

Five Growth Strategies for Myanmar Re-engagement with the Global Economy

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After decades of isolation, Myanmar is now actively re-engaging with the global economy. For successful re-engagement, Myanmar needs to implement comprehensive economic reforms based on a shared vision of long-term economic development characterized by human-centred, sustainable, pro-poor, inclusive, high and balanced economic growth. In this paper, we propose five growth strategies: an “Agriculture Plus Plus” strategy; an export-oriented strategy; a foreign direct investment driven strategy; a two-polar growth strategy; and a domestic economic corridors development strategy. These strategies are used as guides to translate wide-ranging development agendas into a set of implementable policies, programmes, and projects.

Keywords: Myanmar (Burma), growth strategy, economic reforms, re-engagement with global economy.

I. Introduction

The political and economic landscape of Myanmar is experiencing a new dawn, with the country moving towards political, civil and economic reforms. While the world waited years for Myanmar to open up, the country responded only after the establishment of a “civilian” government led by President U Thein Sein in March 2011. Since then, Myanmar has responded positively, in both words and actions, presenting its development agenda to the world at large and to its immediate neighbours in Southeast and East Asia.

To successfully re-engage with the global economy after decades of isolation, the development agenda for Myanmar would inevitably have to be

comprehensive and challenging. This paper focuses on growth strategies which may serve as guides to streamline wide-ranging development agendas. The remainder of this paper is organized as follows: section II examines the role of agriculture in the long-run development of the country and proposes an “Agriculture Plus Plus” growth strategy. Section III examines Myanmar’s external sector through a comparison with other Southeast Asian countries and proposes an export-oriented and a foreign direct investment (FDI) driven growth strategy. Section IV deals with the geographical aspect of growth and proposes a two-polar growth strategy, emphasizing the importance of Yangon and Mandalay as growth poles. Section V argues for the significance of Myanmar’s economic re-

emergence and examines ways to transform the country into a connecting node within the regional economy. We conclude that, if sound strategies are adapted, Myanmar has the potential of becoming a star growth performer in the region in the future (section VI).

II. Role of Agriculture and Its New Growth Strategy¹

On 19 June 2012, President U Thein Sein declared that the government had entered the second phase of its reform strategy focusing on economic development (*New Light of Myanmar* [NLM] 2012). In the same speech, he announced four economic policies: (i) sustained agricultural development towards industrialization and all-round development; (ii) balanced and proportionate development among states and regions with equal shares from the budget and taxation, foreign aid, and foreign and local investment; (iii) inclusive growth for the entire population; and (iv) the compilation of quality and accurate statistics.

It is practical for the government to prioritize agriculture as a source of broad-based growth and poverty reduction, as it accounts for 36 per cent of gross domestic product (GDP), employs a majority of the workforce, and generates 25–30 per cent of export earnings.

However, Petty–Clark’s law states that the share of agriculture in employment and GDP decreases as

GDP per capita increases, indicating that agriculture alone will not absorb Myanmar’s growing labour force and will not remain a leading industry in the long run. What then is the role of agriculture in the country’s long-term economic growth? And, how does agriculture realize its role?

II.1 The Role of Agriculture in Long-run Economic Growth

Myanmar is still an agrarian economy. The contribution of agriculture to GDP was as high as 57.2 per cent until 2000 (Table 1). It has since declined to 36.9 per cent in 2010 and to 30.5 per cent in 2012. The five-year plan (FY2011/12–FY2015/16) targets: a reduction in the share of agriculture from 36.4 to 29.2 per cent; an increase in the share of industry from 26.0 to 32.1 per cent; and an increase in the share of services from 37.8 to 38.7 per cent. The share of industry will increase to 32.1 per cent, exceeding the share of agriculture. It should be noted that, however, these figures may not reflect the reality due to possible over estimation of GDP figures as many economists have pointed out.

Agriculture employs a majority of the workforce in Myanmar. According to the FAOSTAT,² the share of the agricultural population (hereafter, AP)³ as a percentage of Myanmar’s total population was 67.1 per cent in 2010. The experiences of neighbouring countries indicate that the AP share declines as

TABLE 1
GDP by Industry

| % of GDP | Agriculture Value Added | | | | Industry Value Added | | | |
|----------|-------------------------|------|------|------|----------------------|------|------|------|
| | 1990 | 2000 | 2010 | 2012 | 1990 | 2000 | 2010 | 2012 |
| Cambodia | 56.5 | 37.9 | 36.0 | 35.6 | 11.3 | 23.0 | 23.3 | 24.3 |
| Laos | 61.2 | 48.5 | 30.6 | 27.6 | 14.5 | 19.1 | 29.8 | 33.1 |
| Myanmar | 57.3 | 57.2 | 36.9 | 30.5 | 10.5 | 9.7 | 26.5 | 32.1 |
| Vietnam | 38.7 | 24.5 | 18.9 | 19.7 | 22.7 | 36.7 | 38.2 | 38.6 |

NOTE: The industrial origin of value added is determined by International Standard Industrial Classification (ISIC) version 4 where agriculture and industry correspond to ISIC divisions 1–3 and 5–43 respectively.

SOURCE: *Key Indicators for Asia and the Pacific* (ADB 2013).

GDP per capita increases, and Myanmar has been following this trend. However, the decline in the AP share is moving at a slower pace than the decline in the agricultural share (as a percentage of GDP). For instance, the share of primary industry (as a percentage of GDP) in Vietnam declined from 50 per cent in 1980, to 38.7 per cent in 1990, and finally to 18.9 per cent in 2010, but its AP share dropped only from 73.3 per cent in 1980 to 63.2 per cent in 2010. It can be said then that agriculture in Myanmar may be expected to remain the primary source of employment for the short and medium term.

