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Chapter 5

Industrial Policy, Structure, and Locations during the Transition toward a Market-oriented Economy in Myanmar

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INTRODUCTION

This paper examines Myanmar's industrial policy, structure, and locations during the transition from a centrally planned economy to a market-oriented one throughout the 1990s and up to the present. After the military government assumed power in 1988, it abandoned the socialist centrally planned economic system and began instituting a market-oriented one through a series of liberalization and deregulation measures, although most of which have stalled since 1997 and remain half-way implemented.

Against this background, it is rather surprising that the impact of these new policies of international trade, finance, regulations, licensing and ownership requirements on industrial structure and location in Myanmar has been poorly documented and examined to date. Some key issues to understanding the impact and effectiveness of the market-oriented policies during the last two decades in Myanmar remain to be answered: Have the new trade and industrial policies changed the industrial structure and organizational behavior in Myanmar? Have they improved the performance of Myanmar's industrial sector? Have they had any impact on industry location in Myanmar?

This paper reviews the series of liberalization programs implemented under the military government—the State Law and Order Restoration Council (SLORC) and the State Peace and Development Council (SPDC)—and assesses their impact on industrial structure and its spatial distribution.

1. INDUSTRIAL POLICY: PAST AND PRESENT

Industrialization is an essential element in the development of a country as a whole. Among the Third World countries newly independent after World War II, there was a desire for economic growth through industrialization: to transform their traditional agrarian economies into modern industrial ones. Economic development had often been equated with industrialization, and independent Myanmar shared the same aspiration for a modern industrial economy. However, looking at Table 1 we can clearly see the underdeveloped state of the industrial sector in Myanmar compared with that of neighboring countries.

Myanmar is rich in natural resources and has a highly literate population, which are apparently good signs for development prospects. Its economy was slightly larger than that of Thailand before World War II; its exports reached $195 million, while Thailand's were only $76 million. Although Myanmar's economy was devastated by the war, most economic and development indicators show that it was not too far behind Thailand by 1950. Therefore, it was not at all unrealistic in the 1950s to be optimistic about Myanmar's economic prospects, including its rapid industrialization (Kudo [1998:7-2]).

Table 1 GDP by industry (%)

	Primary Industry				Secondary Industry			
	1980	1990	2000	2007	1980	1990	2000	2007
Myanmar	47	57	57	44	13	11	10	19
Cambodia	-	56	38	32	-	11	23	27
Laos	-	61	53	43	-	15	23	32
Vietnam	50	39	25	20	23	23	37	42

(Note) Myanmar and Laos figures for 2007 are based on 2006.

(Source) ADB, *Key Indicators*, various numbers.

Taking these historical facts and the natural resources endowments of Myanmar into consideration, the apparent explanation for economic stagnation and stunted industrialization lies in the industrial policies that successive governments have adopted since independence. Table 2 gives a brief chronology of the political economy of industrialization in Myanmar. It is clear that Myanmar's governments have long clung to control-oriented, or at least interventionist, policies, rather than utilizing market mechanisms.

Table 2: A Brief chronology of Myanmar's political economy of industrialization

Period	Political System	Economic System	Industrial Strategy	Result
1.1886-1948	Colonialism	Laissez-faire policy	Export-propelled "agriculturization "	Foreign-dominated industrial sector Poor spread effect for nationwide industrial development
2.1948-1962	Parliamentary democracy	Moderate economic nationalism in the framework of market mechanisms	Raw material-oriented import substitution industrialization	Moderate industrial performance Foreign-dominated industrial sector
3.1962-1974	Military rule (Burmese Way to Socialism)	Command economy, Radical nationalism, Burmanization & Strict isolation	Import Substitution industrialization Self-reliant line	Burmanization of economy and industry Poor economic and industrial performance

4.1974-1988	BSPP rule (Burmese Way to Socialism)	Centralized planning inward-looking policy with the exception of ODA acceptance	Import substitution industrialization Agro-based industries Inflows of ODA	Poor economic and industrial performance Import-dependent industries
5.1988 to 1997	Military rule (SLORC)	Transition toward market economy Open-door policy	Agriculture-based & export-oriented industrialization Inflows of foreign direct investment	Economic recovery Gradual increase in foreign and local private enterprises
6.1997 to Present	Military rule (SPDC)	Controlled market economy	Natural resources exploitation, offshore gas in particular No explicit industrial strategy	Stalled economic reforms Enhanced economic control Cronyism

Source: Based on Mya Than and Joseph L.H. Tan, "Introduction: Optimism for Myanmar's Economic Transition in the 1990s?" in Mya Than and Joseph L.H. Tan, eds., *Myanmar Dilemmas and Options: The Challenge of Economic Transition in the 1990s* (Singapore: ASEAN Economic Research Unit, Institute of Southeast Asian Studies, 1990), Appendix I, pp.14-15; and Maung Maung Lwin, “Industrialization of Myanmar and Economic Dynamism of Pacific Asia,” *Kaigai-Jijo Kenkyu (Studies on Foreign Affairs)*, Vol.24, No.1 (Kumamoto: Kaigai-Jijo Kenkyu-jo, Kumamoto Gakuen University, September 1996). Major changes and additions are by the author.

During the socialist period in particular, an inward-looking growth strategy, nationalization (Burmanization), and import substitution had long been pursued. However, Myanmar’s centrally planned economy, like other socialist countries, faced many obstacles as well as stagnant growth in not just the industrial sector but the economy as a whole. In the mid-1970s, the socialist government relaxed some its strict policies and introduced reforms for State-owned Economic Enterprises (SEEs) along with the prescription of commercial guidelines to improve their efficiency. Although the economy picked up shortly after the reforms, it was not sustainable, mainly due to a shortage of imported material goods. After 1983, industrial production deteriorated again and other economic problems such as high inflation, rising living costs, and macroeconomic and monetary mismanagement including demonetization in 1987 worsened the situation, which eventually led to the collapse of the socialist regime in 1988.

Subsequently, the SLORC/SPDC officially gave up on the establishment of a socialist economic system and started to promote a market-oriented economy. Two pillar laws were promulgated: the Foreign Investment Law (FIL) in November 1988 and the State-owned Economic Enterprises Law (SEEs Law) in March 1989. The former resumed the intake of private foreign capital after a 25-year interval, and the latter authorized private enterprises to engage in all but 12 proscribed industries. In addition to these, various reform measures were taken to promote the active participation of the private sector in the national economy. These included the decentralization of control of economic activities, relaxation of price controls, deregulation of export and import restrictions, opening of border trade, reduction of government subsidies, announcement of full-fledged privatization of all SEEs, streamlining of taxes and duties, establishment of industrial zones, and improvement of infrastructure (Table 3). Between 1988 and 1997, 27 new business-related laws, including the two above, were promulgated, and successive military governments apparently committed themselves to the global trend toward a market-oriented economy.

Table 3: Major economic reforms under the military rule

1988	* Introduction of Foreign Investment Law
1989	* Decontrol of prices
	* Regularization of border trade
	* Introduction of State-owned Economic Enterprises Law delineating the scope of the state sector
	* Revocation of the 1965 law that established the socialist economic system
1990	* Introduction of Myanmar Tourism Law
	* Permission for 100% retention of export earnings

* Introduction of Private Industrial Enterprise Law
* Introduction of the Central Bank of Myanmar Law
* Introduction of Financial Institutions of Myanmar Law
* Introduction of Myanmar Agricultural and Rural Development Law
* Introduction of Commercial Tax Law

1991 * Initiation of industrial zones in Yangon
* Announcement of the Central Bank of Myanmar Rules and Regulations
* Introduction of Promotion of Cottage Industries Law
* Reestablishment of the Union of Myanmar Federation of Chambers of Commerce and Industry (UMFCCI)

1992 * Announcement to lease out inefficient state-owned factories
* Announcement of denationalization of nationalized sawmills
* Announcement of the establishment of four private banks
* Introduction of Tariff Law
* Introduction of Savings Bank Law

1993 * Introduction of US$ denominated Foreign Exchange Certificate (FEC)
* Introduction of Myanmar Insurance Law

1994 * Introduction of Myanmar Citizens Investment Law
* Licensing of representative offices of 11 foreign banks
* Introduction of Science and Technology Development Law

1995 * Announcement of the formation of Privatization Committee
* Announcement of permission to establish joint venture banks between local private banks and foreign banks (although not realized until now)
* Opening of the licensed foreign exchange center for FEC trading in Yangon

1996 * Permission given to local private banks to conduct foreign exchange business and to pay interest on foreign currency deposits
* Establishment of the Myanmar Securities Exchange Centre Co. Ltd. (MSEC), a joint venture between Japan's Daiwa Research Institute and the state-owned Myanmar Economic Bank (MEB)
* Introduction of law on development of computer knowledge
* Official rate of exchange for levying custom duties changed to K100 per US$ accompanied by reduction of tariffs to a fraction of previous values

1997 * Announcement of paddy procurement through a tender bid system (but this was not implemented)

1998 * Announcement of leasing of fallow and virgin land for paddy and cash-crop cultivation or livestock breeding by private entrepreneurs, including foreigners

2000 * Across-the-board increase of public sector salaries, by 5-6 times, to come in line with private sector wages

2003 * Announced liberalization of rice export

* Abolishment of distribution of rice to government-related officials

2005 * Export permits given to private rice exporters

* An increase of official prices of gasoline and diesel by 8-9 times

2006 * Across-the-board increase of public sector salaries by 6-12 times

* An increase of official prices of electricity by 10 times

2007 * An increase of official prices of gasoline and diesel by about 2 times

2008 * Large-scale privatization of government properties and liberalization of some public utilities

2010 * Liberalization of some import restrictions and permission of imports of previously restricted items such as cars, motorcycles, and diesel

However, Myanmar people can never be fully confident of the military government's commitment to transition to a genuine market economy, which would guarantee a level playing field for all of the economic actors including the private sector. The trend in Myanmar's policy has turned increasingly inward and against market-mechanisms, particularly after the Asian currency crisis in mid-1997. The State Peace and Development Council (SPDC), the reorganized body of the military government in 1997, has consciously adopted an import substitution and self-reliant, or what may even be called *survival*, policy by starting to intervene in many economic activities and strengthening state controls. The Trade Policy Council (knows as TC), an extra-ministerial committee, is said to be responsible for such policy changes.

The Trade Policy Council 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 Trade Policy Council has laid down important policies concerning not only external trade but also other economic affairs. These measures include an export-first (import against export earnings) policy, limits on non-essential imports, 10% export tax, advanced purchase of beans and pulses for export, advanced purchase of cotton, market-price-based taxation on imported vehicles, import restrictions on motor vehicles, monthly grants for palm oil imports, reduced FEC limits on overseas bank transfers, strengthened revenue collection from MIC-approved projects, and inspection of under-priced import invoices. The motivation for a number of these might be the capture of foreign exchange earnings for the government budget.

Foreign companies have faced a more challenging business environment under such policy changes, and some foreign investors requested relaxation of economic controls from the authorities concerned. Responses to such requests from the authorities were, however, generally stereotyped and lacking in commitment. For example, the Myanmar Investment Commission (MIC) often proclaims the FIL of 1988 as its most liberal and encouraging investment act, which permits 100% foreign-owned investment and provides attractive tax incentives. Theoretically, it is comparable to those of even advanced ASEAN members. However, to the extent that the existence of laws such as this were used as an excuse not to listen to the claims of foreign investors, so the deep-seated structural problems which were real impediments to the inflow of foreign direct investments were not be addressed.

Favoritism and corruption, which is endemic and constitutes a serious problem in many developing economies, had been largely avoided by Myanmar. On the contrary, successive governments had taken pride in being clean, even since the socialist period. Nevertheless, it is also true that economies transitioning from being centrally-planned to market-oriented tend to suffer from problems of favoritism and corruption because they often lack the legal and institutional foundations for the functioning of a free and fair market economy.

