated innovation across industries and domains. This represents a breakthrough from individual growth in the past, and will drive industrial transformation and enhancement for startups. Action plans for 2018: (1) Strengthening functions of the entrepreneurial consultation and guidance information platform; (2) Facilitating cross-domain exchanges of innovation, and linking startups with potential to both international and corporate opportunities; (3) Observing startups around the world with a global perspective, conducting rolling analysis of developments in the domestic startup ecosystem, driving the internationalization of the startup ecosystem, and promoting the New Southbound policy; (4) Establishing and implementing innovation industry and entrepreneurship measures, and regulatory adjustment mechanisms.

2. Startup Hubs and Website

To allow full utilization of entrepreneurial services located in online platforms, the SMEA established a physical location (Start-up Hub) in 2015 to provide startups with comprehensive resources and support services, based on the concept of one-stop service. The SMEA completed a new version of its Start-up Hub website (<http://sme.moeasmea.gov.tw/startup/>) the same year (2015), serving the government's role as a medium for promoting innovation and startups via an online platform. Action plans for 2018: (1) Providing startups with the best support through Start-up Hubs for northern, central, and southern Taiwan, the toll-free hotline for startups (0800-589-168), and maintenance and optimization of the Start-up Hub website. (2) Startup Hub Website, physical Start-up Hubs in northern, central, and southern Taiwan, and a nationwide tour to provide services to startups.

3. Project for Supportive Platform of Social Innovation Enterprises

The SMEA began implementing and promoting the development of social enterprises in 2014, and began working to create a friendly environment for social innovation in 2017. The SMEA integrated resources across departments through the Project for Supportive Platform of Social Innovation Enterprises in 2018, and organized a nationwide tour in coordination with Minister without Portfolio Audrey Tang. Opinions of social enterprises were collected, and barriers were eliminated. Work items include: (1) Providing free consultation services and in-depth guidance for incubation; (2) Raising consumers' awareness, constructing a social innovation registration database, and including social innovation products into common supply contracts; (3) Encouraging enterprises to invest resources and work together with social enterprises through the Buying Power – Social Innovation Product and Service Procurement Incentive Mechanism; (4) Co-organizing the Asia Pacific Social Enterprise Summit with the private sector for international networking (<https://sme.moeasmea.gov.tw/startup/modules/se/>).

4. Social Innovation Lab

The Social Innovation Lab was opened on October 18, 2017 as a directly operated service location for social innovation. People can gather together in this open space to discuss and focus on social and environmental issues, and resources such as guidance and social networks are provided to realize and optimize creative ideas, from which solutions for sustainability can be found. At present, 2 rounds of recruitment have resulted in 33 social innovation teams. The Social Innovation Lab's mechanism will be expanded to all parts of Taiwan in the future.

II Strengthening the Incubation Support System

1. Project for the Great Entrepreneurship Academy

The SMEA established the Great Entrepreneurship Academy in 2003 to help SMEs utilize digital information, satisfy the wide range of knowledge they need for business, and enable all citizens to achieve lifelong learning. The academy is an integrated portal for e-learning and physical courses, and operates a one-stop charging station for SMEs in Taiwan. Work items in 2018 include: (1) Offering nearly 1,000 free online courses; (2) Providing an organization learning area for enterprises (3) Providing diverse e-learning services; (4) Providing lifelong learning electronic passport services; (5) Offering startup-related courses and family business successor training (plan site: <https://www.smelearning.org.tw/>).

2. Start-up Demonstration Development Program

The SMEA began implementing the Start-up Demonstration Development Program in 2018 to drive the development of startups and guide them into the government market; procurements from startups have been made under the program using common supply contracts. On one hand, this encourages government agencies to procure products or services from startups; at least 50 products and services will be procured in 4 aspects related to the development of smart cities: smart innovation, smart care, smart safety, and smart environmental protection. Common supply contracts will be awarded at least twice a year to help startups become government suppliers. On the other hand, this encourages the participation of local governments through subsidies, and drives agencies to adopt and try out startups' products and services.

3. SME Incubators

To help SMEs get established, undertake innovation and grow at various stages, strengthen start-ups and incubation, and accelerate forward-looking SMEs' global connection, since 1997 the SMEA has been working with other government agencies, research institutions, universities and private-sector companies to implement the government's incubation center policy and encourage the establishment of new incubation centers. The following sections describe the current state of incubation center operation in Taiwan.

(1) Current Status of Incubators

There were over 140 incubation centers in Taiwan. Performance of all Incubation Centers: in 2017, 68 incubation centers received subsidy of NT\$128 million from SMEA which successfully induced incremental capital investment of NT\$11.2 billion. The ratio of increased capital over subsidy was 87.5. 9 of the 1,713 firms that had been cultivated in incubation centers had secured stock market or OTC listing.

By the end of 2017, SMEA had provided subsidy to 128 incubation centers and induced cumulated incremental capital investment of NT\$131.6 billion. 104 firms that had been cultivated in incubation centers had secured stock market or OTC listing. The total number of people working at these firms was 281,099 (Table 6-2-1) (plan site: <http://incubator.moeasmea.gov.tw>).

(2) Innovative Approach

The SMEA planned the SME Incubator Development Project in 2018 to guide the transformation of incubators, developing their incubation resources into a sharing and support system for startups. The project develops three types of incubators: international startup accelerators, technology startup amplifiers, and industry co-creation networks. These three form the cornerstones of Taiwan's innovation and startup support and guidance system. It integrates cross-domain resources to promote local co-creation and strengthen international connections.

Table 6-2-1 Incubation Center Performance, 2013-2017

Unit: 100 million NTS; enterprises; persons; items

Item		Year	2013	2014	2015	2016	2017
Input	SMEA subsidy		1.57	1.52	1.59	1.28	1.57
Output	No. of incubated SMEs		2,181	2,000	1,951	1,713	1,921
	No. of incubated startups		1,354	1,327	1,294	1,108	1,413
	Employees		29,368	27,138	26,346	20,728	24,788
	Patents secured		157	176	121	124	157
	Instances of technology transfer		62	71	118	106	120
	Ratio of increased capital over subsidy		49.32	63.16	106.91	87.5	64.13
	Increased capital		77	96	170	112	101
	No. of enterprises listed in stock market or OTC		5	9	9	9	9

Source: Small and Medium Enterprise Administration, Ministry of Economic Affairs (2018).

(3) Incubation Centers Operated Directly by SMEA

To cultivate R&D of key high-tech industries, MOEA has established five incubation centers through direct investment since 2002 to offer technology support and services in consultancy, resource sharing, brand marketing and business matching for startups and SMEs, and help them transform, enhance R&D abilities and boost their international presence. They are: (1) Nankang Software Incubation Center (e-commerce, embedded systems, software, and network communications), (2) Nankang Biotech Incubation Center (pharmaceuticals, medical equipment, and healthcare, agricultural biotechnology), (3) Kaohsiung Software Incubation Center (digital content, software, and technology services), (4) NCKU Incubation Center (biotechnology and health care, green energy and environmental protection, and precision machinery), and (5) the Hsinchu Biomedicine Industrial and Incubation Center, which integrates the links in the biotech industry development chain — R&D, trial production, clinical trials, patent transfer, and company incubation — within a single park, and provides “one-stop shop” support and regulatory verification services. This will deepen biotech research capabilities, accelerate the commercialization of R&D results, and enhance production efficiency. It focuses on optoelectronic imaging, information technology, biomedical chips, biomedical materials, regenerative medicine, orthopedics, and combination products. The information and communications technology (ICT) advantages of the neighboring Hsinchu Science Park will be employed to attract participation and investment and produce a biotech industry cluster effect.

4. Construct Eco-system for International Incubation and Start-ups Acceleration Program

In light of flourishing new technology industries and increasingly severe international competition, the Construct Eco-system for International Incubation and Start-ups Acceleration Program was implemented in coordination with the government's Asia • Silicon Valley and New Southbound policy. The program integrates Taiwan's entrepreneurial resources, strengthens connections between industries (such as between the financial industry and real estate industry), provides strong support with respect to funding and space, and accelerates startups' entry into the different industry markets. The program creates an incubation ecosystem with innovation and startups at its core, and fully integrates different industries' capacities. A survey of at least 10 incubators was arranged in 2018, and relationships were established with international startup platforms and resources.

5. Women's Entrepreneurship Flying Geese Program

The SMEA began implementing the Women's Entrepreneurship Flying Geese Program in 2012, which provides customized and integrated services to women entrepreneurs based on their characteristics and needs at different stages. The program continues to implement incubation measures for women entrepreneurs, and creates a friendly entrepreneurial environment based on the concept of laying foundations, growth support, and elite selection, thereby enhancing women's economic strength and competitiveness. Aspects of project implementation in 2018 include: Capacity building, funding and resource acquisition, business expansion, paradigm establishment, elite training, and application of innovative technologies (plan site: <https://woman.sysme.org.tw/>).

6. Business Startup Phoenix Plan for Microenterprises

The Ministry of Labor launched the Micro-Startup Phoenix Plan to boost labor-force participation by women (20-65 year old), offshore islands residents and the middle-aged (45-65 year old), establish a business environment conducive to new business creation, and help women and the middle-aged to start their own microenterprises, thereby creating new jobs. The Plan also provides entrepreneurs with advisors, and help in securing credit guarantees and loans. (plan site: <https://beboss.wda.gov.tw/>)

7. Executive Yuan National Development Fund Startup Angel Project

In order to boost entrepreneurial momentum in Taiwan and encourage technical innovation and applied development in the private sector, the Executive Yuan's National Development Fund launched a special project in 2017 called the "Executive Yuan National Development Fund Startup Angel Project." Action plans for the project in 2018 include the following: (1) assist with and help review guidance/funding applications by startups which have been established for less than 3 years and entrepreneurial teams that show potential for innovation; (2) handle various matters for enterprises receiving guidance, including signing contracts, auditing, and allocation; (3) provide incubator services targeting enterprises receiving guidance, invite experts and academic scholars to carry out on-site visits with enterprises receiving guidance, and organize value-adding courses and matchmaking events; (4) at present, 127 participating organizations with innovative and

entrepreneurial potential have already been linked together, thereby providing a source of high-quality cases for inclusion in the program, fundraising and matchmaking opportunities needed by enterprises receiving guidance to carry out future expansion, and a means for providing referrals to government sources of funding and cooperating together on guidance efforts (plan site: www.angel885.org.tw).

8. Angel Investor Program

The National Development Fund (NDF) approved the Angel Investment Program in 2017, under which the NDF and angel investors jointly invest in startups registered in Taiwan or foreign startups whose business activities are mainly in Taiwan. In principle, the amount invested by the NDF in a single startup will not exceed NT\$10 million. The program provides startups with working capital during the early stages, and also utilizes the investment experience of angel investors to provide startups with subsequent guidance, consultation, and networking (plan site: www.df.gov.tw).

9. U-start Innovation and Startup Program

U-start was implemented in 2009 to create a culture of innovation and entrepreneurship on campuses, optimize the campus entrepreneurship environment, and provide youth with a place where they can become entrepreneurs and fulfill their dreams. Based on the subsidies provided by the project, the flexibility of micro-enterprises and the assistance of incubators are utilized to increase opportunities for college graduates and students to become entrepreneurs. Startup teams and university incubators propose their respective business plans and guidance plans for joint application; startup subsidies (grants) are then provided after a 2-stage selection process. The project was renamed U-start Innovation and Startup Program in 2018. (plan site: <http://ustart.yda.gov.tw/bin/home.php>).

10. Lean Startup Guidance Program for Indigenous People of Taiwan

The Council of Indigenous Peoples began implementing the Lean Startup Guidance Program for Indigenous People of Taiwan in 2015 to support indigenous people in engaging in indigenous industries, and thereby create more industrial development opportunities. The program provides entrepreneurship subsidies with a focus on economic foundation, cultural heritage, and environmental sustainability. The program further guides indigenous startups to use innovative business models, improve their knowledge in business and financial management, and also makes visits to business locations. Business diagnosis is conducted to understand gaps in the market, so that the startups can improve upon their weaknesses and show their strengths. (plan site: <http://startup.cpc.tw/index.asp>).

III Strategy Optimization to Meet International Standards

1. New Southbound Policy Entrepreneurship Opportunity Increasing with Linking GEN Program

This program co-organized the 2018 GEC+ (Global Entrepreneurship Congress+), in partnership with the Global Entrepreneur Network (GEN). The event's theme was "Enabling Social Impact with AI+IoT," and it brought together IoT companies and startups in Taiwan to utilize their IoT technologies and advantages in software/hardware integrated applications, so that they may gain business opportunities and engage in international cooperation. The program is also making great effort to organize the GEN Asia Conference in Taiwan, in hopes of creating synergistic effects, and has invited the participation of India's government and GEN India, as well as members of startup systems in the 6-7 New Southbound countries. This will help domestic IoT companies work together with startups in the New Southbound countries, and seize business opportunities in the international market.

2. International Startup Campus Program and Entrepreneur Visa

The Executive Yuan ratified Entrepreneur Visas in 2015. Foreign entrepreneurs and entrepreneurs from Hong Kong and Macau with capacity and technology for innovation will be eligible for a 1-year residency after meeting certain requirements determined by the Investment Commission of the Ministry of Economic Affairs. Once they establish a company and provide evidence of business activity, they will be eligible to extend their residency an additional 2 years. Foreign entrepreneurs and entrepreneurs from Hong Kong and Macau who legally reside in Taiwan for 5 consecutive years, provided that they are physically present in Taiwan for over 183 days each year, will be eligible to apply for permanent residency or for registered permanent residency. This measure is expected to attract outstanding foreign entrepreneurs to Taiwan, and to inject new energy into the innovation and startup environment.

The SMEA began implementing the Taiwan Innovation City Project in 2018. The project plans to offer one-stop service to provide startups and teams with comprehensive consultation and physical services, including preliminary consultation for Entrepreneur Visas, assistance with applications, and tracking the progress of individual cases. Efforts were further made to optimize Entrepreneur Visas and carry out legislative procedures this year (2018). International Entrepreneur Initiative Taiwan (IEIT) English Portal: <https://startup.sme.gov.tw/>.

CHAPTER 7

Revitalizing Local Industries by In-depth Development, Marketing and Expansion

In order to stimulate local economic development and create more local job opportunities, the government utilizes the “Local Industry Development Fund” to offer guidance to local SMEs on undergoing specialization, factory transformation and upgrade, and technological advancement programs. In addition to helping bridge the urban-rural divide, the Fund helps create local job opportunities. Furthermore, the One Town One Product (OTOP) program in Taiwan utilizes local design, production, and marketing to create regional brands, enhance the unique cultural characteristics of local SMEs, and expand economic benefits. Meanwhile, in light of the contribution of SMEs to R.O.C. exports and trend of declining annual exports by SMEs, the government has unveiled multiple measures aimed at developing overseas and domestic markets, with a particular emphasis on international markets, in a bid to help SMEs achieve more robust development.

This chapter is divided into three sections. Section I discusses plans to promote development of local industrial clusters; Section II focuses on measures to help local industries build marketing capabilities; Section III covers SME business matchmaking and export expansion.