As per Petty–Clark’s law, the share of agriculture in GDP has decreased in other ASEAN countries. In Thailand and Malaysia, for example, the share of agriculture declined from approximately 35 per cent in 1960 to 10 per cent in the 2000s. In Vietnam, the share of agriculture was more than 40 per cent in the late 1980s, and it declined to approximately 20 per cent in the 2000s. These experiences of its neighbouring countries suggest that Myanmar may experience similar structural change in the long run. However, it should be noted that the shares of agriculture in these countries have not declined to zero. Moreover, by the 2000s, the declining trend began to taper.

More interestingly, although the shares of agriculture have been declining in Thailand, Malaysia, and Vietnam until 2000, the absolute values of agricultural value-added have been increasing. This trend accelerated during the 2000s, partially because of the rising prices of primary goods supported by an ever-expanding world population and the economic development of large, emerging countries like China.

Therefore, although the relative importance of agriculture is declining in industrializing economies, it is not a sunset industry. In the long run, agriculture cannot be relied upon to absorb a larger labour force than manufacturing and services in developing economies; moreover, it is expected to release labour to other sectors. Nevertheless, agriculture can still contribute to economic development by increasing land and labour productivity.

In addition, agricultural development is expected to have a significant impact on poverty reduction.

A cross-country study by the World Bank reveals that GDP growth originating in agriculture is at least twice as effective in reducing poverty as GDP growth originating outside agriculture (World Bank 2007, p. 6). The rural population represents approximately 70 per cent of Myanmar’s total population. As of 2010, the incidence of poverty in rural areas (29 per cent) was approximately twice as high as that in urban areas (15 per cent) (Ministry of National Planning and Economic Development et al. 2011). As a result, rural areas account for almost 85 per cent of total poverty in Myanmar.

Myanmar’s industrial sector has been dominated by agro-processing industries such as rice milling and oil extraction. A comparative advantage will remain with primary activities such as agriculture, livestock breeding, fisheries and agro-processing in the foreseeable future. As such, agricultural growth can induce strong growth in other economic sectors through multiplier effects. Therefore, for several years, the growth strategy for most agriculture-based economies must be anchored in agricultural progress (World Bank 2007, p. 7).

II.2 How to Develop Agriculture?

Given the above discussion, what strategy should be adopted for the growth of agriculture in Myanmar? Consider the following production function for agriculture:

$$Y = Af(A_L L, A_N N)$$

where Y is output, A is total factor productivity, A_L is labour productivity, L is labour input, A_N is land productivity, and N is land input.

Table 2 presents various aspects of agricultural production in selected ASEAN countries. Labour productivity, which is defined as agricultural GDP divided by the economically active population in agriculture, is exceptionally high in Malaysia (US\$11,370 per unit of labour). Productivity in agricultural labour is closely linked to a country’s level of economic development. In Indonesia, Thailand and the Philippines, labour productivity

TABLE 2
Agricultural Production in Selected ASEAN Members (2009)

| | Value-added and productivity | | | Population and labour | | | Land area and usage | | | |
|---------------|------------------------------|---------------------|-------------------|-----------------------|--|-----------------|-----------------------------|---------|----------------------------------|------------------------------|
| | (A) | (A)/(C) | (A)/(E) | (B) | (C) | (D) | (E) | (E)/(D) | (E)/(B) | (D)/(C) |
| | Agricultural GDP | Labour productivity | Land productivity | Total population | Of which: Economically active in Agriculture | Total land area | Of which: Agricultural area | Share | Agricultural area per population | Land per agricultural worker |
| | Mil. US\$ | US\$/worker | US\$/ha | '000 | '000 | '000 ha | '000 ha | % | ha | ha |
| Indonesia | 82,503 | 1,666 | 1,539 | 237,414 | 49,513 | 190,457 | 53,600 | 28.1% | 0.226 | 1.08 |
| Thailand | 30,234 | 1,551 | 1,527 | 68,706 | 19,494 | 51,312 | 19,795 | 38.6% | 0.288 | 1.02 |
| Philippines | 22,019 | 1,651 | 1,843 | 91,703 | 13,336 | 30,000 | 11,950 | 39.8% | 0.130 | 0.90 |
| Vietnam | 20,321 | 694 | 1,978 | 86,901 | 29,302 | 33,105 | 10,272 | 31.0% | 0.118 | 0.35 |
| Malaysia | 18,646 | 11,370 | 2,369 | 27,949 | 1,640 | 33,080 | 7,870 | 23.8% | 0.282 | 4.80 |
| Myanmar | 5,598 | 301 | 451 | 47,601 | 18,613 | 67,659 | 12,411 | 18.3% | 0.261 | 0.67 |
| Cambodia | 3,484 | 712 | 627 | 13,978 | 4,895 | 18,104 | 5,555 | 30.7% | 0.397 | 1.13 |
| Laos | 1,929 | 835 | 822 | 6,112 | 2,311 | 23,680 | 2,346 | 9.9% | 0.384 | 1.02 |
| Total/Average | 184,734 | 1,328 | 1,492 | 580,364 | 139,104 | 447,397 | 123,799 | 27.7% | 0.213 | 0.89 |

SOURCE: FAOSTAT, Food and Agriculture Organization of the United Nations (FAO) and Key Indicators for Asia and Pacific (ADB, various issues).

rates are above US\$1,500 per unit of labour. Rates in Cambodia, Laos and Vietnam are approximately US\$700–US\$800. Myanmar's labour productivity is US\$301 per unit of labour, much lower than its neighbouring countries.

Two groups of countries exist with respect to land productivity. The first includes Malaysia, Indonesia, Thailand, Vietnam and the Philippines, which have a land productivity of approximately US\$1,500–US\$2,500/ha. The second group includes Cambodia, Myanmar, and Laos, which have a land productivity of significantly less than US\$1,000/ha. Again, Myanmar's land productivity is exceptionally low, at a rate of US\$451/ha.