The military holding companies, Myanmar Economic Corporation (MEC) and the Union of Myanmar Economic Holdings, Ltd. (UMEHL), which are extensively engaged in the manufacturing and services sectors, are exerting increasing influence over business activities. The SEEs Law of 1989 was amended in 1997 to make it possible to establish a 100% military-owned company. Military-related companies themselves are not necessarily harmful to economic development; however, they can become harmful if they are afforded especially favorable treatment by the government and thereby damage the idea of a level playing field for all. In addition to these military holding companies, the government has started to embrace so-called national entrepreneurs who, it is claimed, are given preferential treatment in doing business. Such arbitrary favoritism, if provided, would send a worrying signal to businesses that the government could change even the rules of the game.

We should note that once a business environment is created where personal connections to the authorities rather than management and technical skills are the most important factors for business success, then it becomes difficult to provide sound economic incentives to entrepreneurs of ability, and hence they lose confidence in the policy environment. In such a situation, emerging enterprises and entrepreneurs as well as potential foreign investors may well divert their interests to other economies or just chase windfall profits through rent-seeking activities. A recent series of sales of government properties to well-connected businessmen has also raised concerns about rampant nepotism and corruption in the Myanmar economy. In order to prevent Myanmar moving headlong toward so-called crony capitalism, it is important for the government to establish a level playing field where all economic actors can compete with each other in a free and fair manner.

2. THE IMPACT OF ECONOMIC REFORMS ON INDUSTRIAL STRUCUTRE

What impact did economic reforms, including liberalization measures, have on industrial structure and performance? Whether or not the policies of the military government have changed industrial structure and organizational behavior and hence improved performance is a key issue for future industrial development in Myanmar. Nevertheless, the impact of economic reforms on industrial structure and performance has been poorly documented. This section examines this issue.

2.1 Classification of industries

In Myanmar, the Central Statistical Organization (CSO) established the Burma Standard for Industrial Classification (BSIC) regarding economic activities in 1952 based on the UN's International Standard for Industrial Classification (ISIC) of 1948. The BSIC also categorizes industrial activities into three levels, that is, Divisions (1 digit), Major Groups (2 digits) and Groups (3 digits). Each Division is as follows: 0 Agriculture, Forestry, Hunting and Fishery; 1 Mining and Quarrying; 2 & 3 Manufacturing; 4 Construction; 5 Electricity, Gas, Water, and Sanitary Services; 6 Commerce; 7 Transport, Storage, and Communication; 8 Services; and 9 Activities Not Adequately Described. The Ministry of Industry (1) is said to be revising the BSIC based on the ISIC of 1990; however, the new version of BSIC has not yet been utilized in government reports.

Apart from the BSIC, the Ministry of National Planning and Economic Development (MNPED) has used another classification in compiling national income statistics. This classification has been employed by the said Ministry for compiling an annual economic report called *Review of the Financial, Economic and Social Conditions* (hereinafter the "Review"). Under this classification system, all economic activities are classified into 14 sectors: Agriculture; Livestock and Fishery; Forestry; Energy; Mining; Processing and Manufacturing; Electric Power; Construction; Transportation; Communications; Financial

Institutions; Social and Administrative Services; Rentals and Other Services; and Trade.[1] The Processing and Manufacturing sector is further subdivided in the *Review* into 13 commodity groups: Food and Beverages; Clothing and Wearing Apparel; Construction Materials; Personal Goods; Household Goods; Printing and Publishing; Industrial Raw Materials; Mineral and Petroleum Products; Agriculture Equipment; Machinery and Equipment; Transport Vehicles; Electrical Goods; and Miscellaneous.

2.2 GDP

Industrial structure can be defined in terms of the relative importance of individual industries, or groups of related industries, within an economy. One of the most frequent measures of an industry's importance is based on its production (value added or net output).

Table 4 shows the relative importance of different sectors to GDP. As mentioned above, a 14-sector classification is employed here. In addition to the problem of industrial classification, there is another issue as to whether we use nominal GDP or real GDP when looking at industrial structural changes. Nominal GDP is measured at current prices. If all prices doubled without any changes in quantities, then nominal GDP would double. Yet it would be misleading to say that the economy's ability to satisfy demand has doubled, because the quantity of goods produced has remained the same. In contrast to this, real GDP, which is the value of goods and services measured at constant prices of a base year, would not be influenced by changes in prices. Since a society's ability to provide economic satisfaction for its members ultimately depends on the quantities of goods and services produced, real GDP, which summarizes the output of the economy measured at base-year prices, provides a better

[1] Until the Fiscal Year (FY) 1996 *Review*, 13 sectors were used for GDP statistics. Since the FY 1997 *Review*, "Energy" was added to make a total of 14 sectors. However, the MNPED stopped issuing the *Review* thereafter. Myanmar's fiscal year (FY) starts from April and ends in March.

measure of economic well-being than nominal GDP. Myanmar's GDP is calculated in different base years: it was calculated from FY1985 to FY2000 at FY1985 constant prices, from FY2001 to FY2005 at FY2000 constant prices, and the later years at FY2005 constant prices.

Table4: GDP by industrial sectors (Unit: %; % Point)

	FY1985	FY2000		FY2007		Changes in Share(FY85→FY2000)		Changes in Share(FY2000→FY07)	
	(nominal=real)	(nominal)	(real)	(nominal)	(real)	(nominal)	(real)	(nominal)	(real)
Goods	61.3%	66.9%	60.5%	63.8%	63.5%	5.7	-0.8	-3.1	3.0
Agriculture	39.7%	48.8%	33.6%	35.4%	35.6%	9.1	-6.2	-13.4	2.1
Livestock & Fishery	7.1%	7.9%	8.3%	7.6%	7.5%	0.8	1.2	-0.3	-0.8
Forestry	1.4%	0.6%	0.9%	0.4%	0.5%	-0.8	-0.5	-0.1	-0.3
Energy	-	0.2%	0.5%	0.2%	0.2%	-	-	-0.0	-0.4
Mining	1.0%	0.4%	1.9%	0.6%	0.5%	-0.6	0.9	0.2	-1.3
Processing and Manufacturing	9.9%	7.2%	10.1%	14.9%	15.0%	-2.8	0.2	7.7	4.8
Electric Power	0.5%	0.1%	1.1%	1.0%	0.2%	-0.4	0.6	0.8	-0.9
Construction	1.7%	1.8%	4.2%	3.8%	4.0%	0.1	2.5	2.0	-0.2
Services	14.8%	9.0%	18.6%	15.1%	14.8%	-5.8	3.8	6.1	-3.8
Transportation	3.6%	5.7%	4.6%	10.8%	10.9%	2.1	1.0	5.1	6.3
Communications	0.4%	0.3%	2.1%	1.0%	1.3%	-0.1	1.8	0.7	-0.8
Financial Institutions	2.4%	0.1%	2.1%	0.1%	0.1%	-2.3	-0.3	-0.0	-2.0
Social & Administrative Services	4.6%	0.2%	6.0%	1.6%	0.9%	-4.4	1.4	1.4	-5.1
Rentals & Other Services	3.9%	1.4%	3.8%	1.6%	1.6%	-2.5	-0.1	0.2	-2.1
Trade	23.9%	24.0%	20.9%	21.1%	21.6%	0.1	-3.0	-3.0	0.7
Gross Domestic Product	100.0%	100.0%	100.0%	100.0%	100.0%	0.0	0.0	0.0	0.0

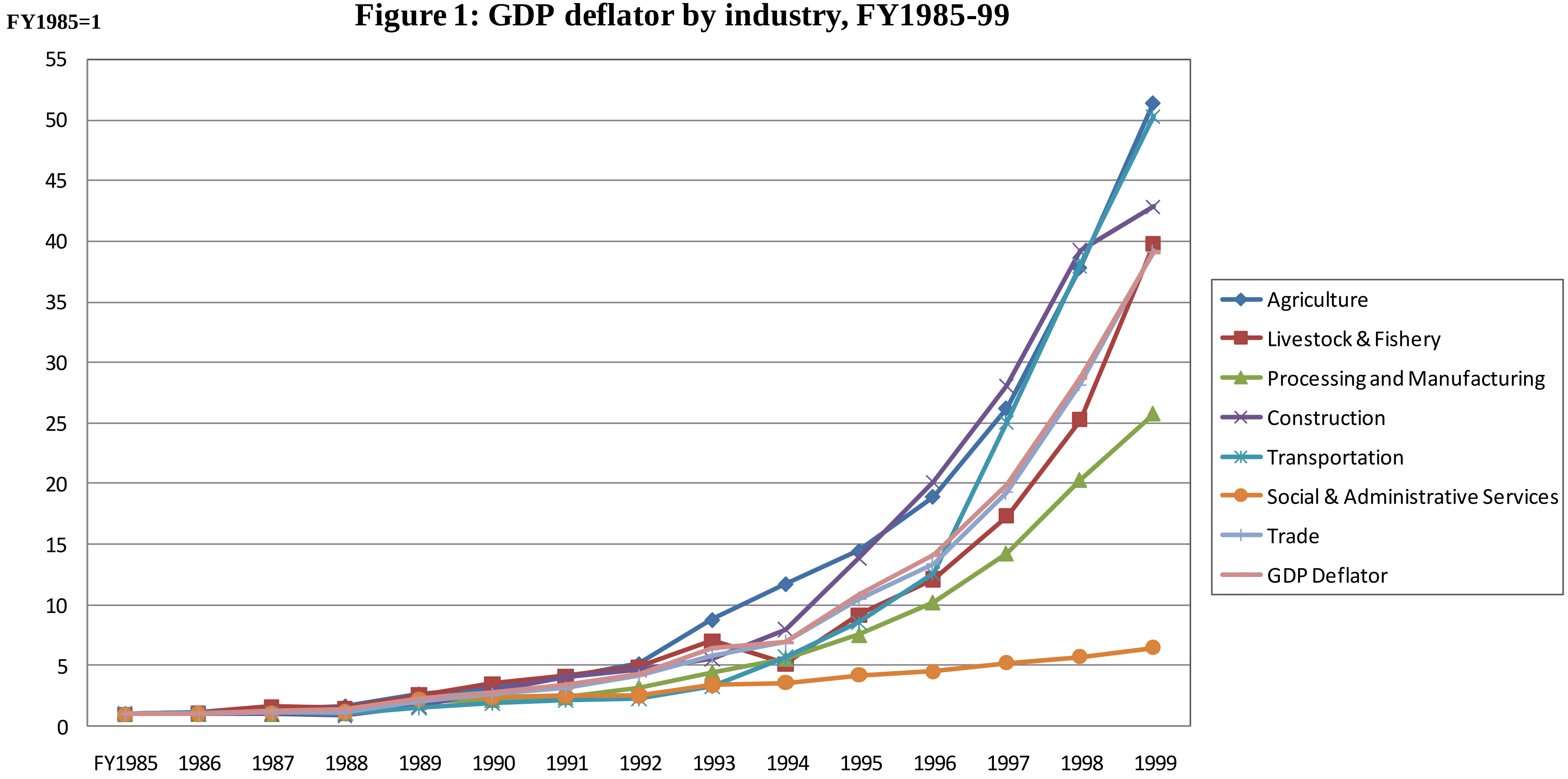
(Notes) Real GDP for FY1985 and FY2000 is based on FY1985 constant prices; and one for FY2007 is on FY2005 constant prices.
(Source) MNPED, *Review* (various issues); and CSO, *Statistical Yearbook* (various issues).

Our main concern here is, however, with changes in industrial structure, which presupposes changes in price structure as well. In this section, we will pay closer attention to the relative importance of different sectors in nominal GDP, which also reflects changes in price structure.

