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Stunted and Distorted Industrialization in Myanmar

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Abstract

More than 15 years have passed since Myanmar embarked on its transition from a centrally planned economy to a market-oriented one. The purpose of this paper is to provide a bird-eye's view of industrial changes from the 1990s up to 2005. The industrial sector showed a preliminary development in the first half of the 1990s due to an "open door" policy and liberalization measures. However, a brief period of growth failed to effect any changes in the economic fundamentals. The industrial sector still suffers from poor power supplies, limited access to imported raw materials and machinery, exchange rate instability, limited credit, and frequent changes of government regulation. Public ownership is still high in key infrastructure sectors, and has failed to provide sufficient services to private industries. What the government must do first is to get the fundamentals right.

Keywords: Myanmar (Burma), transitional economy, industry

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STUNTED AND DISTORTED INDUSTRIALIZATION IN MYANMAR*

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1. Objectives

Industrialization is an essential part of overall economic development. Ever since the Industrial Revolution in Britain, the concept of development and the process of industrialization often have been treated as synonymous. Independent Myanmar, like other countries, hoped for a transformation of its agrarian economy into a modern

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industrial one. Myanmar had long pursued industrialization in the framework of a socialist planned economy using State Economic Enterprises (SEEs), which were established either by nationalization programs or through new public investments. The results after half a century were miserable, with Myanmar being reduced to Least Developed Country status in 1987.[1] In the following year, the State Law and Order Restoration Council or SLORC, which was renamed in 1997 as the State Peace and Development Council or SPDC, took power and abandoned the socialist economic system, heading toward a so-called market economy instead. More than 15 years have passed since Myanmar embarked on this new policy.

The purpose of this paper is to provide a bird-eye's view of industrial changes from the 1990s up to 2005. During this period, on the one hand the industrial sector underwent dramatic changes while on the other it showed continuity from the socialist period and exhibited evolutionary change. How has the industrial sector changed during the transition to a market economy and with the provision of an "open door" policy? How far can Myanmar's industrial development be understood in the context of the country's overall economic development and changes in economic structure? In what ways have the government's industrial and trade polices influenced industrial performances in Myanmar? This paper tries to comprehend the mechanism of development and/or underdevelopment of industry in Myanmar. Moreover, the author would like to investigate the factors that impede industrial development, most of which, he thinks, are deeply rooted in structural realities.

Industrialization can be defined in various ways. The industrial sector usually includes manufacturing and mining as well as construction, infrastructure services such as transportation, communications and energy, and so forth. While this paper focuses mainly on manufacturing, which constitutes a core part of the secondary sector, the author also pays due attention to other sectors of the economy.[2] The infrastructure

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[1] For details, see Myat Thein, *Economic Development of Myanmar*, Singapore: Institute of Southeast Asian Studies, 2004.

[2] The Ministry of National Planning and Economic Development compiles GDP statistics, using a 14-sector classification. In FY 2002, each sector contributed its share of total GDP at current producers' prices as follows: agriculture 48.4%, livestock and fishery 5.8%, forestry 0.4%, energy 0.1%, mining 0.3%, processing and manufacturing 9.2%, electric power 0.1%, construction 3.3%, transport 6.0%, communications 0.3%, financial institutions 0.1%, social and administrative services 0.9%, rental and other services 1.5% and trade 23.6% (CSO, *Statistical Yearbook*, 2003). The figures clearly show the underdeveloped situation of the industrial sector of Myanmar. In Cambodia, for example, the manufacturing sector contributed 20.2% of total GDP in 2002, whereas the agriculture sector contributed 35.6%.

sector is of particular importance for overall industrial development.

In the second section, the author provides a history of industrial changes during the transitional period between the early 1990s and 2005. The author does not intend, however, to confine himself to a mere description of industrial change during the period in question. On the contrary, he tries to comprehend the structural transformation of the industrial sector in relation to the government's economic policy. To a large extent, government economic policies have both promoted and constrained the industrial development of Myanmar. The author divides the period into three, namely preliminary development with the growth of pent-up demand, a slow-down during which structural problems surfaced, and a shift to a state-factory strategy.

In the third section, the author adds detail to the industrial history outlined in the previous section by means of firm-level survey data.[3] Given the paucity of reliable statistics in Myanmar, the firm-level observations based on field surveys can enrich description and can reinforce the arguments put forward. The survey data also provide firm-level observations on the characteristics of private enterprise as well as the investment and business climate in Myanmar.

In the fourth and fifth sections, two sub-sectors are taken as examples. One is the infrastructure sector, where state-owned economic enterprises (hereafter SEEs) dominate supply and markets. Because of their market power and scale economies with immobile investments, public enterprises tend to monopolize the infrastructure sector in many countries. However in Myanmar, SEEs in the infrastructure sector have so far seriously failed to provide much-needed services to customers, and in particular to industrialists. Poor infrastructure delivery at expensive prices has substantially hindered Myanmar's industrial development. The example given later in the paper will show the ways in which public ownership hampers industrial development.

The other sub-sector analyzed here is the garments industry. This is a labor-intensive industry, and for many developing economies, it provides the first rung of the ladder leading to industrial development. Garment manufacturing in Myanmar registered a considerable success up to the imposition of sanctions by the United States in 2003, a measure that banned all imports from Myanmar. Garments manufacture provides an example of an industry that avoids a bad business environment and disadvantageous economic fundamentals by usage of the cutting, making and packing (CMP) system. The

[3] For the outline of the survey, see *Appendix: Survey on Private Firms in Myanmar* given at the end of this paper.

example shows us a means by which an industry can develop under a poor business climate. All in all, these cases will give us food for thought on the role of the government in industrial development in Myanmar.

Lastly, the author summarizes his arguments in a conclusion. Thus far, Myanmar has experienced a lengthy period of stunted and warped industrialization with an unstable macro-economy and distorted prices. Moreover, the government seems to have reversed its strategy of encouraging a market-oriented economy with a vibrant private sector and has returned to a planning-oriented one with state-owned enterprises. In addition to these developments, the investment climate and the industrial infrastructure are in very bad shape. All of these factors seem likely to hinder the industrial development of Myanmar for the foreseeable future.

At this point, a qualification must be made. The author tries to support his arguments using some firm-level observations based on a field survey as well as on available statistical data. However, he admits that most of his arguments lack robust supporting evidence mainly because of the scarcity and unreliability of statistics in Myanmar. Many aspects of his arguments call for further research and study. Nevertheless, it hoped that this study will be useful in providing an overall picture of industrial development and a frame of reference for understanding the mechanisms whereby Myanmar's industrial development has become stunted and distorted,.

2. Industrial Development under a "Swing Door" Policy

During the socialist period, the government nationalized all production facilities and established new factories whenever they wanted to increase production. The government also closed the door to foreign capital except for ODA, which was received only after the economic crisis of the mid-1970s. Although the government called this policy self-reliant, its attitude was an extremely inward-looking one, and did not really lead to the growth of a vibrant industrial sector. On the contrary, it brought about import-dependent import-substitution industries, instead of self-reliant ones capable of standing on their own feet. Instead of saving scarce foreign currency by replacing imports, the inefficient government factories devoured imports in the process of making expensive and low quality "Made-in-Myanmar" products.

Interpreted in a broader perspective, this strategy is based on the traditional and rather crude policy of exploiting the agricultural sector.[4] While the agricultural sector

[4] Koichi Fujita and Ikuko Okamoto, "Chapter 5: Myanmar Agriculture in the Transition

generated a trade surplus in the early period after independence, its productivity gradually deteriorated and failed to generate a surplus large enough to finance state-owned factories. Meanwhile, the influx of ODA supported such industries up to the mid-1980s, by which stage it became clear that they would never stand on their feet without machinery and raw materials supplied by the donors[5]. When ODA was suspended after the coup in 1988, the government had no money to run their factories, and they began to turn to the private sector for industrial development instead.

(1) Preliminary Import-Substitution: Pent-up Demand and Competition with Imports

A series of economic reforms began with trade liberalization, both domestic and external. In 1987, one year before the military took power, the government suddenly gave up its monopoly over domestic trading in major kinds of agricultural produce. Shortly after the coup of 1988, the government allowed private sector businesses to engage in external trade and to retain export earnings, and started to legitimize and formalize border trade with neighboring countries, hitherto an activity that had been deemed illegal. Following this, in November 1988, foreign investment was also permitted, by the enactment of Foreign Investment Law (FIL).

Opening up external trade to private enterprises very greatly increased the number of exporters and importers. While about 1000 exporters/importers had registered in FY 1989[6], the number increased to about 2700 in the following fiscal year. It reached nearly 9000 by FY 1997. Thus, traders vigorously entered markets and started up new businesses.

Imported goods poured into the emerging consumer goods markets. The people had been cut off from purchasing daily commodities and durable consumer goods during the whole 26 years of the socialist period, and once they got access to them, the demand for such goods shot up. While consumer goods occupied 6% and 12% of total imports in FY 1980 and FY 1985 respectively, the corresponding figures shot up to 35% and 42% in FY 1990 and FY 1995 respectively.[7]

The release of pent-up demand for consumer goods also opened up opportunities for

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to an Open Economy" in Koichi Fujita ed., *Myanmar's Economy in Transition: Market versus Control*, IDE Research Series, Chiba: Institute of Developing Economies, JETRO, 2005 [forthcoming] (in Japanese).

[5] Kudo, Toshihiro, "Political Basis of Economic Policies under Burmese Socialism", *Southeast Asian Studies*, Tokyo University of Foreign Studies, No. 4, 1998, pp. 161-169.

[6] FY stands for "Fiscal Year" starting in April and ending in March.

[7] CSO, *Statistical Yearbook*, various numbers.

private industries to flourish. It is natural for burgeoning private industries to target mainly domestic markets rather than export markets, and consumer goods rather than capital goods. The private sector did not have the production facilities, technology, or marketing channels for exporting their products and no hope of developing an export trade.[8] Heavy industries producing capital goods were entirely beyond their reach.

Of course, Myanmar's businesses faced competition from imports. Nevertheless, there was room for domestic industries to enter into straightforward assembling, mixing and processing. Thus for example the so-called "3 in 1" Coffee Mix, a packed mixed powder consisting of coffee, cream and sugar, became popular among people after the introduction of the open door policy. First, traders imported already mixed and packed powders, and then they started very simple processes of mixing and packing using imported machines. To begin with, they imported sugar as well, since the quality of domestic sugar is not good enough for consumption. They then gradually began to purchase domestic sugar, which met the quality standards for instant products. The manufacturers also set up printing businesses so that they did not need to import ready-printed plastic packages from abroad. In this way, the local content of "3 in 1" Coffee Mix increased, even though coffee and cream powder were still imported. An example of a similar trend is bottled drinking water. As late as the early 1990s, bottled drinking water was not seen in the streets of Myanmar's towns and villages at all, except for the few international hotels that imported mineral water for their foreign guests. By the mid-1990s, however, people could drink domestically purified and bottled drinking water anywhere in Myanmar. According to the statistics, in May 2005 there were 142 establishments registered at the Ministry of Industry (1) as engaging in the water bottling business.

These products and industries would have never materialized without the release of people's pent-up demand and without the possibility of importing raw materials. Although imported goods competed with domestic products, they made the growth of import-substitution industries in the private sector possible and feasible. Thus, private industries exploiting pent-up demand grew quite rapidly in the early 1990s.