No significant differences exist in land per unit of labour among ASEAN countries, except for Malaysia, which has the highest land per unit of labour (4.80 ha/labour), and Vietnam, which has the lowest (0.35 ha/labour). Myanmar has the second lowest land per unit of labour (0.67 ha/labour).

The above discussion suggests that we cannot rely on the growth of labour input (L) because an increasing proportion of the workforce will be absorbed by other sectors, particularly manufacturing. Therefore, we tap into four other sources of growth.

(i) *Expansion of Agricultural Land (N)*. Myanmar's agricultural land per capita is 0.261 ha, which is on par with that of Thailand (0.288 ha) and Malaysia (0.282 ha), and is among the highest in populated ASEAN countries (Table 2). On the other hand, agricultural land comprises only 18.3 per cent of the national territory, which is significantly lower than most of Myanmar's ASEAN neighbours, except for Laos.

Successive governments have attempted to reclaim new agricultural land, and the military government has successfully increased the net sown area over the past two decades. Yet, "cultivable waste other than fallows" remains at approximately 8 per cent of the national territory. Thus, it is possible to further reclaim cultivatable wasteland in Myanmar.

However, the frontier for reclaimable agricultural land in Myanmar has been disappearing and the

expansion of agricultural land is becoming more technically difficult and expensive. The military government implemented large-scale, deep-water reclamation projects for paddy cultivation in the Ayeyarwady Delta in the early twenty-first century, but efforts to reclaim this land mostly failed. Moreover, the environmental and social impacts should also be considered when planning the reclamation of agricultural land. Thus, there is a need to improve productivity instead of merely expanding agricultural land.

(ii) *Enhancing Labour and Land Productivity (A_L , A_N)*. We examine three types of productivity: labour productivity (A_L); land productivity (A_N); and total productivity (A). First, we discuss land and labour productivity. As Table 2 demonstrates, agricultural labour productivity in Myanmar was US\$301 per person in 2009, the lowest among Southeast Asian countries, less than half of that in Vietnam, and less than one-fifth of that in Thailand. Further, land productivity in Myanmar was US\$451/ha in 2009, also the lowest among ASEAN countries.

To investigate production volume (instead of value), we focus on paddy, the most important crop in Myanmar. Myanmar's paddy yield was 4.12 tons/ha in 2010, a middling rank among rice-producing East Asian countries, indicating that there is room for improvement, albeit limited.⁴

However, there is some scepticism regarding the accuracy of Myanmar statistics. The data for Myanmar presented by the United States Department of Agriculture (USDA) suggest that Vietnam's average paddy yield was nearly twice as high as that of Myanmar in 2008. These differing sets of paddy yield data for Myanmar reflect significant discrepancies (Kubo 2013). Again, accurate data are required to analyse agricultural productivity. The widening gap in the yield between the two countries is attributable to technological change rather than to changes in their rice pricing policies. In fact, rice farmers in Myanmar are equipped with inadequate irrigation facilities and lower performing high yielding varieties (HYVs) as compared to their Vietnamese counterparts (Kubo 2013).

Both land and labour productivity for agriculture in Myanmar need to be enhanced. The typical methods to enhance land productivity are irrigation and the appropriate use of fertilizers. The Myanmar government needs to develop a comprehensive plan to improve irrigation and the dissemination of fertilizers to farmers. A typical method of enhancing labour productivity is mechanization, and the mechanization of agriculture also requires a comprehensive plan.

(iii) *Enhancing Total Agricultural Productivity (A)*. We consider two ways of enhancing total agricultural productivity. The first involves the uses of higher quality products and higher degrees of processing. For example, the price of Thai white rice is nearly twice as high as that of Myanmar rice in international markets. This is primarily due to the low quality of Myanmar rice and its poor international reputation. In addition, Myanmar is an importer of food, particularly processed food. Daw Than Than Soe, President of City Mart, a leading retail chain, stated that approximately 80 per cent of the food sold in her stores is imported because of the underdeveloped food processing industry and poor logistics, including cold chains (JETRO 2013). Myanmar exports low-quality agricultural products and imports processed food. As a result, the country's trade balance of food is not significant against its general impression as a large agrarian exporter. In order to improve the quality of agricultural products, Myanmar needs to introduce quality seeds, good farm management, improved post-harvest systems, processing, and marketing, and so forth.

Another way to enhance total agricultural productivity is to diversify crops according to market demand. The share of paddy in sown acreage had steadily declined from 60.8 per cent in FY1961/62 to 35.3 per cent in FY2009/10.⁵ Myanmar's agriculture is no longer rice-dominated; it is more diversified. The share of pulses in sown acreage increased in the 1990s, from 11.2 per cent in FY1991/92 to 18.8 per cent in 2001/02, owing to exports, primarily to India, but stagnated in the 2000s. The share of oilseeds (groundnut and sesame) in sown acreage declined during the past

two decades, from 17.5 per cent in FY1991/92 to 10.2 per cent in FY2009/10, because of palm oil imports from Malaysia and Indonesia. The volume of other products, such as rubber, sugarcane, cotton, maize, fruits, and vegetables, has been steadily increasing since the 1960s, from 16.7 per cent in FY1961/62 to 37.0 per cent in FY2009/10. In addition, livestock and fisheries demonstrate considerable potential. Given that paddy production remains self-sufficient, Myanmar's agriculture can diversify into higher value-added crops such as fruit and vegetables and industrial crops in response to changing market demands.