The question of whether to use nominal GDP or real GDP to ascertain structural changes in an economy is particularly important in the case of Myanmar. We should note that there are large differences in shares between nominal GDP and real GDP in different sectors. Table 4 shows both nominal GDP and real GDP in FY1985, FY2000 and the latest year of FY2007. In terms of GDP share, there are differences between the nominal and real figures. For example, in FY1985, the agriculture sector accounted for 39.5% of both nominal and real GDP, while in FY2000, it accounted for 48.8% of nominal GDP and 33.6% of real GDP. On one hand, the agriculture sector decreased its relative importance to real GDP by 6.2 percentage points between FY1985 and FY2000, on the other hand it increased its share of nominal GDP by 9.1 percentage points during the same period. On the contrary, the processing and manufacturing sector increased its relative importance to real GDP by 0.2 percentage points, whereas it decreased its share of nominal GDP by 2.8 percentage points. According to the figures for nominal GDP, some “agriculturalization” occurred, rather than “industrialization” during FY1985 and FY2000.

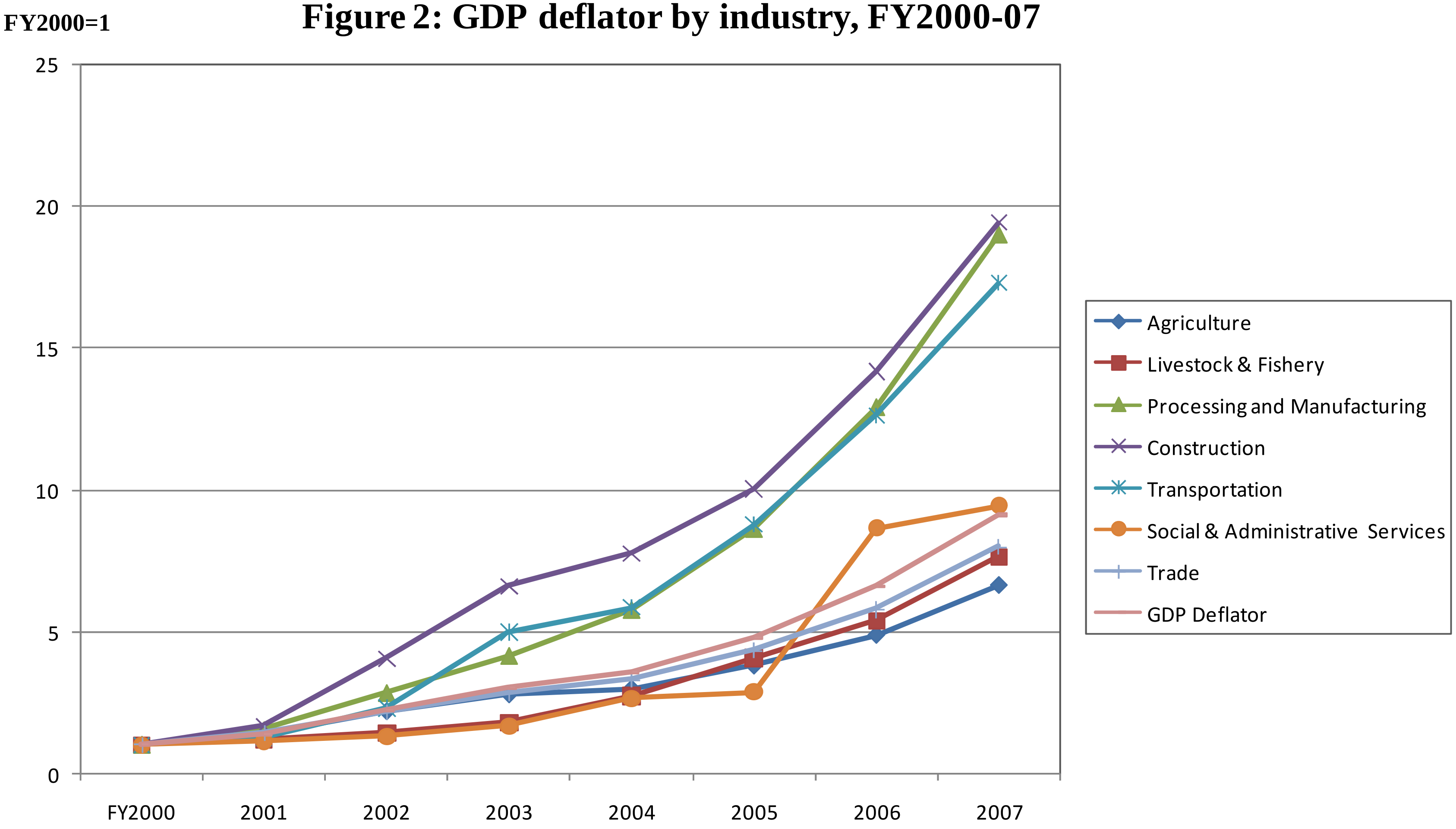
Such differences between nominal GDP and real GDP are due to the differentiated rates of increase by the different sectors of GDP deflator. A GDP deflator compares the current price of a basket of goods and services produced this year with the price of the same basket in the base year. In other words, the GDP deflator measures the price of the typical unit of output relative to its price in the base year. Figure 1 and 2 show the indices of GDP deflators in various sectors, where the base year of FY1985 is set at 1 for Figure 1 and that of FY2000 is set 1 for Figure 2.

Figure 1: GDP deflator by industry, FY1985-99



(Source) MNPED, *Review* (various issues); and CSO, *Statistical Yearbook* (various issues).

Figure 2: GDP deflator by industry, FY2000-07



(Source) MNPED, *Review* (various issues); and CSO, *Statistical Yearbook* (various issues).

It is often the case that when transitioning from a centrally-planned economy to a market-oriented one, price structure undergoes a big change. In Myanmar's case, the prices of agricultural produce and food, which had long been controlled at lower prices throughout the socialist period, jumped up to market level prices on account of the liberalization measures. The price hikes in agricultural products such as rice and vegetables were much higher than those in other sectors, such as industrial goods, construction, transportation, and social and administrative services. The share of the agriculture sector of nominal GDP increased due to the effect of the relative price hikes for the period between FY1985 and FY2000, although its share in real GDP terms decreased during the same period.

Bearing in mind the above discussion, we now look at Table 4 to consider the structural changes in the economy. Looking at the figures for nominal GDP, we see that only the agricultural sector has increased its share substantially, while most other sectors have reduced their share or are little changed. It may be said that the industrial structure in Myanmar has been static throughout the 1990s.

Then, why did the agriculture sector raise its share in nominal GDP in the 1990s? Firstly, the production of agriculture has increased. For example, the production of paddy, the sown area of which occupies more than 40% of the total sown area, increased by 54% from 12,956 thousand tons in FY1988 to 19,888 thousand tons in FY1999. The increase was remarkable but achievable with an annual average growth rate of about 4%. As shown by the decline in the share of the agricultural sector in real GDP for the period between FY1985 and FY2000, the increases in quantity of other sectors must had surpassed that of the agricultural sector.

Secondly, and more importantly, price hikes of agricultural produce contributed to an increase in its relative importance in nominal GDP. As mentioned earlier, the prices of agricultural produce increased more rapidly than industrial products and services throughout the 1990s. In other words, the terms of trade of agricultural produce over industrial goods improved just after the open-door and market-oriented policies were introduced. Hence, it may be said that, in the 1990s, the economic welfare of farmers in rural areas was elevated more than that of industrial workers in urban areas.

This policy contrasts sharply with that of the socialist regime. During the socialist period, the price of agricultural produce was consistently suppressed to well below normal market levels, which was a de facto subsidy to urban dwellers. Moreover, external trade was monopolized by the state and the socialist government poured much of its earnings from the export of agricultural produce into import substitution industries, mainly located in urban areas.

The military government suddenly abandoned such policies favorable to the urban population and showed more concern about the well being of farmers in rural areas. Such a policy change was probably driven by the political and economic crisis in 1988 and the people's uprising against the then government. The military government must have understood the importance of improving the living standards of the rural population, which constitutes 75% of the national population. The agriculture/rural-favored attitude of the present government is also expressed in their often repeated economic slogan, "Development of agriculture as the base and all-round development of other sectors of the economy as well".

However, entering the twenty-first century we saw some "industrialization" in the Myanmar economy. The processing and manufacturing sector increased its share in nominal GDP by 7.7 percentage points for the period between FY2000 and FY2007. On the contrary, the share of the agriculture sector of nominal GDP decreased in spite of its increase in real GDP for the period between FY2000 and FY2007. This was due to the deteriorated terms of trade of agricultural produce against industrial goods and services. The transitional effect from the planned economy to market economy on the price structure settled down by the end of the 1990s.

There is certainly an impression that Myanmar's economy has changed visibly. High-rise buildings are conspicuous in major cities such as Yangon and Mandalay. International hotels and shopping malls are no longer new to the Yangon and Mandalay dwellers. Streets are crowded with cars, and traffic jams have become a regular morning and evening occurrence. Moreover, the building of the new capital city, Naypyitaw, has brought a mini boom to the construction sector since the early twenty-first century.

With a series of economic reforms and transition toward a market-oriented economy, there was steady economic development leading to an average annual growth rate of 7.5% for the period of the four-year plan (1992/93-95/96), which was reasonably high in an agrarian economy such as Myanmar's. The success of the first short-term plan was due to various factors: private sector development following the liberalization policy; inflows of FDI following the open-door policy; substantial increases in agricultural produce (especially rice following the introduction of summer paddy); growth of exports following decontrol of the state monopoly of foreign trade; encouragement of tourism; and the construction mini-boom.

During the period of the Second Short-Term Five Year Plan (1996/97 to 2000/01), the average annual growth rate was 8.5%, mainly due to the agricultural sector and showed the highest growth rate in the industry sector. In the Third Short-Term Five Year Plan (2001/02 to 2005/06), the average annual growth rate was at its peak, at 12.8 %, which was mainly due to an industry and energy sector development. Such substantial growth in the official GDP is, however, considered dubious by many economists both inside and outside the country.[2]

2 The statistics on GDP were collected by the central government through the 64 nationwide prefectural offices of the Planning Department, the MNPED, and the 16 state and division

2.3 Labor force

Labor force statistics are another indicator of industrial structural changes. Through what is generally known as Petty-Clark's law, as economic development progresses, as measured by per capita income, the relative importance of the primary sector falls, in terms of both production and labor force, while that of the secondary sector and then the tertiary sector rises.

Table 5 shows changes in labor force distribution by industry. In FY2006, the agriculture sector constituted more than 60% of the total labor force, followed by processing and manufacturing (11%) and trade (10%), while all the other sectors each constituted 5% and less of the total labor force. The pattern of labor force distribution clearly shows the agrarian nature of the Myanmar economy. It also highlights the very static situation of Myanmar's industrial structure. During the period between FY1988 and FY2007, changes of less than one percentage point occurred in the share of any industry, except the processing and manufacturing sector (2.4 percentage points) and the administrative and other services sector (1.5 percentage points); hence, dynamic structural changes are yet to be observed.

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offices (which are in the northern, southern and eastern parts of Shan State and 13 other states). Reportedly, prefectural governors (military officers at the Lieutenant Colonel level) and commanders in military divisions (members of the National Peace Development Council at the Brigadier General and Major General levels) strongly influence statistics that are sent to senior organizations. It has long been pointed out that GDP is often inflated to make the rate of economic growth appear higher than it is. It is also possible that statistics may have been manipulated in various ways in different areas, depending on the particular nature and way of thinking of prefectural governors/commanders in military divisions. If so, the accuracy of statistics on national income in Myanmar is rather questionable.