Manufacturers of consumer goods accounted for about 70% of the 23,675 private industries registered at the Ministry of Industry (1) in 1992.[9] Of these, naturally enough, the majority were rice mills and edible oil mills, which had long existed but had

[8] Except for straightforward processing of pulses and beans, and fish and prawns, which are agricultural and marine products rather than manufactured ones.
[9] Including food and beverages, clothing, household goods, and printing and publishing.

not been registered in the socialist period. However, even among newly established businesses, manufacturers of consumer goods appeared at an earlier stage than other types of industry.[10]

Trade reforms, like any other reforms, can have adverse distributional consequences. In particular, some sections of the population may be temporarily thrown into unemployment due to imports. Fortunately in Myanmar, there were few private industrialists producing such consumer goods at that time. Some state-owned factories were manufacturing such things but the potential demand was huge and could never be satisfied by production from these factories. Most of the demand for such products was filled by a black market reliant on illegal border trades, which were extremely inefficient. As a result, there were probably only a few people who lost their jobs due to the significant influx of imported goods into Myanmar. On balance, trade liberalization had a favorable impact so far as domestic industrialists were concerned. Liberalization meant that they were not only exposed to imported goods, which are types of product information in themselves, but they were also given access to imported raw materials. For the Myanmar industrialist, imported raw materials had an advantage over materials obtained through the illegal border trade, which were expensive and subject to unreliable delivery.[11] All in all, the "open" door policy served as an encouragement for Myanmar entrepreneurs to enter the manufacturing sector.[12]

(2) Frustrated Development: the Shortage of Foreign Currency

New restrictions However, the economic boom and the accompanying euphoria turned out to be rather short-lived. In retrospect, the business climate had begun to change even before the Asian Financial Crisis of mid-1997. A trigger for policy changes was an

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[10] Some supportive evidence will be provided by the survey data in the following section.
[11] According to the 2003 survey data, among 149 effective responses, more than 90% of firms used foreign-made machinery and equipment to various degrees. Among them, about half utilized more than 50% of foreign made machinery and equipment for their production.
[12] The government also opened a window to foreign investment by enactment of the FIL of 1988, which allowed 100% foreign ownership. The manufacturing sector attracted the second largest share of foreign investment (about 20 %), next to the oil and gas sector (more than 30%). Most of the investment in the manufacturing sector is in the form of import substitution industries producing, for example, iron roof sheets, mosquito coils and automobiles, except for garments, which are export-oriented. See Nobuyoshi Nishizawa, "Chapter 4: Evolution of External Relations under Military Rule: Focusing on Foreign Trade and Investment" in Koichi Fujita ed., *Myanmar's Economy in Transition: Market versus Control*, IDE Research Series, Chiba: Institute of Developing Economies, JETRO, 2005 [forthcoming] (in Japanese).

apparent expansion in trade deficits. Once the government liberalized trade, the unleashing of pent-up demand meant that imports grew much faster than exports the performance of which had been modest at best.[13]

Foreign exchange reserves became extremely limited in 1997, when capital flows were slowing down as a result of the Asian Financial Crisis. During 1997, gross reserve coverage had slipped below 1.5 months and coverage of net reserves fell to about one month.[14] Foreigners faced difficulties in withdrawing foreign currency even from their own accounts. When they wished to withdraw US dollars, they had to present seat-booked air tickets to prove their intention to travel to foreign countries, where Foreign Exchange Certificates, so-called Myanmar dollars issued by the Central Bank of Myanmar, are not accepted.

As foreign exchange reserves dwindled, the government imposed a series of restrictions on the exchange and trade system. In retrospect, the establishment of the Trade Policy Council (TPC) seems to have marked a turning point. The TPC, an extra-ministerial committee, was formed in July 1997, with General Maung Aye, Vice-Chairman of the SPDC as Chairman, and with the Minister for National Planning and Economic Development as Secretary. The TPC has laid down important policies not only on external trade but also on other economic matters. These policies include an export-first policy whereby imports are allowed only against export earnings; limits on non-essential imports; a 10% export tax; the advanced purchase of beans and pulses for export; the advanced purchase of cotton; market-price-based taxation on imported vehicles; import restrictions on motor vehicles; a monthly grant for palm oil import; a lowered FEC limit on overseas bank transfers; strengthened revenue collection from MIC-approved projects; and inspection of under-priced import vehicles. A number of these may be aimed at capturing foreign exchange earnings for the government budget.[15]

The new regulations not only slowed down the pace of liberalization but also actually reversed the trend toward it. At a time when a second generation of economic reforms was needed to address structural rigidities in the macroeconomic framework, in

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[13] The relatively poor export performance in this period was probably due to delays in reforms in the agricultural sector, where major export commodities were still under government control with the exception of beans and pulses.

[14] IMF, *Myanmar: Recent Economic Developments,* IMF Staff Country Report No.99/134, November 1999, p. 26.

[15] Kudo, Toshihiro, "Transformation and Structural Changes in the 1990s" in Toshihiro Kudo ed., *Industrial Development in Myanmar: Prospects and Challenges*, ASEDP No. 60, Chiba: Institute of Developing Economies, JETRO, 2001, pp. 40-42.

agriculture, in private sector development and in redefining the government's role, the authorities were instead responding to economic difficulties with ad hoc measures that were further distorting incentives.

Slowdown of Private Industries The imposition of new restrictions on the exchange and trade system deprived private firms of free access to imported goods, causing a slowdown in their economic activity. In this regard, let us consider some government statistics. According to the Private Industrial Enterprise Law enacted in November 1990, any private industrial enterprises using energy of three horsepower and above and/or employing ten or more wage-earning workers are required to register themselves with the Ministry of Industry (1). Procedures relating to the Private Industrial Enterprise Law were prescribed on 1st February 1991. In the Procedures, the relevant authorities requested that existing private industrial enterprises should apply for registration within 120 days, during which they would be allowed to continue their production activities before receiving any directive from the Directorate.

The number of registered private industries is shown in the Table 2-1, covering the period between FY 1990 and May 2005. The number of registrations jumped by 883 times, from 27 in FY 1990 to 23,848 in FY 1991. The growth in the numbers registered stabilized in the following fiscal year, the annual growth being only 5.2%. It can be said that almost all the private enterprises that should be registered under the Law and Procedures and had the intention to do so, had already registered by the end of FY 1991. Thus, increases in the figure of registered industries after FY 1992 can mostly be regarded as new entries.

The first half of the 1990s saw a rapid increase in the number of registered private industries. The average annual growth rate in registrations for the period between FY 1992 and FY 1996 was 8.2%. As previously explained, this growth is the outcome of the private sector's response to the release of pent-up demand. However, for the following three years of FY 1997, FY 1998 and FY 1999, the number of registrations stagnated, showing an average growth rate of only 0.8%. The figures reflect a slowdown in the economic activities of private industries, caused by the newly imposed restrictions and regulations on the private sector during this period. The growth to some extent picked up in the following years: the annual growth rate for the period between FY 2000 and FY 2004 was 3.8%. Strangely enough, FY 2003 registered a quite high growth rate of 7.1%, an unusually high rate considering that the banking crisis seriously affected the whole economy in that year. This figure may reflect other administrative factors, which pushed private industrialists to register with the authorities. Be that as it may, the

number of registered industrial enterprises declined for the first time in mid- 2005. The decline shows, of course, that there were more exits than entries in the previous year. In spite of an apparently strong trend towards new entries of private firms into new businesses in FY 2003 and FY 2004, some countervailing pressures must have been going on, which eventually forced private firms to withdraw.

Moreover, shortages of electricity and of other infrastructure services became more acute during the mid-1990s. The existing infrastructure with its weak capacity was soon saturated, and the construction of new capacity could not catch up with the generally high growth rate of the economy. Failures in infrastructure development will be discussed in detail in the following section. Here, suffice it to say that by the mid-1990s, further industrial development was being held back by poor infrastructure provision, with private manufacturing being the most badly affected sector.

(3) Shift to a State-owned Factory Strategy

In Myanmar, State Economic Enterprises (SEEs) have a long history of inefficiency, poor management, and vulnerability to all the ills that plague public industry, including rent-seeking and corruption. Far from generating revenue for the government, as had been hoped, SEEs became a net drain on the treasury. This criticism is here applied to the SEEs of the socialist period, not to those of 1990s. Having experienced costly failures among public industries, the Myanmar government must have learnt its lesson. Nevertheless, the same kind of trials appear to have been repeated around 2000 and thereafter. Even though the military government apparently gave up import-substitution state-owned factories when they took power, this was not a deliberate decision to embark on a strategic shift toward an export-oriented strategy led by the private sector, but simply because they could not afford them. When the time came and money was available -probably in the form of export revenues from newly exploited natural gas- they naturally returned to the original policy.

Public industrial enterprises did not decrease throughout the transitional period toward a market economy; their number increased from 597 establishments in FY 1985 to 1132 in FY 2002 (Table 2-2). Moreover, the establishment of new public industrial enterprises is accelerating: the number of such enterprises increased by only 19 for the five years between FY 1985 and FY 1990, by 92 for the next five years between FY 1990 and FY 1995, and by around 20 to 30 per year up to 2000. Thereafter there was further impressive growth, 53 public industrial enterprises being set up in FY 2001 and 231 in FY 2002. The timing of this surge in construction suggests that the government

launched a massive state-owned factories program in 2000 and 2001.

This policy change may accord with the government's drive toward self-sufficiency, which appears to have become stronger in 2000 and 2001. From September 2001 to January 2002, the *New Light of Myanmar*, a state-run English newspaper, featured a series entitled "Industrial Development"[16] This series of articles seemed to indicate the government's way of thinking. Most of the articles described the government's efforts to rehabilitate old state factories and to establish new state-run ones. Very little reference was made to private industries, and the investment and business climate were not mentioned at all. Moreover, what the authors of the articles appreciated most of all was the quantity produced rather than the value of production. Factories' performances were assessed by produced volumes that were measured in tonnes, miles and pieces. By contrast, the articles ignored value of production, product quality and consumer satisfaction. For example, an article on the textile and garment industry included the following: "Thus, the requirement for the entire nation is 187,574 million pounds of cotton yarn and 801.6 million yards of cloth. At present, the industries can fulfill 13 percent of the yarn requirement and nine percent of the cloth requirement of the nation. Thus, it is clear that the textile and clothing factories are much needed for the nation."[17] Having made this point, the article then went on to explain the new projects for constructing state-owned factories.

Several points need to be raised as regards this article. First, in the calculations contained in the article, the production of private industries seems not to be included. The private sector is simply left out of the equation. Second, the article shows no interest in either what kinds of clothes are needed (for example cotton, wool or synthetic materials) or in what preferences consumers might have as regards things like color, design, and fashion. Third, the article does not take international trade into account. The article considers only the self-sufficient production of specified items. This is despite the fact that in the context of a globalized economy, how much a country can produce of a certain item depends on international competitiveness and on comparative advantage. Fourth, export markets are left entirely beyond the scope of the article, even though in most developing economies, textiles and garments manufacturing have developed as export-oriented industries. If this series represents the general sentiment of the government, their way of thinking is very much quantity- or volume-oriented, and

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[16] The series consisted of 17 articles starting 17 September 2001 and ending 25 January 2002.