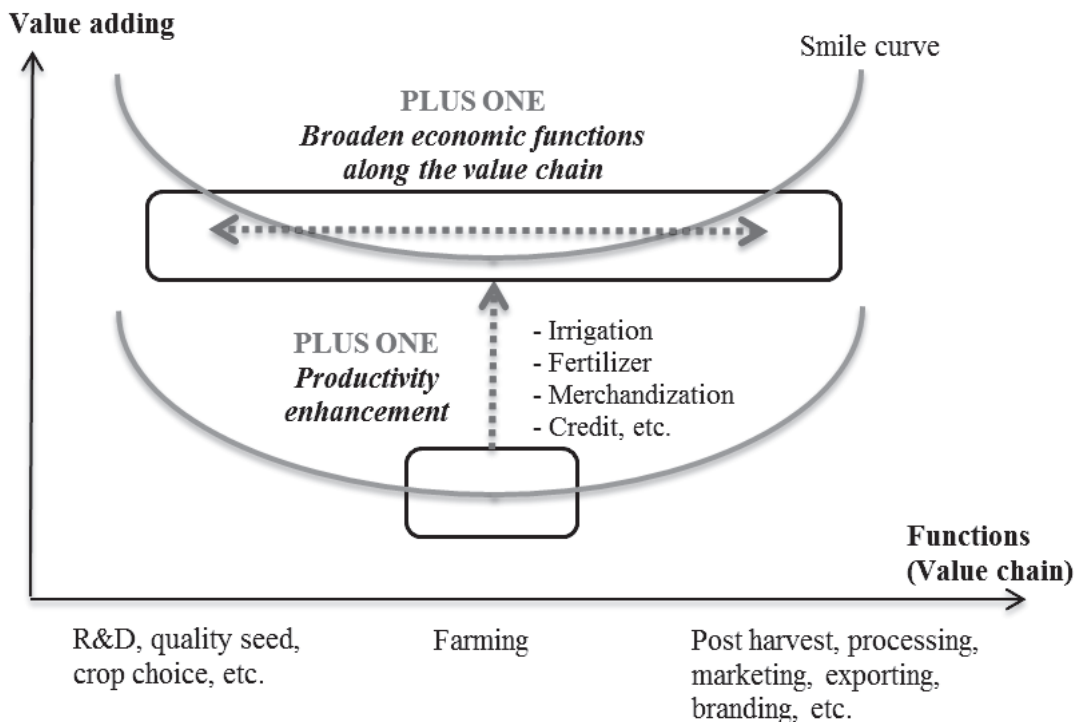
II.3 "Agriculture Plus Plus"

To summarize the above discussion, there are two ways to derive additional value from agriculture by: (i) enhancing productivity; and (ii) broadening economic functions along the value chain. We call this the "Agriculture Plus Plus" strategy, after Malaysia's "Manufacturing Plus Plus" concept — coined in the Second Industrial Master Plan (IMP2), 1996 to 2005 (Ministry of Trade and Industry, Malaysia 1995).

Like the Malaysian concept, the "Agriculture Plus Plus" strategy aims to progress along the agriculture value chain from farming to higher value-added activities such as agricultural research and design (R&D), the development and use of quality seeds, and post-harvest businesses including distribution and marketing (first plus). In addition, the strategy aims to shift the entire value chain to a higher level through productivity-driven growth (second plus) (Figure 1).

Although agriculture is not a sector that absorbs a large labour force in the long run, it is, as was mentioned above, definitely not a sunset industry. Moreover, agriculture especially facilitates the reduction of poverty and multiplier effects on other economic sectors. There are methods to increase agriculture's value-added that do not rely on the growth of labour and land inputs. The key is to enhance labour productivity, land productivity and total factor productivity. We need to develop the broad concept of "Agriculture Plus Plus" to include concrete and comprehensive action plans; this will

FIGURE 1
 “Agriculture Plus Plus” Strategy



SOURCE: Authors.

be challenging for both the Myanmar government and the private sector.

III. Globally Linked and Private Sector-led Industrial Development

III.1 Export-oriented Growth Strategy⁶

As Baldwin (2004) argues, citing Rodriguez and Rodrik (2001), it is not easy to statistically demonstrate the positive relationship between trade openness and economic growth. However, our observations in East Asia after the mid-1980s reveal that it is difficult for a country to achieve rapid growth without being integrated in the global economy. Virtually no East Asian country has achieved high economic growth without a

strong export sector. To do so, the smooth import of intermediate goods is key, especially at the early stages of export-oriented industrialization.

More than twenty years ago, Myanmar attempted to follow this trend. Soon after the military assumed power in 1988, the Myanmar government launched a series of open-door policies that allowed private firms to engage in external trade and legitimized border trade with its neighbouring countries. Consequently, Myanmar’s foreign trade increased rapidly during the 1990s and 2000s, and its exports grew fifteen times during this period. Nevertheless, the value of Myanmar’s exports in 2010 was less than 10 per cent of Vietnam’s in the same year. Although Vietnam exported only 2.5 times more than Myanmar did in 1990, it exported more than

thirteen times the amount in 2010. The question then arises: why is there such a large gap in export performance even though both countries initiated their open-door policies in the late 1980s?

(i) *Diversification of Exports.* One difference between Myanmar and Vietnam is the degree of diversification of their exports. Table 3 indicates the shares of the top ten exports from Myanmar and Vietnam in 2010. Natural gas accounted for more than half of Myanmar's exports; it has been exploited offshore from Martaban Bay and transported to Thailand by pipeline since approximately 2000. In addition, another natural gas field off Rakhine State, Shwe, commenced operations to export gas to China's Yunnan Province by pipeline in 2013. This will further increase the country's share of natural gas in its total exports. Myanmar's natural gas exports increased from US\$108.6 million in 2000 to US\$2,595.4 million in 2010. Although Myanmar's proven natural gas reserves are the lowest among the five gas-producing ASEAN countries at the end of 2012 (British Petroleum 2013), it is obvious that Myanmar relies heavily on natural gas exports. Excluding natural gas exports, Myanmar's total exports grew annually by only 6.2 per cent from 2000 to 2010. The second largest export item was wood (16 per cent), followed by apparel and clothing (11.2 per cent). Thus, only three goods accounted for 80 per cent of Myanmar's total exports in 2010. Clearly, the country's exports have yet to diversify.