I Promoting Development of Local Industrial Clusters

1. The Project for Development of Village Industry

The SMEA began actively investing resources to assist the development of village industries in 1989. The SMEA began utilizing the special budget of the Forward-Looking Infrastructure Development Program in 2018 to drive industrial development, revitalize the economy, and provide stable employment opportunities. The SMEA subsidized the construction of industrial parks by county/city governments for village industries that form clusters, play key roles in their areas, and drive the development of related industries. The SMEA further optimized public spaces and hardware industrial parks to help production-scale SMEs move in. The concepts of the digital economy, experiential economy, and circular economy are further applied to production processes and innovative business models in the parks, and aim to drive enhancement and innovation, and to create an industrial value system. This project uses a competitive proposal mechanism and subsidizes the needs of special municipalities and county (city) governments for industrial development, in hopes of driving the development of surrounding village industries.

2. Small Business for Township Revitalization

The SMEA began implementing the project “Small Business for Township Revitalization (SBTR)” in 2018 to help SMEs apply the concepts of the circular economy, the digital economy, and the experiential economy. The project increases enterprise robustness through production processes and innovative business models, thus guiding enterprises towards a sustainable business model that integrates “production, life, and ecology.” This allows the superior local, industrial, and human resources of townships to be utilized for industrial transformation, create new value, and achieve the vision of “township revitalization.” Proposals for this project are divided into 4 categories: Individual Enterprises (Category A), Collaborative Enterprises (Category B), Platform Operations (Category C), and Design Activation (Category D).
(plan site: <https://sbtr.org.tw/frontend/index.aspx>)

3. Program for Promoting Factory Transformation, Upgrade, and Technological Advancement

Recognizing the global trend towards “industry tourism” and the need for Taiwanese industry to upgrade itself, the Industrial Development Bureau launched Program for Promoting Factory Transformation, Upgrade, and Technological Advancement. By developing factory tourism, traditional factories would be transformed into “tourist factories” with significant cultural and educational value, giving the enterprises concerned an opportunity to restructure themselves, and giving the general public new tourism and leisure options that are both fun and educational; factories that already have distinctive local character will be able to develop new business models through tourism that enable people to learn while they are enjoying themselves. The content of the program in 2018 encompasses the following: (1) evaluate and promote tourism factories, (2) evaluate and select high quality tourism factories and tourism factories with an international appeal, (3) provide guidance on cross-industry integration and value-adding strategies, and (4) participate in the showcasing of exhibition results (plan site: <http://taiwanplace21.org.tw/>).

4. Creative Life Industry Development Program

In order to help businesses combine creative and cultural elements into the development of creative products and services encompassing merchandise, locations, services, and events, as well as go on to create innovative new business models which lead to greater value-added economic activity and more business opportunities, the Industrial Development Bureau under the Ministry of Economic Affairs launched the “Creative Life Industry Development Program.” Action plans for the program in 2018 include evaluating and selecting companies in the creative lifestyle sector, organizing and providing guidance on improving customer experiences, and jointly implementing promotional efforts for industry-specific marketing (plan site :<http://www.creativelife.org.tw/>).

II Help Local Industries Build Marketing Capabilities and Regional Brands

1. OTOP (One Town One Product) Program

In 1989, the Small and Medium Enterprise Administration under the Ministry of Economic Affairs launched a policy for providing guidance to local cultural industries. Through cooperation between specialized guidance teams and businesses, the policy utilizes local resources to incorporate new technical knowhow, creative ideas, services, and brand concepts to help local industries work toward adopting boutique and specialized business models. Under Taiwan's "One Town One Product" (OTOP) brand image, the policy also promotes products in Taiwan with local characteristics and a reputation for high quality so as to enable more companies to expand their domestic and overseas markets while also targeting local cultural industries that have potential to develop and expand into international markets. Primary action plans for the program in 2018 include expanding OTOP expo sales channels, including physical channels and implementing OTOP-themed sales events at various exhibitions as well as organizing OTOP road shows. The project has established the OTOP local specialty shopping website and planned travel packages that offer in-depth and fun experiences in local culture (<https://www.otop.tw/>).

2. OTOP (One Town One Product) International Marketing Alliance Program

The Small and Medium Enterprise Administration under the Ministry of Economic Affairs launched the "Counseling Project for Internationalization of Local Cultural Industries in Taiwan," which features the use of Taiwan's joint OTOP brand and integrates relevant industry alliances, matchmaking for collaborative development of global channels, and other strategies to help enable local cultural industries in Taiwan expand into international markets. In 2018, select companies and products which offer developmental potential for expansion into international markets have targeted overseas markets including Canada, the United States, Singapore, Hong Kong, Malaysia, and the Philippines. The scope of guidance offered through the program encompasses (1) developing and expanding international markets and global distribution channels; and (2) making international capacity more robust: Diagnosis services are provided to enterprises with the development potential to expand into international markets (<https://www.otop.tw/>).

III SME Business Matchmaking and Export Expansion

1. Project for Promoting SME Business Matchmaking

In order to help SMEs improve their ability to identify and exploit market opportunities, and to create more diverse strategic opportunities for cooperation, the Small and Medium Enterprise Administration under the Ministry of Economic Affairs launched the “Project for Promoting SME Business Matchmaking” in 2016. The program is primarily focused on providing services to “innovative SMEs,” and the scope of matchmaking services offered through the program has been expanded to include overseas business opportunities (plan site: <http://www.technomart.org.tw/>).

In 2018, main projects include:

- (1) Business matching service platform for SMEs: Providing latest industrial business news, establishing resource network and promoting substantive, practical collaboration between Taiwanese and Japanese enterprises.
- (2) Exploring innovative products and technologies, and providing business visibility and matching opportunities: Covering domestic and international matching arrangements, such as technology and / or product launching and exhibitions, one-on-one matching and follow-up services, and promoting strategic alliances.
- (3) Enhancing SME business network contacts: Cross-border cooperation and experience sharing to strengthen Taiwan-Japan network contacts, partnership and heritage among government, industries, and academy.

2. Project for SMEs Expanding the New Southbound Markets

The SMEA implemented the Project for SMEs Expanding the New Southbound Markets to help SMEs expand into international markets, create a mutually beneficial models for collaboration with New Southbound countries, and building long-term partnerships. Action plans for 2018 are as follows: (1) Providing guidance for industrial clusters, assisting with the establishment of suitable business models, and providing product and service marketing; (2) Constructing an international collaboration network for SMEs and collaborating with overseas institutions; (3) Professional consulting and diagnosis services; (4) Helping large enterprises to lead small enterprises, and provide international marketing and guidance for industrial chains; (5) Organizing a series of activities to create business opportunities (plan site: <http://info.moeasmea.gov.tw/>).

3. Project of Promoting Service Innovation for SMEs

The SMEA began actively implementing the Project of Promoting Service Innovation for SMEs in 2018 to transform the business models of domestic SMEs and increase their innovation capacity. The project utilizes ICT applications and service innovation to aid the enhancement of SMEs working in the people’s livelihood and service industries. Items for implementation in 2018 include: (1) Value-added diagnosis and guidance for benchmark enterprises; (2) Providing guidance to

clusters via commercial platforms; (3) Establishing a digital innovation demonstration system; (4) Helping micro-enterprises utilize cluster guidance, to drive service innovation and productivity enhancement; (5) Organizing innovation service experience and exchange activities; (6) Implementing exportation of domestic features and themes.

(plan site: <http://micro.sme.gov.tw/index.php>)

4. Trade Promotion Working Plan

The Bureau of Foreign Trade, MOEA has launched Trade Promotion Working Plan to promote export market diversification, with particular focus on increasing exports share in emerging market.

(1) Trade Promotion Working Plan

Main projects include: (1) assisting in the development of the international market; (2) providing business intelligence; (3) providing services for overseas operations and branches; and (4) cultivating talent in international marketing (plan site: <http://info.taiwantrade.com/CH/>).

(2) Integrating Private Sector Resources for Market Development

In 1998, the Bureau of Foreign Trade began working to integrate the resources of various associations with an aim to jointly develop and expand international markets. Activities mainly include organizing delegations to travel overseas on trade missions, participating in trade shows and international economic and trade conferences, holding professional training for persons working in the field of international trade, and providing subsidies to individual companies or establishments to participate in overseas international exhibitions.

(3) Launching Various Projects and Programs

A. Advanced Project to Promote Most-Valued Products in Emerging Markets

This program aims to gain a more precise understanding of the overall market conditions and consumer and channel requirements of middle-class consumer markets in ASEAN countries and India. In addition, the program utilizes innovative marketing techniques and models to increase exports of final consumer goods to emerging markets. Promotional methods implemented in 2018 include: (1) optimization of current industry information; (2) guidance on customization for exports; and (3) innovative marketing models (plan site: <http://mvp-plan.cdri.org.tw/>).

B. The Green Trade Project

In order to respond to global green industry trends and gain a better understanding of environmental regulations in various other nations and green procurement standards of major global manufacturers, this program employs a total of 12 specific methods — namely industry and market analysis, guidance on obtaining international recognition/certifications and marketing consultation, digital marketing, expo marketing, corporate image workshops, targeted market development, ecosphere exports, consultants for environmental issues, forums and discussions, interviews with international media outlets, and global communications and channel marketing — in order to significantly help companies in the R.O.C. access more global opportunities in the green industry sector (plan site: <http://www.greentrade.org.tw/>).

C. Taiwan Industry Image Enhancement Project (IEP)

In 1992, the Ministry of Economic Affairs created the “Taiwan Excellence” mark as a way to collectively boost the brand image of domestic SMEs and promote the image of various industries in Taiwan. Since then, the Bureau of Foreign Trade has continued to implement this program by utilizing diverse marketing communications to promote premium “made in Taiwan” products in key markets and improve awareness and positive reception of high-quality products and overall industry image of Taiwan among consumers and buyers in local markets with the ultimate goal of promoting the export of R.O.C. products (plan site: <http://www.taiwanexcellence.org>).

D. Project to Secure Business Opportunities in Global Government Procurement

Launched in 2009, this program aims to help companies in the R.O.C. access business opportunities through government procurements by holding symposiums, contacting and inviting companies which have been previously awarded procurement tenders from overseas governments as well as tendering authorities to come to Taiwan, participating in international trade shows, and by participating in the EBRD Annual Meeting and Business Forum and Asian Development Bank Business Opportunities Fair (plan site: <http://gpa.taiwantrade.com.tw/web/index.aspx#&panel1-1>).

E. Smart Machinery Overseas Promotion Project

In coordination with the government’s smart machinery industry innovation policy under the 5+2 Industrial Innovation Plan, the 3-year Smart Machinery Overseas Promotion Project was implemented in 2018 to show international buyers the competitiveness and differentiation of Taiwan’s smart machinery solutions. Integrated marketing campaigns are held during major international exhibitions in mature markets, such as Europe, the United States, and Japan, as well as other markets such as Mexico, Russia, Vietnam, the Philippines, Thailand, India, and Indonesia. The campaigns help Taiwan’s smart machinery companies find potential buyers and gain overseas business opportunities (plan site: <http://twmt.tw/ch/>).

F. International Market Development Subsidy Plan

The Bureau of Foreign Trade, MOEA launched the International Market Development Subsidy Plan in 2013 to encourage manufacturers to apply diversified, innovative and integrated marketing to international market expansion through special project subsidy. 2018 subsidies included 47 cases with a total subsidies amounting to NT\$130 million (plan site: <http://www.imdp.org.tw/index.php>).

CHAPTER 8

Other Government Measures to Support SMEs

Based on the Article 4, the Act for Development of Small and Medium Enterprises, in formulating policy, the government shall aim at furtherance of improvement and development of the business operations of SMEs without unfair treatment in respect of financial and taxation systems and other related matters. The government has also tried to enhance policy effectiveness by learning and sharing internationally, to enhance the global visibility of SMEs through expanding the substantial exchange and collaboration with the international community, and to help SMEs in finance and human resource.

This chapter comprises five sections that will discuss other SME supporting resources and measures not covered in previous chapters. Section I presents the utilization of government resources to assist SMEs, such as government procurement and SME financing. Section II examines government's regulatory flexibility relating to SMEs to help create a first-class legal environment for SMEs. Section III outlines the active role of government agencies in organizing and participating in international affairs and activities of SMEs. Section IV covers manpower cultivation in SMEs. Section V covers national SME awards from Ministry of Economic Affairs.

I Government Resources Allocated to SMEs

It is explicitly stated in the Act for the Development of SMEs that the government should clearly specify in the SME White Paper the amount of resources allocated to SMEs. In addition to the resources expended by the government on SMEs, this section will also contain statistics pertaining to the government's procurement of property, public works or labor from SMEs as well as special loans made available to SMEs. However, statistics on government guidance resources and financing are limited to those from agencies at the central government level. The details are explained as follows:

1. Assistance to SMEs Totaled NT\$27.57 Billion

The statistics on resources allocated by the government for SME guidance purposes include funding to government agencies that have a significant relationship with SMEs, e.g., the Small and Medium Enterprise Administration, Ministry of Economic Affairs (SMEA, MOEA), Industrial Development Bureau, Bureau of Foreign Trade, Department of Commerce, Department of Industrial Technology and Department of Investment Services, as well as training expenses of the Ministry of Labor.

Compared with 2016, the MOEA's overall SME guidance funding in 2017 decreased by NT\$1.662 billion, down 6.34% YoY. This was mainly due to the NT\$1.08 billion less spent by the Department of Industrial Technology on SMEs in 2017, as well as the SMEA's 2017 budget being NT\$538 million lower than in 2016, a decrease of 9.95% YoY. However, the Bureau of Foreign Trade invested NT\$203 million more into SME guidance in 2017 than in 2016 (Table 8-1-1).

Table 8-1-1 Ministry of Economic Affairs Resources and Funding Allocated to SMEs

Unit: 100 million NT\$, %

Organizer	Annual funding	Fiscal year final accounts		Total amount allocated to SMEs		Increase (decrease) (3)=(2)-(1)
		2016	2017	2016①	2017②	
SMEA (SME Development Fund included)		54.08	48.70	54.08 (100.00)	48.70 (100.00)	-5.38
IDB (Industrial technology guidance and Industrial Park Development and Management Fund included)		83.81	82.08	51.11 (60.98)	48.68 (59.30)	-2.43
BOFT (Overseas marketing and marketing consultation, and Trade Promotion Fund included)		50.50	49.29	42.63 (84.40)	44.66 (90.60)	2.03
DOC (Promotion of trade modernization and commercial technology development included)		10.86	11.16	6.33 (58.27)	6.29 (56.37)	-0.04
DOIT		153.35	145.11	107.95 (70.39)	97.15 (66.95)	-10.80
Total		352.601	336.345	262.10 (74.33)	245.48 (72.998)	-16.621

Note:

1. SMEA stands for Small and Medium Enterprise Administration; IDB stands for Industrial Development Bureau; BOFT stands for Bureau of Foreign Trade; DOC stands for Department of Commerce; DOIT stands for Department of Industrial Technology.

2. Figures in parentheses represent the percentages in the final accounts.

Source: Various government agencies.

In 2017, in addition to the relevant government resources allocated to SMEs by agencies such as the MOEA, 40 financial institutions and 20 Credit cooperatives also contributed a total of NT\$2.613 billion to the Small and Medium Enterprise Credit Guarantee Fund of Taiwan to enhance the Fund's strength. Training expenses of the Council of Labor Affairs for SMEs totaled NT\$0.409 billion. Therefore, government guidance resources allocated to SMEs totaled NT\$27.57 billion in 2017.

