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## Japanese SMEs in the Aftermath of the Asian Financial Crisis

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## **Summary**

1. SMEs in East Asia demonstrated resilience in face of the financial crisis, and their entrepreneurship is leading the recovery process. It can be said therefore that the crisis has provided a timely opportunity to reappraise the role of SMEs across the region. This paper on Japanese SMEs constitutes a part of the comparative project organised by an international team of academics and practitioners. It deals with issues as comparable as possible with papers on other Asian economies.
2. Prospects of Japanese SMEs are unlikely to be very optimistic. Reasons for SME difficulties are neither such temporary issues as the Asian financial crisis and the domestic credit crunch, nor such cyclical factors as business trends and exchange rate fluctuations. Changes they are confronted with are long-term: rapid aging of the society and global integration of business operation. Worse still, Japanese SMEs seem to lose entrepreneurship and have indigestion with e-commerce on the whole. Even service SMEs sense stalemate in the current recession.
3. All the same, expectations to the role of SMEs in this mature economy are high. There are SMEs which did not hesitate to shut down old businesses and establish new ones, and thus driving the structural change. A specific type of SME agglomerations attempted at brave entry into new products and business fields. It should be reminded that SMEs are no longer a uniform group to be protected from voracious large enterprises.
4. Recognition of this simple fact has brought about a Copernican change in the philosophy of SME policies in 1999. Policy targets are defined not just based on their scale but on the gap between what is necessary to carry out their forward-looking business plan and what is available on the market. The new SME policy is directed at implementing a public compensation for the gap. This reorientation is correct, although actual redistribution of public funding or review of policy tools does not always follow the line over night.

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This study has been conducted as a part of the project on SMEs in East Asia organised by the University of Wollongong, Australia. It was presented at the Conference “SMEs in a Global Economy” on 15-17 June 2000 and will be published with articles on other East Asian countries by Edward Elger. The author thank Chris Erickson and two anonymous referees for helpful comments and suggestions

# Japanese SMEs in the Aftermath of the Asian Financial Crisis

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## 1. Overview

Unlike the other case-study economies, relationships between the Asian financial crisis and the SME performance are somewhat blurred in Japan. Japanese SMEs, as well as large enterprises, have long been facing structural problems since the early 1990s: global competition with low-wage countries, legacy of the economic bubble, rapid aging of the population pyramid and a mismatch between information technology and business customs. The financial crisis in 1997, when a number of financial institutes including some of the largest collapsed, could have taken place due to domestic reasons, regardless of the conditions in other Asian countries.

All the same, industrial policy now expects SMEs to break through this stalemate. They are no longer allowed to wait for trickle-downs from large enterprises or bail-out packages from the government, but must carve their way to bring innovative winds into the Japanese economy.

In this chapter, the current situation and future prospects of Japanese SMEs are presented with policy implications. The structure takes a form as comparable as possible with the other chapters of this book. First of all, overview of the Japanese SMEs (Section 1) is followed by an analysis of direct impacts the financial crisis had on their performance (Section 2). The impacts include (i) export slump from Japan and (ii) capacity underutilisation and exchange losses inflicted on their Asian subsidiaries. Section 3 analyses repercussions of the credit crunch, which intensified at around the same time as the financial crisis.

In the author's opinion, however, the above two factors are not the fundamental cause of SME difficulties. More serious concerns are the aforementioned structural problems, manifesting themselves most eminently in the recent automobile industry (Section 4). Although some industrial agglomerations demonstrate resilience, the Japanese are on the whole losing entrepreneurial spirits in face of shrinking markets.

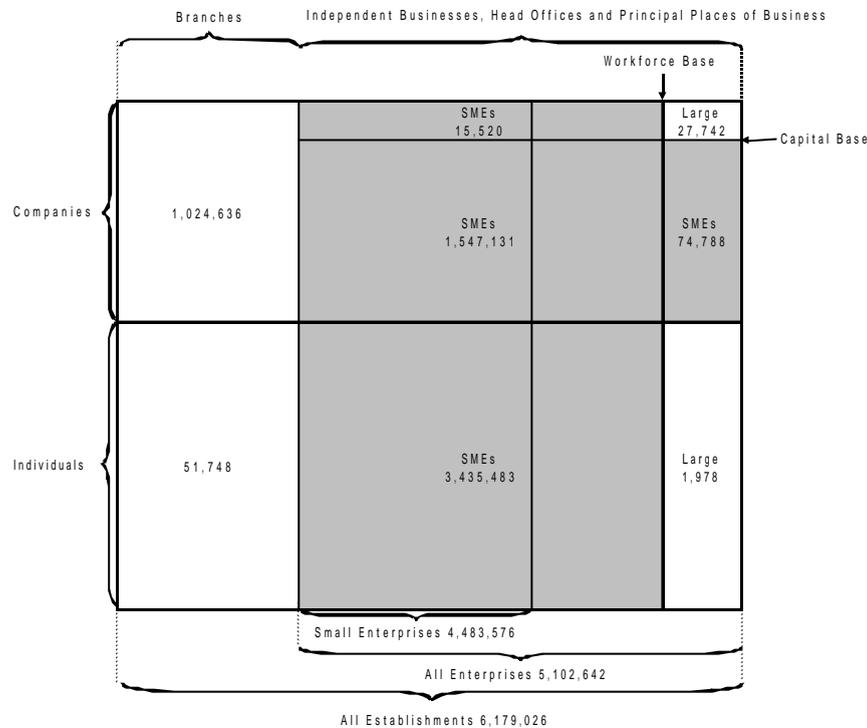
Section 5 argues that e-commerce has thus far made only a limited contribution to SME rejuvenation. Facing a dismal picture of Japanese SMEs, the final section advocates turnabout of SME policies.

#### (a) Macroeconomic Contribution of SMEs

Definition of SMEs must be absolutely clear before measuring SMEs' relative contribution to the macroeconomic performance. In Japan, the SME Basic Law adopts two criteria, workforce and capital. However, it is not that simple to apply them to the actual statistics.

First of all, there are discrepancies between the number of SMEs measured by the two criteria. According to Figure 1, 74,788 firms are below the criterion of capital but above that of workforce, and 15,520 firms are below the criterion of workforce but above that of capital. These are all classified as SMEs. Secondly, branches are included in *establishments* but excluded from *enterprises* due to lack of independent status. In other words, branches are not SMEs. Thirdly, there are twice as many personal enterprises as legal entities. They are also SMEs unless exceeding the workforce criteria (The capital criterion is irrelevant). Altogether there are 5,072,922 SMEs, indicated as a shaded area in the figure below. Small enterprises are divided only by the workforce criteria, amounting to 4,483,576 firms.