In contrast, although it's proven oil reserves are the highest among the five oil-producing ASEAN countries (British Petroleum 2013), Vietnam's exports are substantially more diversified than Myanmar's. Apparel and clothing accounted for 17.9 per cent of total exports in 2010, followed by footwear (12.9 per cent), petroleum and its products (8.5 per cent), miscellaneous manufactured articles (7.5 per cent), and telecommunications and sound equipment (7.3 per cent). The top ten goods accounted for 77.6 per cent of Vietnam's total exports. Moreover, the share of petroleum in Vietnam's exports declined from 33.4 per cent in 1990 to 19.7 per cent in 2000 and further to 6 per cent in 2010.

(ii) *Export of Manufactured Goods: Apparel and Electric and Electronic Products.* Although Myanmar's exports continue to be dominated by primary goods, with the exception of apparel and clothing, Vietnam exports various types of manufactured goods. The shares of manufactured goods in Myanmar's and Vietnam's exports were nearly identical between the two economies in the 1990s, approximately 12–13 per cent in 1990 and 55–58 per cent in 2000. Vietnam, however, steadily increased its export share of manufactured goods to 71 per cent in 2010, whereas that of Myanmar drastically declined to approximately 20 per cent in 2005.

Apparel and clothing are the only manufactured goods exported from Myanmar. The export share of manufactured goods substantially increased in the late 1990s, primarily because of garment exports to the United States and the European Union. However, the import ban introduced in the United States in 2003 and the European Union's unwillingness to source goods manufactured in Myanmar because of human rights issues severely damaged the country's apparel exports, which declined from US\$800 million in 2000 to US\$560 million in 2010. In contrast, Vietnam steadily expanded its apparel exports, from US\$1.65 billion in 2000 to US\$11.31 billion in 2010, twenty times higher than the value of Myanmar's apparel exports.

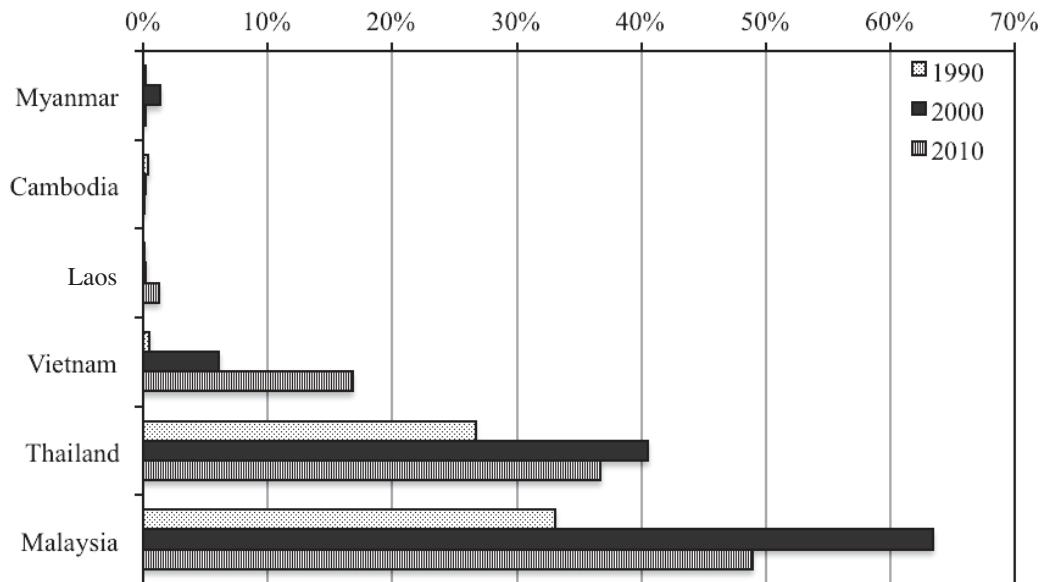
Another important category of export goods is electrical and electronic (E&E) products. Historically, E&E products comprised the principal exports for most East Asian countries. In particular, after the Plaza Accord on exchange rates was signed in 1985, E&E multinational enterprises (MNEs) in Japan and Asian NIEs (newly industrialized economies) shifted their production bases to developing ASEAN countries, thus establishing production networks in the region. Dependence on E&E exports indicates a particular country's participation in East Asian production networks. Judging from the shares of E&E products in their exports, Thailand and Malaysia seem to be "graduating" from being dependent on massive E&E exports; while Vietnam is increasing its E&E exports (Figure 2). The shares of E&E products