[17] New Light of Myanmar, *Industrial Development-2*, September 21, 2001.

targets only domestic markets. Such an outlook may be suitable for a planned economy operating under a closed-door policy, or even for military logistics, but it is not appropriate for a market economy with an open door policy, in which customers' preferences, willingness to pay and international competitiveness all matter.

Because fiscal data have not been disclosed since FY 1999, we do not know how much capital investment has been used for such public industrial projects, and how much burden they have incurred on government budgets. Nevertheless, it would be safe to say that the government's push for establishing new public factories reinforced resource misallocations by favoring SEEs, which have access to imports at highly overvalued exchange rates.

Moreover, private industries, and in particular agro-based ones, had to compete with newly established SEEs for domestic raw materials such as cotton (for which they competed with textile mills) and sugarcane (where the competition was with sugar mills).[18] SEEs can procure raw agricultural produce from farmers by administrative orders at prices lower than market prices. They can then sell their final products at cheaper prices. Private industries by contrast face two difficulties, namely the inaccessibility of imported and domestic goods in the raw materials market, and severe and uneven competition with SEEs in products markets.

3. Growth, Stagnation and Features of Private Industries

This section tries to illustrate the industrial history described in the previous section using 2003 survey data. In addition to this, the author provides firm-level observations on the characteristics of private enterprises and the investment and business climate in Myanmar employing the same survey data.

(1) Growth and Stagnation

The survey was conducted between October and December 2003 using designated questionnaires. It covered 167 sample firms, 134 of which were located in Yangon and 33 in Mandalay.[19] Among the 167 firms surveyed, 27 already existed in the socialist era, before 1988; 41 firms were established during the period 1989-1992; 39 firms were set up between 1993 and 1996; 52 firms in 1997-2000 and 8 firms between January 2001

[18] For details, see Tin Htut Oo and Toshihiro Kudo eds., *Agro-based Industry in Myanmar: Prospects and Challenges*, ASEDP No.67, Chiba: Institute of Developing Economies, JETRO, 2003.
[19] See the attached *Appendix*.

and October 2003 (Table A-1). The apparent slowdown in new entries for the last of these periods reflects overall economic stagnation after 2000. However, the figures are not necessarily consistent with the number of private enterprises registered with the Ministry of Industry (1). The survey data shows relatively active entries for the period between 1997 and 2000, whereas the officially registered number shows an obvious slowdown as has been described earlier. The differences may be attributed to the small sample size of the survey.

Among 27 survivors from the socialist era, 18 were manufacturers of consumer goods such as foods, slippers and traditional medicines. Private firms in this sector constantly established new enterprises during the later periods up to 2000. As was discussed above, they seem to have swiftly responded to the release of pent-up demand for consumer goods.

Manufacturers of agricultural and marine products also registered a relatively large number of entries especially during the first half of the 1990s. Most of them were processors of either beans and pulses or fish and prawns, both of which emerged as new export items after the adoption of the open door policy. As Fujita and Okamoto have pointed out, beans and pulses became major export earners in the 1990s replacing the traditional position of rice in the socialist period, due to export-oriented growth of the vent-for-surplus type.[20] Exports of marine products, which were previously untapped, also led to an increase in the number of processors and cold storage businesses. Firms belonging to this sector naturally tend to export more than other manufacturers. Out of a total 20 cases investigated, some 16 manufacturers of agricultural and marine products exported, while only 14 manufacturers of consumer and industrial goods out of a total 87 exported (Table A-2).

Many private construction firms also came into being immediately after the introduction of the open door policy. Their growth, also, was encouraged by the unleashing of pent-up domestic demand. Potential demand for new (or rehabilitated) houses, hotels and office buildings was long suppressed during the socialist period. In this sense, construction firms enjoyed the same kind of sudden market improvement as did producers of consumer goods, although they were not survivors from the socialist period. However, the so-called construction boom was rather short-lived; it petered out in 1997 when the Asian financial and economic crisis struck the Myanmar economy. In retrospect though, this construction boom was important for the then burgeoning

[20] See Koichi Fujita and Ikuko Okamoto, op.cit., 2005 [forthcoming].

private industries in that it gave them a chance to accumulate capital to some extent in the early stage of their development. Many of today's business groups that engage in a variety of business lines originated from the construction industry.

The most recent prominent private industries to emerge were the garment factories. Some 10 out of a total of 13 cases of garment firms were established after 1997, mostly in the period between 1997 and 2000. This sector will be discussed in greater detail in the following section.

Manufacturers of consumer goods were making traditional products meant for the domestic market, whereas producers of agricultural and marine products as well as businesses in the garment industry were new types of enterprise directed towards export markets. While the processors of agricultural and marine products started their businesses in the early 1990s, the garment firms appeared after the mid-1990s. The results of the survey seem to illustrate the typical capital accumulation pattern stylized by Mieno.[21] Private entrepreneurs entered into trading businesses first. They exported mainly beans, pulses, prawns and fish, and imported consumer goods or produced them for the domestic market themselves using imported materials, and thereby making good profits. Many of them entered into construction businesses, too. As native businessmen said, the construction industry's time had come, following a long-term suppression of demand. The introduction of a policy welcoming foreign tourists also stimulated the demand for better tourist accommodation. Some foreign investors found opportunities to invest in hotels and tourism. All in all, the survey figures were consistent with the description of the entire industrial history outlined in the previous section.

(2) Entrepreneurs, Management and Business Climate

Let us now consider some features of private enterprise in Myanmar, as revealed by the survey data. The investment and business climate will also be examined.

Entrepreneurs What are the characteristics of entrepreneurs in Myanmar? First, so far as ethnic origins are concerned, the Chinese were far and away more important than their minority status in Myanmar might suggest. Among the 167 owners responding to the survey, 56 people or 34% were Chinese, while 88 people or 53% were Bamar, the

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[21] Fumiharu Mieno, "Chapter 1: Characteristics of Capital Accumulation in Myanmar, 1988-2003" in Koichi Fujita ed., *Myanmar's Economy in Transition: Market versus Control*, IDE Research Series, Chiba: Institute of Developing Economies, JETRO, 2005 [forthcoming] (in Japanese).

largest ethnic group in Myanmar (Table A-3).[22] The ratio of Chinese owners engaged in manufacturing was even higher than in construction and services, namely 38% for manufacturing and 21 % for construction and services respectively. The more active participation of the Chinese population in businesses is probably due to better access to resources such as finance, technology, markets and information. In particular, access to financial resources makes things different, since funds for establishing businesses were mainly raised either by self-financing (150 owners out of the 167 firms) or by borrowing from families and relatives (47 owners). By contrast, formal financial channels were open only for a limited number of business persons. Thus only eight owners borrowed from state-owned banks and 22 owners from private banks.[23] Chinese owners have a longer experience of doing business in Myanmar; some are even survivors from the socialist era, having had the opportunity to accumulate enough capital to enable them to enter businesses swiftly once the door was opened. Bamar and other indigenous people, however, have long been deprived of such chances, having been engaged either in agriculture or in the public sector.

The previous occupation of owners also reinforces the above argument. Among the 167 owners, 110 or 66% were from the private sector including family businesses. These were followed by 23 people or 14% from the public sector including government departments and SEEs (Table A-4). Among the 110 owners who came from the private sector, there were 43 Chinese people, accounting for nearly 40% of the total. Among 56 Chinese owners, there were only 4 people who came from the public sector, the share of which (7%) is much lower than that of Bamar owners (21%). Chinese people were, in general, more experienced in business than the Bamars.

By contrast with the ethnic distribution of owners, the distribution of managers is more proportionate to the ethnic structure of the whole population. Among 125 managers, 105 or 84% were Bamars, while 14 people or 11% were Chinese (Table A-5).[24]

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[22] According to the Population Census of 1983, the latest census ever conducted in Myanmar, the Bamar constituted 69% of total population, followed by the Shan (9%) and the Karen (6%). One estimate says that there were about 400,000 Chinese and one million Indians in Myanmar during the early 1990s, and that Chinese and Indians constituted a negligible percentage of total population. However, there are many Chinese-blood mixed people in Myanmar. For example, Ne Win was said to have Chinese-blood. It depends on the personal perception of one's ethnic identity whether one answers the survey questionnaire as "Chinese". Here, the term "Chinese" includes Chinese people as well as people mixed with Chinese-blood.

[23] Regarding the financial aspect of business establishments and operations, see Fumiharu Mieno, op.cit., 2005 [forthcoming].

[24] Some 42 firms did not have managers, where owners themselves supervised the daily

The figures show merely that Bamars can manage day-to-day business operations. However, Bamars are handicapped in establishing their own firms in terms of access to various resources, in particular finance, and, probably to some extent, they show weak entrepreneurial attitudes due to their limited experience and exposure to the business world.

Management and Technology How should we evaluate the management level of private firms in Myanmar? The survey asked whether firms separated business expenditures from household ones. To have a separate accounting system for business can be seen as the first step toward modern management. According to the survey result, 138 firms out of all 167 cases or 83% of the total had an independent accounting system for their businesses (Table A-6). However, smaller firms tend to mix up both types of expenditure. As regards smaller firms with less than 20 regular workers, out of 49 examples, there were 15 firms, or 31%, without a separate accounting system. By contrast, amongst the 45 bigger firms employing 100 or more regular workers, only three, or 7% of the total, were without a separate accounting system.

How about book keeping? Of the 167 enterprises covered by the survey, 138, or 83%, had been keeping books either on a double entry or single entry basis. They also had basic financial statements such as balance sheets (136 firms, or 81%) and profit and loss statements (131 firms, or 78%) (Table A-7). However, only a limited number of firms kept managerial accounting documents such as an annual sales plan (77 firms, or 46%), an annual profit plan (65 firms, or 39%), a financing plan and cash flow (104 firms or 62%). These figures suggest that their managerial standards may not necessarily be sophisticated.

The survey also asked about production-related aspects such as quality standards, cost management and delivery records. Most private firms had such standards and records. Out of the 167 cases, there were 150 firms , or 89%, that had their own quality standards (Table A-8). Amongst manufacturing firms the share was even higher at 95% (114 firms out of 120). Cost management was practiced by 145 firms, or 87% of the total. At the same time, however, cost management seemed to vary according to the size of firms. Among the 88 firms with less than 50 regular workers, 17 firms, or 19%, did not practice cost management(Table A-9). By contrast, among the 79 bigger firms with 50 or more regular workers, only five, or 6% of the total, did not practice cost management. Private firms had poor data as regards delivery records. Out of the 164 respondents,

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operations, too.

only 53 firms, or 32%, kept records of incorrect deliveries.

What was the situation as regards technology development activities? According to the results of the survey, 37 firms out of 166 or 22%, engaged in production technology development; 8 firms or 5% worked at new product development; 95 firms or 57% did both activities, and 26 firms or 16% did not engage in any technology development activities. It is difficult to evaluate the level of technology development activities using only these figures. However, when we see the data on who was in charge of technology development activities, we can understand the nature of most of such activities conducted by private firms in Myanmar. About half of the technology development activities were done by the founders/owners themselves; about 40% were done by members of the company staff; and only about 10% had teams and/or departments specializing in technology development (Table A-10). The figures seem to show that technology development activities were not systematically organized, and probably were not the subject of much investment, whether financial or human.