2. Providing SMEs with Special Loans Totaling NT\$7.261 Billion

Eligible SMEs in Taiwan have access to the following six types of special loans: The Free Trade Industry Revitalization and Counseling Preferential Loans, Youth Entrepreneurship Guidance Loans, SME Development Fund Special Loans, Assistance for SMEs to Take Root Special Loans, Indigenous Integrated Development Fund Loans (Indigenous Youth Business Loans, Indigenous Economic Industry Loans, and Indigenous Micro-Business Activities Loans for production

purpose), and Micro-Business Start-up Phoenix Loans and Employment Insurance Startup Loans for the Jobless (Ministry of Labor). A total of NT\$7.261 billion in government-funded SMEs loans was made in 2017 (Table 8-1-2).

Table 8-1-2 Special Loans to SMEs Funded by the Government in 2017

Unit: 100 million NT\$

Name of loan	Eligible applicant	Structure	Status	
			Total loan amount	Government funding
The Free Trade Industry Revitalization and Counseling Preferential Loans	To accommodate the need for guidance on revitalization efforts, structural adjustments, and financial relief under assistance programs and proposals designed to address economic trade liberalization policies and industry adjustments for companies in relevant industries, such as the manufacturing industry and service industry, which have distressed assets or sustained losses, or for other companies which have losses in particular industries as determined by the relevant competent authority.	Every loan comes from National Development Fund of The Executive Yuan	61.42	61.42
Youth Entrepreneurship Guidance Loan A and B	Youth aged 20-45 engaging in business start-ups	Each loan is funded by lending institution alone or lending institution along with Development Fund, Executive Yuan	18.27	0.00
SME Development Fund Special Loan	SMEs	SME Development Fund	5.14	5.14
Assistance for SMEs to Take Root Special Loan	SMEs	Earmarked funds from CEPD Long-Term Fund	28.03	0.55
Indigenous Integrated Development Fund Loans (Indigenous Youth Business Loans, Indigenous Economic Industry Loans, Indigenous Micro-Business Activities Loans included for production use)	Indigenous people	Fully funded by the Council of Indigenous Peoples	5.50	5.50
Micro-Business Start-up Phoenix Loan Employment Insurance Startup Loans for the Jobless	Women aged 20-65, offshore islands residents and women aged 45-65 and the jobless with employment insurance	Loans provided by banks' own funds and interests subsidized by the Ministry of Labor	2.57	0.00
Total			120.93	72.61

Source: Various government agencies.

3. Government Procurement from SMEs Reached NT\$796.3 Billion

According to Government Procurement System statistics on awarded contracts published in March, 2018, in 2017 the total amount of government procurement totaled NT\$1,239.8 billion, an increase of 10.1 percent from 2016; the total amount contracted or subcontracted by SMEs (including all cases over NT\$0.1 million) in government procurement totaled NT\$796.3 billion, an increase of

8.7 percent from 2016. Share of government procurement from SMEs in 2017 was 64.2%, down 0.4 percentage points from 64.6% in 2016.

II Regulatory Flexibility to Create a First-Class Legal Environment for SMEs

1. Regulatory Affairs Concerning Small and Medium Enterprises: Regulations Governing the Reduction of Expenditures for Small and Medium Enterprises Research and Development as Investment

After the Regulations Governing the Reduction of Expenditures for Small and Medium Enterprises Research and Development as Investment, which was established in accordance with Article 35 of the Act for Development of Small and Medium Enterprises, took effect, there were on average 162 applications each year from 2014 to 2016, and about 84% of applications were approved; the average total loans per were about NT\$2.8 billion. The regulations continue to be reviewed and adjusted, and notice was given on March 15, 2018 for an amendment on partial articles. The amendment will make the regulations applicable to collaborative R&D patterns between industries and academic research institutes, encouraging SMEs to invest resources to support industry-academia alliances. The amendment will channel the R&D capacity of academic research institutes into industry, strengthen SME R&D capacity, and enhance international competitiveness.

2. Helping SMEs Adapt to Critical Regulatory Frameworks

(1) Relaxing Restrictions on Workplaces of Foreign Performers in Taiwan

The SMEA held a forum and recommended relaxing restrictions on workplaces of foreign performers, so that it will be more convenient for domestic SMEs to hire foreigners for performance-related jobs. This matches the government's goal of promoting the cultural and creative industry worldwide. The Ministry of Labor amended the Qualifications and Criteria Standards for foreigners undertaking the jobs specified under Article 46.1.1 to 46.1.6 of the Employment Service Act on July 26, 2017, and added Article 47.2.7 to resolve the dilemma of restricting their jobs to specific workplaces. On May 9, 2018, the Ministry of Labor further deleted the workplace restrictions in Article 47.2, thus no longer restricting the performance workplace and no longer requiring applications from enterprises. This significantly reduces administrative costs and simplifies the work permit application process.

(2) Specifying the Types of Home Stay Facilities that may be Established in Urban Planning Districts

The SMEA organized industry forums and cross-departmental coordination meetings to communicate and clarify laws related to the establishment of home stay (bed & breakfast) facilities in urban planning districts, in hopes of driving the home stay industry's development and upgrading the overall tourism industry by satisfying the needs of home stay operators. Before the amendment to the Regulations for the Management of Home Stay Facilities, home stay facilities

were only allowed to be established in specific scenic areas, tourism areas, areas of indigenous peoples, remote areas, offshore areas, leisure farms, and non-urban land. The Tourism Bureau of the Ministry of Transportation and Communications announced an amendment to the Regulations for the Management of Home Stay Facilities on November 14, 2017, specifying the types of home stay facilities that may be established in urban planning districts, and also allowing home stay facilities to be established in areas worth preserving as cultural heritage or with a cultural or historical appearance. The areas are announced by local county/city governments, making the regulations more consistent with the current status of home stay facilities.

(3) Revision Recommendations for the Criteria for Professional Investors

Many SMEs have signed RMB bullish target redemption forward (TRF) contracts with banks in recent years. The depreciation of the RMB has led to severe financial difficulties among such SMEs, but they are not protected by the Financial Consumer Protection Act. The SMEA thus sent a letter to the Financial Supervisory Commission (FSC) addressing this issue and offering recommendations. The FSC indicated that it will amend the regulations on the qualifications of professional investors in accordance with the qualifications specified in the various regulations on financial product management. This means that professional investors will not only need to meet financial requirements, but also possess the expertise specified in financial product management regulations. This way they will be able to manage the risks and complexity of financial products, and provide better protection for SMEs.

3. SME Innovation Application Experiment

The innovative application service validation mechanism was adopted in 2017 based on the concept of a sandbox experiment. It resolves the dilemma of finding a balance between industry innovation and regulatory supervision, by helping enterprises clarify the applicability of laws, and also through innovative application experiments, in hopes of gradually optimizing the regulatory environment for innovation and startups.

(1) Clarification of Laws on Platforms for Private Vehicle Sharing

The SMEA convened a government agency coordination meeting on January 30, 2018 on “the Feasibility of Car Sharing and Cost Sharing,” so as to clarify issues relating to platforms for car sharing. The Ministry of Transportation and Communications convened a meeting on February 23, 2018 to deliberate on the lawfulness of private vehicle sharing. The meeting set two principles for private vehicle sharing, providing definitions and an explanation that the driving in such car-sharing is not-for-profit behavior. After the SMEA urged the competent authority to carry out in-depth discussion of issues related to private vehicle sharing and establish clear principles and definitions, operators of car sharing platforms should be able to continue operating without any worries, and may expand the promotion of car sharing for commuting.

(2) Proposal for Corporate Aggregates to Become Founders of Social Innovation Closely Held Corporations

The competent authority still has concerns regarding a corporation aggregate becoming the founder of a social innovation closely held corporation. Hence, the SMEA summarized related issues and applicable regulations, and then convened a cross-departmental communication meeting on December 25, 2017. Afterwards, Minister without Portfolio Audrey Tang convened a cross-departmental coordination meeting on January 5, 2018 to build a consensus among related departments, and the proposal was approved on a trial basis. Hence, if a corporate aggregate adds provisions to its articles of incorporation, gains approval from the general assembly, and submits the articles of incorporation to the competent authority of the target industry for approval, it may become the founder of a social innovation closely held corporation. The corporate aggregate's application to establish a closely held corporation was approved with the SMEA's assistance in May 2018. The contents of the articles of incorporation provided by the corporate aggregate will also serve as a template for the social innovation closely held corporation founded by it.

III Participating in International SME Meetings and Events

Taiwan has for many years been an active participant in the SME-related meetings and activities undertaken by international organizations and uses these events and activities as an opportunity to share Taiwan's experience in SME development with other countries. In recent years, Taiwan has also been actively involved in international collaboration with regard to SME incubation and industry-university collaboration, which provide opportunities for the exchange of ideas and for collaborative growth, while also contributing to the development of a more international outlook and bilateral exchange. Followed are a list of important events Taiwan hosted or participated in 2017 and 2018.

1. Participating in APEC and Internationalizing Start-ups

(1) Attending the 24th APEC Small and Medium Enterprises Ministerial Meeting in 2017

Taiwan attended the 24th APEC Small and Medium Enterprises Ministerial Meeting held in Ho Chi Minh City, Vietnam on September 15, 2017. During the meeting, Taiwan engaged in in-depth exchanges relating to SME collaboration issues, and also relayed its implementation results in the 2nd Phase APEC O2O (Online-to-Offline) Initiative – Unleash the Potential of SMEs through Digital Transformation for a Shared Future. The meeting's theme was “Strengthening MSMES' Competitiveness and Innovation in the Digital Age,” and it emphasized digital economy development trends in recent years, as well as sharing information on digital technologies of SMEs in the Asia-Pacific.

(2) 46th APEC Small and Medium Enterprises Working Group, SMEWG (March 2018)

Taiwan attended the 46th APEC SME Working Group Meeting held in Seri Begawan City, Brunei on March 26, 2018, and gave 4 reports during the meeting, including results of the 2nd Phase

APEC O2O Initiative for last year (2017) and the 2017 Global SME and Large Enterprise Innovation Survey Report; plans for implementing the 3rd Phase APEC O2O Initiative this year (2018); and overall plans for implementing the 4th Phase APEC O2O Initiative next year (2019), as well as organizing the Empower SMEs to Embrace Digital Transformation Summit.

2. New Southbound Industrial Collaboration Summit

The Chinese National Federation of Industries and the MOEA's Industrial Development Bureau began co-organizing the New Southbound Industrial Collaboration Summit in 2017. In the first phase, 6 out of the 18 countries covered by the New Southbound Policy were selected, namely India, Indonesia, Thailand, Malaysia, the Philippines, and Vietnam, and prioritized for industry exchanges and collaboration. Bilateral industrial collaboration summits were organized to help enterprises further collaborate with ASEAN countries in matters of industry and trade. SMEs can use this platform to gain information on ASEAN markets, and create new business opportunities in those markets.

3. Promoting SME International Exchange and Collaboration

SMEA of MOEA signed Taiwan SME Memorandum of Cooperation with Malaysia, India, Philippines, Singapore, Vietnam, Korea and European Union; participated in bilateral annual ministerial meetings with Philippines, Thailand, European Union and so on, and promoted plurilateral and multilateral cooperation, such as TPP, WTO. SMEA of MOEA also signed memorandums of understanding and letter of intent for cooperation: Helped facilitate the signing of memorandums of understanding (MOUs) on SME cooperation between the R.O.C. and Malaysia.

IV Manpower Cultivation in SMEs

1. Various Subsidized Programs for SMEs in Talent Cultivation

Various government agencies such as the Ministry of Labor and the Small and Medium Enterprise Administration of Ministry of Economic Affairs (SMEA, MOEA) provides subsidies for individual enterprises and organizations to arrange training programs for their employees in line with operational needs ("individual training"), while also encouraging enterprises in related industries to join forces with one another to implement employee training on a joint basis ("joint training"). A few main programs and agencies are listed as followed covering main areas such as digital learning, incubation, professional training for various industries, R&D and technology management training, international trade, service, and executive training.

- (1) Small and Medium Enterprise Administration, MOEA: A variety of talent cultivation projects were implemented, based on SMEs' different needs. The Great Entrepreneurship Academy was planned to provide both online and in-person courses, which aim to improve the knowledge and capacity of enterprises in each stage of development, improve enterprises' talent cultivation capacity, and promote lifelong learning passports among SMEs.

- (2) Industrial Development Bureau, MOEA: Professional training by industries. In 2018, a total of 20 training courses will be offered to cover various industries. Furthermore, the Industrial Development Bureau, Ministry of Education, Ministry of Science and Technology, Ministry of Transportation and Communications, and Ministry of Health and Welfare engaged in cross-departmental collaboration in coordination with developments in the digital economy and the 5+2 innovative industries. Starting in 2017, the ministries began jointly promoting interdisciplinary digital talent cultivation, adopting key technologies (e.g., e-commerce, data analysis, and artificial intelligence), and training talent for innovative industrial applications.
- (3) Department of Commerce, MOEA: Courses on big data analysis, digital marketing, and the Internet of Things (IoT) were planned for the retail and integrated service industries, and were offered using the resources of various associations beginning in 2017. The shortage in talent needed by industry was further reduced in 2018 as talent training programs on intelligent commercial service applications, both basic (10 classes) and advanced (2 classes), were offered.
- (4) Department of Industrial Technology, MOEA: The cultivation of international interdisciplinary technology management talent began in 2000. Students first took prerequisite courses in Taiwan, attended international seminars, studied abroad, and gained practical experience under the guidance of a mentor in a different region. This enabled students to apply what they learned, and bring innovation management systems into enterprise to inspire creativity.
- (5) Bureau of Foreign Trade, MOEA: The International Trade Institute of the Taiwan External Trade Development Council was commissioned in 1987 and divided training work into two categories, namely, specialized training and on-the-job training; Meet Taiwan was implemented in 2009 to cultivate MICE talent; The “Funding for Taiwanese Student Internships in Emerging Markets” project cultivates students’ understanding of international trade processes, international marketing, and cross-cultural business administration of emerging markets in Southeast Asia.
- (6) Ministry of Education: Industrial technology graduate programs were offered starting in the spring of 2011. Enterprises and schools jointly submitted program applications based on industry needs, and the programs were offered after gaining approval from the Ministry of Education, increasing the supply of master’s-level talent needed by enterprises. Furthermore, the Industrial College Program was implemented to offer industrial programs, which consist of jointly planned courses taught by mentors and internships that lead directly to employment. Students that graduate from the program are able to immediately work at the enterprise co-organizing the program.
- (7) Ministry of Labor: The Industrial Human Resource Investment Program was implemented in 2005, and offers a wide variety of practical training courses in cooperation with private training institutes. The Enterprise Human Resource Upgrade Plan has been implemented since 2004 to help business entities organize on-the-job training. The Small Enterprises Talent Skill Progressive Program was launched in 2014, and provides specialized, individual guidance and

consultation services to small enterprises with fewer than 50 employees. Entrepreneurship courses are also offered.

2. Overview of SME Participation in Vocational Training

The Workforce Development Agency of the Ministry of Labor began implementing the Enterprise Human Resource Upgrade Plan in 2004 and the Small Enterprises Talent Skill Progressive Program in 2014. The Agency's goals are to help business entities organize on-the-job training, gain better training results, continually improve the quality of human resources, accumulate local human capital, and enhance competitiveness. The projects subsidized a total of 2,378 individual training projects and 106 joint training projects in 2017 (Table 8-4-1).