TABLE 3
Top Ten Export Goods of Myanmar and Vietnam (2010)

| Myanmar | | | | Vietnam | | | |
|---------|------------------------------|----------------------|--------|---------|--------------------------------------|----------------------|--------|
| SITC | Description | Value (Mil. US\$) | Share | SITC | Description | Value (Mil. US\$) | Share |
| 34 | Natural gas | 2,595.4 | 52.4% | 84 | Apparel & clothing | 11,309.8 | 17.9% |
| 24 | Cork & wood | 792.4 | 16.0% | 85 | Footwear | 8,185.7 | 12.9% |
| 84 | Apparel & clothing | 556.2 | 11.2% | 33 | Petroleum & products | 5,372.1 | 8.5% |
| 28 | Ores & metal scrap | 201.8 | 4.1% | 89 | Misc manufactured articles | 4,756.9 | 7.5% |
| 23 | Crude rubber | 193.9 | 3.9% | 76 | Telecommunications & sound equipment | 4,626.2 | 7.3% |
| 66 | Non-metal minerals | 165.5 | 3.3% | 82 | Furniture | 4,120.4 | 6.5% |
| 85 | Footwear | 90.1 | 1.8% | 77 | Electrical machinery & parts | 3,268.1 | 5.2% |
| 22 | Oil seeds & oleaginous fruit | 62.8 | 1.3% | 65 | Textile yarn & fabrics | 2,737.5 | 4.3% |
| 68 | Non-ferrous metals | 51.0 | 1.0% | 75 | Office machines | 2,724.0 | 4.3% |
| 27 | Crude fertilizer | 44.8 | 0.9% | 32 | Coal & Coke | 1,993.2 | 3.1% |
| | Others | 196.7 | 4.0% | | Others | 14,205.4 | 22.4% |
| | Total | 4,950.5 | 100.0% | | Total | 63,299.6 | 100.0% |

SOURCE: UN Comtrade Database.

FIGURE 2
Share of Electric and Electronic Products in Exports



SOURCE: UN Comtrade Database.

in Myanmar, Cambodia and Laos are still low, indicating that they have yet to join East Asian E&E production networks.

(iii) *Joining East Asian Production and Distribution Networks.* As described in Kimura and Obashi (2010), participation in production networks is essential to the unique development strategy of East Asian countries, which “aggressively utilize MNEs in an open setting and accept almost all sorts of such firms, ... enabl[ing] them to participate in international production networks and form industrial agglomerations. After this stage, local firms, entrepreneurs, and engineers increase their participation through their penetration into MNEs’ production networks.” (p. 1).

As a result of the lifting of Western sanctions, Myanmar has an opportunity to increase and diversify its export goods and destinations. For this to happen, Myanmar must first demonstrate its ability to host an export-oriented industry.

The apparel industry seems to be the litmus test for this step. Thereafter, becoming a part of East Asian production and distribution networks of the E&E sector will be key for Myanmar to proceed to the next stage of industrialization. In addition, Myanmar should tap into intra-regional markets, such as China, India and Thailand, as well as traditional export markets, such as the United States and the European Union. Moreover, utilizing regional free trade agreements and further enhancing connectivity with these countries is important for Myanmar’s export-oriented growth strategy.

III.2 FDI-driven Growth Strategy

Over the past few decades, academics and policy-makers have become increasingly interested in attracting inward FDI to fuel economic growth. FDI brings capital, technology, and skills to host economies. In addition, new investment projects

by foreign investors can create employment in host economies. Several developing countries have attempted to attract foreign investors by offering preferential investment incentives in order to build industrial clusters and to enable the participation of local firms in global value chains. Indeed, many East Asian economies have attracted foreign investment and achieved remarkably high economic growth.

Drawing on the successful experiences with FDI promotion and economic growth elsewhere in Asia, we envisage an FDI-driven growth strategy for Myanmar. The current government has indicated that the promotion of foreign investment is an important policy to accelerate economic growth. Therefore, it is becoming increasingly important to identify which policies Myanmar should implement to attract foreign investors and how FDI promotion can contribute to its economic growth.

Table 4 shows recent developments in Myanmar's inward FDI stocks in comparison to its neighbours. Myanmar's ratio of inward FDI stocks to GDP is the lowest among Thailand, Cambodia and Laos. This ratio substantially declined from 36.1 per cent in 2000 to 18.2 per cent in 2011, indicating that international sanctions probably affected inward FDI in Myanmar. For instance, the United States has prohibited new investment by U.S. companies in Myanmar since 1997 and implemented a trade and financial ban in 2003. Moreover, the European Union imposed various sanctions, such as depriving imports from Myanmar of Generalised Scheme of Preferences (GSP) status since 1997. These successive sanctions severely damaged multinational firms' interests in investing in Myanmar. As a result, Myanmar received almost no FDI from developed countries in manufacturing and services. In contrast, most FDIs in Myanmar were driven by resource-seeking motives, particularly in the energy sector, by its neighbouring countries such as China and Thailand. Investments include hydropower projects in mountainous areas as well as gas exploitation and pipeline projects to export electricity and gas to China and Thailand.

However, all sanctions have been either relaxed or lifted in response to the reforms of Myanmar's

current government. The international business community has drastically altered its perception of Myanmar, from that of a pariah to the last economic and business frontier in Asia. Since mid-2011, business missions to Myanmar have boomed, and hotel and office rental charges have jumped three to five times. Accordingly, the number of foreign investments in manufacturing is rapidly increasing.

To explore the potential benefits of FDI, Myanmar must first attract FDI and develop an appropriate strategy to spread its benefits across the national economy. Going by the experiences of its forerunners among the other ASEAN countries, the results of general policies to attract FDI, such as: developing and improving infrastructure; stabilizing the macro economy; establishing an open trade policy; providing capable human resources; and setting up an investment promotion agency, are usually simple and conclusive.

In contrast, policies intended to directly facilitate positive spillover effects from FDI inflows, such as regulations on local contents, joint ventures, or technology sharing, are harder to evaluate. In fact, if implemented, these restrictions are expected to negatively affect FDI inflows, particularly from developed countries. Moreover, these policies are prohibited by the World Trade Organization's (WTO) Trade Related Investment Measures (TRIMs) agreement and are difficult to implement, even though developing countries are temporarily exempted from the agreement's prohibitions as long as their policies adhere to the provisions of Article XVIII of the General Agreement on Tariff and Trade (GATT).