**Figure 1: Legal Definition of SMEs (1996)**  
(excl. agriculture and forestry)



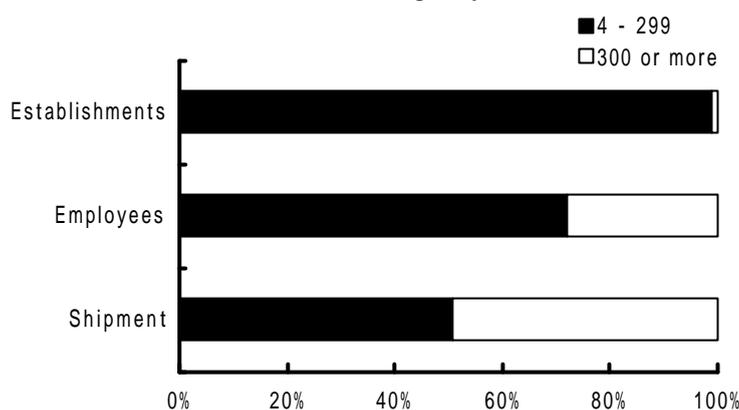
Note: The shaded area is defined as SMEs.  
Source: SME White Paper (1999); p.24

This intricate classification, if taken over time, shows a changing nature of business organisation in Japan. Both small and medium-sized *establishments* and small and medium-sized *enterprises* have been decreasing, but the latter diminishes at a higher pace. A growing proportion of new *establishments* are company branches, whereas personal *enterprises* shut down faster than open up. An issue of business birth and mortality rates will be advanced in Section 5. Moreover, the average number of workers employed by an *establishment* is increasing, but the same figure for a legal *enterprise* is declining. Such a contrast implies that large enterprises tend to divide themselves into small subsidiaries.

It cannot be denied, however, that the legal nomenclature is too complicated to calculate SMEs' macroeconomic contribution. Within the government per se, several authorities --- e.g. the Ministry of International Trade and Industry (MITI), the SME Agency, the Management and Coordination Agency, the Ministry of Finance, the Ministry of Labour and the Bank of Japan --- devised different criteria for their specific purposes. For instance, MITI redefines SMEs as *establishments* with less than 300

employees in order to make use of the Census of Manufactures data (Figure 2). Comparison between SME statistics produced by different authorities of the Japanese government must be very careful.

**Figure 2: SMEs' Contribution to Employment and Shipment**  
(manufacturing only)

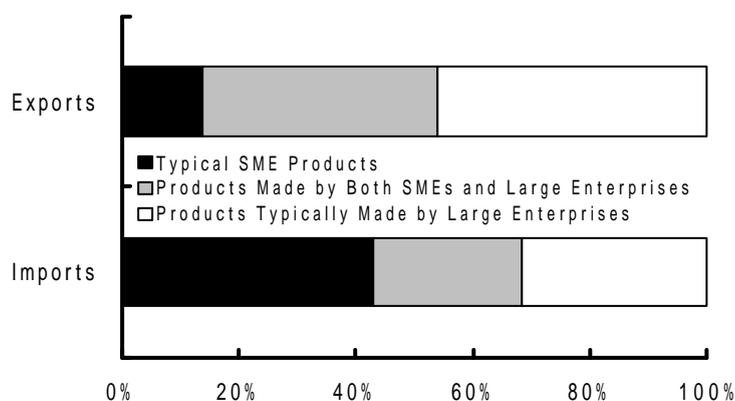


Source: SME White Paper (1999); Appendix pp.6-8

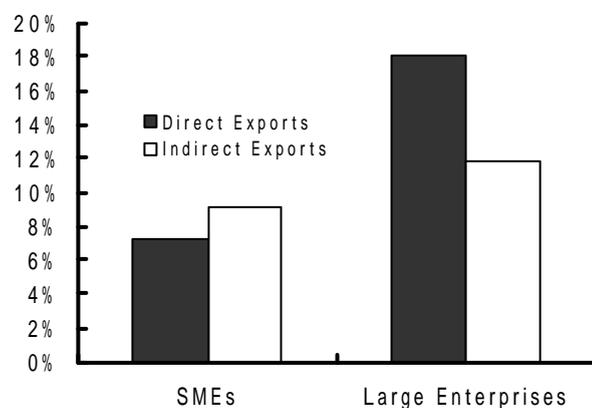
Trade statistics in particular cannot be easily connected with the firm size data. Therefore, MITI arranged the Customs' commodity classification into three groups: typical SME products, products made by both SMEs and large enterprises, and products typically made by large enterprises. Typical SME products are 14% of export value and 43% of import value (Figure 3). According to the Input-Output Table by firm size, however, SME products are more often exported indirectly as a component of large enterprise exports.

**Figure 3: SMEs' Contribution to Exports**

(a) Exports and Imports by Firm Size (1998)



(b) Significance of Indirect Exports (1995)



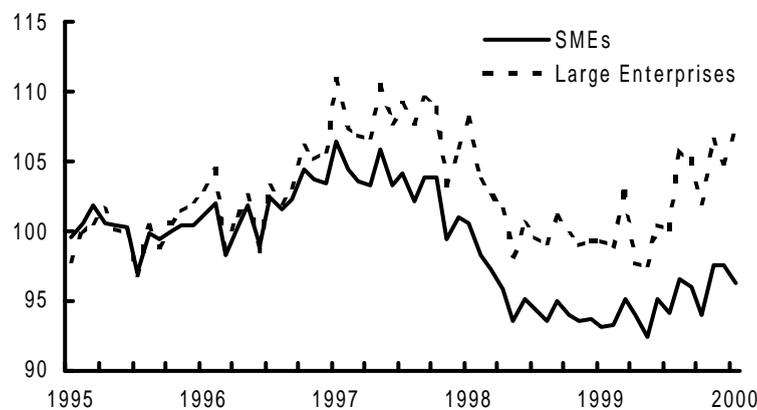
Source: SME White Paper (1999); p.395

Here is a final caveat for international comparison of SME contributions. It is plainly obvious that Japanese SMEs are much larger than SMEs in, say, Thailand and the Philippines in terms of value. In Japan, manufacturing SMEs have up to 300 employees or *capital* of 300 million yen (US\$ 2.8 million). Both Thailand and the Philippines define SMEs with up to 200 employees, smaller by one-third than Japan. However, their definitions in terms of *fixed assets* are up to 100 million Bahts (US\$ 2.4 million) in Thailand and 60 million pesos (US\$ 1.3 million) in the Philippines. It is not easy to compare capital and fixed assets directly, but the fact that capital of Japanese SMEs exceeds fixed assets of ASEAN SMEs suggests that technological level of these SMEs are widely varied. Therefore, an initiative of networking SMEs beyond national boundaries in Asia, such as that promoted by APEC, could be doomed to fail due to the competence discrepancy.

(b) Recent Trends in the SME Sector

Comparing the production trend between SMEs and large enterprises (Figure 4), there has been a broad discrepancy since the beginning of 1997. While large enterprises enjoyed a production peak until January 1998, SMEs suffered from a downward trend throughout the year of 1997, leading to a much deeper trough. In addition, the current level of SME production is still below the 1995 average, while that of large enterprises is almost reaching the post-bubble peak. It can be said that Japanese SMEs are struggling hard to renew their growth engine.

**Figure 4: Changes in Production Indices (1995 = 100)**



Source: SME Agency,  
Survey of Indices of Industrial Production for Manufacturing Industries by Scale

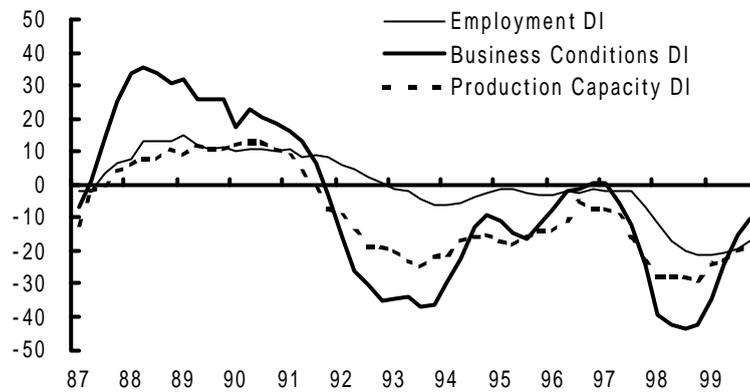
Sectoral performance has not been uniform under this general trend. Fiscal balancing in 1997 directly hit public works and housing construction, with a severe blow to metal products and ceramic/masonry articles. Failure of some big financial institutes then upset consumers' confidence, slashing demand for transport equipment and textiles/apparels. In the early 1998, aftermath of the Asian crisis as well as the consumption slump in Japan devastated the market of non-electrical machinery and industrial materials (e.g. metal products and chemicals).