Table 5: Estimated employment by industry (Unit:%)

	FY64	FY74	FY88	FY98	FY 2006	Changes in share (FY88→FY2006)
Primary Industry	66.6	69.3	65.2	65.6	70.0	4.8
Agriculture	64.8	66.7	62.6	62.4	62.0	-0.6
Livestock & Fishery	1.5	1.3	1.4	2.1	2.0	0.6
Forestry	0.3	1.3	1.2	1.0	1.0	-0.2
Secondary Industry	9.0	9.3	10.9	12.4	14.0	3.1
Energy & Mining	0.5	0.5	0.5	0.8	1.0	0.5
Processing and Manufacturing	7.3	7.2	8.6	9.3	11.0	2.4
Electric Power	0.1	0.1	0.1	0.1	0.0	-0.1
Construction	1.1	1.5	1.7	2.1	2.0	0.3
Tertiary Industry	15.5	16.8	19.6	20.5	22.0	2.4
Transport and Communications	3.0	3.5	3.3	2.8	3.0	-0.3
Social Services	1.7	1.8	2.8	3.4	3.0	0.2
Administrative and Other Services	3.4	2.6	3.5	4.8	5.0	1.5
Trade	7.4	8.9	10.0	9.6	10.0	0.0
Workers n.e.s	8.9	4.6	4.3	1.4	1.0	-3.3
Total	100.0	100.0	100.0	100.0	100.0	

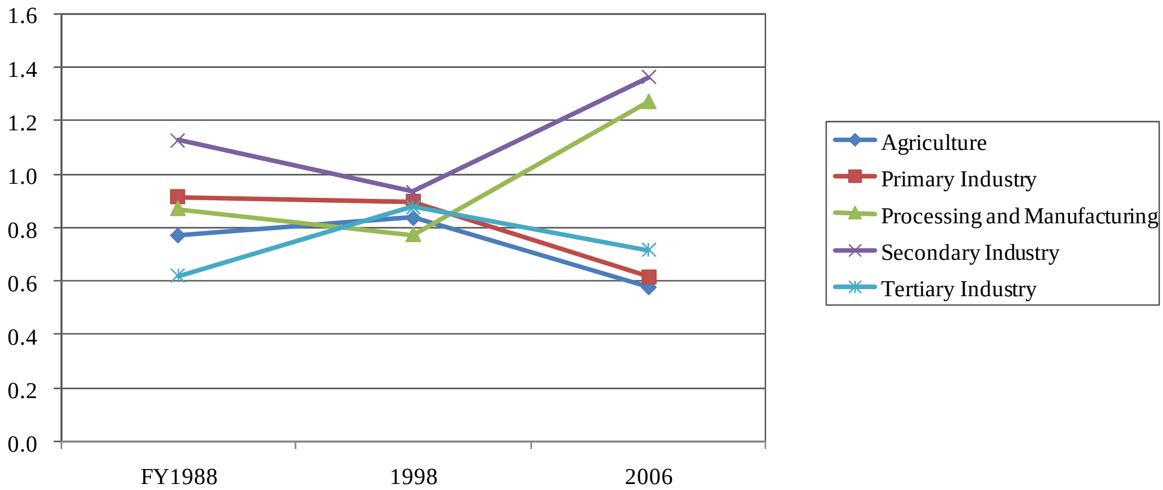
(Source) MNPED, *Review* (various issues); and CSO, *Statistical Yearbook* (various issues).

We can calculate each sector's relative productivity (or relative income) from Tables 4 and 5. Relative productivity is the ratio of the labor productivity of an industry (Yi/Li, where Yi stands for the income of industry i and Li stands for the labor force of industry i) divided by the labor productivity of the whole economy (Y/L, where Y denotes national income and L denotes total labor force). In practice, relative productivity can be calculated as the ratio of the share of nominal GDP (Table 4) divided by the share of labor force (Table 5), as shown in the following equation:

$$(Yi/Li) / (Y/L) = (Yi/Y) / (Li/L).$$

If the figure for relative productivity in an industry exceeds 1, the industry has better than average labor productivity.

Figure 3: Relative productivity of major industries and groups of related industries



(Note) Average labor productivity equals 1.0.

(Source) Calculated from the figures given in Table 4 and 5.

Figure 3 shows relative productivity of major industries and groups of related industries. While the agriculture sector increased its relative productivity for the period between FY1988 and FY1998, secondary industry including processing and manufacturing declined its relative productivity for the same period. As have discussed, this was mainly due to the improvement of terms of trade of agricultural produce over industrial goods. However, entering the twenty-first century, the trend has been reversed. The secondary sector including manufacturing increased its relative productivity for the period between FY1998 and FY2006.

3. THE IMPACT OF ECONOMIC REFORMS ON OWNERSHIP STRUCTURE

In order to ascertain industrial structural changes, it is also important to examine shifts in ownership patterns, especially, as in the case of Myanmar, when transitioning from a centrally-planned economy, where the state sector is a major player, to a market-oriented economy, where the private sector is expected to play a major role. In this section, we examine the impact of economic reforms on ownership patterns.

3.1 GDP

The economic reforms of the military government began with the open-door policy and the recognition of private businesses. The government announced the FIL in November 1988 and opened the doors to foreign investment after a 25-year hiatus. It also announced the SEEs Law in March 1989, in which the Law conferring powers for Establishing the Socialist Economic System, 1965 was repealed. In other words, the military government officially renounced the Burmese Way to Socialism by promulgating this law.

The SEEs Law stipulated 12 economic enterprises that the SEEs would continue to monopolize.[3] By stipulating the 12 enterprises exclusive to SEEs, the government conversely allowed the private sector to enter other fields. In other words, the industrial policy for private sector participation in the national economy changed from "banned in principle" to "allowed in principle". Under these policies, the private sector has gained momentum.

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3 Those are (a) extraction of teak and sale of the same in the country and abroad; (b) cultivation and conservation of forest plantation; (c) exploration, extraction, and sale of petroleum and natural gas and production of products of the same; (d) exploration and extraction of pearls, jade, and precious stones and export of the same; (e) breeding and production of fish and prawns in fisheries which have been reserved for research by the Government; (f) Postal and Telecommunications Service; (g) Air Transport Service and Railway Transport Service; (h) Banking Service and Insurance Service; (i) Broadcasting Service and Television Service; (j) exploration and extraction of metals and export of the same; (k) Electricity Generating Services other than those permitted by law to private and co-operative electricity generating services; (l) manufacture of products relating to security and defense which the Government has, from time to time, prescribed by notification.

Table 6: Real GDP by industry and ownership

(%. % point)

	FY1986				FY1998				FY2007				Changes in Shares of Private Sector		
	Share	State	Co-operative	Private	Share	State	Co-operative	Private	share	State	Cooperative	Private	Changes (FY86-FY98)	Changes (FY98-FY07)	Major Factors for Changes
I Goods	61.3	11.9	5.3	82.7	59.6	11.4	1.4	87.2	63.5	-	-	-	4.5	-	
1 Agriculture	40.3	0.1	6.4	93.4	34.5	0.2	1.9	97.9	35.6	0.4	2.4	97.2	4.5	-0.7	Decontrol of trade of agricultural produce
2 Livestock & Fishery	7.3	1.3	2.6	96.2	7.2	0.3	1.1	98.6	7.5	0.1	0.7	99.2	2.5	0.5	Development of private enterprises
3 Forestry	1.3	38.0	4.4	57.6	1.0	46.2	0.6	53.2	0.5	50.0	0.3	49.7	-4.4	-3.5	Strengthened conservation of forests
Primary Industry	49.0	1.3	5.8	92.9	42.7	1.3	1.8	97.0	43.7	-	-	-	4.1	-	
4 Energy	-	-	-	-	0.2	99.9	0.1	0.0	0.2	76.3	9.3	14.4	-	14.4	Entry restrictions by SEEs Law
5 Mining	0.9	89.8	2.2	8.0	1.6	10.8	1.0	88.2	0.5	2.9	0.2	96.9	80.2	8.7	Provision of mining concession
6 Process & Manufacturing	9.2	41.6	4.2	54.2	9.2	28.2	0.9	70.8	15.0	9.2	0.2	90.6	16.6	19.7	Development of SMIs
7 Electric Power	0.5	100.0	0.0	0.0	1.0	99.9	0.1	0.0	0.2	79.5	0.3	20.2	0.0	20.2	Entry restrictions by SEEs Law
8 Construction	1.7	88.3	1.0	10.8	4.9	45.8	0.2	54.0	4.0	60.1	0.0	39.9	43.2	-14.1	Entry of SMEs and NPT construction
Secondary Industry	12.4	54.0	3.4	42.6	16.9	36.9	0.7	62.4	19.8	-	-	-	19.9	-	
II Services	15.5	60.6	2.5	36.9	19.3	54.5	2.6	43.0	14.8	14.8	0.1	85.0	6.1	42.1	
1 Transportation	3.6	36.0	4.9	59.1	4.3	29.8	1.0	69.2	10.9	1.5	0.1	98.4	10.1	29.3	Development of private enterprises
2 Communications	0.5	100.0	0.0	0.0	1.9	100.0	0.0	0.0	1.3	100.0	0.0	0.0	0.0	0.0	Entry ban by SEEs Law
3 Financial Institutions	2.6	98.9	1.1	0.0	2.0	54.8	14.4	30.7	0.1	68.9	3.8	27.3	30.7	-3.4	Lift of entry ban by LAW
4 Social & Admin Services	4.8	98.8	1.2	0.0	6.8	88.8	0.5	10.7	0.9	76.9	0.2	22.9	10.7	12.2	New entry to social services
5 Rentals & Other Services	4.1	9.0	3.2	87.8	4.3	3.9	2.9	93.3	1.6	0.4	0.4	99.1	5.4	5.9	Development of private enterprises
III Trade	23.1	33.9	13.5	52.6	21.1	21.3	2.4	76.3	21.6	5.0	2.4	92.7	23.7	16.4	Development of private enterprises
Tertiary Industry	38.7	44.6	9.1	46.3	40.4	37.2	2.5	60.3	36.5	-	-	-	14.0	-	
Gross Domestic Product	100.0	24.6	6.8	68.6	100.0	21.8	1.9	76.3	100.0	7.8	1.5	90.7	7.7	14.4	

(Source) MNPED, *Review* (various issues); and CSO, *Statistical Yearbook* (various issues).

Table 6 shows real GDP by industry and ownership. Thus far, figures for nominal GDP have mainly been used to view industrial structural changes. However, the data for GDP by industry and ownership are only available in real GDP terms; hence the use of real GDP figures in this section.

Firstly, it is noticeable in Table 6 that the private sector accounted for about 70% of real GDP even in FY1986, which was in the midst of the socialist regime. This high proportion of real GDP accounted for by the private sector in Myanmar contrasts sharply with that of other transitional economies in Central and Eastern Europe, where the state played a major role in the economy during the socialist period. The significance of the private sector in Myanmar's economy was largely due to the agriculture sector, as the biggest industry, accounting for about 40% of real GDP in FY1986, having long been categorized as mostly in the private sector in GDP statistics.

However, it should be noted that even though the private sector contributed to more than 90% of the agriculture sector in both FY1986 and FY1998, in reality it is substantially different between the two periods. Throughout the socialist period, agriculture was not collectivized and land holdings remained in the hands of small farmers. In this sense, it may not be wrong to categorize the agriculture sector as a private one. Nevertheless, farmers were under strict state control at that time. They could not grow what they wanted, but had to cultivate their lands according to government policy and planning. Nor could they sell their produce freely at market prices, but had to sell most of their produce to the state at lower prices, which were unilaterally fixed by the government. Farmers could not enjoy freedom of management in those days.