IV. Two-Polar Growth Strategy

As was mentioned above, Thein Sein had announced Myanmar's aim of cultivating "balanced and proportionate development among states and regions with equal share of budget and taxation, foreign aid and foreign and local investment" (NLM 2012). However, this aspiration is challenging because of the possible trade-off between growth and equity, particularly for countries in their early stages of development.

TABLE 4
Inward FDI Stock in Selected Southeast Asian Countries

| | <i>FDI inward stock (Million US\$)</i> | | <i>FDI inward stock/GDP (%)</i> | | | <i>Number of greenfield FDI</i> | | | |
|------------|--|--------|---------------------------------|------|------|---------------------------------|---------|---------|------|
| | 1990 | 2000 | 2011 | 1990 | 2000 | 2011 | 2005-07 | 2008-10 | 2011 |
| Bangladesh | 477 | 2,162 | 6,166 | 1.6 | 4.6 | 5.4 | 24 | 66 | 18 |
| Cambodia | 38 | 1,580 | 6,850 | 4.2 | 43.3 | 52.1 | 21 | 103 | 37 |
| Laos | 13 | 588 | 2,521 | 1.4 | 35.9 | 31.9 | 27 | 49 | 13 |
| Myanmar | 281 | 3,211 | 9,123 | 10.1 | 36.1 | 18.2 | 6 | 16 | 11 |
| Thailand | 8,242 | 29,915 | 139,735 | 9.6 | 24.4 | 41.2 | 377 | 827 | 137 |
| Vietnam | 1,650 | 20,596 | 72,778 | 25.5 | 66.1 | 59.8 | 657 | 797 | 172 |

NOTE: Greenfield FDI is a type of FDI which is used to establish a new legal entity, therefore cross-border M&As are not included.
SOURCE: UNCTAD STAT, United Nations Conference on Trade and Development and World Economic Outlook Database (IMF).

This section proposes a two-polar growth strategy that includes both “high” and “balanced” growth. The first growth pole is Yangon and the second is Mandalay. Nay Pyi Taw, the national capital, will develop as an administrative centre, rather than as an economic or commercial one. In addition, we propose the development of border areas to enhance connectivity with richer neighbouring countries as a complementary strategy to our two-polar growth strategy.⁷

IV.1 Balance between “Balanced” and “High” growth

“Balanced regional economic growth” is an attractive policy slogan, but the feasibility of achieving equality with higher economic growth is debatable. Several studies have examined the relationship between economic growth and regional income inequality. They find that the latter is not merely an adverse effect of the former but that the two phenomena have circular causation. Economic growth enhances economic agglomeration, and vice versa. The rationale is that economic growth is inadvertently geographically uneven because it is more advantageous to conduct business operations in certain regions than others. Workers and firms tend to agglomerate in developed regions, seeking higher wages and larger markets. Furthermore, economic agglomeration is a source of positive externalities such as labour pooling and knowledge spillover, enabling the efficient provision of physical and institutional infrastructure with only limited resources. Therefore, economic agglomeration enhances economic growth. The first principle of economic development is that scarce development resources should not be widely spread across regions, particularly in the early stages of development.

It is important to examine how the geographical concentration of economic activity in other developing countries has changed during periods of rapid economic growth. Thailand and Vietnam, both of which have land areas and population sizes comparable to Myanmar’s, appear to be benchmarks for the country.⁸ Thailand and Vietnam have contrasting spatial structures for economic

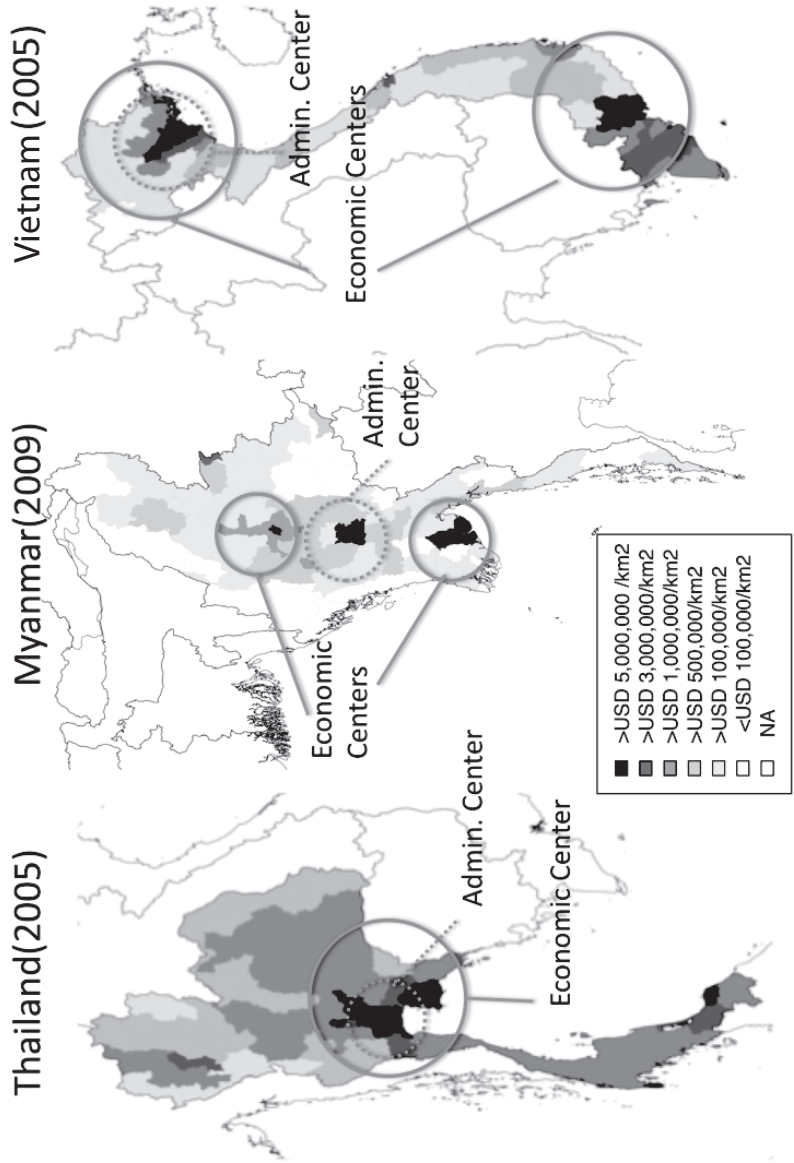
activity. Thailand is a typical “one-polar” country, while Vietnam is a two-polar country. Figure 3 illustrates the GDP density (GDP per km²) of Thailand, Myanmar and Vietnam. Thailand’s economic activities are clearly concentrated in Bangkok, while Vietnam has two agglomerations of economic activity — one Hanoi and the other Ho Chi Minh City. Considering Myanmar’s pre-existing spatial development, it is important to select a one- or two-polar (or multi-polar) structure.