On the other hand, damages on electrical machinery and precision equipment were relatively modest, and thus led the initial stage of recovery. Industrial materials and wood/paper products were also improved in 1999, and this year a wider range of manufacturing activities is expected to come back.

Diffusion indices (net percentage of survey respondents who reported positive answers) are presented in Figure 5 to examine the trends in SMEs' facility utilisation and employment. First of all, these trends have never been above the water after the bubble burst, except for the slightest plus of the Business Conditions (respondents' judgement of general business conditions primarily in light of the individual current profits) DI during 96Q4-97Q1. Secondly, the trough in the post-crisis period was even deeper than that immediately after the bubble. This fact was really unfortunate for the recovery process of Asian economies. Thirdly, the Production Capacity DI shows a closer correlation with the Business Conditions DI than the Employment DI does.

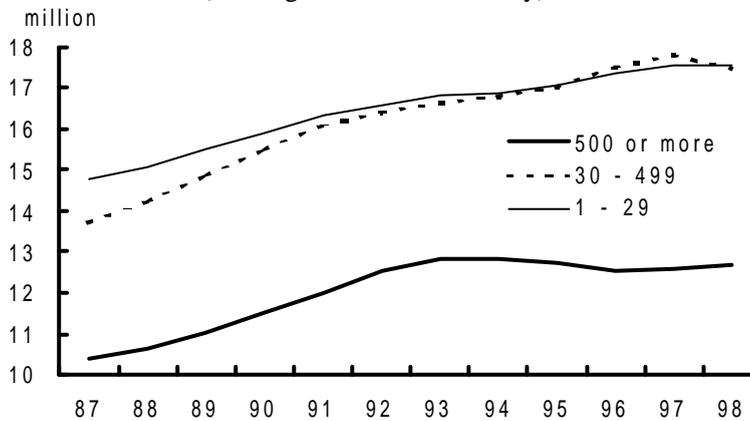
It has been insisted in the policy debate that SMEs are chronically short of workforce so that they continue to hire additional labour even in recession. Some SME owners said so far as that they can recruit superior human resources only in recession when big companies do not skim the cream off. In contrast, large enterprises reduced their staff in the business upturn of 1994-96 (Figure 6). They could not generate profits without human resource adjustments.

**Figure 5: Trends in Three SME Diffusion Indices (DIs)**



Note: SME definition is different between SME Agency and Bank of Japan  
 Business Conditions DI = Improved % - Deteriorated %  
 Employment DI = Increase % - Decrease %  
 Production Capacity DI = Insufficient % - Excessive %  
 Source: Employment and Business Condition DIs (all industries) from SME Agency and Japan Small and Medium Enterprise Corporation, Survey of Business Conditions in the Small Business Sector.  
 Production Capacity DI (manufacturing only) from Bank of Japan, Short-term Economic Survey of Enterprises in Japan

**Figure 6: Number of Employees by Firm Size**  
 (excl. agriculture and forestry)



Source: Management and Coordination Agency, Labour Force Survey

Nevertheless, the correlation between the Business Conditions DI and the Employment DI has become much tighter in the latest trough than previously. SMEs' capacity of labour absorption, which was a primary *raison d'être* of SME policies, declined to hit a historic bottom in this economic stagnation. Non-manufacturing SMEs had never lost workforce as a group, but they also feel the same level of excess as manufacturing SMEs.

## 2. Impact of the Financial Crisis on SME Performance

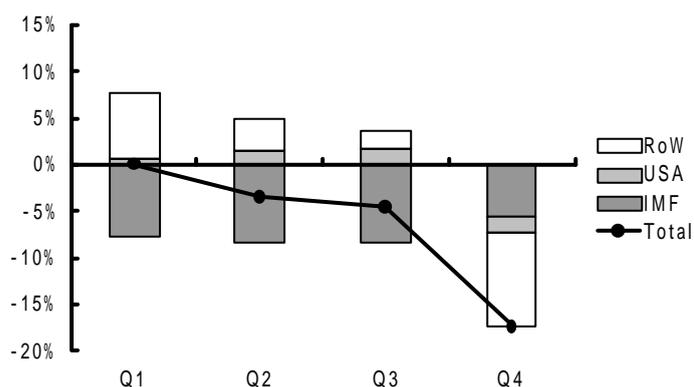
Two types of direct impact can be identified which the Asian financial crisis had on Japanese SMEs: (a) slump in exports to countries under the IMF conditionalities, and (b) hardship of SME subsidiaries operating in the Asian economies.

### (a) Export Slump

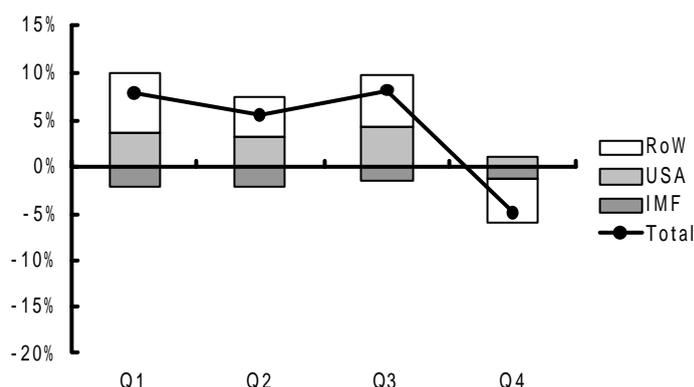
Figure 7 shows that impact of the crisis on exports from Japan was varied between typical SME products and products typically made by large enterprises. Slump in exports to the countries under IMF conditionalities was much harsher for SME products than large-enterprise products. Moreover, SME products did not enjoy such a buffer as increasing exports to the United States. Slump was especially deep for exports of non-electrical machinery, indicating capacity underutilisation and investment suppression in the troubled countries. Nevertheless, it must be reminded that a large proportion of Japanese SME exports is indirect in the sense that they are incorporated into final products by large enterprises in Japan before exported (see Figure 3b).