Table 8-4-1 Provision of Assistance to Enhance Manpower Cultivation by Business

Enterprise, 2013-2017

Unit: Enterprises; classes; persons; projects

Year \ Item	Individual training plans			Joint training plans			
	No. of firms receiving subsidies	No. of training classes	No. of training participants	No. of projects	No. of firms taking part	No. of training classes	No. of training participants
2013	1,687	33,554	757,812	174	863	1,840	93,266
2014	2,802	45,151	753,720	242	966	2,766	91,412
2015	2,659	42,785	676,869	199	700	2,533	65,459
2016	2,651	37,964	605,293	134	555	1,679	54,599
2017	2,378	26,231	311,142	106	418	902	26,424

Source: Figures provided by Workforce Development Agency, Ministry of Labor, 2018.

3. Government Actively Promotes Entrepreneurship

The Ministry of Labor sponsored the staged classes for entrepreneurs. A total of 8,789 people took the class in 2017 (4,102 for introduction class; 2,715 for mid-level class; 1,972 for advanced class) (Table 8-4-2).

Table 8-4-2 Provision of Conducting Entrepreneurship Study by Ministry of Labor, 2013-2017

Unit : Persons

Year	Introduction classes	Mid-level classes	Advanced classes	Total
2013	7,512	4,516	1,235	13,263
2014	7,476	3,924	1,390	12,790
2015	7,107	4,786	1,526	13,419
2016	2,767	2,309	1,036	6,112
2017	4,102	2,715	1,972	8,789

Source: Figures provided by Workforce Development Agency, Ministry of Labor, 2018.

In 2017, the Ministry of Labor provided entrepreneurship consultation and counseling to a total of 4,276 people, and helped 1,546 people start their new businesses that created 3,847 new jobs. A total about 19,000 jobs were created through these programs from 2013 to 2017 (Table 8-4-3).

Table 8-4-3 Results of Entrepreneurship Consultation and Counseling by Ministry of Labor, 2013-2017

Units: Persons

Year	No. of participating persons	No. of persons to start up new business	No. of new jobs created
2013	4,087	1,671	4,156
2014	3,944	1,321	3,366
2015	4,432	1,228	3,114
2016	2,583	1,699	4,097
2017	4,276	1,546	3,847

Source: Figures provided by Workforce Development Agency, Ministry of Labor, 2018.

V National SME Awards from Ministry of Economic Affairs

Various national awards granted to SMEs offered by MOEA with the purpose of encouraging the upgrade and development of SMEs with sound management, outstanding performance according to various management criteria, as well as sustainable contribution to the society.

1. National Award of Outstanding Small and Medium Enterprises

“National Award of Outstanding Small and Medium Enterprises” was set up in 1992, through the joint efforts of the SMEA and MOEA. The National Award of Outstanding Small and Medium Enterprises were seen as the Academy Awards (Oscars) for small and medium enterprises in Taiwan, representing the highest honor of the industries. The management styles, innovations, brands, services, quality, and / or images of the award-winning small and medium enterprises form an important role model or benchmarks in each of the relevant industries, particularly for upgrade and transformation. In the past 26 years (as of the end of 2017), 281 SMEs have won the award. Among the award-winning companies, some are leaders in the global market for specific major products they manufacture, the top three in a specific industry, or holders of a significant market share. 12 SMEs are expected to win the Award in 2018.

(award site: <http://smeaward.moeasmea.gov.tw/moeasmea/wSite/mp?mp=00208>)

2. The Rising Star Award

“The Rising Star Award” was set up in 1998 and given to SMEs that display excellence in global trading. The selection and awards ceremony is organized by SMEA, MOEA and the awards are officially conferred on SMEs that have their management base rooted domestically and that have enthusiastically developed their international orientation through progressive operations and management. The award recognizes their exceptional efforts in gaining an entrance into the global community and their contribution to development of the country’s economy and trade activities. The award thus encourages more enterprises to strive together to grow the country’s economy and its global trading prospects. In the past 20 years (as of the end of 2017), 268 SMEs have been recognized as “Rising Stars” (award site: <http://award.moeasmea.gov.tw/>).

3. Taiwan SMEs Innovation Award

“Taiwan SMEs Innovation Award” was set up in 1993 and given to SMEs that exhibited excellent performances in innovation and research. The purpose of the award is to create a climate promoting innovative R&D to inspire the prosperity of SMEs. In the past 25 years (as of the end of 2017), 830 have won the award. Among the award-winning companies, 64 are publicly listed companies in Taiwan. 30 SMEs are expected to win the Award in 2018 (award site: <http://tsia.moeasmea.gov.tw>).

4. Business Startup Awards

“Business Startup Awards” is the only SME national award given to start-ups that had been in existence for less than 5 years, and exhibited excellent innovation in technology, product / service, and / or business model. As of the end of 2017, 224 start-ups have won the award. Among the award-winning companies, 17 are publicly listed companies in Taiwan, 41 won other national awards as mentioned above, and 40 have received investment from venture capital and / or been acquired by large enterprises, showing excellent competitive advantage of these award winners (award site: <http://sme.moeasmea.gov.tw/startup/modules/funding/detail/?sId=21>).





Appendix

Appendix A Act for Development of Small and Medium Enterprises

Appendix B Standards for Identifying Small and Medium Enterprises

Appendix C SME Statistics by Industry

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APPENDIX A

Act for Development of Small and Medium Enterprises

Publically announced in accordance with the Presidential Decree dated February 4, 1991.

Revised in accordance with the Presidential Decree dated May 21, 1997.

Revised in accordance with the Presidential Decree dated January 21, 1998.

Revised in accordance with the Presidential Decree dated December 27, 1990.

Revised in accordance with the Presidential Decree dated December 21, 2001.

Revised in accordance with the Presidential Decree dated December 17, 2003.

Revised in accordance with the Presidential Decree dated November 25, 2009.

Revised in accordance with the Presidential Decree dated June 4, 2014.

Revised in accordance with the Presidential Decree dated January 6, 2016.

Chapter 1 General Principles

Article 1

This Act is enacted for the furtherance of sound development of small and medium enterprises by helping them improve their operation environments, promoting mutual cooperation, and assisting them in striving for growth with their own efforts. With regard to matters not provided for in this Act, the provisions of other relevant acts and regulations shall apply.

Article 2

The term “small and medium enterprises” used in this Act shall refer to the enterprises which have legally completed company registration or commercial registration under the Act and conform to the standards for identifying small and medium enterprises.

The standards referred to in the preceding paragraph shall be drawn up by the central competent authority according to the category, capital stock, amount of operating revenue and the number of regular employees and shall be submitted periodically to the Executive Yuan for approval.

Other government authorities, which administer small and medium enterprise assistance and guidance may, in accordance with their respective operational requirements, formulate separate criteria with loose requirements for objects of assistance and guidance.

Article 3

The term “competent authority” used in this Act shall be the Ministry of Economic Affairs at the central government level, the provincial (municipal) government at the province (municipality) level, and the county (city) government at the county (city) level.

Where any of the matters set forth in this Act involves the functional duties of an authority in charge of a particular enterprise, the competent authority referred to in this Act shall handle such matters in coordination with the said authority in charge of such enterprise.

For enforcement of this Act, government at various levels shall set up or designate a government agency to provide assistance and guidance.

Article 4

For achieving the objectives of this Act, the competent authority concerned shall take appropriate assisting or encouraging measures in respect of the following:

1. Market research and development;
2. Furtherance of rationalization of business operations;
3. Promotion of mutual cooperation;
4. Acquisition and securing of production factors and technology;
5. Education and training of competent personnel; and
6. Other matters relating to the establishment or sound development of small and medium enterprises.

In formulating the policy, acts and regulations, and measures in the preceding paragraph, the competent authority concerned shall aim the contents at the furtherance of improvement and development of the business operations of small-scaled enterprises without unfair treatment in respect of financial and taxation systems and other related matters.

The central competent authority shall publish a white paper, at the end of each fiscal year, on small and medium enterprises given the enforcement status, the review results and the prospective development of the provisions of the preceding two paragraphs.

Article 5

For furthering small and medium enterprises to conduct market research and development activities, the assistance and guidance provided by the competent authority to small and medium enterprises shall be emphasized on the provision of information services, the creation of exclusive brands for their own products, arrangement of marketing channels and/or development of potential market.

Article 6

For furthering small and medium enterprises to rationalize their business operations, the assistance and guidance provided by the competent authority shall be emphasized on the following:

1. Research and development and development of new products;
2. Modernization and renovation of production facilities and improvement of production technology;
3. Improvement of the methods of operational management;
4. Expansion of market and acquisition of necessary information;
5. Conversion and adjustment of the field of business; and
6. Acquisition of resources and technical know-how for business operation.

Article 7

For encouraging mutual cooperation between small and medium enterprises, the assistance and guidance to be provided by the competent authority shall be emphasized on the following:

1. Vertical amalgamation of businesses of the trade and establishment and promotion of the satellite-factory system;
2. Horizontal amalgamation of businesses of the trade and establishment and promotion of joint production and marketing system;
3. Mutual fund or cooperative enterprise;
4. Technical cooperation and development of common technology;
5. Procurement of common equipment; and
6. Establishment of strategic marketing points.

Article 8

For assisting small and medium enterprises to acquire and secure production resources and technology, the assistance and guidance to be provided by the competent authority shall be emphasized on the following:

1. Formation and accumulation of capital;
2. Capital accommodation;
3. Acquisition of land, plant building, equipment, business site and business information;
4. Personnel training and upgrading of labor productivity;
5. Securing the sources of agricultural and industrial raw materials and technical know-how;
6. Assisting small and medium enterprises to obtain fund from capital market; and
7. Upgrading of the level of services and technical skill.

Article 9

The central competent authority shall set up small and medium enterprise development fund, with the use thereof to be confined to the following:

1. To finance the operating expenses required for carrying out assistance plans,
2. To take part in investment and development projects or provide financing assistance and guaranty jointly with financial institutions under the condition that such financial institutions or credit guarantee institutions can not provide financing or guaranty under normal terms and conditions,
3. To make investment in small and medium enterprise development companies, or to take part in investment in small and medium enterprise with small and medium enterprises development companies, financial institutions and identified investment institutions.
4. To provide financial support to the juridical persons institutions that are incorporated to conduct the activities specified in Article 4 , and
5. Other purposes relating to the furtherance of sound development of small and medium enterprises and as specified in this Act.

For the income-expenditures, safeguarding and utilization of the small and medium enterprise development fund, a small and medium enterprise development fund management committee shall be formed, with its organization structure and the regulations for income and expenditure, safeguarding and utilization of the fund to be stipulated by the Executive Yuan.

Article 10

The small and medium enterprise development fund shall be derived from the following sources:

1. Appropriation from the annual budget programmed by the central government,
2. Appropriation from other special-case funds,
3. Donation from individuals or public and private business organizations or groups,
4. Interests accrued on the fund, and
5. Other associated income.

The donation referred to in item 3 the preceding paragraph may, when certified by the competent authority, be deductible from the total income of the current year, free from any restriction on the amount, in accordance with the Income Tax Act.

Article 11

The provincial (municipal) and the county (city) competent authority (henceforth referred to as “local competent authority”) may, taking into account of the specific development requirements of small and medium enterprises, under its jurisdiction, draw up assistance plan and formulate budget, and shall be responsible for the execution.

To carry out the assistance plan referred to in the preceding paragraph, the local competent authority may apply to the small and medium enterprise development fund for subsidy or assist the small and medium enterprises to obtain capital accommodation under special projects.

Article 12

The competent authority may, taking into account of actual requirements, cooperate with or consign to public and/or private research and service institutions, financial institutions, credit guarantee institutions, trade promotion institutions, industrial and/ or commercial organizations or other agencies for execution of the assistance activities under this Act; and shall set up separate assistance systems in connection with respectively the operations including financial accommodation, operational management, production technology, research and development information management, industrial safety, pollution control, marketing, mutual cooperation, and quality reinforcement, etc.

The regulations governing establishment up and supervision of the assistance systems shall be drawn up by the central competent authority and submitted to the Executive Yuan for approval.

Article 12-1

In enacting or adjusting acts related to small and medium enterprises, governments at various levels shall review the operation scales or characteristics of small and medium enterprises to facilitate observance by small and medium enterprises.

The central competent authority shall periodically review the acts related to small and medium enterprises on term, and judge the adapt ability of small and medium enterprises, and the influence to small and medium enterprises, and take a review report to the Legislative Yuan yearly.

Chapter 2 Financing Facilities and Guaranty

Article 13

In order to meet the capital requirements for small and medium enterprises, the central competent authority shall coordinate with financial institutions and credit guarantee institutions to enhance their respective functions of providing financing and guaranty to small and medium enterprises.

In order to meet the capital requirements for small and medium credit guarantee institutions, the central competent authority shall allocate budget for donation to such credit guarantee institutions for the maintenance of their guarantee capacity. Financial institutions which contract with such credit guarantee institutions shall also cooperate with the donation whereas and the central competent authority may also solicit donation from private businesses.

The total amount of donation from various financial institutions mentioned in the preceding Paragraph, taking into account the actual requirements, may be adjusted upward annually until reaching 35% of the total donation amount and be determined by the central competent authority according to the safekeeping amount, overdue ratio, substitute pay off amount, credit remainder, net value, profit and loss status, and the donated amount.

The central competent authority shall actively help small and medium enterprises get the loan from banks, and report the review results of each fiscal year to the Legislative Yuan.

Article 14

All banks throughout the Republic of China shall, within the scope of their respective business, elevate the ratio of financing facilities provided to small and medium enterprises and shall set up small and medium enterprises assistance center in order to enhance the provision of relevant services.

Article 15

The competent authority shall coordinate various agencies to make ample budget available for providing special loans to small and medium enterprises, and instruct sponsoring banks to provide special or emergency financing facilities or to extend loans to meet with the requirements of enterprises implementing business converting projects or adapting to the change of economic situation; and to elevate, when necessary, the ceiling of such financing, loans and guaranty.

Article 16

The term “special financing” used in the preceding Article shall refer to the financing provided to small and medium enterprises carrying out any of the following projects:

1. Operational project for reinforcement of competitiveness;
2. Research and development, pollution control or market expansion project;
3. Project for creation of new product(s) or upgrading the quality of product(s);
4. Factory relocation project which must be carried out so as to meet with the requirements of environment protection, urban planning, or road construction or other infrastructural projects sponsored by the government;
5. Any other special projects as approved by the competent authority.

Article 17

The term “emergency financing facilities” as used in Article 15 shall refer to the following financing provided to small and medium enterprises:

1. Loan provided as revolving fund in support of production and sales during the period of significant economic crisis;
2. Loan required for recovery of significant natural disaster;
3. Other loan as required to cope with emergency events.

Article 18

The term “loans to meet with the requirements of enterprises implementing business converting projects or adapting to the change economic situation” used in Article 15 shall refer to any of the following loans extended to small and medium enterprises:

1. Loan provided as revolving fund in support of production and sales during the period of economic recession;
2. Loan required for procurement of replacement or additional machinery and equipment in the course of business conversion; or
3. Loan required for procurement of automation equipment for improvement of productivity.

Article 19

Funds appropriated from the small and medium enterprise development fund for participate in the loans or guaranties sponsored by financial institutions or credit guarantee institutions in accordance with the preceding three Articles; the ratio of such appropriations may be determined by the competent authority in accordance with the actual requirements.