In November 1987, the government decontrolled trade of the main agricultural produce, which had long been monopolized by the state under the socialist regime. Since then, farmers have been able to sell their products at market after selling a proportion to the state. After this, farmers have become more responsive to market forces, reacting positively to the price incentives. Farmers now enjoy a relatively larger freedom of management compared to the socialist era. In this way, even though the agricultural sector has always been categorized as “the private sector”, the real situation is totally different before and after 1988.

Secondly, in contrast to the agriculture sector, some of the other sectors were largely occupied by SEEs, even in FY2007. Energy, Electric Power, Communications, and Social and Administration Services were mostly monopolized by the state. The state also controlled substantial shares of Forestry, Construction, and Financial Institutions. Many of the said industries that were monopolized or dominated by the state are on the list of 12 industries exclusively for the SEEs. But an exception clause (Section 4 of the SEEs Law) exists whereby, with a view to the interest of the state, private business enterprises may be allowed to enter the 12 industries in the form of joint-ventures with SEEs or even in the form of pure private ownership. Accordingly, many private companies, including foreign ones, have invested in some of 12 enterprises. Large-scale foreign investments in Yadana and Yetagon natural gas exploration are good examples. On the other hand, although the entry ban to industries such as Forestry, Construction, and Financial Institutions was lifted, still large-scale SEEs persist, giving the state a considerable share of those industries.

Thirdly, in spite of the remaining entry barriers, and other restrictions, the private sector positively reacted to industrial liberalization. The participation of the private sector increased particularly in Mining, Process and Manufacturing, Construction, Transportation and Financial Institutions, in fact, the share of the private sector increased in all industries except Forestry from FY1986 to FY2007. The government provided mining concessions to private enterprises in order to enhance production and thereby obtain revenue. The share of the private sector in Mining rose from 8.0% in FY1986 to 96.9% in FY2007. As for Construction, private construction companies mushroomed along with the construction mini-boom which started in the early 1990s but had burst by mid-1997. Regarding the Financial Institutions sector, although it was one of the 12 enterprises exclusively for SEEs, the establishment of private financial institutions was allowed by the Financial Institutions of Myanmar Law, enacted in July 1990. Under to this Law, 20 private banks were established since 1992, but only 14 now remain.[4] The share of GDP of private sector financial institutions increased rapidly from zero in 1991 to 42% in FY2002 before the domestic banking crisis, after which it decreased to 27% in FY2007. The share of the private sector in the Processing and Manufacturing sector has also substantially and steadily increased since FY1986, and reached to more than 90% in FY2007, mainly due to the emerging small and medium-sized industries (SMIs). The same case is applicable to the Trade sector.

All these figures point to the active participation of the private sector in the national economy. As entry barriers and restrictions imposed upon private businesses are lifted, the participation of the private sector in economic activities is further enhanced, even in the industries that are still monopolized or controlled by the predominant SEEs. Myanmar's private sector is active and efficient enough to respond to government liberalization policies. Myanmar's private sector has demonstrated its resilience by surviving the socialist period and its ability to participate in the national economy once the market economy was revived. Given equal chances, the private sector will actively penetrate most economic sectors and contribute to economic development; this is an important finding in this section.

3.2 Business registration

[4] However, foreign banks are not yet permitted to operate.

As the private sector takes an increasing role in the national economy, business entities registered with the authorities concerned have mushroomed. Table 7 shows the number of various kinds of businesses, the data for which was collected from several sources such as the Directorate of Hotels and Tourism, the Directorate of Investment and Company Administration, and the Directorate of Trade.

Almost certainly there is some overlapping and double counting in the table. For example, Myanmar Companies Limited can be organized according to the Burma Companies Act (1913) and Partnership Firms can be established according to the Partnership Act (1932). When these companies or partnerships engage in external trade, they must obtain export and import licenses from the Ministry of Commerce and are thus counted as Exporters and as Importers too. In the same way, hoteliers have to obtain a business license from the Ministry of Hotels and Tourism and are therefore counted as a Hotel Business in Table 7. If a hotel also runs a tourist business, it may be registered as a Tourist Enterprise as well. Tourist Enterprises and Tourist Transport Businesses may also overlap. Moreover, some entities may be just paper companies not engaged in any actual business. For these reasons, we must remain aware that the data in Table 7 may contain overlapping, double counted, and empty figures.

Table 7: Number of registered exporters, importers, limited companies, partnerships and joint-venture companies limited

		FY1989	FY1997	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008
1	Exporters	770	8931	15142	1350	1231	777	920	1089	1591	1054	1221
2	Importers	216										
3	Business Representatives	183	2076	2230	74	48	44	41	27	19	19	13
4	Myanmar Companies Limited	174	10844	15418	9596	10444	11266	12512	14376	14234	14876	16656
5	Partnership Firms	376	1214	1264	1264	1269	1269	1270	1270	1270	1270	1072
6	Foreign Companies and Branches	39	1184	1414	1410	1446	1456	1466	1477	1489	1494	1258
7	Joint Venture Companies Ltd.*	15	123	60	64	66	66	66	66	66	66	67
	(a) SEE and Private Entrepreneurs	7	31	45	50	52	52	52	52	52	52	52
	(b) SEE and Foreign Companies	8	92	15	14	14	14	14	14	14	14	15
8	JV Companies Ltd. formed under Foreign Investment Law	-	78	116	77	77	79	80	81	81	82	117
9	Other Organizations	3	35	39	39	40	40	41	41	41	41	41
10	Tourist Enterprises	-	474	601	601	568	536	594	700	678	697	767
11	Tourist Transport Business	-	1642	423	423	357	397	352	378	442	465	310
12	Hotel Business	-	302	343	336	353	375	405	427	438	462	476
13	Lodging-House Business	-	198	178	178	174	161	165	168	168	156	148
14	Tour Guide Business	-	2767	5034	5019	5442	6028	6069	6327	4157	4278	4701
	Total	1776	29868	42262	20431	21515	22494	23981	26427	24674	24960	26847

(Note) *Excluding those under Foreign Investment Law. Exporters include Importers since FY1992.

(Source) MNPED, *Review* (various issues); and CSO, *Statistical Yearbook* (various issues).

Bearing such shortcomings in mind, it can be seen from Table 7 that, firstly, there is a significant increase in the number of various business entities registered, increasing by 15 times from the total of 1,776 as of FY1989 to 26,847 as of FY2008. Of course, not all of them would be truly *new* entries, some having already existed and just registered with the authorities concerned according to newly promulgated laws. Nevertheless, it can be safely said that the private sector responded positively to the market-oriented policy and started up businesses.

Secondly, although the number of various business entities shows strong growth until the end of the 1990s, since then the growth rate has slowed and declined further due to the economic downturn. FY2001 saw a major decline in the numbers of Exporters/Importers and Myanmar Companies Limited, probably due to the changes of the government policy.

Thirdly, the so-called formalization of business entities is observed. The share of Exporters and Importers, which are generally regarded as simple business entities, substantially declined from 55% in FY 1989 to 4.5% in FY 2008. Similarly, the share of Partnership Firms, which are also regarded as simple business entities, declined from 21% to 4% in the same period. Contrary to these, Myanmar Companies Ltd., that is, formal business entities, increased its share from 10% in FY 1989 to 62 in FY 2008. This is what may be termed the formalization of business entities.

Lastly, tourism-related businesses recorded a high growth rate. The aggregated share of tourism-related businesses, covering 10 to 14 in Table 7, increased from 3% in FY 1992 to 24% in FY 2008. However, the increased number of registered tourism-related businesses does not necessarily indicate the prosperity of tourism in Myanmar. For example, there are many tour guides who registered themselves with the authorities concerned but could not find a job in the tourism sector due to stagnant tourism in Myanmar. The number of overseas visitors jumped from 170,143 in FY1995 to 310,298 in FY1996 due to the Visit Myanmar Year campaign, and recorded 345,829 in FY1998. However, visitor numbers suffered a downturn, falling to 309,418 in FY1999. Tourist arrivals reached a peak of 448,135 in FY2006, then showed a decline in FY2007 to 363,976. The number of tourism-related businesses has declined since 2007 after demonstrations by monks in some major cities.

4. PRIVATE MANUFACTURING FIRMS

In the previous sections, we reviewed the changes in industrial structure from the aspects of GDP, labor force, and business registration. A drastic industrial change, namely, industrialization, was not observed during the 1990s and the first decade of the twenty-first century.

However, when visiting some of the newly established industrial zones in Yangon, one is able to get a real sense of the vitality that exists in the nation's manufacturing industry, which goes beyond the impressions given by the above-mentioned macro-economic indices. This vitality is supported by manufacturing industries in the private sector. In FY1986, the private sector accounted for 54.2% in the processing and manufacturing sector, yet by FY2007 this share recorded more than 90%. The industrial development in Myanmar can be solely attributed to the growth of private enterprises.

4.1 Statistics regarding the manufacturing industry

Statistics related to the manufacturing industry are available from three major sources: a. statistics regarding plants and establishments contained in the *Review*, b. statistics regarding private plants and establishments that have registered with the Directorate of Industrial Supervision and Inspection (DISI), Ministry of Industry (1), and c. statistics on 18 industrial zones which fall under the umbrella of the Myanmar Industrial Development Committee (MIDC).

The first source covers private, cooperative, and state-owned enterprises. The second source covers only private factories and establishments that registered with the DISI, and basically excludes very small businesses such as cottage industries. The Private Industrial Enterprise Law (November 1990) stipulates that enterprises using power equipment of 3HP or over or which have 10 or more employees (except companies involved in joint ventures with state-owned enterprises) must register with the DISI. Private enterprises with power equipment of less than 3HP or which have fewer than 10 employees and those in the manual industry (irrespective of the number of employees) can register with the Department of Household Industry, Ministry of Cooperatives, based on the Promotion of Cottage Industries Law (October 1991), although this registration is neither compulsory nor obligatory.[5] The relationship between the two kinds of statistics can be seen from Table 8. When the figures of various sectors are compared, large gaps are seen to exist between them. The differences between those are quite anomalous, and the DISI figures are usually much smaller than the *Review*. Reportedly, there exist quite a few factories that are not yet registered with the DISI. This means the DISI statistics involve only a portion of the currently existing plants and establishments in the country. Such incompleteness and inconsistency regarding the statistics leads to an ambiguous picture of the actual situation regarding the nation's private manufacturing industry.

[5] The third source covers only private factories and establishments in 18 industrial zones. However, the author was not able to obtain the data. In this section, we use only the first and second sources.

Table 8: Private factories and establishments from two sources

	FY 2004		FY 2005		FY 2006		FY 2007	
	Review	DISI	Review	DISI	Review	DISI	Review	DISI
Food and beverages	35,043	26,896	35,559	27,337	30,953	27,601	32,507	28,137
Clothing and wearing apparel	4,994	2,282	4,752	2,053	5,617	1,962	6,021	1,895
Construction materials	4,849	3,551	4,793	3,494	3,915	3,320	4,029	3,240
Consumers goods	2,434	1,071	2,405	1,023	3,330	1,015	3,753	1,054
Household goods	605	265	652	309	468	318	458	305
Printing and publishing	457	329	6,603	410	7,482	356	8,041	291
Industrial raw material	2,252	1,183	2,063	991	2,240	1,011	2,485	947
Metal and petroleum products	3,043	1,832	2,885	1,668	3,230	1,786	3,128	1,665
Agricultural equipments	1,447	61	152	63	248	74	257	79
Machinery and equipments	504	338	447	280	848	254	902	300
Transportation vehicles	425	138	429	141	1,195	156	1,280	238
Electrical products	480	59	489	63	777	58	782	60
Miscellaneous	18,530	5,430	18,397	5,492	41,621	5,510	44,564	5,552
Total	75,063	43,435	79,626	43,324	101,924	43,421	108,207	43,763

(Source) MNPED, *Review* (various issues); and DISI.