Weak Linkages and Localized Markets So far as manufacturers were concerned, the survey enquired about modes of production. Among 100 effective cases, 79 firms "design their own brand products and make them mostly in-house", while 17 firms "finish products designed by other companies". The remaining four firms answered in other ways. There was no single firm that "processed or produced components for products designed by other companies". Firms produce all their own brands in-house not because they are the only manufacturers in the sector, or because such an approach enables them to maintain the quality of products and their competitiveness, but because their industrial linkages are so weak that they have to produce final products by themselves. Among the 167 firms surveyed, only 19 used subcontractors (Table A-11).[25] A relatively high proportion of the manufacturers producing garments and industrial goods use subcontractors. Garment industries need subcontractors to whom they can put extra orders placed by buyers in order to meet deadlines, whereas manufacturers of industrial goods, and especially makers of machines and processed metal, have more processes that require process- and/or skill-specialized subcontractors.

Another feature of privately-owned industries is that they do not have strong relations with SEEs. Among the 167 firms, 121 did not have any relations with SEEs, whereas 15 were subcontractors of SEEs, 16 supplied raw materials and parts to SEEs and 15 received them from SEEs. Since SEEs have long been dependent on imported

[25] On the other hand, 20 firms were producing as subcontractors.

machinery and raw materials, they have failed to produce meaningful industrial linkages with domestic suppliers, whether other SEEs or privately owned industries. [26]

On the whole, industrial linkages are weak not only among private industries but also between private industries and SEEs. These figures paint a picture of an undeveloped industrial sector, where stand-alone manufacturing firms make their own products with limited skill and technology inputs and without transactions with suppliers and subcontractors.

The survey also asked all respondents to give details of their sales methods. Among the 167 firms, 69 sold their products directly to consumers, 36 firms sold to wholesalers and brokers, and 19 sold to retailers. A total of 29 firms exported their products directly. Only 10 firms sold their products to other manufacturers. Even though the author does not have data on the sales networks of the firms, it is fairly clear that their products do not sell nationwide. On the contrary, the figures portray a picture of fragmented markets, where localized markets are not effectively integrated into a nationwide market either by physical infrastructure such as roads, railways, telephones, and e-mails, or by institutions such as financial systems and standardization of products. Private firms sell their products directly to consumers in localized markets only.

Under such weak industrial linkages and given the prevalence of localized markets, private manufacturers have very little opportunity to produce more sophisticated, high technology and high quality products, which require a more advanced division of labor and stronger industrial linkages. Selling such products on the nationwide market would require sales networks that are more developed, together with better market information and better infrastructure.

Business Climate and Problems The survey enquired about the present situation as regards the production and sales of private firms. Among the 167 firms, 90 firms said that production and/or sales were “decreasing”, 37 firms reported “increasing” production and/or sales, and 40 answered “no change”. The private firms in the survey

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[26] Given how the nature of work and sub-sectors differ as between private industries and SEEs, there should be more transactions to complement each other. According to the author’s interviews with Myanmar Agricultural Machinery Industries (MAMI) and Myanmar Machine Tool and Electronic Industries (MTEI) both of which lie under the jurisdiction of Ministry of Industry (2), several officers-in-charge of production said that they would like to employ private-industry subcontractors. They exhibited the components and parts that they need to procure at exhibitions in Yangon and Mandalay in an attempt to invite potential suppliers. However, they complained of the inferior quality of products made by private industries, which did not meet the standards set by the SEEs.

seem to have suffered from a quite depressed business situation during the period from October to December 2003. In February 2003, Myanmar underwent a banking crisis, which considerably affected the whole economy.[27] In July 2003, the United States imposed a ban on imports of products made entirely in Myanmar. This economic sanction seriously damaged the garment industry in Myanmar, since the country exported nearly half of its production to the United States before sanctions, while garments accounted for about 90% of all American imports from Myanmar. Among the 13 garment firms in the survey, 12 responded that their production/sales were "decreasing" the one exception having stated "no change".

Although this anomalous development should be taken into account, it would nevertheless be safe to say that most of the problems and difficulties that private firms faced at that time had existed long before 2003. Table A-12 shows the difficulties and problems as expressed by the private firms responding to the survey. Any firms encounter problems and difficulties when they run businesses, at any time and in any country. Moreover, the alternatives given in the questionnaire are rather arbitrary and may to some extent overlap with each other. Nevertheless, the ranking shown in the table, the author thinks, reveals a general picture of the investment climate that private firms had to operate in at that time.

"Domestic and local banking" came at the top of the list of problems cited by the firms. The banking crisis seriously affected many private firms and the survey results certainly reflected this. However, the banking crisis was not the only explanation for the placing of this difficulty at the top of the list. As mentioned above, only a few firms had access to bank loans. The underdeveloped financial system undoubtedly hindered private firms from developing their businesses. "Inadequate infrastructure" came second on the list. In Myanmar, private firms and manufacturers in particular often point out that it is impossible to operate their factories without electricity. The poor state of the infrastructure in Myanmar will be discussed in more detail in the following section. "Frequent changes of systems and insufficient information disclosure" comes third on the list. This problem is related to government rules and regulations. It is natural for private firms to complain about rules and regulations: it is understandable for them not to like tedious export and import procedures, government inspections of

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[27] See Koji Kubo, Ryu Fukui and Fumiharu Mieno, "Chapter 3: The Financial Sector in the Transition to a Market Economy in Myanmar" in Koichi Fujita ed., *Myanmar's Economy in Transition: Market versus Control*, IDE Research Series, Chiba: Institute of Developing Economies, JETRO, 2005 [forthcoming] (in Japanese).

production facilities, and the 10% export tax. However, what they pointed out here is something different. In the survey, private firms complained not about the rules and regulations themselves, but about the way the government manages such rules and regulations and its information disclosure. For example, perhaps unexpectedly, the 10% export tax seems not to be thought a particular problem for the private firms in the survey, with 148 firms regarding it "not a problem", in spite of the general impression that the tax must represent a serious headache for most businessmen. The figures imply that the important factor is *predictability* rather than the regulation and taxation themselves. As long as the export tax continues to be levied at the rate of 10% and the enterprise is allowed to use the remaining earnings to purchase imports, private firms can include the export tax in their cost calculations and can make managerial decisions that take the export tax into account. A lack of consistency, accountability and transparency in regulations and in taxation creates an unpredictable investment climate, which is a difficult obstacle that hampers private firms from doing business in Myanmar.

4. Infrastructure Development: Market Failure vs. Government Failure

While many developing countries including those undergoing a transition from a planned to a market-oriented economy have liberalized the manufacturing sector, they often impose greater restrictions on the development of infrastructure. This is because the market power associated with scale economies and demand externalities makes proper market functions difficult. Even though it has recently become fashionable for the private sector to be involved in the provision of infrastructure, public provision remains dominant in many developing economies. However, in reality, publicly provided infrastructure services have often delivered poor quality and inadequate coverage. Myanmar provides a striking example.

In this section, the author examines the infrastructure sector, in which SEEs dominate supplies and markets. SEEs in the infrastructure sector in Myanmar thus far have recorded serious failures in providing much-needed services to customers, in particular to industrialists. Poor delivery at exorbitant prices has seriously hindered the industrial development of the country. The case of Myanmar shows the problematic nature of public ownership in industrial development.

(1) Insufficient Investment

All over the world, firms with access to modern telecommunications services,

reliable electricity supply, and efficient transport links stand out from firms without them.[28] As regards the infrastructure, private firms in Myanmar lack almost everything, compared even to poor countries such as Cambodia and the Lao PDR (Table 4-1). Private firms in Myanmar themselves recognize the bad influence of poor infrastructure on economic activity within the country. The survey indicated that the need to improve an inadequate infrastructure is one of the most important items on the agendas of Myanmar businessmen.

It is said that for a long period, the socialist regime did not sufficiently invest in infrastructure, leaving a severely handicapped situation for the military government to inherit at the start of their drive toward a market economy. It is also said that the present government, compared to the previous socialist regime, has exerted every effort to build up the infrastructure throughout the 1990s and up to the present. Of course, infrastructure development is a long-term task and people should be patient with the inconveniences of present work if it means that they can be sure of enjoying the fruits of such efforts in the future. Nevertheless, most of the indexes and survey results suggest that little if any progress has been made in improving the infrastructure during the last 15 years. There must be serious faults in either policy or governance for infrastructure development to be so poor in Myanmar.

The allocation of public investment underwent a drastic change in the 1990s, and became more balanced and appropriate for a market economy (Table 4-2).[29] An increased share of public investment was devoted to infrastructure development including public works (construction) and transport and communications. Meanwhile a lower share of expenditure was allocated for the productive and services sectors such as industry and trade. The share of the industrial sector (manufacturing) fell considerably, from 36% in FY1980 to 18% in FY 1985 and 6% in FY 1999. So far as the production sector was concerned, spending on agricultural development was given priority. Agriculture absorbed 14 % of total public investment in FY 1999. Although the author does not know the detailed budget allocation within the agricultural sector, the emphasis seems to have been on infrastructure development, including the construction of dams, reservoirs and new irrigation systems. This is a significant departure from the

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[28] World Bank, *World Development Report 2005: A Better Investment Climate for Everyone*, 2005, p.124.

[29] The fiscal data of the Myanmar government, including SEEs, is available only up to FY 1999, even in the latest issue of *Statistical Yearbook, 2003*.

past public policy of investing heavily in publicly owned industry.[30]

Nevertheless, the figures of this table do not reveal the real significance of capital investment in the infrastructure sector. Here, the author calculated per thousand (‰) of capital investment of SEEs as of nominal GDP, a method that can capture the real economic value of investment.

It is rather surprising to see that the figures given in Table 4-3 declined in the 1990s. Although the government proudly claimed it had spent heavily on infrastructure development since their seizure of power, in actual terms spending declined. The government invested far less in infrastructure development in the 1990s than in FY 1985. No single infrastructure sector received more capital investment in the 1990s than in FY 1985 or in FY 1990. The figures contrast with the generally held impression that the SLORC/SPDC government emphasized infrastructure development much more than the previous socialist regime. The government has constructed many roads, bridges, dams, power plants, new airports and so forth.[31] However, in reality, they have failed to mobilize sufficient resources for constructing infrastructures in line with overall economic growth (GDP).[32]

Due to poor investment in the 1990s, infrastructure facilities and services have not shown any improvement. Table 4-4 shows that infrastructure capacity and/or services have even declined in some sectors during the 1990s. For example, the air freight total for FY 2002 was only 60% of that of FY 1990, while passengers by road in FY 2002 were only 40% of those in FY 1990.[33] In most respects, the provision of infrastructure failed to grow in proportion to GDP growth. The figures indicate the worsening, or at best stagnation, of infrastructure supply capacity. Were the government to have invited

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[30] Prof. Myat Thein also appraised a more-balanced public allocation by SLORC/SPDC government, stating "The new emphasis given to infrastructure development, and especially transport, also seems to be in accord with the market-oriented policy. The large proportion of public investment in the social sector, however, was taken up largely by defence." (Myat Thein, *Economic Development in Myanmar*, 2004, p.133) As Prof. Myat Thein pointed out, "defence" increased its share from 6% in FY 1985 to 32% in FY 1995. Such an allocation shall not be regarded as *balanced*. Here, the author confines his argument into productive sectors and infrastructure sectors only.