With regard to the bad debts resulted from causes which are not attributable to the intentional act, gross negligence or malpractice of the personnel handling the relevant matters set forth in the preceding Paragraph, they shall be fully indemnified from damage liabilities and exempt from disciplinary measures, according to the provisions of item 1, Article 77 of the Audit Act.

Article 20

The competent authority concerned may coordinate the financial institutions and/or credit guarantee enterprises to give priority to small and medium enterprises, which have sound management, financial and accounting systems and have paid up all taxes due, in providing financing facilities and guaranties.

Article 21

Where the operation of a small or medium enterprise is affected or it has to move to another place in order to meet with the requirements of environmental protection, urban planning, or road construction or other projects sponsored by the government, the competent authority shall assist it to apply for operating revolving loan or relocation loan from financial institution, and assist it to acquire the land required for factory relocation, when it is deemed necessary.

Article 22

Where a small or medium enterprise suffers great damages caused by natural disaster, the competent authority shall coordinate the financial authority for tax exemption or reduction or other remedies.

Article 23

In order to prevent small and medium enterprises from involvement in domino effect resulted from the close-down of their respective related enterprises, the competent authority may coordinate and assist industrial associations to establish, either separately or jointly, mutual guaranty fund(s) for prevention of chain close-down of small and medium enterprises so as to provide credit guarantee in respect of special financing facilities for the small and medium enterprises having financial or operational difficulties in such cases.

The small and medium enterprise development fund may, when necessary, contribute to such mutual guaranty fund(s) at the initial stage upon its (their) establishment.

Chapter 3 Operation Management, Market and Product Development

Article 24

The competent authority may establish or assist the private sector to establish a small and medium enterprise guidance and service center, and may cooperate with relevant public and private institutions to provide small and medium enterprises with the following guidance and services:

1. Business operation diagnosis;
2. Improvement of the marketing and production technology, operation management and financial structure of small and medium enterprises;
3. Training of management or technical personnel of small and medium enterprises;
4. Production and market information and consultation services; and
5. Other relevant businesses activities.

Article 24-1

The competent authority may set up funds to assist in the development of local culture industries for local economic prosperity.

Article 25

For improvement of the operating efficiency and reinforcement of the competitiveness of small and medium enterprises, the competent authority may assist small and medium enterprises to jointly engage in activities such as production, marketing, procurement, transportation, cooperation in technology development, and research and development.

Article 26

The central competent authority may work jointly with relevant institutions, universities and colleges in the training of professionals in the fields of operation diagnosis and business administration so as to provide small and medium enterprises with guidance and services.

Article 27

The competent authorities may provide necessary assistance to various industrial associations or industrial and commercial organizations which have a dedicated service unit responsible for providing services to small and medium enterprises.

Article 28

For encouraging small and medium enterprises to manufacture quality and/or high value-added products or service, and to expand export market, the competent authority shall provide, in conjunction with institutions concerned, technical and marketing guidance and assist medium and small enterprises to participate in overseas exhibition, acquire market information, make joint advertising activities, trademark registration, patent application, or establish joint distribution warehouses abroad.

Where the plan of a small or medium enterprise for manufacturing quality and/or high value-added products or service planning has been evaluated and approved by the competent authority in conjunction with authorities concerned, the said small or medium enterprise may apply to the small and medium enterprise development fund to subsidize the expenses incurred in product and market developments.

Article 29

For upgrading the level of production skill of small and medium enterprises, the competent authority may entrust technical service institutions or retain technical experts to make research and development for new products or to acquire advanced technology for providing relevant guidance and services to various industries.

For transfer of new products or advanced technology, the competent authority may collect reasonable charges for amortization of costs incurred; If necessary, these charges may also be partly subsidized by the small and medium enterprise development fund.

Article 30

In order to assist small and medium enterprises for research and development, the competent authority may cooperate with appropriate technology research institutes in the establishment of institutes or places for exclusive use by small and medium enterprise conducting research , testing and development of technical skill and/or new products.

Small and medium enterprises may apply for use, by paying necessary charges, the equipment and facilities of the institutes or places set forth in the preceding to conduct experiment and research activities.

Article 31

The competent authority may, when it deems necessary, negotiate with public or private enterprises for appointment of their respective technical personnel, and support and assistance system to provide guidance in the fields of production skill or service know-how as required by small and medium enterprises.

Article 32

The central competent authority may establish or assist in the establishment of small and medium enterprise development companies to invest directly or indirectly in the small and medium enterprises having development potential and to provide consulting services and other relevant services in connection with domestic and/or overseas technical cooperation, market and product development or investment.

The central competent authority shall provide assistance to the institutes and juridical persons established for carrying out the activities specified in Article 4 of this Act.

The central competent authority may coordinate with the competent authority in charge of banking business under the Banking Act for approval of the participation of banks in the said small and medium enterprise development company so as to enable them to directly provide services referred to in the preceding paragraph.

The small and medium enterprise development fund may take part in the investment for capital formation of small and medium enterprise development companies.

The regulations governing the establishment and operation of the small and medium enterprise development companies and the standard and proportion of investment made by the small and medium enterprise development fund shall be stipulated by the Executive Yuan.

Chapter 4 Tax Remittance

Article 33

Where an investor provides a parcel of land in an industrial zone as his capital investment in a small or medium enterprise, and the said medium or small enterprise agrees to allow the investor to furnish the stock(s) of the said small or medium enterprise acquired by the said investor as the security for his payment of taxes, then the land value increment tax payable by the said investor may be paid in five equal installments in five consecutive years from the year in which the said parcel of land is committed to the investment.

The land to be invested under the preceding paragraph shall be used only by the said small or medium enterprise for its own. If the land is not used by the said small or medium enterprise for its own or is transferred to any other person, the outstanding land value increment tax shall be paid, in a lump sum, by the investor.

Article 34

Where a small or medium enterprise has moved, on account of any of the following causes, its factory or plant into an industrial zone, an industrial zone under an urban plan, or an industrial land designated in accordance with the act for Encouragement of Investment prior to the enforcement of this Act, the land value increment Tax payable on the sale or transfer of its original factory or plant site (land) shall be levied at the lowest tax rate:

1. Where the original factory land does not meet with the zoning requirements upon implementation of the urban planning or zoning plan;
2. Where the relocation of factory or plant is applied by the said small or medium enterprise and is approved by the competent authority due to the difficulties in making necessary improvement to meet with the requirements for pollution control, public safety or maintenance of natural landscape; and

3. Where the relocation of factory or plant implemented under the initiative assistance of the government.

Where the new factory land of a small or medium enterprise is transferred to another party (or other parties) within three years after the factory relocation made under the preceding paragraph, the reduced portion of land value increment tax reduced while assessing such tax on the original factory land sold or transferred prior to the factory relocation shall be assessed supplementarily in accordance with the act.

Article 35

This article is enacted to promote innovation and research and development of small and medium enterprises. A small and medium enterprise, by investing in research and development, may select to get the amount of tax credit up to 30% of the current year profit-seeking enterprise income tax payable between the following two methods. No change of the method is allowed once the choice is made.

1. Tax credit up to 15% of the research and development expenses, applied to the current year profit-seeking enterprise income tax payable.
2. Tax credit up to 10% of the research and development expenses, applied to the annual profit-seeking enterprise income tax payable for three years, starting from the current year.

For any instrument and equipment used for research and development, experiment or quality inspection purposes, if its service life is more than two years, the depreciation thereof may be accelerated by one half (1/2) of the number of years applicable as listed in the table of service life of fixed assets annexed to the Income Tax Act. Balance of service life in a length of less than one year after the depreciation acceleration shall not be taken into account.

The standards referred to the tax credit from investment in this Article, regarding scope, application deadline, application procedure, approving authority, applicable period, tax credit rate and other related matters shall be stipulated by the Executive Yuan.

Article 35-1

To promote circulation and application of innovation and R&D results, new shares of stock issued to a small and medium enterprise in exchange of its intellectual property rights, by an enterprise that is not listed in the Taiwan Stock Exchange, OTC, or the Emerging Stock Board, shall be excluded from the current year profit-seeking enterprise taxable income of the said small and medium enterprise.

New shares of stock issued to an individual in exchange of her (his) intellectual property rights, by an enterprise that is not listed in the Taiwan Stock Exchange, OTC, or the Emerging Stock Board, shall be excluded from the current year taxable consolidated income of the said individual.

When shares of stock mentioned in preceding Paragraph 1 and 2 are transferred through an actual transaction, stock gift, or inheritance, the total stock value shall be included in the current year taxable income of the recipient(s), calculated based on the actual transaction price or the fair market value of the stock at the time of the transfer, minus the related expenses or cost, incurred but not recognized yet, in obtaining the stock.

The above mentioned enterprise that issues new shares of stock to obtain intellectual property rights should report to the local tax authority within 30 days from the day after the date of the stock transfer. The said enterprise is subject to a 20% fine based on the actual transfer amount and required to resubmit the report with voucher(s) in required format if it fails to meet the reporting deadline, to report the fact, or to report with voucher(s) in required format.

In case the said small and medium enterprise or the individual who receive the shares of stock through intellectual property transfer is unable to provide the cost basis of the transfer for income calculation, a default 30% of the transaction price shall be applied to the cost basis of obtaining the stock.

Article 36

A small and medium-sized enterprise may retain and withhold from distributing a surplus earning in an amount not exceeding double the amount of its paid-in capital. In case the retained and undistributed earnings exceed the aforesaid limit, any additional surplus earning retained in each year thereafter shall be free from the restriction stipulated in the Income Tax Act after as profit seeking enterprise income tax at the rate of 10% has been surcharged.

The retain and withhold from distributing a surplus earning after 1998 until then, shall obey the Income Tax Acts, and not apply to the preceding paragraph.

Article 36-1

Small and medium enterprises development companies may raise the preparation to investment loss, under 20% of the investment amount, so as to compensate for actual loss. If there is no actual loss situation within 5 years, they shall turn the raising preparation to be the benefit of the 5th year.

When corporations calculate the clearing accounts income due to cancellation, rescission, revocation, mergence, or transference with Article 75, of the Income Tax Act, the accumulate remaining amount from the investment loss preparation within the preceding paragraph, shall turn to be the benefit of the same year.

Article 36-2

This article is enacted to respond to changes in the international economic situation and promote the willingness of domestic small and medium enterprises to invest and raise the domestic employment rate. During the period when the Composite Leading Indicators are above certain levels, a newly created small and medium enterprise or an existing small and medium enterprise that commits certain amount of capital expansion, hires certain number of additional people and increases its aggregate gross salary payments, it can deduct up to 130% of the annual gross salary payments to the additional domestic hires from its current year profit-seeking enterprise income.

Of the additional domestic hires mentioned in the preceding Paragraph who are 24 years old or younger, the small and medium enterprise can deduct up to 150% of the annual gross salary payments to these young domestic hires from its current year profit-seeking enterprise income.

During the period when the Composite Leading Indicators are above certain levels, if a small and medium enterprise raises the average salary paid to the domestic junior employees, it can deduct up to 130% of the incremental annual gross salary payments, excluding statutory basic wage adjustment, to the junior employees from its current year profit-seeking enterprise income. However, the additional salary paid to the new hires shall not be deducted here as it has been used for tax benefit applied to the provisions in the preceding two Paragraphs.

During the applicable period of this Article, if the said small and medium enterprise fails to meet the preceding three key requirements in a year, it shall calculate its profit-seeking enterprise income and income tax payable based on the provisions of the Income Tax Act, starting from that year.

The standards referred to Paragraph 1, 2 and 3 of this Article, regarding levels of the Composite Leading Indicators, applicable period, investment amount, number and types of additional people hired, aggregate gross salary payments, the range of junior employees, calculation of the average salary paid, approving authority, application deadline, application procedure, and measures of other related matters, shall be stipulated by the central competent authority and the Ministry of Finance.

The amendment as stipulated in Paragraph 2, 3, 4 and 5 on December 18, 2015, shall be effective on January 1, 2016 until May 19, 2024. The proviso in Article 40 of the Act shall not be applied.

Article 36-3

In case a small and medium enterprise is qualified for the tax benefit of the same nature in the Act for Industrial Innovation, it can only select one Act for this tax benefit.

Chapter 5 Public Procurement Projects or Public Works

Article 37

Governments at various levels and government-owned enterprises shall assist small and medium enterprises to acquire business opportunities in making public announcements for procurement projects or construction of public works.

Article 38

For making public announcement for procurement projects, construction of public works or for entrustment of research and development tasks, government at various levels and government-owned enterprises shall, based on actual requirements, establish qualification requirement and registration system in respect of small and medium enterprises eligible for acting as a supplier or bidder.

Chapter 6 Supplementary Provisions

Article 39

The Executive Yuan may form a Small and Medium Enterprise Policy Deliberation Committee to be in charge of planning and reviewing the small and medium enterprise development policy. The organizational rules shall be stipulated by the Executive Yuan.

Article 40

This Statute shall come into force from the date of promulgation. However, Article 35, Article 35-1, and Article 36-2 come into force for 10 years from May 20, 2014.

APPENDIX B

Standards for Identifying Small and Medium Enterprises

Approved by Executive Yuan Order Tai (80) Jing #33054 on October 19, 1991.

Promulgated by Ministry of Economic Affairs Order Jing (80) Chi Tzu #059364 on November 25, 1991.

Revision approved by Executive Yuan Order Tai (84) Jing #32284 on September 4, 1995.

Revision promulgated by Ministry of Economic Affairs Order Jing (84) Chi Tzu #84029087 on September 27, 1995.

Revision approved by Executive Yuan Order Tai (89) Jing #10056 on April 8, 2000.

Revision promulgated by Ministry of Economic Affairs Order Jing (89) Chi Tzu #89340202 on May 3, 2000.

Revision approved by Executive Yuan Order Yuan Tai Jing #0940022741 on June 14, 2005.

Revision promulgated by Ministry of Economic Affairs Order Jing Chi Tzu #09400561550 on July 5, 2005.

Revision approved by Executive Yuan Order Yuan Tai Jing #0980048943 on August 17, 2009.

Revision promulgated by Ministry of Economic Affairs Order Jing Chi Tzu #09800639470 on September 2, 2009.

Revision approved by Executive Yuan Order Yuan Tai Jing #1040008378 on March 4, 2015.

Revision promulgated by Ministry of Economic Affairs Order Jing Chi Tzu #10404601530 on March 30, 2015.

Article 1

The Standards have been drawn up in accordance with the provisions of Paragraph 2, Article 2 of the Small and Medium-sized Enterprise Development Statute (hereinafter referred to as the “Statute”).

Article 2

The term “SME” as used in the Standards shall mean an enterprise which has completed company registration or business registration in accordance with the requirements of the laws, and which conforms to the following standards:

1. The enterprise is an enterprise in the manufacturing, construction, or mining and quarrying industry with either paid-in capital of NT\$80 million or less, or less than 200 regular employees.

2. The enterprise is an enterprise in the industry other than any of those mentioned in the Sub-paragraph immediately above and either had its sales revenue of NT\$100 million or less in the previous year, or has less than 100 regular employees.

Article 3

The term “small-scale enterprise” as used in Paragraph 2, Article 4 of the Statute shall mean a SME with less than 5 regular employees.