**Figure 7: Export Growth Rates in 1998 by Destination (year-on-year)**

#### (a) Typical SME Products



#### (b) Products Typically Made by Large Enterprises



Note: IMF = exports to the three countries under IMF conditionalities, i.e. Indonesia, Korea and Thailand  
RoW = exports to the rest of the world

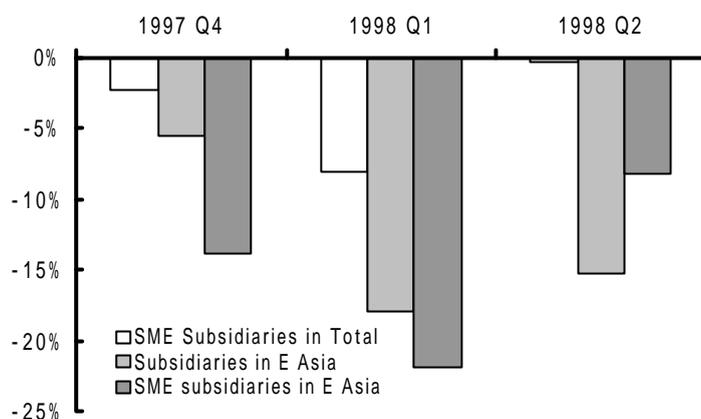
Source: SME White Paper (1999); p.397

### (b) Hardship of SME Subsidiaries in Asia

Figure 8 shows that SME subsidiaries in Asia suffered from larger sales losses

(in yen terms) at an early stage of the crisis, compared both with SME subsidiaries in total and with all subsidiaries in Asia.

**Figure 8: Changes in Sales of Overseas Subsidiaries (year-on-year)**



Source: SME White Paper (1999); p.401

There can be two aspects of difficulties in the SME operation in Asia: real and financial. Real difficulties mean that, despite increasing competitiveness thanks to the exchange rate depreciation, stagnant regional and local markets did not allow sales increase. In addition, rising procurement costs due to the high import ratio offset much of price competitiveness.

Financial difficulties were caused by exchange-rate volatility and banking-system fragility. The Japan Finance Corporation for Small Business (JFS) conducted a questionnaire survey in September 1998, to which 268 SME subsidiaries were effective respondents. Of particular interest is the source and the currency of finance (Table 1).

**Table 1: Finance of SME Subsidiaries in Asia (multiple choice)**

Location	Source	Parent Company in Japan		Financial Institutes in Japan		Local Branches of Japanese Banks		Local Financial Institutes	
	Currency	Japanese Yen	Foreign Exchange	Japanese Yen	Foreign Exchange	Local Currency	Foreign Exchange	Local Currency	Foreign Exchange
ASEAN4		81%	45%	2%	1%	15%	10%	12%	3%
NIES4		35%	37%	0%	0%	32%	1%	22%	0%
Total		68%	43%	1%	0%	20%	7%	15%	2%

Note: ASEAN4 = four ASEAN countries (Indonesia, the Philippines, Malaysia and Thailand)

NIES4 = four newly industrialising economies (Hong Kong, Korea, Singapore and Taiwan)

Source: JFS Report No.99-2; p.25

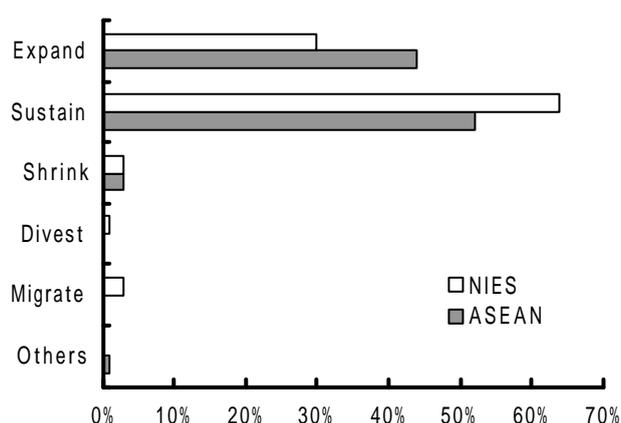
According to the above table, SME subsidiaries in Asia depended on two

potentially risky methods of finance. Firstly, and more prevalent in ASEAN4, were loans in non-local currency from their parent companies. The latter easily acquired funds from intimate banks in Japan at a very low interest rate. Similar financial sources were foreign-exchange loans from branches of Japanese banks in the offshore market. However, the unprecedented pace of depreciation swelled the amount of repayments in local currency. Most of such loans had not been hedged at all, taking the fixed exchange rate system for granted.

Secondly, and more often seen in NIES4, were loans in local currency from either branches of Japanese banks or local financial institutes. In face of an ever-rising ratio of non-performing loans, local financial institutes became extremely hesitant lenders. Moreover, Japanese banks rushed to assets restructuring. They were pressed with a so-called “Japan spread” added to their foreign-exchange procurement and with the forthcoming Prompt Corrective Action in case of violating the capital-adequacy-ratio (CAR) regulations (see the next section).

Nonetheless, the adversity did not prevent most of the survey respondents from being determined to remain in their host countries. Interestingly, SME subsidiaries in ASEAN 4, including those located in Indonesia, have a brighter vision (Figure 9).

**Figure 9: Prospects of SME Subsidiaries in Asia**



Note: measured by percentage of survey respondents

Source: JFS Report No.99-2; p.37

In fact, quite a few subsidiaries in Asia employ over 500 workers, far more than their parent companies. Nearly 80% of the respondents are equipped with production facilities at least as new as those in parent companies, and more than 30%

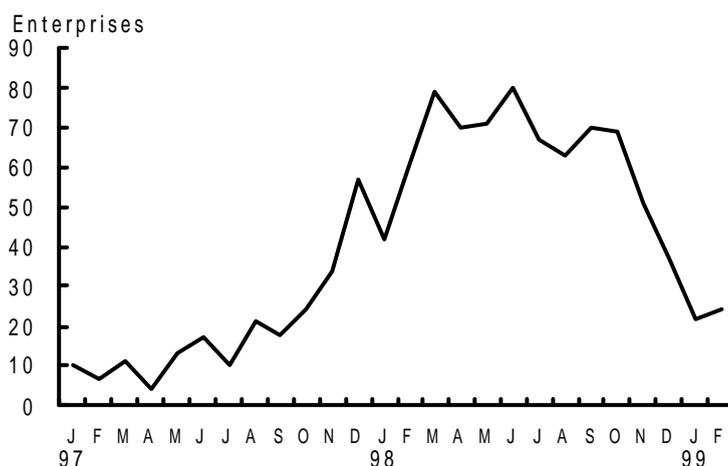
boast of technological capability no lower than in Japan. Potential of enhancing productivity is high, as the recession encouraged workers to stay longer in the same plant for training. Market access is also promising after local competitors no longer enjoy preferential treatment. Last but not least, survey respondents believe an early comeback of the Asian economies to a growth trajectory. For all these reasons, parent companies were willing to issue new stocks to pay back high-interest loans, or swap loans with new stocks to mitigate foreign exchange losses.

Therefore, it can be said that the financial crisis in East Asia was not a primary reason for the current struggle of Japanese SMEs. A majority of SMEs are neither exporters nor overseas investors. Compared with a galloping pace of the recent recovery in some troubled economies, they are extremely slow to pick up. We must look into domestic aspects of the SME struggle in Japan.

### 3. Credit Crunch

Credit crunch (*kashi-shiburi* in Japanese) was a catchphrase in 1998 to express the depth of recession. It was believed that innumerable SMEs were dying due to banks' self-interest. In fact, the number of "credit-crunch bankruptcies" classified by a credit-research house was not particularly large (Figure 10), compared with 18,749 SME bankruptcies in 1998.

**Figure 10: Number of the so-called "Credit-Crunch Bankruptcies"**



Note: "Credit-crunch bankruptcy" does not mean all bankruptcies due to lack of funds but only those mainly caused by attitudinal change of financial institutes, such as "reduction in loan value", "more detailed inspection of financial conditions" or "demand for additional collateral".