[31] See *Magnificent Myanmar (1988–2003)*, Yangon: Ministry of Information, 2003.

[32] In retrospect, the author doubts whether the more *balanced* allocation of public investment in the 1990s happened to result solely from the sudden suspension of ODA, which had previously been poured into state-owned economic enterprises in the industrial sector. He believes that the apparently renewed allocation policy was not created by a firmly resolute change of public investment policy in accord with a drive toward a market economy.

[33] Note that the figures may not include private services. For example, some private airline services and many private bus services started their operations in the 1990s.

private sector participation, the infrastructure situation in Myanmar would have been quite different.

(2) Inefficient Management

Shortage of public investment capital was not the only reason for lackluster infrastructure development in the 1990s. The inefficient management of SEEs in the infrastructure sector also hampered growth. Most SEEs simply failed to run their daily businesses in a proper manner.

Apart from capital investment, SEEs in the infrastructure sectors lost money in their day-to-day operations. As shown in Table 4-5, most of them could not even cover their operational costs using their own revenues. Moreover, the deficits increased considerably in FY 1997 and FY 1998. For example, MEPE, which had recorded a surplus ever since FY 1980, suddenly plunged into the red in FY 1998 and FY 1999. Enterprises running various modes of transport followed the same pattern. The five SEEs engaged in waterways and airways went into the red in FY 1997 and FY 1999; Myanmar Railways was in deficit in FY 1998 and FY 1999 after having made a comfortable surplus for many years; and Road Transport suffered losses in FY 1996 and FY 1997. The telecommunications, posts and telegraph sector was an exception and enjoyed a relatively substantial surplus up to FY 1999.

What are the factors contributing to the deterioration of the SEEs' operations? Two issues need to be discussed: one is inefficient management of the SEEs and the other is rent-seeking activities, both of which are presumably caused by lack of competition and abuses of monopolistic market power.

SEEs are strictly controlled by the respective ministries, or in other words by the government. Since 1989, the budget of all SEEs has been consolidated into the State Fund Account (SFA), a practice that has deprived SEEs of financial independence. When SEEs lose money, they receive subsidies by way of compensation. When they make profits, they hand them over to the SFA. They have no financial incentive to increase revenue and reduce costs. The management of SEEs is also highly centralized and moreover they lack managerial independence. The government instructs how much SEEs should invest in which year, how much they produce in terms of products and services, at what prices they sell their products and services, and so forth. In other words, SEEs are merely part of the government.

Most tariff rates charged by the public utilities owned by SEEs tend to be suppressed below market prices leaving a surplus demand that is prey to rent-seeking

activities. In addition to imposing lower price settings, the SEEs often favor particular groups such as other SEEs, military units and related enterprises, and governmental officials, and these clients tend to be charged cheaper tariff rates. Revisions of tariff rates have often lagged behind the rapid devaluation of the Kyat, whereas most inputs for producing such services have been dependent on imports, including foreign exchange costs such as fuel and imported spare parts. This seems to have contributed towards the serious deterioration of the SEEs' financial situation.

(3) SEEs in Electricity, Communications and Petroleum

This section examines three key SEEs in electricity, communications and petroleum distribution respectively. These cases highlight the difficulties surrounding the public provision of infrastructure services.

MEPE Electric power supply in Myanmar is monopolized by Myanmar Electric Power Enterprise (MEPE), a SEE that comes under the jurisdiction of the Ministry of Electric Power. The State-owned Economic Enterprises Law of 1989 stipulated that electric power generation shall be exclusively done by public enterprises. MEPE is the sole provider of electricity generation and transmission nationwide.

The total installed capacity of electric power was 1335 MW as of September, 2004,[34] increases in capacity having lagged behind overall GDP growth, as was mentioned earlier. The per capita consumption of electric power is 108 kw, which is one of the lowest in the world. Only 5% of the people of Myanmar have access to electricity, a much lower percentage than in Cambodia (17%) and the Lao PDR (41%). Demand for electric power tends to increase more rapidly than GDP in any economy during the early stages of economic development and this is true also of Myanmar. To make matters worse, it is said that in FY 2001, around 15% of electricity was lost during generation, transmission and distribution, making the demand-supply gap even wider. The EIU has estimated a 220 MW shortfall in electricity supply in Myanmar in recent years.[35]

Because the supply of electricity is unreliable and insufficient, industrial firms depend on their own or shared generators, which are run on diesel. The market price of diesel is expensive and the technical efficiency of electricity generation by small-scale generators is low. As a result, independently generated electricity is costly compared to power supplied through the grid. Moreover, the tariff rates are multi-tiered and

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[34] *Selected Monthly Economic Indicators*, CSO, September 2004.
[35] EIU, *Country Profile 2004 Myanmar (Burma)*, 2004, p. 20.

foreigners, whether residents or organizations, must pay in US dollars or FEC, which makes real charges for electricity much more expensive than local ones. A foreign garment factory located in Mingalardone Industrial Estate, one of the best industrial parks in Myanmar, experienced frequent and lengthy electricity outages and had no alternative but to use its own generator. In 2004, the firm's energy costs, including electricity from the grid and diesel oil, was 1.4 times more than its labor costs.[36] Even in the highly labor-intensive garment industry, energy costs more than labor. Thus it is that cheap labor costs have been offset by expensive infrastructure services.

MPTE Myanmar Post and Telecommunication Enterprise (MPTE), a corporation that comes under the jurisdiction of Ministry of Communications, Posts and Telegraphs, has long enjoyed a monopoly in the provision of telephone services. Their services are notorious for frequent disconnections, lengthy waiting times for connections, and costliness. Customers have to wait for a long time until they get connected to lines and they are often asked for "tea money" in return for making connections. As a result of inadequate coverage and unreliable services, the market rates for telephone lines vary considerably from telephone number to telephone number. Customers try to get better lines by offering, again, "tea money" to MPTE officials. International phone calls are grossly expensive; for example it costs 4.5 US dollars per minute for a telephone call from Myanmar to Japan.

Mobile phones are few and far between and are for privileged customers only. Mobile phones are sometimes sold to specially designated groups such as military cadres, high ranking government officials and so-called crony businessmen. Some mobile phones are resold to *real* customers who have a pressing need for telephone services and can afford extravagant market prices.

As regards Internet provider services, the government allowed one private company to enter the market. This company, however, was run by a son of then Prime Minister General Khin Nyunt. This move seems to have improved the Internet environment in Myanmar. Nonetheless, Internet accessibility lags far behind access in neighboring countries, where liberalization has gone much farther. The Internet café is a recent phenomenon found only in Yangon and Internet access through personal computers at home is something far beyond the wildest dreams of the majority of the population. Even the issuance of e-mail accounts is quite limited.

MPPE The Myanmar Petroleum Products Enterprise (MPPE) is the sole enterprise

[36] Personal communication from the factory manager in June, 2005.

responsible for the distribution and sale of petroleum products in Myanmar. MPPE has four main fuel terminals, 26 sub-fuel terminals, 11 aviation depots and 256 filling stations nationwide.[37] MPPE presents a typical case of an enterprise falling prey to rent-seeking activities. In June 2005, their petrol stations were selling gasoline and diesel at the official rates of 180 kyats/gallon and 160 kyats/gallon respectively, whereas the free market rates of these two fuels were approximately 2000 kyats/gallon and 2300 kyats/gallon respectively.[38] Such pricing naturally creates gross shortages at official prices, giving MPPE arbitrary power of allocation. In principle, car owners in Yangon are entitled to two gallons per car per day. However, some privileged groups such as government officials, other SEEs, and military units are allowed extra allocations. All these surplus allocations are resold on the parallel market, providing windfall money to the sellers. The fuel is then distributed to actual consumers by "black" merchants, who although operating beyond the law, are openly present, buying and selling fuel just next to the filling stations that have supplied them.

Such pricing policies have made MPPE one of the biggest loss making SEEs in Myanmar. MPPE's losses in current cash budget terms accounted for about 10% of the total losses of SEEs in FY 1997 and FY 1998. Imports of refined mineral oil have been increasing as demand has expanded, and grew by about nine times between FY 1990 and FY 2003. The share of refined mineral oil in total imports also increased, from less than 5% in the mid-1990s to 13% in FY 2003. This import trend suggests that MPPE's present deficit is growing, and is likely to continue to increase in the future unless price liberalization occurs. Moreover, MPPE's supply of subsidized fuel deters other SEEs and privileged groups from introducing managerial and structural reforms, resulting in more distorted resource allocations.

Conclusion The author does not know whether or not the trends described above have continued since FY 1999. However, so far there has been no indication of substantial SEE reforms of an institutional, organizational or managerial nature. Poor management and rent-seeking activities seem to be continuing at the present time.

Budgetary difficulties have constrained capital investment in the infrastructure, with the result that the provision of infrastructure services has lagged far behind the expansion of the economy as a whole. Inefficient management has also contributed to the failure of the infrastructure SEEs to deliver good services to customers. Public

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[37] The energy sector of Myanmar government homepage is available at http://www.energy.gov.mm/.

[38] Personal interviews with taxi drivers in Yangon in June 2005.

ownership as well as government restrictions on private sector participation have entirely excluded competition from this sector. Conventional wisdom warns, for example, that outright privatization may not function in infrastructure provision because of market failures. However, in reality, government failures seem to have made matters much worse. In a sense, the infrastructure sector more than any other has been the worst victim of strong intervention by the government, an intervention that has brought about many government failures.

It follows that a better investment and business climate for infrastructure development is desperately needed, to invite potential private investors. Otherwise, the cash-starved government will never be able to invest enough in infrastructure, and the scarce resources invested in the sector will continue to be wasted with all the drawbacks attendant on government intervention.

5. The Garment Industry: A Successful CMP-based "Enclave"

An exceptionally brisk development of the garment industry was apparent in the late 1990s and around 2000, although the American sanctions of July 2003 caused considerable damage thereafter. This section tries to investigate how this industry overcame, or avoided, the poor investment climate and the disadvantageous economic fundamentals of Myanmar. The case will suggest that there is a way forward that Myanmar industrialists might explore under such constraints; at the same time the case highlights the tasks both entrepreneurs and the government will have to tackle if they wish to develop this industry further.

(1) Brief History

The manufacture of garments for export is a relatively recent industry in Myanmar. First, state-owned and military-related textile and garment factories started production for overseas buyers and customers in the early 1990s. Then, some foreign firms, and especially companies from Korea, Taiwan and Hong Kong, established joint ventures with these factories, while some established wholly-owned factories funded entirely by foreign capital. "Boom" conditions in the garment industry of Myanmar came about only in the late 1990s. In short, garment manufacture is still quite a young industry in Myanmar.