Article 4

The term “sales revenue” as used in the Standards shall be determined based on the figure as approved by the tax authorities in the year immediately prior to the year of determination. If the approval has not been given by the tax authorities, the determination shall be made in accordance with the following provisions:

1. Sales revenue shall be based on the operating revenue noted on the income tax declaration form for the most recent year bearing the “Documents Received” seal of the tax authorities.
2. If the enterprise is unable to obtain the document referred to in the Sub-paragraph immediately above, sales revenue shall be based on the sales value noted on the sales and tax declaration form for the full year of the most recent year, with commissioned sales and non-operating income deducted.
3. In the case of sale representatives required to pay business tax by the tax authorities according to the laws, sales revenue shall be presumed to be NT\$100 million or less.

If the enterprise was established in the previous year and less than one year has elapsed since business registration, or if business registration took place in the current year, sales revenue for the full year shall be calculated on the basis of the conversion from the figure already declared for each period.

Article 5

The “number of regular employee” as used in the Standards shall be based on the average monthly number of insured persons for whom labor insurance registration has been made with the Labor Insurance agency for the Taiwan and Fukien Region in the most recent 12 months.

Article 6

An enterprise shall be deemed to be a SME if any of the following is applicable:

1. In the case of a SME which has received guidance for expansion, where after expansion the size of the enterprise exceeds the standards listed in Article 2, such enterprise shall continue to be deemed to be a SME for two years immediately after the date of expansion.
2. In the case of a SME which has received guidance for merger, where after the merger the size of the enterprise exceeds the standards listed in Article 2, such enterprise shall continue to be deemed to be a SME for three years immediately after the date of the merger.

3. Where a guidance agency, guidance system or relevant agency undertakes the provision of collective guidance for SMEs in a given industry, if some of the enterprises exceed the standards listed in Article 2, and if the guidance agency, guidance system or relevant agency determines that there is good reason for providing joint guidance, such enterprises shall be deemed to be SMEs during the period of collective guidance.

Article 7

The Standards shall come into effect on the date of promulgation.

APPENDIX C

SME Statistics by Industry

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Table C-1 Number of Enterprises by Industry and Enterprise Size, 2015-2017

Unit: Enterprises; %

Enterprise size Industry / year		Total	SMEs	Share	Large enterprises	Share
Total	2015	1,416,738	1,383,981	97.69	32,757	2.31
	2016	1,440,958	1,408,313	97.73	32,645	2.27
	2017	1,471,433	1,437,616	97.70	33,817	2.30
Agriculture, Forestry, Fishing and Animal Husbandry	2015	11,649	11,580	99.41	69	0.59
	2016	11,446	11,380	99.42	66	0.58
	2017	11,972	11,899	99.39	73	0.61
Mining and Quarrying	2015	1,157	1,130	97.67	27	2.33
	2016	1,134	1,103	97.27	31	2.73
	2017	1,108	1,079	97.38	29	2.62
Manufacturing	2015	148,800	143,118	96.18	5,682	3.82
	2016	148,971	143,184	96.12	5,787	3.88
	2017	149,322	143,429	96.05	5,893	3.95
Electricity and Gas Supply	2015	680	546	80.29	134	19.71
	2016	973	839	86.23	134	13.77
	2017	1,195	1,055	88.28	140	11.72
Water Supply and Remediation Activities	2015	7,527	7,237	96.15	290	3.85
	2016	7,545	7,250	96.09	295	3.91
	2017	7,603	7,268	95.59	335	4.41
Construction	2015	118,230	117,000	98.96	1,230	1.04
	2016	122,044	120,828	99.00	1,216	1.00
	2017	126,131	124,897	99.02	1,234	0.98
Wholesale and Retail Trade	2015	694,057	676,791	97.51	17,266	2.49
	2016	699,329	682,218	97.55	17,111	2.45
	2017	706,784	689,038	97.49	17,746	2.51
Transportation and Storage	2015	31,782	30,636	96.39	1,146	3.61
	2016	32,371	31,266	96.59	1,105	3.41
	2017	33,111	31,979	96.58	1,132	3.42
Accommodation and Food Service Activities	2015	143,692	143,177	99.64	515	0.36
	2016	151,440	150,893	99.64	547	0.36
	2017	157,969	157,388	99.63	581	0.37

Table C-1 Number of Enterprises by Industry and Enterprise Size, 2015-2017 (Continued)

Unit: Enterprises; %

Industry / year	Enterprise size	Total	SMEs	Large enterprises		
				Share	enterprises	Share
Information and Communication	2015	19,694	18,937	96.16	757	3.84
	2016	20,416	19,642	96.21	774	3.79
	2017	21,612	20,808	96.28	804	3.72
Financial and Insurance Activities	2015	18,650	16,107	86.36	2,543	13.64
	2016	19,328	16,850	87.18	2,478	12.82
	2017	19,931	17,372	87.16	2,559	12.84
Real Estate Activities	2015	36,114	34,614	95.85	1,500	4.15
	2016	36,603	35,157	96.05	1,446	3.95
	2017	37,515	35,973	95.89	1,542	4.11
Professional, Scientific and Technical Activities	2015	45,545	44,796	98.36	749	1.64
	2016	47,285	46,523	98.39	762	1.61
	2017	49,205	48,397	98.36	808	1.64
Support Service Activities	2015	29,692	29,184	98.29	508	1.71
	2016	30,651	30,126	98.29	525	1.71
	2017	31,644	31,097	98.27	547	1.73
Education	2015	2,112	2,098	99.34	14	0.66
	2016	2,433	2,417	99.34	16	0.66
	2017	2,797	2,780	99.39	17	0.61
Human Health and Social Work Activities	2015	745	731	98.12	14	1.88
	2016	785	766	97.58	19	2.42
	2017	1,027	1,007	98.05	20	1.95
Arts, Entertainment and Recreation	2015	25,425	25,304	99.52	121	0.48
	2016	25,594	25,464	99.49	130	0.51
	2017	27,891	27,733	99.43	158	0.57
Other Service Activities	2015	81,077	80,883	99.76	194	0.24
	2016	82,610	82,407	99.75	203	0.25
	2017	84,616	84,417	99.76	199	0.24

Note:

1. The term "SME" shall mean an enterprise which has completed company registration or business registration in accordance with the requirements of the laws, and which conforms to the following standards: (1) the enterprise is an enterprise in the Manufacturing, Construction, Mining and Quarrying industry with paid-in capital of NT\$80 million or less; (2) the enterprise is an enterprise in the industry other than any of those mentioned above and had its sales revenue of NT\$100 million or less in the previous year, according to the Standards for Identifying Small and Medium Enterprises.
2. Since 2017, the industries are classified according to the 10th revision of Industry Classification Standard by Directorate-General of Budget, Accounting and Statistics (DGBAS).

Source: Fiscal Information Agency, Ministry of Finance, Value-Added Business Tax (VAT) data (2015-2017).

Table C-2 Total Sales Value by Industry and Enterprise Size, 2015-2017

Unit: Million NT\$, %

Enterprise size		Total	SMEs		Large enterprises	
Industry / year				Share		Share
Total	2015	38,875,300	11,803,100	30.36	27,072,200	69.64
	2016	38,312,769	11,764,677	30.71	26,548,091	69.29
	2017	40,169,099	12,139,513	30.22	28,029,586	69.78
Agriculture, Forestry, Fishing and Animal Husbandry	2015	46,573	23,872	51.26	22,702	48.74
	2016	46,826	24,420	52.15	22,406	47.85
	2017	53,668	27,489	51.22	26,179	48.78
Mining and Quarrying	2015	44,997	32,210	71.58	12,787	28.42
	2016	42,839	29,147	68.04	13,692	31.96
	2017	43,454	29,301	67.43	14,153	32.57
Manufacturing	2015	13,962,100	4,140,270	29.65	9,821,840	70.35
	2016	13,608,467	4,070,669	29.91	9,537,797	70.09
	2017	14,506,053	4,279,857	29.50	10,226,196	70.50
Electricity and Gas Supply	2015	895,508	5,295	0.59	890,214	99.41
	2016	794,817	6,611	0.83	788,206	99.17
	2017	843,161	7,316	0.87	835,845	99.13
Water Supply and Remediation Activities	2015	167,779	55,929	33.33	111,850	66.67
	2016	173,392	55,809	32.19	117,583	67.81
	2017	208,564	60,108	28.82	148,456	71.18
Construction	2015	2,230,250	1,459,300	65.43	770,951	34.57
	2016	2,148,502	1,417,221	65.96	731,281	34.04
	2017	2,133,675	1,412,521	66.20	721,154	33.80
Wholesale and Retail Trade	2015	13,686,600	4,316,500	31.54	9,370,150	68.46
	2016	13,713,916	4,338,504	31.64	9,375,411	68.36
	2017	14,386,521	4,397,080	30.56	9,989,440	69.44
Transportation and Storage	2015	1,136,500	269,441	23.71	867,056	76.29
	2016	1,141,593	270,968	23.74	870,625	76.26
	2017	1,215,870	278,330	22.89	937,539	77.11
Accommodation and Food Service Activities	2015	574,200	400,811	69.80	173,389	30.20
	2016	622,182	442,287	71.09	179,895	28.91
	2017	655,114	468,385	71.50	186,729	28.50

Table C-2 Total Sales Value by Industry and Enterprise Size, 2015-2017 (Continued)

Unit: Million NT\$, %

Enterprise size		Total	SMEs	Share	Large enterprises	Share
Industry / year						
Information and Communication	2015	1,069,990	117,262	10.96	952,733	89.04
	2016	1,064,855	119,942	11.26	944,914	88.74
	2017	1,093,203	126,785	11.60	966,418	88.40
Financial and Insurance Activities	2015	2,398,420	202,960	8.46	2,195,460	91.54
	2016	2,277,273	203,068	8.92	2,074,205	91.08
	2017	2,243,145	212,859	9.49	2,030,287	90.51
Real Estate Activities	2015	1,116,710	237,569	21.27	879,142	78.73
	2016	1,060,509	230,233	21.71	830,276	78.29
	2017	1,162,729	256,316	22.04	906,413	77.96
Professional, Scientific and Technical Activities	2015	681,936	210,016	30.80	471,920	69.20
	2016	705,177	213,510	30.28	491,667	69.72
	2017	713,679	224,259	31.42	489,419	68.58
Support Service Activities	2015	510,865	142,999	27.99	367,866	72.01
	2016	540,152	147,708	27.35	392,444	72.65
	2017	524,944	152,811	29.11	372,133	70.89
Education	2015	14,336	10,099	70.45	4,237	29.55
	2016	16,003	10,985	68.64	5,018	31.36
	2017	16,838	12,397	73.62	4,442	26.38
Human Health and Social Work Activities	2015	12,357	2,579	20.87	9,778	79.13
	2016	27,817	2,730	9.81	25,087	90.19
	2017	28,190	5,747	20.39	22,443	79.61
Arts, Entertainment and Recreation	2015	91,675	54,203	59.12	37,472	40.88
	2016	91,406	55,881	61.14	35,525	38.86
	2017	102,069	59,514	58.31	42,555	41.69
Other Service Activities	2015	234,487	121,797	51.94	112,690	48.06
	2016	237,044	124,982	52.73	112,062	47.27
	2017	238,221	128,437	53.92	109,783	46.08

Note and source: See Table C-1.

Table C-3 Domestic Sales Value by Industry and Enterprise Size, 2015-2017

Unit: Million NT\$, %

Enterprise size Industry / year		Total	SMEs	Share	Large enterprises	Share
Total	2015	29,158,900	10,325,300	35.41	18,833,600	64.59
	2016	28,848,507	10,340,886	35.85	18,507,621	64.15
	2017	30,172,981	10,717,138	35.52	19,455,843	64.48
Agriculture, Forestry, Fishing and Animal Husbandry	2015	29,158,900	10,325,300	35.41	18,833,600	64.59
	2016	39,310	21,152	53.81	18,158	46.19
	2017	46,367	23,704	51.12	22,662	48.88
Mining and Quarrying	2015	44,483	31,986	71.91	12,497	28.09
	2016	42,319	28,917	68.33	13,402	31.67
	2017	42,865	29,043	67.75	13,822	32.25
Manufacturing	2015	7,339,100	3,120,570	42.52	4,218,540	57.48
	2016	7,186,164	3,093,557	43.05	4,092,607	56.95
	2017	7,690,831	3,299,999	42.91	4,390,833	57.09
Electricity and Gas Supply	2015	878,433	5,239	0.60	873,194	99.40
	2016	779,125	6,469	0.83	772,655	99.17
	2017	828,879	7,216	0.87	821,664	99.13
Water Supply and Remediation Activities	2015	878,433	5,239	0.60	873,194	99.40
	2016	165,106	54,405	32.95	110,700	67.05
	2017	198,012	58,531	29.56	139,481	70.44
Construction	2015	2,184,620	1,447,110	66.24	737,506	33.76
	2016	2,085,042	1,404,354	67.35	680,688	32.65
	2017	2,082,614	1,399,285	67.19	683,329	32.81
Wholesale and Retail Trade	2015	11,294,900	3,902,850	34.55	7,392,010	65.45
	2016	11,377,639	3,938,119	34.61	7,439,520	65.39
	2017	11,948,763	4,003,967	33.51	7,944,796	66.49
Transportation and Storage	2015	795,922	261,112	32.81	534,811	67.19
	2016	816,889	262,190	32.10	554,699	67.90
	2017	854,493	270,222	31.62	584,271	68.38
Accommodation and Food Service Activities	2015	572,650	400,642	69.96	172,008	30.04
	2016	620,380	442,060	71.26	178,319	28.74
	2017	653,345	468,193	71.66	185,152	28.34

Table C-3 Domestic Sales Value by Industry and Enterprise Size, 2015-2017 (Continued)

Unit: Million NT\$, %

Enterprise size		Total	SMEs		Large enterprises	
Industry / year				Share		Share
Information and Communication	2015	962,043	109,778	11.41	852,265	88.59
	2016	957,200	111,914	11.69	845,285	88.31
	2017	977,871	117,301	12.00	860,570	88.00
Financial and Insurance Activities	2015	2,389,520	202,209	8.46	2,187,310	91.54
	2016	2,273,226	202,360	8.90	2,070,866	91.10
	2017	2,234,380	212,026	9.49	2,022,354	90.51
Real Estate Activities	2015	1,113,770	236,764	21.26	877,004	78.74
	2016	1,057,675	229,348	21.68	828,326	78.32
	2017	1,159,810	255,444	22.02	904,365	77.98
Professional, Scientific and Technical Activities	2015	539,817	202,360	37.49	337,457	62.51
	2016	553,952	205,336	37.07	348,616	62.93
	2017	563,570	214,978	38.15	348,592	61.85
Support Service Activities	2015	504,251	141,886	28.14	362,365	71.86
	2016	533,082	146,605	27.50	386,477	72.50
	2017	517,979	151,714	29.29	366,265	70.71
Education	2015	14,260	10,071	70.62	4,189	29.38
	2016	15,924	10,947	68.75	4,977	31.25
	2017	16,750	12,340	73.67	4,411	26.33
Human Health and Social Work Activities	2015	9,770	2,469	25.27	7,301	74.73
	2016	24,663	2,670	10.83	21,993	89.17
	2017	27,960	5,683	20.33	22,276	79.67
Arts, Entertainment and Recreation	2015	91,343	53,876	58.98	37,467	41.02
	2016	91,105	55,746	61.19	35,359	38.81
	2017	101,603	59,324	58.39	42,279	41.61
Other Service Activities	2015	224,724	121,441	54.04	103,284	45.96
	2016	229,709	124,737	54.30	104,972	45.70
	2017	226,890	128,168	56.49	98,722	43.51

Note and source: See Table C-1.