4.2 Growth of private manufacturing

Table 9 shows the ownership pattern of factories and establishment by size, measured in terms of number of employees. Most of the manufacturing enterprises in Myanmar are micro-sized establishments with fewer than 10 workers, which account for 96% of the total in FY2007. Among them, 99.9% are owned by private entrepreneurs. On the other hand, state economic enterprises constitute 47% of large-scale factories, which accounts, however, for only 1% of total establishments. Thus, the ownership structure of the manufacturing sector in Myanmar is characterized as one with a small number of large-scale state-owned economic enterprises and a large number of micro and small private establishments.

Table 9: Factories and establishments by number of workers as of FY2007

Number of Workers	State		Co-operative		Private		Total	
Micro (Below 10)	110	0.1%	13	0.0%	104748	99.9%	104871	96%
Small (10- 50)	232	8%	60	2%	2595	90%	2887	3%
Medium (51-100)	173	24%	14	2%	546	74%	733	1%
Large (Over 100)	281	47%	5	1%	318	53%	604	1%
Total	796	1%	92	0%	108207	99%	109095	100%

(Note) The ratios of columns of State, Co-operative and Private are ones as of each row's number of factories and establishments.

The ratio of column of Total is one as of total number of factories and establishments.

(Source) MNPED, Review (various issues); and CSO, Statistical Yearbook (various issues).

Tables 10 and 11 show the development of private industries that registered with the DISI.[6] According to the Private Industrial Enterprise Law enacted in November 1990, any private industrial enterprise using 3HP and with 10 or more wage-earning workers shall register themselves with the DISI. Then Procedures relating to the Private Industrial Enterprise Law were issued on February 1, 1991. In the Procedures, the authorities concerned requested that existing private industrial enterprises apply for registration within 120 days from February 1, 1991. If they applied for registration within 120 days, then they would be allowed to continue their production activities before receiving any directive from the Directorate. The number of registrations jumped from 27 in FY1990 to 23,848 in FY1991. However, the growth of registered number stabilized in the following fiscal year: it increased by only 5.2%, recording 25,081 in FY1992. It can be said that almost all private enterprises that should be registered according to the Law and Procedures and had intentions to do so had actually registered by the end of FY1991. Thus, increases in the figures of registered industries after FY1992 can generally be regarded as new entrants.

6 Industries are classified using the two-digit classifying method of ISIC. The Ministry of Industry (1) has revised the Myanmar standard industry classification (BSIC, 1952 version) based on the 1990 version of the International Standard Industry Classification (ISIC).

Table 10: Registered private industries by product group, 1992-1999

Product group	1992					1996					1999				
	No.of estbts	Employment	Av.no.of employment	Share in no.of estbts	Share in employment	No.of estbts	Employment	Av.no.of employment	Share in no.of estbts	Share in employment	No.of estbts	Employment	Av.no.of employment	Share in no.of estbts	Share in employment
Food products	13,406	60,537	4.5	56%	54%	22,106	92,922	4.2	63%	54%	22,152	93,957	4.2	62%	51%
Tobacco products	130	868	6.7	1%	1%	149	1,726	11.6	0%	1%	146	1,913	13.1	0%	1%
Textiles	1,520	10,543	6.9	6%	9%	2,348	17,334	7.4	7%	10%	2,093	18,158	8.7	6%	10%
Wearing apparel	17	230	13.5	0.1%	0%	69	8,870	128.6	0%	5%	160	12,863	80.4	0%	7%
Leather and its products	133	645	4.8	1%	1%	231	1,232	5.3	1%	1%	289	3,038	10.5	1%	2%
Wood, wood products	2,571	13,797	5.4	11%	12%	2,647	16,011	6.0	8%	9%	2,756	17,243	6.3	8%	9%
Paper and its products	231	973	4.2	1%	1%	250	1,133	4.5	1%	1%	267	1,299	4.9	1%	1%
Publishing and printing	251	1,048	4.2	1%	1%	280	1,223	4.4	1%	1%	285	1,268	4.4	1%	1%
Coke and petrol products	1	3	3.0	0%	0%	5	40	8.0	0%	0%	5	29	5.8	0%	0%
Chemicals and its products	399	1,841	4.6	2%	2%	392	1,874	4.8	1%	1%	411	2,157	5.2	1%	1%
Rubber and Plastics	637	2,969	4.7	3%	3%	722	3,951	5.5	2%	2%	733	4,493	6.1	2%	2%
Other non-metallic mineral products	226	1,081	4.8	1%	1%	270	1,867	6.9	1%	1%	282	2,104	7.5	1%	1%
Basic metals	539	2,837	5.3	2%	3%	581	3,356	5.8	2%	2%	607	3,691	6.1	2%	2%
Metal products	661	3,179	4.8	3%	3%	1,101	5,380	4.9	3%	3%	1,206	6,069	5.0	3%	3%
Machinery and equipment	102	424	4.2	0%	0%	353	1,580	4.5	1%	1%	586	3,408	5.8	2%	2%
Electrical, machinery and apparatus	293	777	2.7	1%	1%	272	911	3.3	1%	1%	255	900	3.5	1%	0%
Radio,TV, others	2	6	3.0	0%	0%	4	17	4.3	0%	0%	8	22	2.8	0%	0%
Medical and optical instrume	4	23	5.8	0%	0%	5	27	5.4	0%	0%	7	36	5.1	0%	0%
Motor vehicles and trailers	2,622	8,751	3.3	11%	8%	2,871	10,356	3.6	8%	6%	2,802	10,275	3.7	8%	6%
Other transport equipment	71	300	4.2	0%	0%	103	507	4.9	0%	0%	119	500	4.2	0%	0%
Furniture	301	1,396	4.6	1%	1%	432	2,105	4.9	1%	1%	428	2,453	5.7	1%	1%
Total	24,117	112,228	4.7	100%	100%	35,191	172,422	4.9	100%	100%	35,597	185,876	5.2	100%	100%

(Note) Av.No.of Employment stands for Average Number of Employment.

Figures for 1999 is as of end of September 1999.

(Source) DISI, Ministry of Industry (1).

Table 11: Registered private industries by product group, 2000-2008

Product group	2000	2001	2002	2003	2004	2005	2006	2007	2008
Food	23,478	23,689	23,885	26,161	26,896	27,337	27,601	28,137	28,728
Clothing	1,826	1,830	1,589	2,378	2,282	2,053	1,962	1,895	1,802
Shelter	3,086	3,193	3,295	3,507	3,551	3,494	3,320	3,240	3,111
Consumers goods	1,123	1,112	1,126	1,129	1,071	1,023	1,015	1,054	1,003
Household goods	282	290	215	196	265	309	318	305	307
Printing and publishing	341	345	355	340	329	410	356	291	283
Raw material	1,403	1,380	1,322	1,259	1,183	991	1,011	947	899
Metal and oil products	1,624	1,610	1,759	1,787	1,832	1,668	1,786	1,665	1,665
Agricultural equipments	47	48	48	52	61	63	74	79	77
Machinery and equipments	625	685	680	718	338	280	254	300	278
Transportation	86	86	83	79	138	141	156	238	233
Electrical products	40	48	47	54	59	63	58	60	64
General machinery	3,638	3,938	4,107	4,769	5,430	5,492	5,510	5,552	5,337
Total	37,599	38,254	38,511	42,429	43,435	43,324	43,421	43,763	43,787

（Source） DISI, Ministry of Industry (1).

The number of registered private industries increased from 24,117 factories in 1992 to 35,597 in 1999, with an average annual growth rate of 5.7%. The growth of Garment (Wearing Apparel) was the highest, with a growth rate of 37.8% per annum, which was followed by Machinery and Equipment with 28.4%, Coke and Petrol Products with 25.8%, and Radio, TV, Communication Equipment Manufacturing with 21.9%.

As registered industries increased, so too did their employment. Once again the Garment Industry recorded the highest growth rate, of 77.7% per annum. This was followed by Coke and Petrol Products with 38.3%, Machinery and Equipment with 34.7%, Leather and Leather Products with 24.8%, and Radio, TV, Communication Equipment Manufacturing with 20.4%.

The average number of workers at Garment Industry establishments exceeded 80 workers per factory, whereas that of all manufacturing industries was just 5.2. As a result, the share of total employment by the Garment Industry increased from a negligible percentage in 1992 to 7% in 1999. Both domestic and foreign companies vigorously invested in Garment Industry and the number of garment factories is estimated to have reached more than 300 at its peak around 2000, making it surely one of the most vibrant industries in Myanmar.[7]

Apart from the garment industry, however, the industrial structure shown in Table 10 has not been much changed. Myanmar's industry is still characterized by the extremely large share of agro-based consumer goods industries with less importance on heavy industries.[8] The upgrading and diversification of the industrial sector in Myanmar has yet to be observed.

Starting from 2000, the groups of registered private industries have changed from 21 product groups to 13 business types. The new industrial grouping is shown in Table 11. By comparing the figures for 2000 and 2008, in terms of percentage share, the food industry

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7 See Kudo [2010 forthcoming] for the growth and decline of garment industry in Myanmar in the 1990s and early 2000s.

8 Although Motor Vehicles and Trailers occupy 8% of total establishments, most of them are considered to be small and medium-size repair workshops.

sector grew by 4% points, clothing and garment decreased by 1% point, general machineries grew by 2% points, and other industries remained the same.

5. GEOGRAPHICAL DISTRIBUTION OF INDUSTRIES

5.1 Geographical distribution

We next review the spatial distribution of plants and establishments. The sovereign territory of Myanmar is 1.8 times greater than that in Japan, and the country has diverse geographical and climatic aspects, with levels of industrial concentration that vary from district to district. Tables 12 show the number of privately owned plants in different divisions and states. In terms of the number of establishments, the greatest industrial concentration in 2000 was in the Mandalay Division (21%), followed by Yangon (14%), Bago (13%), Ayeyarwady (13%), and Sagaing (11%).[9] The spatial distribution has not changed for the period between 2000 and 2009.

[9] Yangon is the largest in terms of number of employees, production amount, and amount of investment, reflecting its size.

Table12: Registered private industries by state and division

State / Division	No of establishment					Population in 2000	Population %	Establishments/ 100person in 2000	Growth of no of estab (1997-2000)	GDP Growth in FY99
	March 1997		March 2000		as of 2009					
Mandalay Division	7,651	21.6%	7,655	21.2%	17.7%	6,574	13.4%	11.6	0.02%	8.1%
Yangon Division	5,466	15.5%	5,117	14.2%	14.0%	5,560	11.3%	9.2	-2.2%	10.7%
Bago Division	4,358	12.3%	4,784	13.2%	10.9%	5,099	10.4%	9.4	3.2%	13.5/15.0*
Ayeyarwaddy Division	3,875	11.0%	4,690	13.0%	14.9%	6,779	13.8%	6.9	6.6%	8.7%
Sagaing Division	4,094	11.6%	3,986	11.0%	10.8%	5,488	11.2%	7.3	-0.9%	17.4%
Shan State	1,943	5.5%	2,447	6.8%	8.6%	4,851	9.9%	5.0	8.0%	6.5/11.2/8.3**
Magway Division	2,228	6.3%	2,020	5.6%	5.1%	4,548	9.3%	4.4	-3.2%	10.4%
Mon State	1,934	5.5%	1,778	4.9%	5.6%	2,502	5.1%	7.1	-2.8%	9.7%
Tanithayi Division	1,121	3.2%	923	2.6%	2.0%	1,356	2.8%	6.8	-6.3%	8.2%
Rakhine State	845	2.4%	909	2.5%	4.9%	2,744	5.6%	3.3	2.5%	8.2%
Kachin State	837	2.4%	781	2.2%	2.3%	1,272	2.6%	6.1	-2.3%	23.9%
Kayin State	363	1.0%	423	1.2%	1.2%	1,489	3.0%	2.8	5.2%	8.0%
Chin State	380	1.1%	401	1.1%	1.2%	480	1.0%	8.4	1.8%	13.7%
Kayah State	253	0.7%	238	0.7%	0.8%	266	0.5%	8.9	-2.0%	15.8%
Total	35,348	100.0%	36,152	100%	100%	49,008	100.0%	7.4	0.8%	10.5%

(Notes) * 13.5% for Bago Central; 15.0% for Bago West, ** 6.5% for Shan East; 11.2% for Shan South; 8.3% for Shan North.