The export value, or production value, increased rapidly in the late 1990s in response to strong demand from the United States and the countries of the European Union. Table 5-1 shows the main countries importing Myanmar-made clothes, and it

can be seen that there is a big discrepancy between export data on the Myanmar side and import data on the recipients' side. Of course, the two sets of data employ different trade terms such as FOB or CIF and time records differ according to transportation time, and so forth. Nevertheless, the gap between the two is unreasonably wide. For example, the export data of the Myanmar customs recorded the value of garment exports as 225.8 million USD in 2004, whereas the data given by the importing countries for garment imports from Myanmar came to a total of 547.3 million USD, more than twice that of the export data. Such discrepancies seem to be caused by several factors. First, Myanmar exporters understate the value of their exports so as to avoid the 10% export tax. Second, they may use different exchange rates in arriving at the export value given in USD. Third, re-labeling practices may well be being used to conceal the fact that the exported garments originate from Myanmar. Some buyers may not like the statement "Made-in-Myanmar" for human rights reasons and because of the highly unfavorable political image of the military dictatorship. It is said that some industrialists re-label the products in another country. In any case, however, garment exports increased rapidly only the late 1990s, reaching a peak of 829 million USD in 2001.

The American sanctions of July 2003 severely damaged the garment industry of Myanmar. The Myanmar Garment Manufacturers Association has tried to estimate the impacts. It claims that the number of factories fell from 400 factories to 180, and the number of workers from 300,000 to 120,000. Sanctions also caused CMP charges to decline by about half. Without any doubt, American sanctions devastated this industry.

(2) CMP-based "Enclave"

Why did the garments industry show such a rapid growth before the imposition of the American sanctions? There are of course various factors such as labor costs, the MFA quota, and the "China+1" diversification strategy of buyers. All of these factors contributed substantially to the growth of the garment industry in Myanmar.[39] At the same time, all of these factors continuously pose challenges to the garment industry, and determine its destiny in line with market demand, international competitiveness, capital formation, human resources, technology transfer, and so on. Here, however, the

[39] See, for example, Moe Kyaw, "Chapter 4: Textile and Garment Industry: Emerging Export Industry" in Toshihiro Kudo ed., *Industrial Development in Myanmar: Prospects and Challenges*, ASEDP No. 60: Chiba, Institute of Developing Economies, JETRO, 2001, pp.143-173.

author prefers to focus on the *system* that made possible the development of this industry despite a poor investment climate and the weakness of the economic fundamentals described earlier, assuming the above-mentioned factors as given or exogenous. By understanding the institutional set-up that supported the growth of the garment industry in Myanmar, we can better understand the structural problems impeding the development of other industrial sectors. Moreover, such an approach enables us to better understand the prospects and challenges that the garment industry itself will face in the near future, once firms set out to climb up the industrial ladder toward more skill-intensive and sophisticated products.

How did the garment industry overcome multiple exchange rates, control of import licenses, lack of raw materials and finance and all the other handicaps presented by the investment climate of Myanmar? It did so by the usage of Cutting, Making and Packing (CMP) arrangements, in which overseas buyers do everything but production. Thus under this system, overseas buyers find customers, design the clothes with detailed specifications, and procure raw materials, leaving the Myanmar industrialists to construct factories equipped with sewing and broidering machines, to employ workers and to sew clothes. By contrast, the so-called "FOB" production modality involves more active participation of Myanmar industrialists in matters such as procurement of raw materials, design of clothes and marketing.[40] The latter modality requires the economy and its industrialists to have better-developed upstream industries, stronger industrial linkages, better access to financial facilities, more business coordination ability and more risk-taking attitudes, most of which are currently not available in Myanmar.

Garment manufacture is a labor intensive and export-oriented industry and one that has swiftly shifted its production bases from one county to another, in search of ever cheaper labor costs and ever more attractive quotas.[41] The industry utilizes

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[40] Based on his survey of Vietnamese firms, Goto classified the so-called "FOB" contractual arrangements into three types. The first type is where Vietnamese firms purchase input materials for processing from suppliers that are designated by foreign buyers (FOB Type I). The second type is where Vietnamese firms receive garment samples from foreign buyers (FOB Type II). The third type is where the Vietnamese firms initiate production of garments based on their own design, with no prior commitment of any kind from foreign buyers (FOB Type III). (Kenta Goto, "Coordinating Risks and Creating Value: The Challenges for the Vietnam Textile and Garment Industry", NEU-JICA Discussion Paper No.5., 2002), available at www.grips.ac.jp/module/vietnam/garment_en.html. The term "FOB" here has no relationship with the one defined under Incoterms.

[41] Under the MFA (Multi-Fiber Arrangement), the US and the EU had long imposed quantitative limitations on importable amounts specific to each exporting country. Myanmar enjoyed a free quota on the EU market and quotas were imposed by US with

conventional technology and its initial investments, mainly sewing machines, are relatively small. Raw materials are not that heavy and bulky, and they are transportable at reasonable cost. The nature of the product makes CMP arrangements possible in the garment industry. In other words, the CMP system can create *enclaves* where all raw materials are provided from abroad and products are processed by domestic workers and exported again to overseas markets, avoiding messy domestic and international transactions and settlements.

CMP arrangements are of course applicable to other industrial sub-sectors and are already present in industries such as shoes, electronics, and medical and optical appliances. However, the arrangements in these industries are few and far between and show limited success, probably because they demand a larger initial investment, more highly trained workers, and a more reliable infrastructure. Given the present investment climate and industrial fundamentals in Myanmar, CMP arrangements could create *enclaves* only in relatively straightforward lines of production such as garment manufacture.

The most important advantage of CMP arrangements is that Myanmar industrialists do not need to pay for imported raw materials such as fabrics and buttons. Instead, almost all raw materials except small things like carton boxes and plastic bags, which are domestically procurable, are provided by overseas buyers with their own financing and risks. The actual payment is merely the remittance of processing fees to MFTB and/or MICB, two state-owned foreign exchange banks, by overseas buyers after their receipt of products. Myanmar industrialists do not have to be bothered by all the controls surrounding importing and exporting or by tedious procedures as in other sectors.

So far as can be ascertained, there is no "FOB" modality of production in Myanmar, whereas it is said that between 10 to 15 % of garment factories in Vietnam are engaged in "FOB"-type production and export. Although Goto asserts in the aforementioned paper that a shift from CMT (CMP)[42] to FOB does not necessarily guarantee increased value-added and international competitiveness, the viability and feasibility of "FOB" operations are closely related to better investment and to a more favorable business climate, in which indigenous industrialists can take more risks. The *de facto* impossibility of "FOB"-type production and export in Myanmar implies a poor

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respect to only six items. The MFA was abolished on 1st January, 2005.

[42] CMT(Cutting, Making and Trimming) is the more common term for what is CMP in in Myanmar.

investment and business environment.

(3) Regulation and Taxation on CMP Businesses

Import Controls The government nevertheless started to regulate and restrict CMP-based businesses, when they had become popular and when the shortage of foreign exchange became acute in 1997 and 1998. It seems that there were some fraudulent cases, and these, too, triggered stricter government controls. The Ministry of Commerce issued a directive stating that as from December 9, 1997, only materials such as textiles, cloth, woolen cloth and leather necessary for the production of garments would be allowed to be imported under CMP arrangements.[43] Since the government regarded CMP-based businesses as a kind of services industry earning service fees (processing charges in reality), traders with nothing but import/export licenses were also engaging in the CMP business.[44] These traders sometimes tried to import goods other than raw materials for garment production under CMP-based arrangements. Similar misconduct can be found anywhere among the developing economies, but this case also shows the strength of the demand for imported goods in Myanmar. Imported goods, non-essential luxury ones in particular, sold well, and businesses that dealt in them made big profits. Businessmen often said "they export in order to import". Even if businessmen lost money in exporting, they could make profits by importing, using their export earnings to buy the imports. Therefore, it is natural that traders tried to take advantage of CMP arrangements to import lucrative goods. The government issued a directive to confirm and enforce the previous one on April 27, 1998.[45] The government went on to further tighten import controls even on investments approved under the FIL (Foreign Investment Law) and MCIL (Myanmar Citizens Investment Law) through the authority of the MIC (Myanmar Investment Commission), requiring businesses to apply for import licenses that were previously not necessary.[46]

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[43] Directorate of Trade, Ministry of Commerce, *News Letter 14/97* dated on December 9, 1997.

[44] Foreign currencies earned by CMP-based businesses are not regarded as "export earnings" the holders of which are entitled to import (Export First Policy). This is because they are regarded as service fees rather than *exports* as defined by the government.

[45] Directorate of Trade, Ministry of Commerce, *News Letter 2/98* dated on April 27, 1998.

[46] This change of rules seems to have considerably affected the garment industries, in particular those that needed QR (Quick Responses). According to an owner of a foreign garment factory in Yangon, the delay in imports delivery due to the application for import licenses critically damaged its just-in-time production and caused him

Tax In matters of taxation, the government went beyond existing regulations and restrictions. It tried to tax CMP-based businesses and extract part of their foreign earnings. With effect from May 2001, CMP-based businesses had to make their kyat conversion at the semi-official rate of 450 Kyat per 1 USD at the Foreign Exchange Certificate Centre located downtown, while the market rate was at the time around 700 Kyat/USD. The government tried to enforce all CMP-based businesses to change their foreign revenues at the rate of 450 Kyat/USD. However, subsequently, the government relaxed the requirement to make it applicable for the wage portion only. Be that as it may, this is a form of implicit tax levied on CMP-based businesses.

The government went on to impose the so-called 10% export tax on all the revenues of CMP-based businesses made after October 2003. The export tax was introduced in 1999 and is said to have consisted of 8% commercial tax and 2% income tax. In practice, however, 10% is automatically levied on all exports regardless, presumably, of different profit ratios. CMP-based businesses were previously exempted from the 8% commercial tax, leaving them to pay only the 2% income tax levied on all foreign revenues.[47] At the same time, the compulsory exchange at the below-the-market rate of 450 Kyat/USD was abolished. It is unclear whether this change favored CMP-based businesses or not, since the effective tax burden depends on the cost structure of each establishment as well as on market exchange rates. It is however clear that this was not exactly an encouraging policy initiative for the garment industry, coming as it did immediately after the devastating impact of the American sanctions.

Moreover, CMP-based businesses face another difficulty in that it is not easy for them under government regulations to import goods other than raw materials directly used for production. The garment factories need machines and tools, spare parts, and sometimes automobiles for the use of administrative staff. Automobiles are the last thing that the government will permit them to import. The government, being far too cautious about the possible illegal sales of such luxuries has in effect banned everything.

Conclusion The garment industry has grown by using CMP arrangements, which created enclaves in the midst of a poor investment climate and disadvantageous industrial fundamentals. However, garment makers have not been able to operate free

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eventually to decide to withdraw from Myanmar in 1999 (Personal communication).

[47] As mentioned before, however, foreign revenues from CMP-based businesses are not regarded as “export earnings”, which are entitled to import. With the 10% export tax applicable to them, CMP revenues have also become fully-fledged “export earnings”.

of government regulation. The government has often tried to regulate and control them, and squeeze foreign exchange from them. The CMP-based enclaves could not operate in physical isolation from the poor infrastructure, either. (The weak state of the Myanmar infrastructure has been explained in the previous section.)