Table C-4 Export Sales Value by Industry and Enterprise Size, 2015-2017

Unit: Million NT\$, %

Enterprise size Industry / year		Total	SMEs	Share	Large enterprises	Share
Total	2015	9,716,490	1,477,860	15.21	8,238,630	84.79
	2016	9,464,262	1,423,791	15.04	8,040,471	84.96
	2017	9,996,119	1,422,375	14.23	8,573,744	85.77
Agriculture, Forestry, Fishing and Animal Husbandry	2015	7,094	3,450	48.63	3,644	51.37
	2016	7,516	3,269	43.49	4,247	56.51
	2017	7,301	3,785	51.84	3,517	48.16
Mining and Quarrying	2015	514	224	43.53	290	56.47
	2016	520	230	44.32	289	55.68
	2017	590	259	43.86	331	56.14
Manufacturing	2015	6,623,010	1,019,700	15.40	5,603,300	84.60
	2016	6,422,303	977,112	15.21	5,445,191	84.79
	2017	6,815,222	979,858	14.38	5,835,364	85.62
Electricity and Gas Supply	2015	17,075	55	0.32	17,019	99.68
	2016	15,692	142	0.90	15,550	99.10
	2017	14,282	100	0.70	14,182	99.30
Water Supply and Remediation Activities	2015	7,970	1,455	18.25	6,515	81.75
	2016	8,286	1,403	16.94	6,883	83.06
	2017	10,553	1,577	14.94	8,976	85.06
Construction	2015	45,632	12,187	26.71	33,445	73.29
	2016	63,460	12,867	20.28	50,593	79.72
	2017	51,061	13,236	25.92	37,825	74.08
Wholesale and Retail Trade	2015	2,391,790	413,650	17.29	1,978,140	82.71
	2016	2,336,277	400,386	17.14	1,935,891	82.86
	2017	2,437,758	393,113	16.13	2,044,645	83.87
Transportation and Storage	2015	340,575	8,330	2.45	332,246	97.55
	2016	324,704	8,778	2.70	315,926	97.30
	2017	361,376	8,108	2.24	353,268	97.76
Accommodation and Food Service Activities	2015	1,550	169	10.91	1,381	89.09
	2016	1,803	227	12.60	1,575	87.40
	2017	1,769	192	10.85	1,577	89.15

Table C-4 Export Sales Value by Industry and Enterprise Size, 2015-2017 (Continued)

Unit: Million NT\$, %

Enterprise size		Total	SMEs		Large enterprises	
Industry / year				Share		Share
Information and Communication	2015	107,952	7,484	6.93	100,468	93.07
	2016	107,656	8,027	7.46	99,628	92.54
	2017	115,332	9,484	8.22	105,848	91.78
Financial and Insurance Activities	2015	8,900	751	8.44	8,149	91.56
	2016	4,047	708	17.51	3,338	82.49
	2017	8,765	833	9.50	7,933	90.50
Real Estate Activities	2015	2,943	805	27.37	2,138	72.63
	2016	2,834	885	31.22	1,949	68.78
	2017	2,919	872	29.86	2,047	70.14
Professional, Scientific and Technical Activities	2015	142,119	7,656	5.39	134,463	94.61
	2016	151,225	8,174	5.41	143,051	94.59
	2017	150,109	9,281	6.18	140,827	93.82
Support Service Activities	2015	6,090	1,211	19.89	4,879	80.11
	2016	7,071	1,104	15.61	5,967	84.39
	2017	6,965	1,097	15.75	5,868	84.25
Education	2015	76	28	37.33	47	62.67
	2016	79	38	48.04	41	51.96
	2017	88	57	64.68	31	35.32
Human Health and Social Work Activities	2015	2,586	110	4.24	2,476	95.76
	2016	3,154	60	1.89	3,094	98.11
	2017	231	64	27.60	167	72.40
Arts, Entertainment and Recreation	2015	352	329	93.59	23	6.41
	2016	301	135	44.79	166	55.21
	2017	467	191	40.86	276	59.14
Other Service Activities	2015	9,763	356	3.65	9,406	96.35
	2016	7,334	246	3.35	7,092	96.70
	2017	11,330	269	2.37	11,061	97.63

Note and source: See Table C-1.

Table C-5 Total Employment by Industry and Enterprise Size, 2015-2017

Unit: Thousand persons; %

Enterprise size		Total		SMEs		Large enterprises		Government
Industry / year			Share		Share		Share	
Total	2015	11,198	100.00	8,759	78.22	1,415	12.64	1,024
	2016	11,267	100.00	8,810	78.19	1,432	12.71	1,025
	2017	11,352	100.00	8,904	78.44	1,425	12.55	1,023
Agriculture, Forestry, Fishing and Animal Husbandry	2015	555	100.00	549	98.98	1	0.26	4
	2016	557	100.00	552	99.05	2	0.28	4
	2017	557	100.00	551	99.09	1	0.23	4
Mining and Quarrying	2015	4	100.00	3	81.33	0	0.97	1
	2016	4	100.00	3	82.98	0	0.15	1
	2017	4	100.00	3	88.69	0	0.00	0
Manufacturing	2015	3,024	100.00	2,192	72.48	812	26.86	20
	2016	3,028	100.00	2,193	72.41	818	27.02	17
	2017	3,045	100.00	2,218	72.83	810	26.61	17
Electricity and Gas Supply	2015	30	100.00	4	14.12	2	8.13	23
	2016	30	100.00	4	12.31	3	8.81	24
	2017	30	100.00	5	15.37	4	11.87	22
Water Supply and Remediation Activities	2015	82	100.00	34	41.60	2	2.54	46
	2016	82	100.00	35	42.40	1	1.50	46
	2017	82	100.00	35	42.28	1	1.50	46
Construction	2015	895	100.00	878	98.10	8	0.93	9
	2016	899	100.00	884	98.37	8	0.84	7
	2017	901	100.00	886	98.28	9	0.99	7
Wholesale and Retail Trade	2015	1,842	100.00	1,771	96.13	65	3.51	7
	2016	1,853	100.00	1,782	96.17	65	3.48	6
	2017	1,875	100.00	1,801	96.05	67	3.57	7
Transportation and Storage	2015	437	100.00	323	73.94	66	15.02	48
	2016	440	100.00	318	72.32	71	16.25	50
	2017	443	100.00	315	71.07	76	17.11	52
Accommodation and Food Service Activities	2015	813	100.00	790	97.21	22	2.75	0
	2016	826	100.00	804	97.28	22	2.71	0
	2017	832	100.00	810	97.29	22	2.68	0

Table C-5 Total Employment by Industry and Enterprise Size, 2015-2017 (Continued)

Unit: Thousand persons; %

Enterprise size		Total		SMEs		Large enterprises		Government
Industry / year			Share		Share		Share	
Information and Communication	2015	246	100.00	171	69.53	75	30.32	0
	2016	249	100.00	182	73.24	66	26.44	1
	2017	253	100.00	187	73.80	66	25.87	1
Financial and Insurance Activities	2015	420	100.00	323	76.97	80	18.98	17
	2016	424	100.00	329	77.64	79	18.54	16
	2017	429	100.00	330	76.95	82	19.19	17
Real Estate Activities	2015	100	100.00	96	96.08	3	2.52	1
	2016	100	100.00	96	95.74	3	2.57	2
	2017	103	100.00	100	97.19	2	2.12	1
Professional, Scientific and Technical Activities	2015	362	100.00	292	80.67	44	12.28	26
	2016	368	100.00	293	79.61	49	13.28	26
	2017	372	100.00	298	80.26	48	13.00	25
Support Service Activities	2015	281	100.00	255	90.87	25	9.01	0
	2016	286	100.00	260	90.69	26	9.16	0
	2017	292	100.00	267	91.22	25	8.41	1
Public Administration and Defense; Compulsory Social Security	2015	375	100.00	1	0.16	0	0.00	374
	2016	374	100.00	1	0.21	0	0.00	373
	2017	373	100.00	0	0.07	0	0.00	372
Education	2015	650	100.00	238	36.72	59	9.14	352
	2016	652	100.00	234	35.93	65	9.97	353
	2017	652	100.00	239	36.62	62	9.56	351
Human Health and Social Work Activities	2015	438	100.00	219	50.10	139	31.70	80
	2016	444	100.00	218	49.15	143	32.29	82
	2017	451	100.00	230	51.05	140	31.00	81
Arts, Entertainment and Recreation	2015	99	100.00	80	80.83	5	5.35	14
	2016	103	100.00	83	80.25	5	5.34	15
	2017	106	100.00	85	80.78	5	4.32	16
Other Service Activities	2015	546	100.00	538	98.50	6	1.10	2
	2016	547	100.00	539	98.48	6	1.14	2
	2017	551	100.00	543	98.59	5	0.92	3

Note:

1. Since 2017, the industries are classified according to the 10th revision of Industry Classification Standard by Directorate-General of Budget, Accounting and Statistics (DGBAS).
2. For the purposes of this table, SMEs are defined as firms in the Manufacturing, Construction and Mining and Quarrying industries with less than 200 regular employees and firms in other industries with less than 100 regular employees.
3. Employment indicates employed persons, including employers, own-account workers, paid employees and unpaid family workers.
4. "0" represents zero or less than one unit (1,000 persons); "--" represents no data available.

Source: Directorate-General of Budget, Accounting and Statistics (DGBAS), *Manpower Survey* data (2015-2017).

Table C-6 Number of Paid Employees by Industry and Enterprise Size, 2015-2017

Unit: Thousand persons; %

Unit: Thousand persons,

Enterprise size		Total		SMEs		Large enterprises		Government
			Share		Share		Share	
Industry / year								
Total	2015	8,860	100.00	6,424	72.50	1,413	15.94	1,024
	2016	8,926	100.00	6,472	72.50	1,429	16.01	1,025
	2017	9,006	100.00	6,560	72.84	1,423	15.80	1,023
Agriculture, Forestry, Fishing and Animal Husbandry	2015	92	100.00	86	93.86	1	1.55	4
	2016	90	100.00	84	94.13	2	1.69	4
	2017	92	100.00	87	94.57	1	1.34	4
Mining and Quarrying	2015	4	100.00	3	80.74	0	1.00	1
	2016	4	100.00	3	82.30	0	0.16	1
	2017	4	100.00	3	88.16	0	0.00	0
Manufacturing	2015	2,787	100.00	1,956	70.20	811	29.09	20
	2016	2,782	100.00	1,948	70.01	817	29.37	17
	2017	2,802	100.00	1,975	70.49	810	28.91	17
Electricity and Gas Supply	2015	30	100.00	4	13.49	2	8.19	23
	2016	30	100.00	3	11.58	3	8.88	24
	2017	30	100.00	4	14.42	4	12.00	22
Water Supply and Remediation Activities	2015	76	100.00	28	36.60	2	2.76	46
	2016	76	100.00	29	37.77	1	1.62	46
	2017	75	100.00	28	37.03	1	1.63	46
Construction	2015	755	100.00	738	97.75	8	1.11	9
	2016	759	100.00	744	98.07	8	1.00	7
	2017	756	100.00	740	97.95	9	1.18	7
Wholesale and Retail Trade	2015	1,136	100.00	1,065	93.76	64	5.66	7
	2016	1,165	100.00	1,094	93.93	64	5.52	6
	2017	1,186	100.00	1,111	93.75	67	5.64	7
Transportation and Storage	2015	354	100.00	240	67.79	66	18.55	48
	2016	358	100.00	237	66.09	71	19.86	50
	2017	364	100.00	236	64.85	76	20.77	52
Accommodation and Food Service Activities	2015	514	100.00	491	95.58	22	4.35	0
	2016	527	100.00	505	95.79	22	4.20	0
	2017	539	100.00	516	95.83	22	4.13	0

Table C-6 Number of Paid Employees by Industry and Enterprise Size, 2015-2017
(Continued)

Units: Thousand persons; %

Enterprise size		Total		SMEs		Large enterprises		Government
Industry / year	Share					Share	Share	
Information and Communication	2015	232	100.00	157	67.66	75	32.19	0
	2016	234	100.00	167	71.52	66	28.14	1
	2017	239	100.00	173	72.31	65	27.34	1
Financial and Insurance Activities	2015	416	100.00	319	76.74	80	19.17	17
	2016	420	100.00	326	77.46	79	18.68	16
	2017	426	100.00	327	76.82	82	19.29	17
Real Estate Activities	2015	91	100.00	87	95.73	2	2.72	1
	2016	90	100.00	86	95.27	3	2.86	2
	2017	93	100.00	90	96.89	2	2.35	1
Professional, Scientific and Technical Activities	2015	293	100.00	223	76.13	44	15.14	26
	2016	297	100.00	222	74.82	49	16.37	26
	2017	299	100.00	226	75.50	48	16.12	25
Support Service Activities	2015	260	100.00	234	90.18	25	9.69	0
	2016	263	100.00	237	89.94	26	9.89	0
	2017	270	100.00	244	90.52	24	9.09	1
Public Administration and Defense; Compulsory Social Security	2015	375	100.00	1	0.16	0	0.00	374
	2016	374	100.00	1	0.21	0	0.00	373
	2017	373	100.00	0	0.07	0	0.00	372
Education	2015	619	100.00	208	33.65	59	9.57	352
	2016	620	100.00	202	32.63	65	10.46	353
	2017	621	100.00	208	33.43	62	10.04	351
Human Health and Social Work Activities	2015	410	100.00	192	46.79	139	33.80	80
	2016	415	100.00	189	45.62	143	34.53	82
	2017	421	100.00	201	47.68	140	33.12	81
Arts, Entertainment and Recreation	2015	79	100.00	60	75.97	5	6.70	14
	2016	81	100.00	61	75.03	5	6.75	15
	2017	85	100.00	65	76.12	5	5.37	16
Other Service Activities	2015	340	100.00	332	97.60	6	1.76	2
	2016	342	100.00	333	97.56	6	1.83	2
	2017	334	100.00	326	97.68	5	1.51	3

Note and source: See Table C-5.