The above number includes large enterprises.

Source: Teikoku Data Bank

### (a) Causes of the Credit Crunch

At the height of economic bubble in the late 1980s, financial institutes poured easy money into risky real-estate developments and unjustifiable business expansions. Once the bubble burst, however, a large proportion of these projects became untenable and could not repay debts. On the other hand, the Bank for International Settlements (BIS) stipulated that the bank supervision agencies should apply remedial measures for banks losing their solvency. The Government of Japan followed suit to decide that international banks whose CAR is below 8% and domestic banks whose CAR is below 4% are subject to the Prompt Corrective Action from April 1998.

Consequently, banks rushed to improve their CAR either (i) by reducing risk assets or (ii) by augmenting equity capital. In order to facilitate the latter measure, the government allotted as much as 13 trillion yen. Nevertheless, financial institutes have been reluctant to introduce public fund, because above all they do not want to pursue responsibility of the past management. Banks which accepted public fund did not go a long way to mitigate credit crunch, either; the money must have been prioritised for enhancing equity capital and amortising non-performing loans.

Banks have thus far been more anxious to reduce risk assets. Some of them were so desperate that they declined to roll over to creditworthy borrowers. Loans to private enterprises without a public guarantee are regarded as 100% risk assets. *Kashi-shiburi* can be defined as a situation where sufficient fund is not available due to a lender's balance-sheet problem, while its borrower demonstrates adequate performance and/or collateral.

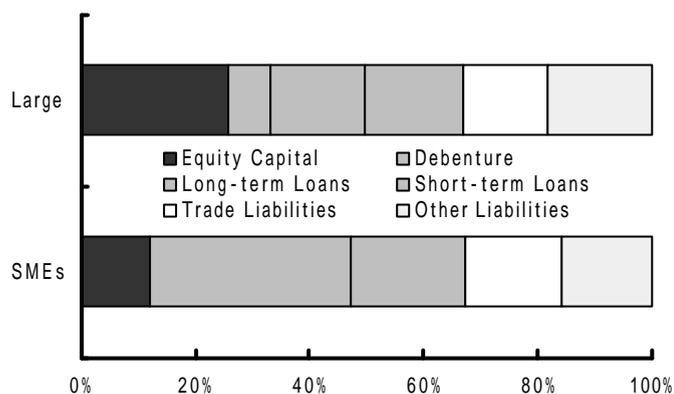
### (b) Disproportional Impact on SMEs

The credit crunch tends to have more intensive effects on SMEs, as they are at present more dependent on bank loans for their finance. In the 1960s, large enterprises enjoyed easier access to bank loans, whereas SMEs had to resort to trade liabilities (notes, bills and trade accounts payable). According to Figure 11, however, large firms shifted their finance from bank loans to equity capital and debentures on the capital market. Banks approached SMEs in their place, which are still left out of direct

finance. Such a switch can be seen more drastically from the structure of net increase/decrease in the finance of capital investments.

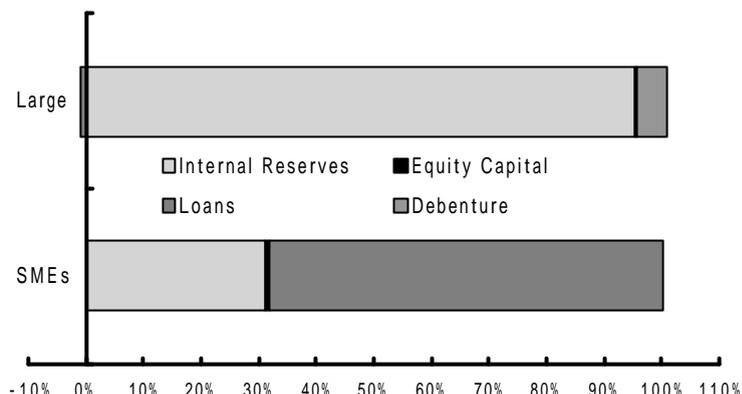
**Figure 11: Contrasts in Financing Structure**

**(a) outstanding balance at year end (1997)**



Source: SME White Paper (1999); p.72

**(b) net annual change in capital investments (1998)**



Source: SME White Paper (1999); p.365

Financial conditions of Japanese banks remain to be seen. Self-assessment of non-performing loans conducted by weak institutes might not be very reliable. It is argued, however, that the credit crunch has been ameliorated since the systems of public credit insurance/guarantee were strengthened in October 1998. Recovery of the stock market is also giving a breathing space for private banks with unrealised profits.

Although credit crunch is no longer a phenomenon across the board, lending conditions heavily depend on borrowers' performance. The surge in bankruptcy was generated not by the credit crunch in its strict sense but by the stalemate of their business prospects. Losers could not adapt themselves to structural change which had been taking place long before the credit crunch appeared as a hot issue.

#### 4. Inter-firm Relations and Industrial Agglomerations

Eminent characteristics of the Japanese business environment in the late 1990s can be summarised as follows:

- consumption slump due to rapid aging and future insecurity;
- excessive production facilities constructed in the bubble period;
- one-way transfer of production sites to Asian economies;
- global alliance between large firms to finance huge R&D expenditure;

These features have had grave implications on SMEs in Japan through changing inter-firm relationships with large enterprises. On the other hand, mass customisation and information technology (IT) are said to promote a different type of inter-firm relationship between SMEs. This section first deals with waning *keiretsu* in the automobile industry and then with an emerging trend of new industrial agglomerations.

#### (a) Meltdown of the Automobile *Keiretsu*

*Keiretsu* is an inter-firm relationship identified not just in Japan but also in late-industrialising countries. It is (i) more stable, (ii) more intimate and (iii) more closed than ordinary arms-length inter-firm relationships. Western countries, the United States in particular, have been regarding *keiretsu* both as a barrier to market access and a source of international competitiveness. However, its terminology is ambivalent and extremely versatile. It can be horizontal among *ex-zaibatsu* (family conglomerate) large enterprises, or vertical between assemblers and suppliers or between manufacturers and dealers. It can be financial as in the main-bank system and mutual shareholdings, or commercial with business transactions.

Although *keiretsu* is still seen as omnipresent in Japan, both financial and commercial aspects are rapidly collapsing. The banking crisis and subsequent CAR regulations significantly reduced merits of the main-bank system and mutual shareholdings. The commercial relationship is also getting thinner according to the degree of industrial globalisation. Automobile assembly is much more characterised by *keiretsu* than electronics but still less than distribution of automobile or petroleum products. It is the automobile industry, a success model in organising effective *keiretsu*, that is in the midst of drastic change now. Both automobile assemblers and autoparts suppliers are conducting a comprehensive review over their relationships.

Firstly, domestic demand continued to shrink while overseas demand is increasingly satisfied by local production rather than by exports from Japan. Changes in the population pyramid and the global market are structural in nature unlike cyclical fluctuations of business conditions and exchange rates. Capacity utilisation of all the assembly plants in Japan was only 74.6% in the fiscal year of 1998. Moreover, US and European assemblers who are winning the global game of market integration are interested in entering the Japanese market. Japanese assemblers can no longer

guarantee order size sufficient for their *keiretsu* suppliers.