(Source) DISI, Ministry of Industry (1).

Approximately 70% of privately owned plants are located in these five major divisions. The five major divisions together account for 82% of the total number of employees, 84% of production output, and 89% of total investment. With regard to industrial concentration density, the three largest divisions, namely, Mandalay, Yangon, and Bago, have more than nine plants per 100 people and constitute industrial areas of comparatively high concentration density within the country. From the above, it can be said that Yangon and Bago in the metropolitan zone and the suburbs of Mandalay, the second largest city, constitute two of the largest industrial concentration areas.

In contrast, the number of plants per 100 people is small in Magway Division, Rakhine State, and Kayin State, which shows that industrial concentration has not progressed in these areas. Surprisingly, the industrial concentration density is comparatively high in the Chin and Kayah regions, which are located in mountainous areas like Rakhine and Kayin. This may be the result of erroneous statistical collection techniques, and therefore poses a problem when using this information together with other social and economic indices.

The change in the number of plants from 1997 to 2000 also indicates different features by divisions and states. As previously mentioned, in FY1991, the Private Industrial Enterprise Law and relevant regulations on application procedures were enacted to initiate a registration system for privately owned plants. Thereafter, the rate of new registrations continued to markedly increase until FY1996, after which it slowed due to economic stagnation. Tables 12 shows that the number of privately owned plants registered per year increased 0.8% on an annual basis between the two periods. This is in sharp contrast to the nation's GDP which, according to the Myanmar government, continued to experience a rapid growth rate of 5.7%, 5.8%, and 10.9% for FY1997, FY1998, and FY1999, respectively. Furthermore, the processing and manufacturing industries attained even higher levels of growth, of 5.0%, 6.2%, and 15.6% for the same years. In order to boost value-added production without increasing the number of plants, it is necessary to increase per plant production capacity or the overall value of products. A major increase in per plant production capacity is not readily conceivable, since the distribution of plant size remains unchanged, with small-sized plants continuing to be dominant in the private sector. The value of products will not easily be increased either, since there have been no significant changes in the distribution of business categories. Although the possibility remains for increased production by state-owned plants, the ratio of processing and manufacturing industries in the state-owned sector has been on the decline as discussed in this paper. Therefore, the effects of large-scale production increases by state-owned plants, if any, will be limited. For these reasons, high growth rates in GDP were not conceivable in FY1987 and thereafter, as far as the changes in the number of plants.

Different trends are observable in the changes between 1997 and 2000 by different regions. The number of plants increased 5-8% on average in Ayeyarwaddy Division, Shan State, and Khine State, and decreased 3-6% in Taninthayi Division, Magway Division, and Mon State, presumably reflecting different economic trends in the respective areas. Figures on the growth rate of GDP by division and state are available only for FY 1999. As far as these figures are concerned, however, there are no correlations between changes in the number of plants and economic trends. Since there are no statistics to indicate the changes in the distribution of business categories in different areas either, it remains unclear which business categories have increased or decreased.

5.2 Features of some industrial clusters

Table 13 summarizes the number of plants as of April 1997 in different divisions, states, and business categories. Figure 4 shows the number of plants in major business categories in the five major industry concentration areas, which were selected from Table 12. As already pointed out, about 70% of the privately owned plants registered at the DISI were concentrated in these five major areas, and the five business categories shown in Figure 4 accounted for 88% of the total.

Table 13: Registered private oidustries by state and diision and by sector, as of 1997

	ISIC[1]	Kachin	Kayah	Kayin	Chin	Sagaing	Thaninthayi	Bago	Magway	Mandalay	Mon	Rakhine	Yangon	Shan	Ayeyarwaddy	Total	%
Food products	15	569	113	240	375	3113	776	3409	1522	3055	1208	641	2504	1414	3269	22208	62.8%
Tobacco products	16	1	-	1	-	15	-	27	27	41	6	-	7	8	12	145	0.4%
Textiles	17	5	-	-	-	344	-	86	282	1503	5	-	108	4	15	2352	6.7%
Wearing apparel	18	-	-	-	-	3	-	2	-	2	-	-	64	-	-	71	0.2%
Leather and its products	19	-	2	-	-	15	-	3	2	175	-	2	33	2	1	235	0.7%
Wood, wood products[2)]	20	188	90	46	-	220	63	409	113	572	164	75	449	129	151	2669	7.6%
Paper and its products	21	-	1	1	-	3	-	9	5	56	7	-	140	26	3	251	0.7%
Publishing and printing	22	1	2	-	-	4	7	18	1	61	6	6	150	16	4	276	0.8%
Coke and petrol products	23	-	-	-	-	-	-	-	-	2	-	-	-	1	-	3	0.0%
Chemicals and its products	24	-	-	4	-	8	-	26	28	122	22	3	142	20	15	390	1.1%
Rubber and Plastics	25	-	-	2	-	6	3	5	3	64	87	1	510	13	3	697	2.0%
Other non-metallic mineral products	26	2	8	2	1	43	3	21	8	79	13	-	66	7	25	278	0.8%
Basic metals	27	2	-	3	-	40	6	23	15	211	9	1	264	4	11	589	1.7%
Metal products	28	18	5	17	-	39	30	53	26	468	33	5	330	55	41	1120	3.2%
Machinery and equipment	29	-	-	2	-	19	-	15	14	197	6	2	89	13	28	385	1.1%
Electrical, machinery and apparatus	31	5	3	9	-	33	9	1	1	41	77	2	45	30	13	269	0.8%
Radio,TV, others	32	-	-	-	-	-	-	-	-	1	-	-	3	1	-	5	0.0%
Medical and optical instruments	33	-	-	-	-	-	-	-	1	-	-	-	3	1	-	5	0.0%
Motor vehicles and trailers	34	41	26	6	4	184	176	200	176	945	154	100	434	180	235	2861	8.1%
Other transport equipment	35	-	2	-	-	-	3	13	2	15	17	4	34	4	6	100	0.3%
Furniture	36	5	1	30	-	5	45	38	2	41	120	3	91	15	43	439	1.2%
Total		837	253	363	380	4094	1121	4358	2228	7651	1934	845	5466	1943	3875	35348	100%
		2.4%	0.7%	1.0%	1.1%	11.6%	3.2%	12.3%	6.3%	21.6%	5.5%	2.4%	15.5%	5.5%	11.0%	100.0%	

(Notes) [1)] International standard for industrial classification. [2)] excluding furniture.

（Source）DISI, Ministry of Industry (1).

Figure 4: Number of private industries in major regions by business categories, as of April 1997

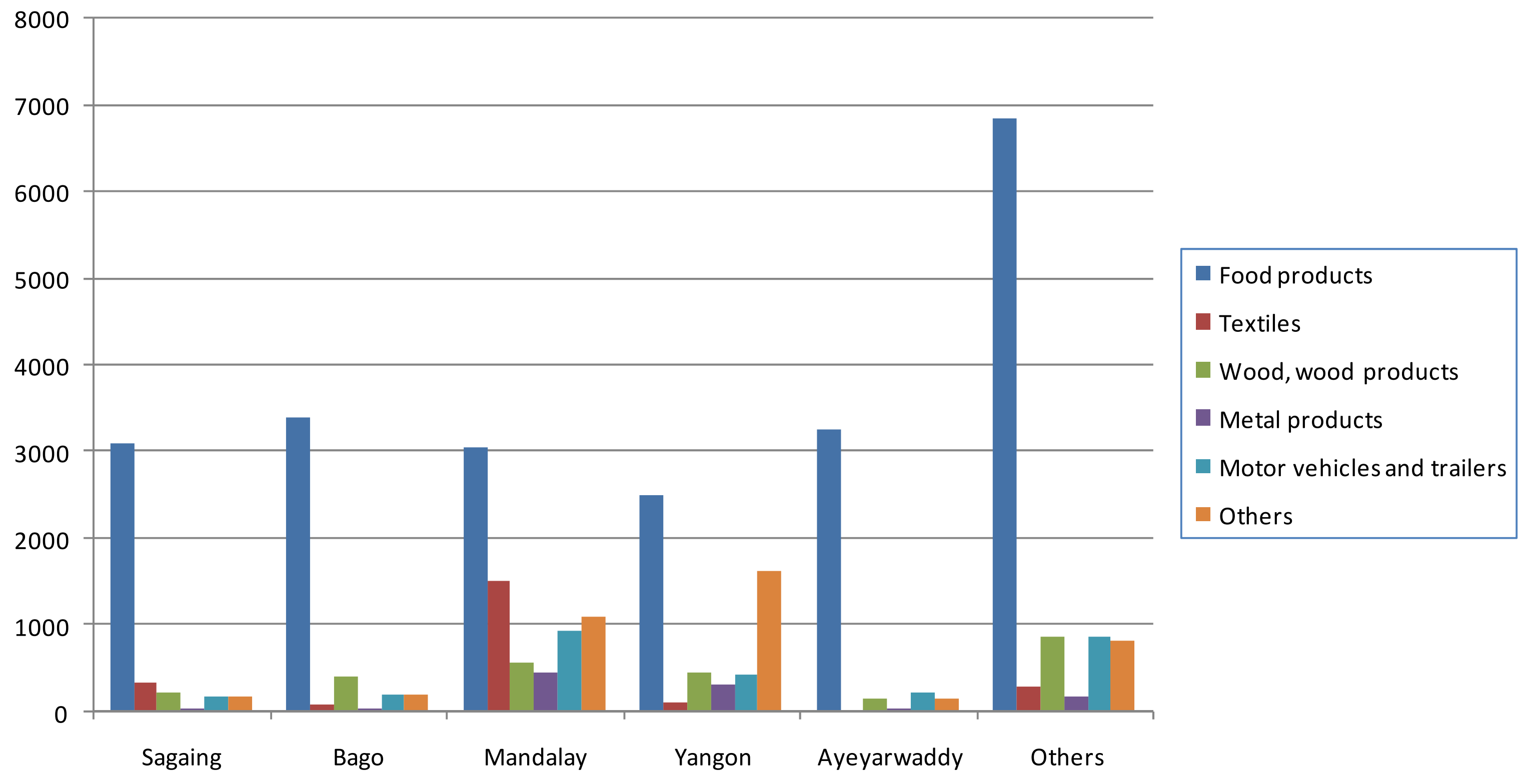

Table 13 and Figure 4 show the features of the distribution of business categories in major five areas. From these it can be ascertained that, firstly, the food manufacturing industry constitutes the largest share for all divisions and states. The industry accounts for 63% of all industries in Myanmar in terms of number of enterprises (and about 75% in areas other than Yangon and Mandalay). The five business categories shown in Figure 4 account for about 90% of the total number of enterprises, which indicates that manufacturing in Myanmar is still centered on the simple processing of agricultural products, with business categories being non-diversified and processing technologies remaining at low levels.

Secondly, the textile, wood processing, metal processing, and machine manufacturing industries make up a large percentage of the industries in the Yangon and Mandalay Divisions, suggesting that there is some level of diversification here. The food manufacturing industry accounts for 46% and 40% of all industries in these two divisions, respectively.

Thirdly, the concentration of textile, metal, automobile, and trailer manufacturing industries (centering on automobile parts, metal and machine processing, and repair workshops) in Mandalay is noteworthy. More than 60% of textile manufacturers in the country are located in Mandalay Division, and when those in the adjacent Magway Division are included, nearly 80% of the nation's textile manufacturers are seen to be concentrated in the central part of Myanmar. Most of these establishments appear to be those making "longyi" (sarongs) and cotton blankets, as well as other textile manufacturers.