Table C-7 Overview of Newly-Established Enterprises by Industry and Enterprise Size,**2017**

Unit: Enterprises; million NT\$; %

Enterprise size		Total	SMEs		Large enterprises	Share
Industry				Share		
Number of enterprises						
Total	101,710	101,556	100.00	154	100.00	
Agriculture, Forestry, Fishing and Animal Husbandry	890	889	0.88	1	0.65	
Mining and Quarrying	62	62	0.06	0	0.00	
Manufacturing	4,811	4,763	4.69	48	31.17	
Electricity and Gas Supply	233	233	0.23	0	0.00	
Water Supply and Remediation Activities	412	412	0.41	0	0.00	
Construction	9,364	9,359	9.22	5	3.25	
Wholesale and Retail Trade	41,980	41,907	41.26	73	47.40	
Transportation and Storage	1,836	1,832	1.80	4	2.60	
Accommodation and Food Service Activities	18,698	18,692	18.41	6	3.90	
Information and Communication	2,313	2,310	2.27	3	1.95	
Financial and Insurance Activities	986	985	0.97	1	0.65	
Real Estate Activities	2,990	2,983	2.94	7	4.55	
Professional, Scientific and Technical Activities	4,386	4,385	4.32	1	0.65	
Support Service Activities	2,595	2,594	2.55	1	0.65	
Education	515	514	0.51	1	0.65	
Human Health and Social Work Activities	152	152	0.15	0	0.00	
Arts, Entertainment and Recreation	3,761	3,759	3.70	2	1.30	
Other Service Activities	5,726	5,725	5.64	1	0.65	
Total sales						
Total	206,821	168,857	100.00	37,965	100.00	
Agriculture, Forestry, Fishing and Animal Husbandry	832	643	0.38	190	0.50	
Mining and Quarrying	197	197	0.12	0	0.00	
Manufacturing	16,439	14,659	8.68	1,780	4.69	
Electricity and Gas Supply	191	191	0.11	0	0.00	
Water Supply and Remediation Activities	678	678	0.40	0	0.00	
Construction	20,910	20,806	12.32	103	0.27	
Wholesale and Retail Trade	106,673	78,829	46.68	27,844	73.34	
Transportation and Storage	7,227	4,970	2.94	2,257	5.95	
Accommodation and Food Service Activities	24,159	23,287	13.79	872	2.30	
Information and Communication	3,541	2,992	1.77	549	1.44	
Financial and Insurance Activities	2,110	1,408	0.83	702	1.85	
Real Estate Activities	5,783	4,404	2.61	1,378	3.63	
Professional, Scientific and Technical Activities	5,637	5,313	3.15	324	0.85	
Support Service Activities	3,666	3,054	1.81	612	1.61	
Education	754	633	0.38	120	0.32	
Human Health and Social Work Activities	755	755	0.45	0	0.00	
Arts, Entertainment and Recreation	3,030	2,734	1.62	296	0.78	
Other Service Activities	4,241	3,302	1.96	939	2.47	

Table C-7 Overview of Newly-Established Enterprises by Industry and Enterprise Size, 2017 (Continued)

Unit: Million NT\$, %

Enterprise size		Total	SMEs		Large enterprises	
Industry				Share		Share
Domestic sales						
Total		193,886	161,874	100.00	32,012	100.00
Agriculture, Forestry, Fishing and Animal Husbandry		701	611	0.38	90	0.28
Mining and Quarrying		197	197	0.12	0	0.00
Manufacturing		14,442	12,841	7.93	1,601	5.00
Electricity and Gas Supply		191	191	0.12	0	0.00
Water Supply and Remediation Activities		665	665	0.41	0	0.00
Construction		20,846	20,742	12.81	103	0.32
Wholesale and Retail Trade		96,956	74,469	46.00	22,486	70.24
Transportation and Storage		6,943	4,895	3.02	2,048	6.40
Accommodation and Food Service Activities		24,155	23,287	14.39	868	2.71
Information and Communication		3,162	2,717	1.68	446	1.39
Financial and Insurance Activities		2,094	1,392	0.86	702	2.19
Real Estate Activities		5,774	4,395	2.72	1,378	4.31
Professional, Scientific and Technical Activities		5,379	5,055	3.12	324	1.01
Support Service Activities		3,641	3,029	1.87	612	1.91
Education		745	624	0.39	120	0.38
Human Health and Social Work Activities		755	755	0.47	0	0.00
Arts, Entertainment and Recreation		3,004	2,708	1.67	296	0.92
Other Service Activities		4,238	3,299	2.04	939	2.93
Export sales						
Total		12,935	6,983	100.00	5,952	100.00
Agriculture, Forestry, Fishing and Animal Husbandry		131	32	0.46	100	1.67
Mining and Quarrying		0	0	0.00	0	0.00
Manufacturing		1,997	1,818	26.04	179	3.01
Electricity and Gas Supply		0	0	0.00	0	0.00
Water Supply and Remediation Activities		12	12	0.17	0	0.00
Construction		64	64	0.92	0	0.00
Wholesale and Retail Trade		9,717	4,360	62.43	5,358	90.01
Transportation and Storage		285	75	1.07	210	3.52
Accommodation and Food Service Activities		4	0	0.00	4	0.06
Information and Communication		378	275	3.94	103	1.73
Financial and Insurance Activities		16	16	0.22	0	0.00
Real Estate Activities		9	9	0.13	0	0.00
Professional, Scientific and Technical Activities		258	258	3.70	0	0.00
Support Service Activities		25	25	0.36	0	0.00
Education		9	9	0.13	0	0.00
Human Health and Social Work Activities		0	0	0.00	0	0.00
Arts, Entertainment and Recreation		26	26	0.37	0	0.00
Other Service Activities		3	3	0.04	0	0.00

Note: 1. Since 2017, the industries are classified according to the 10th revision of Industry Classification Standard by Directorate-General of Budget, Accounting and Statistics (DGBAS). 2. "0" represents zero or less than one unit (one enterprise or a million NT\$).

Source: Fiscal Information Agency, Ministry of Finance, VAT data (2017).

Table C-8 Overview of Female-Owned Enterprises by Industry and Enterprise Size, 2017

Unit: Enterprises; million NT\$; %

Enterprise size		Total	Female-owned enterprises				
			Sub-total	SMEs	Share	Large enterprises	Share
Industry							
Number of enterprises							
Total		1,455,592	530,030	523,274	100.00	6,756	100.00
Agriculture, Forestry, Fishing and Animal Husbandry		11,959	2,911	2,894	0.55	17	0.25
Mining and Quarrying		1,104	241	238	0.05	3	0.04
Manufacturing		148,002	41,176	40,553	7.75	623	9.22
Electricity and Gas Supply		1,156	277	262	0.05	15	0.22
Water Supply and Remediation Activities		7,588	2,200	2,128	0.41	72	1.07
Construction		125,867	31,667	31,440	6.01	227	3.36
Wholesale and Retail Trade		698,206	266,396	262,325	50.13	4,071	60.26
Transportation and Storage		32,435	8,712	8,562	1.64	150	2.22
Accommodation and Food Service Activities		156,835	73,119	72,973	13.95	146	2.16
Information and Communication		20,766	6,070	5,967	1.14	103	1.52
Financial and Insurance Activities		19,508	6,613	5,880	1.12	733	10.85
Real Estate Activities		37,129	11,242	10,950	2.09	292	4.32
Professional, Scientific and Technical Activities		47,966	17,448	17,311	3.31	137	2.03
Support Service Activities		31,371	12,045	11,931	2.28	114	1.69
Education		2,685	1,127	1,122	0.21	5	0.07
Human Health and Social Work Activities		1,013	406	401	0.08	5	0.07
Arts, Entertainment and Recreation		27,681	9,851	9,835	1.88	16	0.24
Other Service Activities		84,321	38,529	38,502	7.36	27	0.40
Total sales							
Total		35,295,232	5,822,127	2,984,260	100.00	2,837,867	100.00
Agriculture, Forestry, Fishing and Animal Husbandry		53,081	12,489	6,896	0.23	5,593	0.20
Mining and Quarrying		43,237	4,786	4,166	0.14	620	0.02
Manufacturing		12,296,039	1,148,420	719,108	24.10	429,312	15.13
Electricity and Gas Supply		826,420	5,774	1,356	0.05	4,418	0.16
Water Supply and Remediation Activities		205,456	55,777	17,844	0.60	37,933	1.34
Construction		2,067,530	462,700	359,375	12.04	103,326	3.64
Wholesale and Retail Trade		12,493,034	2,708,290	1,282,776	42.98	1,425,513	50.23
Transportation and Storage		1,105,359	206,598	78,989	2.65	127,609	4.50
Accommodation and Food Service Activities		625,913	201,286	163,990	5.50	37,297	1.31
Information and Communication		984,126	128,338	29,998	1.01	98,341	3.47
Financial and Insurance Activities		2,122,767	387,167	64,903	2.17	322,264	11.36
Real Estate Activities		1,132,975	189,375	66,135	2.22	123,240	4.34
Professional, Scientific and Technical Activities		616,187	129,943	67,354	2.26	62,590	2.21
Support Service Activities		361,383	86,094	51,702	1.73	34,392	1.21
Education		15,739	4,537	3,287	0.11	1,250	0.04
Human Health and Social Work Activities		27,923	4,197	3,499	0.12	698	0.02
Arts, Entertainment and Recreation		94,709	20,673	16,737	0.56	3,936	0.14
Other Service Activities		223,355	65,682	46,145	1.55	19,537	0.69

Table C-8 Overview of Female-Owned Enterprises by Industry and Enterprise Size, 2017
(Continued)

Unit: Million NT\$, %

Enterprise size	Total	Female-owned enterprises				
		Sub-total	SMEs	Share	Large enterprises	Share
Industry						
Domestic sales						
Total	27,362,702	5,017,951	2,725,876	100.00	2,292,075	100.00
Agriculture, Forestry, Fishing and Animal Husbandry	45,825	11,218	6,128	0.22	5,090	0.22
Mining and Quarrying	42,782	4,758	4,138	0.15	620	0.03
Manufacturing	7,121,518	823,151	591,187	21.69	231,963	10.12
Electricity and Gas Supply	814,000	5,769	1,351	0.05	4,418	0.19
Water Supply and Remediation Activities	195,545	54,769	17,352	0.64	37,417	1.63
Construction	2,022,440	457,229	357,632	13.12	99,597	4.35
Wholesale and Retail Trade	10,372,745	2,323,491	1,162,245	42.64	1,161,246	50.66
Transportation and Storage	804,536	148,494	77,163	2.83	71,331	3.11
Accommodation and Food Service Activities	624,184	200,940	163,963	6.02	36,976	1.61
Information and Communication	883,202	123,505	27,942	1.03	95,563	4.17
Financial and Insurance Activities	2,115,258	385,574	64,661	2.37	320,913	14.00
Real Estate Activities	1,130,174	188,937	65,838	2.42	123,099	5.37
Professional, Scientific and Technical Activities	477,231	111,047	65,364	2.40	45,683	1.99
Support Service Activities	355,789	84,182	51,416	1.89	32,766	1.43
Education	15,652	4,511	3,261	0.12	1,250	0.05
Human Health and Social Work Activities	27,730	4,201	3,502	0.13	698	0.03
Arts, Entertainment and Recreation	94,245	20,603	16,670	0.61	3,933	0.17
Other Service Activities	219,846	65,573	46,063	1.69	19,511	0.85
Export sales						
Total	7,932,530	804,176	258,384	100.00	545,792	100.00
Agriculture, Forestry, Fishing and Animal Husbandry	7,255	1,271	768	0.30	503	0.09
Mining and Quarrying	454	28	28	0.01	0	0.00
Manufacturing	5,174,522	325,270	127,921	49.51	197,348	36.16
Electricity and Gas Supply	12,420	5	5	0.00	0	0.00
Water Supply and Remediation Activities	9,910	1,008	493	0.19	516	0.09
Construction	45,090	5,471	1,743	0.67	3,728	0.68
Wholesale and Retail Trade	2,120,290	384,799	120,531	46.65	264,268	48.42
Transportation and Storage	300,823	58,105	1,826	0.71	56,278	10.31
Accommodation and Food Service Activities	1,730	347	26	0.01	320	0.06
Information and Communication	100,924	4,834	2,056	0.80	2,778	0.51
Financial and Insurance Activities	7,509	1,593	243	0.09	1,350	0.25
Real Estate Activities	2,801	438	297	0.12	141	0.03
Professional, Scientific and Technical Activities	138,955	18,897	1,990	0.77	16,907	3.10
Support Service Activities	5,594	1,912	286	0.11	1,625	0.30
Education	87	26	26	0.01	0	0.00
Human Health and Social Work Activities	192	-4	-4	0.00	0	0.00
Arts, Entertainment and Recreation	464	69	67	0.03	3	0.00
Other Service Activities	3,509	108	82	0.03	26	0.00

Note: 1. Whether an enterprise should be classified as male-owned or female-owned was determined using the registered identity of the business owner. 2. The totals given in this table do not conform to those given in Table C-1~C-4 because some enterprises are registered as being owned by other enterprises or by foreigners; these enterprises were excluded from the data used in this table; data from male- and female-owned enterprises are included in total. 3. "0" represents zero or less than one unit (a million NT\$). Source: Fiscal Information Agency, Ministry of Finance, VAT data (2017).

Table C-9 Export Sales Value of SMEs by Manufacturing Industry, 2014-2017

Unit: Million NT\$; %

Industry	Indicator / Year	Export sales				Share of total			
		2014	2015	2016	2017	2014	2015	2016	2017
Total		1,038,190	1,019,705	977,112	979,858	100.00	100.00	100.00	100.00
Food Products and Prepared Animal Feeds Manufacturing		9,728	9,860	9,713	10,250	0.94	0.97	0.99	1.05
Beverages Manufacturing		763	656	602	452	0.07	0.06	0.06	0.05
Tobacco Products Manufacturing		0	0	0	0	0.00	0.00	0.00	0.00
Textiles Manufacturing		23,468	22,551	23,073	22,602	2.26	2.21	2.36	2.31
Wearing Apparel and Clothing Accessories		16,825	12,336	11,693	10,736	1.62	1.21	1.20	1.10
Leather, Fur and Related Products		13,597	12,307	10,773	8,339	1.31	1.21	1.10	0.85
Wood and of Products of Wood and Bamboo		3,421	3,206	2,442	2,906	0.33	0.31	0.25	0.30
Paper and Paper Products		11,900	11,237	12,178	7,107	1.15	1.10	1.25	0.73
Printing and Reproduction of Recorded Media		4,614	4,025	3,999	3,826	0.44	0.39	0.41	0.39
Petroleum and Coal Products Manufacturing		143	98	126	146	0.01	0.01	0.01	0.01
Chemical Material, Fertilizers and Nitrogen Compounds, Plastic and Rubber Materials, Man-made Fibres		23,272	22,156	23,163	26,691	2.24	2.17	2.37	2.72
Other Chemical Products Manufacturing		14,576	15,150	14,542	14,259	1.40	1.49	1.49	1.46
Pharmaceuticals and Medicinal Chemical Products Manufacturing		708	710	845	1,424	0.07	0.07	0.09	0.15
Rubber Products Manufacturing		12,250	11,315	11,045	11,850	1.18	1.11	1.13	1.21
Plastic Products Manufacturing		54,583	51,231	50,307	48,291	5.26	5.02	5.15	4.93
Non-metallic Mineral Products Manufacturing		25,344	19,614	17,554	19,907	2.44	1.92	1.80	2.03
Basic Metal Manufacturing		48,500	42,020	33,064	29,693	4.67	4.12	3.38	3.03
Fabricated Metal Products Manufacturing		122,381	122,349	117,110	120,014	11.79	12.00	11.99	12.25
Electronic Parts and Components Manufacturing		295,299	290,748	304,950	301,530	28.44	28.51	31.21	30.77
Computers, Electronic and Optical Products Manufacturing		47,687	60,158	35,005	35,548	4.59	5.90	3.58	3.63
Electrical Equipment Manufacturing		51,538	48,772	44,867	42,764	4.96	4.78	4.59	4.36
Machinery and Equipment Manufacturing		136,860	132,244	131,117	141,460	13.18	12.97	13.42	14.44
Motor Vehicles and Parts Manufacturing		17,795	17,870	16,482	14,952	1.71	1.75	1.69	1.53
Other Transport Equipment and Parts Manufacturing		42,358	49,154	46,681	48,076	4.08	4.82	4.78	4.91
Furniture Manufacturing		16,951	17,455	16,288	15,683	1.63	1.71	1.67	1.60
Other Manufacturing		34,061	32,900	31,156	27,831	3.28	3.23	3.19	2.84
Repair and Installation of Industrial Machinery and Equipment		9,566	9,581	8,335	13,520	0.92	0.94	0.85	1.38

Note and source: See Table C-1.

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