Secondly, major technological change under way, such as clean-energy cars, the Intelligent Transport System (ITS) and recycling systems, requires a huge amount of investment. Other types of technological change, such as use of new materials (e.g. aluminum and plastic resin), are also generic in nature and thus cannot be coped with by incremental improvements of incumbent (e.g. iron-casting) suppliers. Moreover, introduction of the modular system and standardization of the inter-firm communication trim down transaction costs, and consequently enable assemblers to pick non-*keiretsu* suppliers and suppliers to approach non-*keiretsu* assemblers.

It is not the case that assemblers sit still until swallowed by this tidal wave. They first integrated platforms and applied common parts to different models. Next, they reviewed their *keiretsu* to optimise a procurement system on the global scale. They then slimmed the product line-up through OEM (Original Equipment Manufacturing) agreements with domestic and overseas competitors. Finally, after all these efforts, they put together assembly plants with less efficient ones shut down.

Suppliers also brushed up their core competence and persuaded non-*keiretsu* assemblers to use their products. Those with overseas plants advanced to reshuffle their division of labour and allowed them to make and export higher-end products. Some restructured the product line-up through strategic alliances with non-*keiretsu* competitors. Secondary/tertiary sub-contractors organised themselves into cooperative associations so that they could package their competence (stamping, machining, surface treatment etc).

Dissolution of *keiretsu* takes place in the most violent form when assemblers were obliged to invite their overseas competitors for finance. Mazda (from Ford) and Nissan (from Renault) are the cases in point. Above all, the Nissan Revival Plan, announced in October 1999, surprised the nation by its thorough negation of their past achievements. According to the Plan, five domestic plants and 21,000 group employees (15% of the total) must be gone. With regard to suppliers, *keiretsu* will be dismantled by selling stocks of 1,390 affiliated companies (excluding the four most important subsidiaries) and by halving 6,900 suppliers. Its ambitious target is set at 20% cost reduction within three years.

*Keiretsu* will be substituted by the system called OPTIMA, which designates just a single supplier per component based on quality, cost, delivery and R&D capability rather than capital affiliation or historical relationship. OPTIMA suppliers are likely to be selected out of 100 largest suppliers in the world so that Nissan's overseas plants can procure the same component from the same supplier wherever they are. Once the number of suppliers is halved, the order lot per supplier could be twice as large. Resultant cost savings can be further enhanced by design modifications to use same parts with Renault. Fragile Nissan no longer supports suppliers' R&D activities.

The initiative in reorganising *keiretsu* suppliers is in the hands of Nissan, as the latter sells its share in affiliates to whoever appropriate. Nissan also forces them to merge or ally with each other, otherwise subordinate to global suppliers. Global suppliers are interested in acquiring them so that they may build production capacities and marketing channels as quickly as possible. A similar principle applies to the stage of module subassembly, where first-tier suppliers choose subcontractors free from Nissan's intervention. Those left out of the Nissan *keiretsu* cannot help approaching other assemblers. This way brings about a chain reaction and leads automobile *keiretsu* to the industry-wide meltdown.

## (b) Metamorphosis of Industrial Agglomerations

*Keiretsu* SMEs in the automobile industry are usually located close to each other around assembly plants. Such a geographical concentration of SMEs are called industrial agglomerations. They have been intensively studied both as a source of industrial dynamism and regional unbalance. The SME White Paper in 1997 classified industrial agglomerations according to their birth mechanism: (i) castle-town agglomerations, (ii) specialty agglomerations and (iii) municipal agglomerations.

Industrial agglomerations related to the automobile industry are typically the first type. This type of agglomerations appeared after assembly plants of large enterprises had been attracted by investment incentives, e.g. industrial estates. As the nearby SMEs entirely depend upon a small number of plants in the remote area, closure of the latter is likely to cause devastating effects to the regional economy and SMEs.

The second type of agglomerations is frustrated, too. Although there is no such dominant actors as in the castle-town agglomeration, a large number of SMEs in

the specialty agglomeration restrict themselves to the role of producers, leaving the merchandising function to local trading houses. Once wholesalers became incapable of responding to changing tastes, shrinking market brought SMEs down to cut-throat competition instead of innovative initiatives. In the end, this stiff division of labour distressed all the participants due to information gap and technological lapse.

On the other hand, the third type of agglomerations often exhibit contrasting dynamism. They are located on the outskirts of municipal areas so that SMEs can collect a diverse range of small orders. Unlike the other two, there are neither dominant actors nor rigid division of labour. The functional variety of participant SMEs and the flexibility of inter-firm relationships allow them to cope with special requests and ephemeral trends. SMEs in the other types of agglomerations are stimulated by their success to reduce their dependence on specific customers but with mixed results due to the absence of variety and flexibility.

SMEs belonging to the same agglomeration often organise a voluntary group to function like a multidivisional company. Such an organisation does not stick to fixed membership but invites members depending on the nature of tasks. Business transactions within the group are nothing like hierarchical subcontracting; i.e. they could be both suppliers and customers. Members are expected to make a contribution to the planning and design process of new products from their own functional point of view. In this way, SMEs' ability to get through market fluctuations is enhanced.

Some local governments play an important role in encouraging them. Such groups usually have a "gate-keeper", who is at the center of in-coming and out-going information. He disentangles a single but complex order into individual processes and allocates them to appropriate SMEs. As he runs his own business, public support for arranging an administrative function with a group database could save his time. This measure also augments procedural and accounting transparency to the group activity. Local R&D institutes should also be oriented to provide them with customer-oriented problem-solving consultancy.

Group participants visit each other to understand their production facilities and expertise. They try to generate mutual trust through frequent communications and social events. In other words, geographical proximity is the very foundation of their dynamism. This point leads us to an interesting question whether there could be a

fourth type of agglomerations in Japan; i.e. a virtual one through internet. Those affirmative present examples of SOHO (Small Office, Home Office) networks which transact digital intermediates on the net without physical distribution. Nevertheless, identifying a trustful partner in the internet community is not easy. A kind of accreditation organisations might be helpful, but this remains to be seen.

## **5. SMEs Running out of Steam**

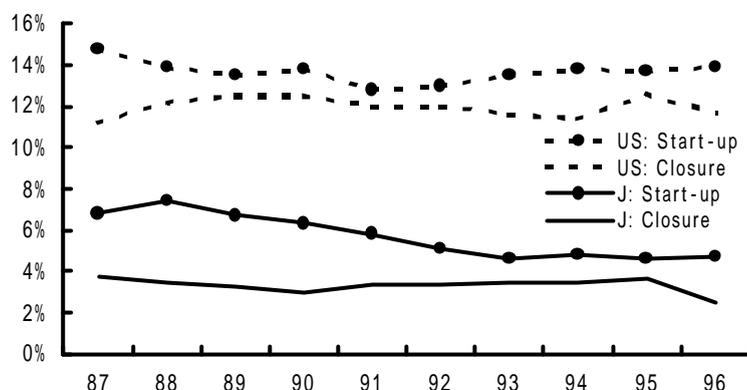
Heat of the third type of agglomerations, i.e. those located in the municipal area, partly comes from entrepreneurial entry. A wide variety of SMEs and their functional division of labour, coupled with other supporting services, make business launch relatively painless. New entrants are more interested in entirely new business frontier, such as electronic commerce (e-commerce hereafter), where large enterprises have not yet established themselves as a dominant player. New frontier is also where business opportunities expand rapidly in the midst of prolonged recession.