Industries that repair automobiles and manufacture automobile spare parts and machine parts, are concentrated in the Mandalay industrial park, where about 150 small automobile repair workshops are located. Reportedly, nearly 70% of the medium- and large-size trucks and buses that connect Yangon and Mandalay are serviced and repaired in this industrial park. Due to strict import regulations, automobiles in Myanmar are mostly secondhand models that were made 10 or so years ago, which generate great demand for spare parts and repair services. As a result of its skills in imitating other's technologies, and its many shops which repair antiquated vehicles, Mandalay is now the largest base for automobile-related businesses. In addition to automobile-related workshops, there are a number of plants where electric appliances, agricultural machines and equipment, and other types of machinery are actively being manufactured, making this area the country's largest concentration of machine manufacturing.

Fourthly, in Yangon there are a considerable number of plants other than those related to the five major business categories. About 40% of those classified as "others" in Figure 4 are concentrated in this area. They include business categories such as rubber and plastic products, base metal products, publishing and printing, chemical products, and paper manufacturing. In this sense, it can be said that the industrial concentration in Yangon is the most diversified in the country.

5.3 Features of size distribution in different areas

Using Table 14, we see the features of size distribution in different areas and at nationwide level. Here again, differences are observed in the various divisions and states. Regarding all industries in Myanmar, it has generally been said that small-scale plants are dominant (accounting for 80% of the total number of plants), while large-scale enterprises play a lesser role (accounting for only 5%). However, in terms of production output and amount of investment, large-scale plants account for 37% and 40%, respectively. Given the corresponding figures for small-scale plants, 36% and 37%, respectively, large-scale plants can be said to have a marginally larger shares compared to small-scale plants. Despite large-scale plants having fewer employees (24% of the total, which is less than half that of small-scale plants 57%), the fact that they are playing a vital role in comparatively capital-intensive business categories cannot be overlooked.

Table14: Registered private industries by size and by states and divisions, as of March 2000

	No of factories				No of employees				Production (Million Kyats)				Power (HP)				Investment (Million Kyats)			
	Large	Medium	Small	Total	Large	Medium	Small	Total	Large	Medium	Small	Total	Large	Medium	Small	Total	Large	Medium	Small	Total
Mandalay Division	378	1,191	6,086	7,655	5,360	8,063	25,317	38,740	1,232	1,155	2,069	4,457	27,363	32,728	73,153	133,244	839	846	1,400	3,085
Yangon Division	678	996	3,443	5,117	26,028	9,282	14,081	49,391	5,912	1,733	2,307	9,952	67,867	26,224	38,630	132,721	2,685	946	654	4,285
Bago Division	228	447	4,109	4,784	6,014	4,733	14,422	25,169	1,947	1,055	1,397	4,399	22,485	15,935	53,663	92,083	536	250	575	1,361
Ayeyarwaddy Division	161	599	3,930	4,690	3,524	6,642	16,230	26,396	1,208	2,767	2,319	6,294	11,740	23,181	53,565	88,486	114	162	472	748
Sagaing Division	115	327	3,544	3,986	1,657	2,736	11,730	16,123	1,051	883	992	2,926	6,973	11,088	40,826	58,887	105	173	496	774
Magway Division	18	142	1,860	2,020	178	1,065	5,914	7,157	41	239	670	949	1,061	4,512	17,781	23,354	18	60	167	245
Shan State (South)	10	58	1,732	1,800	222	355	5,126	5,703	59	64	364	487	814	1,926	22,187	24,927	34	26	173	232
Mon State	58	120	1,600	1,778	485	902	4,848	6,235	131	397	1,136	1,664	7,026	4,370	18,416	29,812	26	25	112	163
Tanithayi Division	70	56	797	923	1,300	290	2,056	3,646	66	53	64	182	13,809	1,982	6,758	22,549	98	14	48	160
Rakhine State	58	76	775	909	984	521	2,356	3,861	526	139	163	828	8,518	3,042	9,850	21,410	126	16	54	196
Kachin State	9	71	701	781	99	470	2,215	2,784	11	171	147	329	642	2,688	10,711	14,041	5	17	49	71
Shan State (North)	15	43	589	647	333	263	1,743	2,339	89	47	159	295	1,221	1,428	7,545	10,194	51	19	59	128
Kayin State	20	16	387	423	249	96	1,188	1,533	78	42	159	278	2,460	548	5,100	8,108	17	2	23	43
Chin State	-	2	399	401	-	12	1,097	1,109	-	-	52	52	-	57	3,391	3,448	-	-	16	16
Kayah State	3	26	209	238	39	130	798	967	4	37	75	117	332	876	2,493	3,701	2	6	29	37
Total	1,821	4,170	30,161	36,152	46,472	35,560	109,121	191,153	12,355	8,782	12,073	33,209	172,311	130,585	364,069	666,965	4,656	2,562	4,327	11,544

(Source) DISI, Ministry of Industry (1).

Regarding this statistic, a "large-scale plant" is defined as one that satisfies at least one of the following conditions: (1) an amount of investment in excess of 5 million Kyat (about 10,000 US dollars at the then prevailing exchange rate), (2) yearly production output of over 10 million Kyat (about 20,000 US dollars), (3) power equipment of 50HP or higher, or (4) more than 100 employees. This means that they include plant sizes equivalent to those of medium- and small-scale enterprises in Japan. In addition, there are a number of large-scale plants owned by entrepreneurs or operated as family businesses that function like small- or medium-scale enterprises in the sense that decision making is mostly non-systematic and done by owners only. Therefore, it is doubtful whether it is really meaningful to classify private manufacturing enterprises into those of large-, medium- or small-scale according to the government's criteria.

Let us return to Table 14 and look at the features of size distribution in different states and divisions. As a specific feature, 40% of large-scale plants are located in the Yangon Division, followed by Mandalay (20%), Bago (13%), and Ayeyarwaddy (9%). In other areas, there are virtually no large-scale plants. With regard to medium-scale plants, Mandalay Division has about 30%, followed by Yangon (24%), Ayeyarwaddy (14%) and Bago (11%). As a feature of size distribution, a number of large-scale enterprises can be seen to be located in the periphery of Yangon while medium-scale enterprises are located in Mandalay.

In reflection of this situation, plants in Yangon Division account for 26% of the total number of employees, 30% of production output, and 37% of total investment. In almost all aspects, Yangon is ahead of Mandalay. In this sense, Yangon (not Mandalay) may be the largest center of private industries in the country.

As of March 2000, in Yangon Division, more than half of all workers were employed at large-scale plants. This is in sharp contrast to the situation in other divisions and states where worker absorbing capacity is at its highest at small-scale plants. From the viewpoint of size distribution, Yangon is quite different from other areas.

As the number of such large-scale plants increases in and around Yangon, it is anticipated that various management problems (labor relations management in particular) will emerge in the future. This requires that the managerial capabilities of private entrepreneurs who head small- and medium-scale enterprises be improved. In a country where the organization of labor unions is generally prohibited, a mechanism to adjust and mediate industrial relations and labor management will also be necessary. The government must devise and provide a fair and efficient system that will protect the rights and safety of workers, but must also ensure that it does not discourage investment from private businessmen.

CONCLUDING REMARKS

This paper outlined a series of open-door and market-oriented policies implemented under the military government (SLORC/SPDC) of Myanmar, and assessed their impact on industrial structural and spatial changes. Major economic indicators did not show either significant structural changes or spatial distributional changes in Myanmar's industries. The country can still be described as a predominantly agricultural economy and one which extracts natural resources such as timber, gems, and oil and gas.

Nevertheless, we observed the resilience and vitality of the private sector in Myanmar; it has positively and swiftly reacted to market-oriented policy and penetrating into fields where the market economy has revived. Given the opportunity, the private sector is ready to assume a more significant role in the national economy. This situation differs with some other transitional economies where lack of entrepreneurship seriously hinders the private sector from taking a more prominent role in economic development. In contrast, Myanmar has the big advantage of having entrepreneurs of ability and vitality who could make its transition toward a market-oriented economy much easier and smoother. The players are ready.

Therefore, public policy is important in whether or not it can make the most use of such players in economic development. Then the question comes back to the one previously posed: Can we be fully confident of the present government's commitment on transition to a genuine market economy which guarantees a level playing field for all economic actors?

Here again, we should look back at Myanmar's history on industrial policy. Every government to date since independence, whether civilian or military, democratic or socialist, has approached the problem of the private sector with great concern and trepidation. Whenever the accommodation and integration of the energy of private enterprises into the national economy was contemplated, the socialist philosophy, anti-capitalist attitude, control-prone disposition, and xenophobia based on the bitter colonial experiences provided obstacles, resulting in the redefinition of the role of the private sector being left vague and incomplete.

The transition to a market-oriented economy since the late 1980s was an historical exception. The various reform measures taken by the military government showed their apparent strong commitment toward a market economy. The author terms this present transformation of the economy the *Third Wave*, and feels assured that it is the biggest wave of liberalization in Myanmar's industrial history. Compared with the previous two waves, which the author believes occurred in the latter half of the 1950s and in the mid-1970s, the present regime had committed itself much more clearly to market economic principles and an enhanced role for the private sector.

During the period of the military regime from 1988 until now, there have been two periods;

from 1988 to 1997 under SLORC, when there were good signs of openness and for the country to be a market economy; and the later years under SPDC, in which the government applied a restricted economic system which can be deemed a control-oriented market economy. Under this system, economic and trade policy was very tight, with the stagnant inflow of foreign direct investment, especially in the industrial and trade sectors. However, the government allowed their cronies and family members of generals and the government to engage in lucrative businesses. No laws, directives, or notifications were officially announced but new policies or orders were proclaimed with reference to the meeting minutes of the Trade Council. Although the industrial sector seems to have developed to some extent, in terms of numbers and size, it is only in line with growing population and consumption. Many businesses in the industrial sector and properties remain in the hands of the elite and powerful groups.

Since 1995 and the implementation of a plan of privatization, Myanmar has been privatizing more and more state-owned enterprises to improve their operation. According to compiled statistics, out of 288 state-owned entities, a total of 254 proposed by 10 ministries have been privatized. The Myanmar Privatization Commission adopted the privatization plan in a bid to systematically turn enterprises nationalized in the 1960s into more effective enterprises. The plan was carried out by auctioning and leasing or establishing joint ventures with local and foreign investors. Enterprises covered by the plan included textile factories, saw mills, cinemas, and hotels.

After the government moved to the new capital of Naypyitaw in 2005, the administration formed another committee in June 2007 for auctioning off surplus state-owned buildings in the former capital of Yangon. In 2009, the privatization program was accelerated for properties such as SEEs office buildings, warehouses, and factories. The Privatization

Commission chaired by the Secretary (1) of the SPDC announced the privatization of 91 establishments in 2008, 302 in 2009, and 110 in 2010. Apart from the selling off of state properties, state-owned factories manufacturing motor vehicles will also be privatized. Futures plans for privatization include the transfer of management and properties to the private sector for many sectors such as port services, fuel distribution, electricity, and telecommunication services. This is a good sign for Myanmar’s economy and its further industrial development through the privatization program.

Nevertheless, history still cautions against full confidence in government policy toward a market economy. It would be necessary for the military government to commit itself again to such ideas as open markets, free competition, transparency, accountability, consistency, a level playing field, freedom of information, and rule of law, which are the foundations for a free and fair market-oriented economy. Without the government’s commitment to those ideas, the private sector could never be confident regarding public policies, and as a result, full-fledged investment would never be forthcoming to develop the country into an industrialized modern nation.

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