When the garment industry in Myanmar wishes to increase its productivity, it inevitably proceeds to procure more domestic raw materials for garment production. With enhanced domestic sourcing, what is at present a straightforward processing industry could develop into a more complicated value-added form of production, with stronger international competitiveness. Climbing up an industrial ladder toward more sophisticated skill-oriented production definitely requires improvements such as a more reliable infrastructure, stronger industrial linkages, and a more skilled labor force. If developments of that kind were to occur, CMP-based *enclaves* would lose their momentum, and Myanmar industrialists would have to leave them and seek resources nationwide. The success story of the CMP-based enclaves would come to an end, and businessmen would once again be confronted by the basics, or in other words by the need for Myanmar to get the fundamentals right.

6. Conclusion: Getting the Fundamentals Right

Still Stunted and Distorted by Structural Problems The industrial development of Myanmar has long been stunted and distorted by the economic policies followed by successive governments, including the present one. Even though the economy and industry underwent a preliminary phase of development in the first half of the 1990s as a result of an open door policy and liberalization measures, the brief period of growth failed to effect any real changes in the economic fundamentals and, even more importantly, failed to change the military government's way of thinking on economic management. The industrial sector still suffers from poor power supplies, limited access to imported raw materials and machines, exchange rate instability, limited credit, frequent changes of government regulations and so forth. It is still plagued with a large number of serious structural problems. It has yet to break out of the past cycle of underdevelopment; and economic policies have continued to exert a stunting and distorting effect.

Getting the Fundamentals Right Industrialization is neither an easy nor an automatic process. Moving up the production ladder to more capital- and skill-intensive products requires better facilities, a more reliable infrastructure, and more highly

trained workers and managers.[48] To some extent, market forces push this process along, as is shown for example by the case of the Myanmar garment industry. Once proper incentives are given in markets, they can encourage entrepreneurs to enter into new industries. Nevertheless, this does not mean there is no role for government to play in a market economy. There are actually many and important roles left for the government even in an economy with a free and open market.

The role of government in a market economy, however, is not to construct state-owned factories in the hope of achieving rapid industrialization in leaps and bounds. On the contrary, what the government has to do first and foremost is to get the fundamentals right. Sound economic fundamentals may cover a wide range of factors and policy issues: examples are macroeconomic stability, a well-established infrastructure and financial institutions, well-trained human resources, a sound legal framework, and transparent and accountable governance of regulation and tax. In short, what the government has to do is to provide a better business climate and an efficient infrastructure in which private sector businesses, including foreign firms, can run their operations smoothly and vigorously.

Second Time Bailout The issue here is whether the present government can do this or not. Since 1997, the pace of economic reforms has slackened virtually to a halt, leaving the transition to a market economy at the half-way stage, and failing to achieve a fundamental transformation of the economic system. In retrospect, it is now clear that the apparent policy changes of the late 1990s were made possible with windfall money from offshore natural gas exploitations. In fact, this would be the second bail-out of the Myanmar economy in an economic crisis. The first bail-out occurred in the mid-1970s, when the economy had already been on the verge of collapse. It was rescued by a massive infusion of economic aid and loans. The ODA money secured Ne Win in power, and at the time it enabled him to forgo much-needed economic reforms for sustainable development.

What is the situation this time round? This time, the military government was bailed out of acute shortages of foreign exchange after 1997, when they had difficulty in buying petroleum even on long-term contracts. Revenues from natural gas must have considerably changed that situation. However, these revenues also pose a significant challenge for the government, namely how best to use the money. It is up to the

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[48] Dwight H. Perkins, Steven Radelet, Donald R. Snodgrass, Malcolm Gillis and Michael Roemer, *Economics of Development, Fifth Edition*, New York: W.W. Norton & Company, Inc., 2001, p. 713.

government whether they use the money for much-needed economic reforms and infrastructure development, or whether they forgo these reforms. If the government regards the money as a windfall that can be poured into pet projects such as establishing a new industrial zone to accommodate many newly constructed state factories in a rural small town, the native place of the present leader, they will simply repeat the failure of the former leader once again. The government stands at the crossroads.

APPENDIX: SURVEY ON PRIVATE FIRMS IN MYANMAR

1. Objectives

The IDE study team conducted a survey of private firms in Myanmar in 2003 with the aim of gaining an understanding of the current situation of the private sector and the business environment in Myanmar. The questionnaire was prepared and tested by the study team and the data collection was commissioned to a marketing and research company working under the supervision of IDE study team.

2. Samples

A total of 167 private firms were selected from Yangon and Mandalay. As regards Yangon, the sampling was based on the sector classification given by the *Yangon Directory 2003*. For Mandalay, we chose samples mainly from the manufacturing sector, Mandalay being famous as a production center in Myanmar.

The sample firms were originally classified into 10 categories, namely exporters of garments, exporters of agricultural produce, exporters of marine products, manufacturers of agricultural produce, manufacturers of industrial products, manufacturers of consumer products, construction, services for businesses, services for consumers, and the retail trade.

For the convenience of description and analysis in this paper, the author streamlined these ten categories into 3 sectors with 7 categories. The three sectors are manufacturing, construction and services. The manufacturing sector is further divided into four categories, namely garments, agricultural and marine products, industrial goods and consumer goods, while services are divided into the two groups of services for businesses such as software, advertising, and consultancy, and services for consumers such as restaurants and hotels. The numbers in each category are shown below.

[Sector Classification of Samples]

		Yangon	Mandalay	Total
Manufacturing	Garments	12	1	13
	Agri & Marine	18	2	20
	Industrial Goods	18	6	24
	Consumer Goods	41	22	63
Construction		13	1	14
Services	For Businesses	15	0	15
	For Consumers	17	1	18
Total		134	33	167

3. Field Survey

The field surveys were conducted by trained enumerators. The author of this paper joined the field surveys several times to get first-hand knowledge from interviews with the founders, owners and managers of private enterprises as well as to ensure that the surveys were of reasonable quality. The field surveys were conducted between October and December, 2003.

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TABLES

Table 2-1: Number of Registered Private Industrial Enterprises

	Number	Growth (%)
FY 1990	27	-
FY 1991	23,848	883 times
FY 1992	25,081	5.2%
FY 1993	28,528	13.7%
FY 1994	31,540	10.6%
FY 1995	33,278	5.5%
FY 1996	35,348	6.2%
FY 1997	35,786	1.2%
FY 1998	35,915	0.4%
FY 1999	36,152	0.7%
FY 2000	37,649	4.1%
FY 2001	38,254	1.6%
FY 2002	39,604	3.5%
FY 2003	42,429	7.1%
FY 2004	43,435	2.4%
FY 2005*	41,875	-3.6%

(note) * as of May, 2005.
(Source) Ministry of Industry (1).

Table 2-2: Public Industrial Enterprises

	Total Number	Growth (number)
FY 1985	597	-
FY 1990	616	19
FY 1995	708	92
FY 1996	753	45
FY 1997	771	18
FY 1998	802	31
FY 1999	824	22
FY 2000	848	24
FY 2001	901	53
FY 2002	1,132	231

(Source) CSO, *Statistical Yearbook*, 2003.

Table 4-1: Infrastructure Access and Stocks (%)

	Water Supply access	Sanitation access	Electricity access	Telephone access	Internet access
Myanmar	72	64	5	1	0.1
Cambodia	44	22	17	4	0.2
Lao PDR	58	30	41	3	0.3
Vietnam	49	25	81	9	4.3
Thailand	93	98	84	50	11.1
China	76	39	99	42	6.3

(Source) ADB, *Connecting East Asia*, 2005, p. 9.

Table 4-2: Public Investment by Sector, Composition (%)

	FY 1980	FY 1985	FY 1990	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999
Agriculture	11.5	11.9	5.4	16.7	11.0	13.2	20.5	14.2
Livestock and Fishery	6.9	2.8	1.0	0.2	0.3	0.2	0.2	0.1
Forestry	3.5	4.1	2.9	1.0	1.6	1.4	1.1	1.5
Mines	7.4	1.5	1.2	0.4	0.2	0.1	0.1	0.0
Industry	36.1	17.7	4.8	0.9	1.7	2.3	2.3	5.7
Energy	5.3	22.0	8.0	3.4	4.8	6.7	4.8	6.6
Construction	3.6	6.0	9.5	12.1	11.9	20.5	15.7	20.3
Transport and Communications	12.6	12.7	12.3	15.4	17.4	16.6	15.4	15.0
Social Services	2.3	9.1	20.3	10.9	16.0	11.4	6.4	8.0
Finance	0.5	0.5	3.2	1.5	0.8	1.0	0.6	1.1
Trade	2.2	3.6	2.5	2.0	1.4	1.1	0.7	0.8
Defence	4.8	5.6	15.6	31.9	30.5	22.6	29.7	22.9
Administration	2.0	1.7	5.9	3.5	2.4	2.7	2.6	3.8
Development Committees	1.3	0.7	7.5	0.0	0.0	0.0	0.0	0.0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(Source) CSO, *Statistical Yearbook*, 2003.

Table 4-3: SEEs' Capital Investment in Main Infrastructure Sectors, as of GDP (%)

	FY 1985	FY 1990	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999
ENERGY	25.1	5.4	2.3	3.5	4.1	2.4	2.5
Myanma Oil and Gas Enterprise	1.1	0.5	0.0	0.3	0.2	0.3	0.5
Myanma Electric Power Enterprise	11.8	4.7	2.2	3.0	3.7	1.9	1.9
PUBLIC WORKS	0.2	0.2	0.7	0.4	0.1	0.1	0.1
TRANSPORT (WATER, AIR)	8.1	1.7	0.8	1.9	1.4	0.6	0.5
RAIL TRANSPORT	3.6	3.1	5.8	7.6	5.8	3.0	2.7
Myanma Railways	2.6	2.9	5.7	7.5	5.6	2.9	2.6
Road Transport	1.0	0.2	0.1	0.2	0.1	0.1	0.2
TELECOMMUNICATIONS, POST & TELEGRAPH	1.7	2.6	1.3	1.3	1.1	0.8	0.6
INDUSTRY	19.6	3.0	0.6	0.6	0.8	0.7	1.4
Industry (1)	15.8	3.0	0.4	0.6	0.7	0.4	1.0
Industry (2)	3.7	0.1	0.1	0.0	0.1	0.2	0.4

(Source) CSO, *Statistical Yearbook*, 2003.

Table 4-4: Performance Indexes for Infrastructure Development

	FY 1985	FY 1990	FY 1995	FY 2000	FY 2002	FY1985→ FY2002	FY1990→ FY2002
Electricity							
Electric Power, Installed Capacity (MW)	684	804	982	1171	1190	1.7	1.5
Electric Power, Generation (Million KW)	2119	2643	3762	5118	5864	2.8	2.2
Electric Power, Consumption (Million KW)	1460	1675	2262	3268	4691	3.2	2.8
Transport							
Railways: Passengers (in thousands)	55012	53180	53928	60486	61763	1.1	1.2
Railways: Freight (in ton miles)	271848	306861	551594	750040	723098	2.7	2.4
Airways: Passengers (in thousands)	466	416	637	448	500	1.1	1.2
Airways: Freight (in ton miles)	1209	688	482	705	435	0.4	0.6
Inland Waters: Passengers (in thousands)	20313	27481	24979	23270	24199	1.2	0.9
Inland Waters: Freight (in ton miles)	307535	325643	322601	344381	370872	1.2	1.1
Road: Passengers in Yangon (in thousands)	82994	97391	116703	37061	37879	0.5	0.4
Road: Freight (in ton miles)	157638	76842	147393	189893	208847	1.3	2.7
Arterial Highways (miles)	14417	14951	17299	17874	18112	1.3	1.2
Registered Motor Vehicles (number)	141015	178500	302833	442264	466708	3.3	2.6
Communications							
Telephones (number)	59343	86333	169530	282853	351763	5.9	4.1
Mobile Phones (number)	-	-	5234	26960	94736	-	-
e-mail subscribers (number)	-	-	289 (FY 1998)	3273	12706	-	-
Internet users (number)	-	-	-	40	7240	-	-
Real GDP (Million Kyat, 1985 Prices)	55989.3	50259.5	66741.6	100274.8	135972.6	2.4	2.7

(Source) CSO, *Statistical Yearbook*, 2003.