### **(a) Dwindling Metabolism**

New entrance, together with old exit, bring about metabolic rejuvenation for the economy. There is a very strong correlation between the rate of start-up and closure. Moreover, a larger proportion of employment gain (loss) has been generated by entrepreneurial entrance (exit) than expansion (downsizing) of operative business units. Therefore, a declining start-up rate is a serious problem for the economy.

According to Figure 12, the start-up rate went down gradually in the last decade, and so did its gap with the closure rate (i.e. the growth rate of company numbers). Some people argue that this is a destiny of mature economy as the denominator (the total number of companies) is increasing. However, both the start-up and closure rates are far lower than those in the United States.

**Figure 12: Changes in Start-up and Closure Rates**  
(excl. the primary sector)

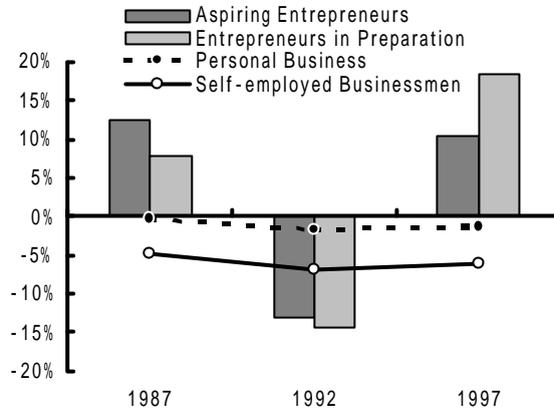


Note: The rates are calculated on the notification basis of unemployment insurance by enterprises with full-time employees  
 Source: SME White Paper (1999); pp.213-214, and The State of Small Business (1997)

Still worse, the statistics does not contain establishments without full-time employees. Data from the Management and Coordination Agency, which are not quoted here due to their own defects, show that the start-up rate is below the closure rate, as far as personal businesses are concerned. The same data are badly upsetting to those who believe in manufacturing supremacy of Japan, because the start-up rate is 2.5% lower than the closure rate in that sector around 1995.

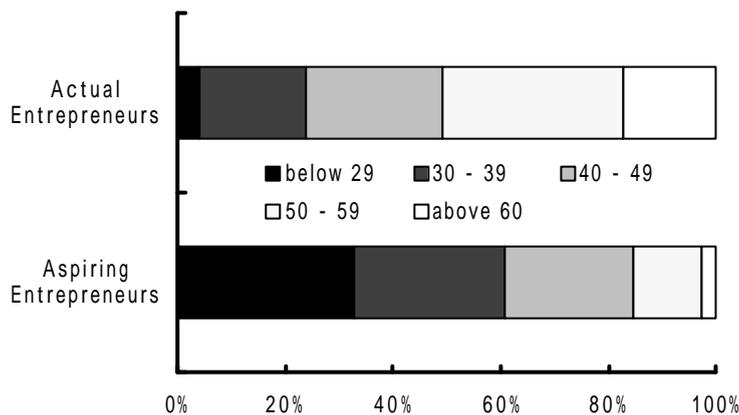
Why entrepreneurial spirit became so weak in Japan? This is not the case because the numbers of would-be entrepreneurs and entrepreneurs in preparation were both remarkably increased in the late 1990s, despite a declining trend of business in operation, personal businesses in particular (Figure 13). The economic recession and increasing unemployment might have driven more Japanese to think about establishing ventures. Nevertheless, Figure 14 unmistakably points out an enormous demographic discrepancy between actual and aspiring entrepreneurs.

**Figure 13: Entrepreneurial Aspiration and Realisation**  
(rate of change in the previous five years)



Source: SME White Paper (1999); p.210, p.266 and p.276

**Figure 14: Age Structure of Actual and Would-be Entrepreneurs**



Note: Actual entrepreneurs are those who established business during 1996-98.  
Aspiring entrepreneurs are those who wish to establish business in 1997.  
Source: SME White Paper (1999); p.267 and p.277

There is room for different interpretations of the discrepancy. Aspirants may not be able to realise their dream due to lack of supportive environment. The SME White Paper in 1999 pointed out (p.306) that the biggest problem is insufficient social mechanism for encouraging the birth of start-ups in their formative stage of business. The Paper criticises incompetence of Japanese venture capitalists, arguing that they come from *keiretsu* financial institutes and that their secondment period is too short. In addition, they take charge of so many projects that they cannot provide ventures with much needed managerial support. Stark contrast is identified with American venture capitalists who often appoint themselves as external board members.

As will be referred to in the next sub-section, uncertainty characterises the emerging industrial structure symbolised by e-commerce. Capital market and venture capitals will play a more dynamic role in providing risk money. For the time being, however, most of the start-up capital still comes from entrepreneurs' own fund or bank loans. Therefore, bank credit analysts, SME management consultants, tax accountants, lawyers, et al should be trained as managerial advisors.

The second interpretation is that would-be entrepreneurs are not really ready; they are short of experience, basic accounting knowledge or entrepreneurial determination. Regrettably, this argument seems to have more reason. Compared with the post-crisis venture fever in Korea, this is quite evident as neither does that country have sophisticated incubation mechanisms.

#### (b) E-commerce Myths

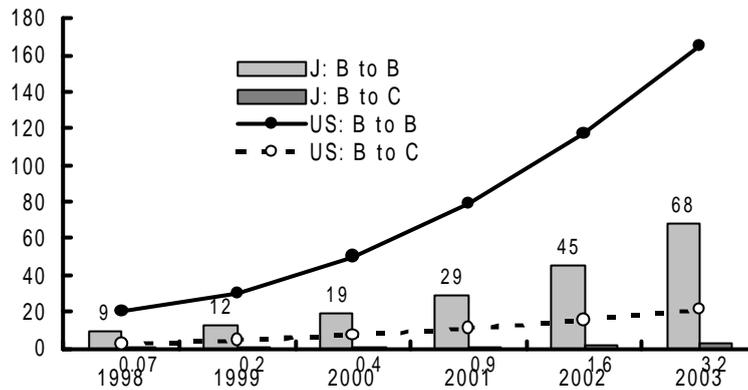
E-commerce has been imaged as a new business field particularly suitable for SMEs. Triumphant ventures, having started with nothing but ideas, reached incredible asset values above many largest traditional enterprises. Not all ventures were that successful, but it opened the way for average SMEs to sell their niche products/articles to distant customers without geographical constraints.

Analysts usually separate e-commerce into BtoB (Business-to-Business) and BtoC (Business-to-Consumer), as they are quite different in terms of user motivation. BtoB is introduced by large enterprises to make their supply-chain more efficient. Suppliers and dealers are thus forced to adopt it, otherwise they might be left out of business. On the other hand, BtoC is introduced by SMEs and large enterprises to approach consumers directly. However, consumers do not have to choose e-commerce as far as traditional commerce is more attractive or e-commerce is less friendly.

Therefore, diffusion of e-commerce is much faster in BtoB than in BtoC. This is clearly indicated in the market estimates of BtoB and BtoC e-commerce in Japan and the United States (Figure 15). It must be noted that the market size of e-commerce depends on its definition. According to MITI, e-commerce is commercial transaction of which order or settlement, or pre/post-order data communication related to order or settlement, is conducted through electronic media based on internet technology. The estimates below aggregate sales value of goods and services (except for medical

services, education and telecommunication) for which customers directly pay; i.e. not counting the market size of e-commerce-related applications and infrastructure.

**Figure 15: Market Estimates of E-Commerce**  
(trillion yen)



Source: MITI and Andersen Consulting;  
Research on Market Size of E-Commerce in Japan and the United States  
ECom and Andersen Consulting; BtoC Electronic Commerce Market in Japan

Let us look at BtoB first. BtoB has been promoted most vigorously by large electronic/IT-related or automobile/autoparts enterprises due to ever-intensifying global competition. E-commerce is an effective tool not only to simplify administrative work but also to synchronise each stage of production process, squeeze inventories and adjust production planning to consumer demand (BTO: Build to Order). It is expected the next wave will come to construction, where SMEs exchange blueprints frequently, and transport/distribution to integrate supply-chain management (SCM) with manufacturing.

The above BtoBs were those organised by specific large enterprises. In addition, there are several market sites where buyers meet sellers voluntarily as if it were BtoC. General-purpose products such as steel, chemicals and standardised metal/electronic components are amenable to the service. However, most of these sites are also operated by large trading houses thus far.

SMEs, especially operating in the electronic and automobile industries, cannot escape grave impact. Unlike traditional EDI using customer-specific equipment and converting software, web-based e-commerce is easier to accept. Although suppliers must respond to frequent requests for estimates and discounts, they can reduce inventories by synchronising its production process with their customers. Tool makers

can ask customers to assess their design before being materialised. Therefore, those who are technologically superior, but have been excluded from business due to high transaction costs, can take this opportunity to expand their market. The consequence will be the aforementioned meltdown of automobile *keiretsu*.

Compared with BtoB, a wider range of SMEs are launching out into BtoC. They tend to see it as doing on the net what they were doing without the net. Nevertheless, most sites are just experimental, i.e. unintended to become a serious business. Typical SMEs dispense with capital investments, human resources or differential services necessary to keep consumers' loyalty.

Mediocrity or lack of business models is a serious problem above all. Although BtoC can save intermediate margins, their own inventories are intact. In contrast, sites with eye-catching success have gone beyond an extension of traditional business. They specialise in adding value to information rather than selling articles. Their income sources are more stable and varied between membership fees, commissions and advertisements.

One of such services is a cyber mall. It is not easy for SMEs to induce customers for the first time, however unique their site is, unless customer recognition is improved by other advertising media. Malls are frequently equipped with such mechanisms as an auction to attract consumers repeatedly. It also omitted initial investments and cut operational costs to a minimum level. In addition, participants are supported to update their sites without a hassle. All these measures contributed to the expansion of this mall with increasing economies of scale.

It is vital for ambitious ventures to grow fast and secure market control, but bank loans are not appropriate means to satisfy their financial needs. E-commerce millionaires play a role of an angel or an incubator in nurturing the next generation of e-commerce ventures. Initial public offering (IPO) of the next generation provides the first generation with cumulative opportunities to amass their riches. The riches are then used to compete with traditional large enterprises, and thus serve to diffuse the e-commerce culture into the entire economy.

Nevertheless, the entire process depends on the stock market. This year we have seen that the share price of unprofitable net ventures plummeted. In order to

keep the above “multiplier effect” alive, they sometimes do whatever they can to raise the share price, including dubious internal transactions through their finance company.

Large enterprises had been lagging behind these moves due to fear of “cannibalisation”; namely, BtoC might demolish profitability of their traditional marketing channels. Purpose of their web sites was limited to listening to consumers’ opinion but never discounted the price. At last, however, they have started to consider that their marketing channel is not a liability but an asset to their e-commerce strategy (“clicks and mortar”). For example, shops enhance customer satisfaction by resorting to a sense of “seeing is believing”, while terminals in the shop provide such exclusive services as virtual product coordination.

Unique business models are the secret weapon for large enterprises to fight back in the BtoC market. Networks of mobile phones and convenience stores are featuring them. Mobile phones become the most omnipresent access points, as carrier companies introduced a new service to connect with internet. Convenience stores are the most omnipresent points of delivery and settlement. They are more convenient than courier services for singles and DINKs (Double Income No Kids), as young people vacate their residence in the daytime. They are cheaper than credit cards, as card charges are fixed irrespective of settlement value.

Although BtoC opened windows of opportunity for Japanese SMEs, most of them are slow to snatch at them. They are so much used to the traditional business ideas. Some of the ventures imitating recent American businesses made a successful entry without generating profits, while the stock market was bull solely based on expectations. Once large enterprises have realised how to combine robust business models with their resources at hand, the furore is calming down. SMEs are still expected to bring in even more radical ideas, but their relationships with large enterprises are likely to become more friendly.

## **6. Prospects and Policy Implications**

To sum up, prospects of Japanese SMEs are likely to be grim. Reasons for SME difficulties are neither such temporary issues as the Asian financial crisis and the domestic credit crunch, nor such cyclical factors as business trends and exchange rate

fluctuations. They are confronted with long-term changes: rapid aging of the society and global integration of business activities. Worse still, Japanese SMEs are losing entrepreneurial spirits and have indigestion with e-commerce on the whole. Even non-manufacturing SMEs sense labour surplus in this recession.

All the same, expectations to the role of SMEs in this mature economy are high. It is SMEs who introduced BtoC when large enterprises were still holding back in fear of “cannibalisation”. A number of SMEs did not hesitate to close old businesses and establish new ones, and thus driving the structural change. It is SME agglomerations which attempted at brave entry into development and merchandising of new products. They organise an ad-hoc team on their own initiative to supplement their weaknesses and gather their strength.

It is important to point out that SMEs are no longer a uniform group to be protected from voracious large enterprises. Even within the same agglomeration, some prefer deregulation and competition, while others not. Some are forward-looking but others backward-looking in face of difficulties. Agglomerations in the municipal area have advantages which the other types of industrial agglomerations cannot imitate deliberately. Recognition of this simple fact has brought about a Copernican change in the philosophy of SME policies in 1999.

The gist of Japanese SME policies had long been income redistribution from metropolitan to remote areas and welfare treatment to losers. Promotions were equally applied to all definitional SMEs in the designated industries and geographical areas. The image/model of desirable development was always drawn by bureaucrats, which stifled the initiative of forward-looking SMEs and extended the life of backward-looking SMEs. Now that globalisation proceeds to such an extent that competitors are beyond the Japanese jurisdiction, the most generous policy can no longer reinvigorate loser SMEs and regions.

The new SME policy identifies, or rather asks firms to select themselves as, forward-looking enterprises in its first step. Forward-looking enterprises are those which have a business strategy and core competence to achieve the goal, including that to obtain outside resources for that purpose. Policy targets are then defined not just based on their scale, but on the gap between what is necessary to carry out the plan and what is available on the market. The nature of the gap varies according to the life

cycle of SMEs, i.e. from the start-up to rapid growth and rejuvenation of stagnant firms. Implementation of the new policy means a public compensation for the gap.

This reorientation of the SME policy is correct, although actual redistribution of public funding or review of policy tools does not always follow the line over night. For the time being, neither public administration nor business associations possess sufficient experts who understand the degree of change. It may take then rather long time for SMEs to lead structural change of the Japanese economy. The author believe that its key component should be continuous training of mature people towards most needed skills. Japan has been relying much of the human resource development on the internal firm-specific curriculum of large enterprises or otherwise on-the-job training. Therefore, development of an accessible retraining system and attractive contents is really urgent. Once employees in the new industries exceed a certain threshold, they would be encouraged to start a new business and accelerate the structural change.

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