Table 4-5: SEEs' Current Cash Budget (Kyat Million)

Industry ((1)&(2))	FY 1980	FY 1985	FY 1990	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999
Receipts	4435	5491.4	6377.2	10691.4	13388	17660	24558.8	32387.7
Expenditures	4448.6	5129.4	5744	10907.8	12452.6	17522.6	27596.2	33269.6
Surplus/Deficit	-13.6	362	633.2	-216.4	935.4	137.4	-3037.4	-881.9
% of Receipts	-0.3%	6.6%	9.9%	-2.0%	7.0%	0.8%	-12.4%	-2.7%

MEPE	FY 1980	FY 1985	FY 1990	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999
Receipts	209.2	430.6	795.6	2771.1	3227.5	3450.8	3599.6	19680.8
Expenditures	201.9	412.3	658.5	2599.8	2721.6	3120.7	4976.9	20614.1
Surplus/Deficit	7.3	18.3	137.1	171.3	505.9	330.1	-1377.3	-933.3
% of Receipts	3.5%	4.2%	17.2%	6.2%	15.7%	9.6%	-38.3%	-4.7%

Telecommunications, Post and Telegraph	FY 1980	FY 1985	FY 1990	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999
Receipts	96.6	255.9	445.1	1834.5	2256.2	3401.7	4248	5168
Expenditures	65.7	130.9	316.9	1527.8	2066.6	2403.2	3558.9	4491.2
Surplus/Deficit	30.9	125	128.2	306.7	189.6	998.5	689.1	676.8
% of Receipts	32.0%	48.8%	28.8%	16.7%	8.4%	29.4%	16.2%	13.1%

MPPE	FY 1980	FY 1985	FY 1990	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999
Receipts	393.9	795.6	1958.6	5070.2	4907.2	30142.6	48686.1	61705.6
Expenditures	519.1	808.8	2020.6	5139.3	5323.4	32988.5	55467.8	61289.5
Surplus/Deficit	-125.2	-13.2	-62	-69.1	-416.2	-2845.9	-6781.7	416.1
% of Receipts	-31.8%	-1.7%	-3.2%	-1.4%	-8.5%	-9.4%	-13.9%	0.7%

Transport (5 SEEs: Water&Air)	FY 1980	FY 1985	FY 1990	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999
Receipts	630.9	827.7	1111.8	2362.6	3202.1	3445.9	5455.3	5029.7
Expenditures	637.4	759.8	899.1	2006.9	2519.8	3759.6	5297.7	5482.3
Surplus/Deficit	-6.5	67.9	212.7	355.7	682.3	-313.7	157.6	-452.6
% of Receipts	-1.0%	8.2%	19.1%	15.1%	21.3%	-9.1%	2.9%	-9.0%

Myanmar Railways	FY 1980	FY 1985	FY 1990	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999
Receipts	291.4	349.3	835.1	2065.4	2570.5	4237.7	5190.9	5250
Expenditures	283.8	304.3	672.3	1902.8	2066	3162.2	5414.7	5457.9
Surplus/Deficit	7.6	45	162.8	162.6	504.5	1075.5	-223.8	-207.9
% of Receipts	2.6%	12.9%	19.5%	7.9%	19.6%	25.4%	-4.3%	-4.0%

Road Transport	FY 1980	FY 1985	FY 1990	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999
Receipts	173	214.9	349.1	711.7	663.5	1086.6	1265.2	1158
Expenditures	159.8	171.6	299.8	677.7	731.1	1197.6	1176.4	1148.6
Surplus/Deficit	13.2	43.3	49.3	34	-67.6	-111	88.8	9.4
% of Receipts	7.6%	20.1%	14.1%	4.8%	-10.2%	-10.2%	7.0%	0.8%

Grand Total	FY 1980	FY 1985	FY 1990	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999
Receipts	17946.2	22335	31327.4	87185.1	108555	184921.2	242155.5	315141.7
Expenditures	18121.6	22503.3	32219.1	91624.6	119936.5	214639.7	309587.1	365695.2
Surplus/Deficit	-175.4	-168.3	-891.7	-4439.5	-11381.5	-29718.5	-67431.6	-50553.5
% of Receipts	-1.0%	-0.8%	-2.8%	-5.1%	-10.5%	-16.1%	-27.8%	-16.0%

(Source) CSO, *Statistical Yearbook*, 2003.

Table 5-1: Major Importers of Myanmar Garment

(USD Millions)

	1997	1998	1999	2000	2001	2002	2003	2004	2004(Myanmar Exports)*
EU (15 Countries)	94.1	118.0	155.1	276.1	348.8	307.2	339.9	456.8	144.2
UK	31.9	26.0	35.0	80.8	97.3	98.6	102.6	139.0	45.6
Germany	23.1	35.3	40.6	65.2	75.3	66.1	90.9	115.9	0.3
France	29.2	33.8	51.4	57.6	70.6	61.7	52.3	62.9	14.7
Spain	3.5	3.9	7.6	17.0	26.9	20.6	24.2	43.8	14.5
Italy	4.1	5.2	4.1	13.1	19.2	20.7	21.6	33.2	9.3
The Netherlands	5.7	6.8	10.7	29.6	35.1	9.8	15.3	26.0	2.5
Japan	1.1	2.3	2.1	4.6	7.5	15.0	32.2	44.8	27.0
Singapore			10.8	26.5	28.4	22.2	29.2	23.6	11.5
Canada	7.8	6.3	11.6	31.6	29.5	22.0	19.9	12.3	3.7
Korea	0.1	0.0	0.2	0.7	3.3	1.7	5.0	6.3	13.2
Malaysia	0.0	0.0	0.0	0.0	0.5	1.6	2.8	3.2	4.4
Australia	1.5	2.7	3.6	2.5	3.0	0.3	0.2	0.3	6.0
USA	85.3	127.8	185.7	403.5	408.0	298.6	232.7	0.0	0.2
Total (22 Countries)	189.8	257.2	369.1	745.5	829.0	668.5	661.8	547.3	225.8

(Note) The figures include HS61(Knit Apparel) and HS62 (Woven Apparel).

(Source) World Trade Atlas. Af for Myanmar Exports*, data is from Myanmar Customs.

Table A-1: Year of Establishment

	Manufacturing					Construction	Services		Total
	Garments	Agri & Marine	Industrial Goods	Consumer Goods	Sub-total		For Business	For Consumer	
Up to 1988	1	2	3	18	24	0	0	3	27
1989 - 1992	0	7	7	13	27	8	4	2	41
1993 - 1996	2	5	6	12	25	5	5	4	39
1997 - 2000	8	4	7	18	37	2	6	7	52
2001 - 2003	2	2	1	1	6	0	0	2	8
Total	13	20	24	62	119	15	15	18	167

(Source) Survey, 2003.

Table A-2: Export

		Do you Export?	
		Yes	No
Manufacturing	Garments	11	2
	Agri & Marine	16	4
	Industrial Goods	4	20
	Consumer Goods	10	53
Construction		1	13
Services	For Business	1	14
	For Consumer	0	18
Total		43	124

(Source) Survey, 2003.

Table A-3: Ethnicity of Entrepreneurs

	Bamar	Chinese	Indian	Other indigenous	Foreigners	Total
Manufacturing	57	46	8	6	3	120
Construction	9	3	1	0	1	14
Services	22	7	3	1	0	33
Total	88	56	12	7	4	167

(Source) Survey, 2003.

Table A-4: Previous Occupation of Entrepreneurs

	Bamar	Chinese	Indian	Other indigenous	Foreigners	Total
Public Sector	18	4	0	1	0	23
Private Sector	51	43	10	5	1	110
Overseas (incl. sailors)	8	4	2	1	2	17
Not working	11	5	0	0	1	17
Total	88	56	12	7	4	167

(Source) Survey, 2003.

Table A-5: Ethnicity of Managers

	Bamar	Chinese	Indian	Total
Manufacturing	66	11	5	82
Construction	12	1	0	13
Services	27	2	1	30
Total	105	14	6	125

(Source) Survey, 2003.

Table A-6: Separation of Business and Household

Number of regular Workers	Do you separate household expenditure from business expenditure?	
	Yes	No
<20	34	15
20 - 49	32	7
50 - 99	30	4
100+	42	3
Total	138	29

(Source) Survey, 2003.

Table A-7: Financial Documents

Do you have a ….?	Yes	No
Balance Sheet	136	31
Profit and Loss Statement	131	36
Annual Sales Plan	77	90
Annual Profit Plan	65	102
Financing Plan/Cash Flow	104	63

(Source) Survey, 2003.

Table A-8: Quality Standards

	Do you have own quality standard?	
	Yes	No
Manufacturing	114	6
Services	23	10
Construction	13	1
Total	150	17

(Source) Survey, 2003.

Table A-9: Cost Management

Number of regular Workers	Do you have own cost management?	
	Yes	No
<20	39	10
20 - 49	32	7
50 - 99	33	1
100+	41	4
Total	145	22

(Source) Survey, 2003.

Table A-10: Technology Development

		Company staff	Team/Department	Owner/Founder	Expatriate	Total
Manufacturing	Garments	10	1	1	1	13
	Agri & Marine	9	3	3	0	15
	Industrial Goods	9	2	13	0	24
	Consumer Goods	15	4	38	0	57
Construction		4	4	1	1	10
Services	For Business	6	1	6	0	13
	For Consumer	3	0	6	0	9
Total		56	15	68	2	141

(Source) Survey, 2003.

Table A-11: Subcontractors

		Do you have sub-contractors?		Total
		Yes	No	
Manufacturing	Garments	4	9	13
	Agri & Marine	1	19	20
	Industrial Goods	5	19	24
	Consumer Goods	7	56	63
Construction		1	13	14
Services	For Business	0	15	15
	For Consumer	1	17	18
Total		19	148	167

(Source) Survey, 2003.

Table A-12: Rating of Problems

	Big problem	Problem	No Problem
Domestic/local banking	47	53	67
Inadequate infrastructure	21	49	97
Frequent changes of systems and insufficient information	20	58	89
Regulations/procedures for import	16	30	121
Foreign currency related problems	11	36	120
Non-disclosure of customs-related information	11	34	122
Levies for domestic transportation	8	35	124
Export Tax	6	13	148
Regulations on foreign currency remittance	5	28	134
Regulations/procedures for export	4	20	143
International banking	4	10	153
Monopoly of state-owned enterprises	3	17	147
Others	2	1	164
Total	158	384	1629

(Source) Survey, 2003.