Based on population and GDP density by district, as well as industrial distribution, we find that Yangon is the most reasonable candidate for becoming the first pole of economic growth — economic activity and population are both concentrated there. In addition, we identify Mandalay as the second pole of economic growth, because Mandalay and its surrounding areas, including the poor Central Dry Zone (CDZ), already has a measure of economic activity and a sizeable population, although the economic agglomeration there is smaller than in Yangon.

To forecast the consequences of each development strategy, we conduct a simulation analysis using an IDE Geographical Simulation Model (IDE-GSM).⁹ We analyse the relationship between the developmental poles using the following indicators: Myanmar’s national GDP; and Yangon’s and Mandalay’s share in national GDP. We assume that the costs of increasing productivity in a growth pole are proportional to its population. Furthermore, we assume that the available public development expenditure is fixed, and that if the number of developmental poles is increased, the expenditure will be shared by all growth pole regions in proportion to their population. In addition, an increase in productivity of each region is assumed to be proportional to the development expenditure per capita.¹⁰

Based on the above assumptions, the two-polar strategy will decrease Yangon’s GDP share from 55.1 per cent to 43.1 per cent. At the same time, the national GDP will increase slightly by 1.54 times from 1.49 times. Moreover, Mandalay’s GDP share will increase from 10.8 per cent to 19.1 per cent. There appears to be no trade-off between

FIGURE 3
GDP Density of Thailand, Myanmar and Vietnam



SOURCE: Authors' calculation using the IDE-GSM.

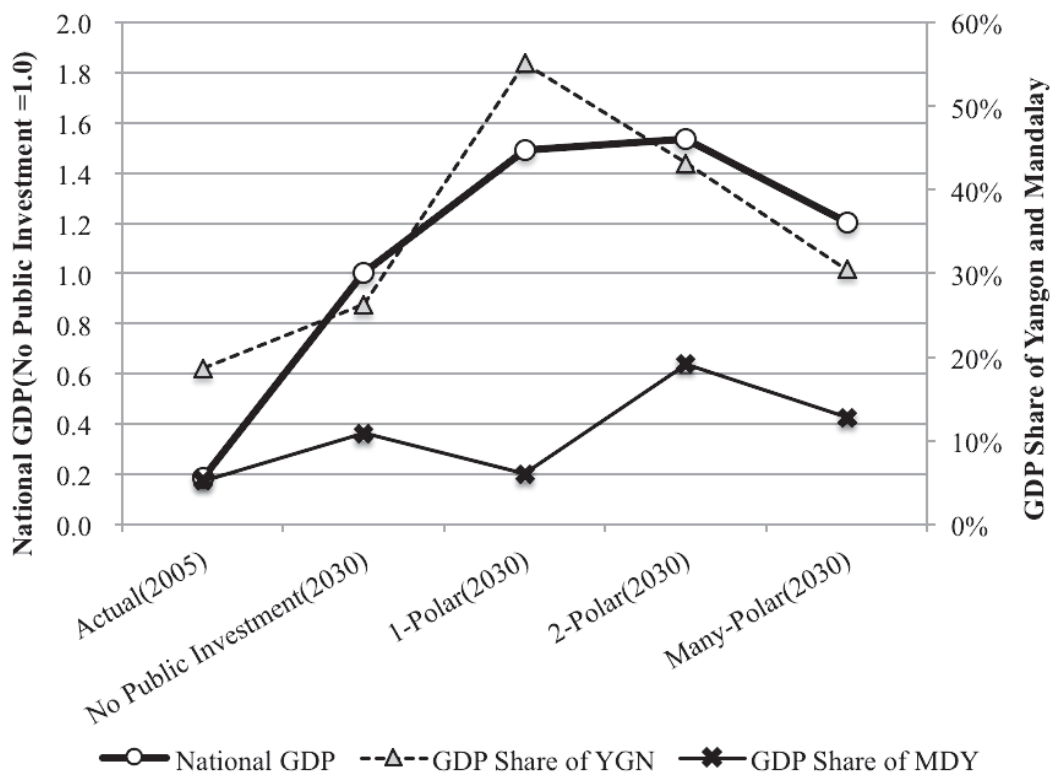
higher growth and lower inequality in the two-polar strategy. However, if development resources are spread across many poles (we assume that this spread includes fifteen regions, including Yangon and Mandalay), the national GDP will decrease to 1.2 times, whereas Yangon's GDP share will decrease to 30.4 per cent (Figure 4).

In addition, the two-polar strategy seems appropriate from the viewpoint of poverty eradication. Yangon, Myanmar's economic centre, has a poverty share of 8.1 per cent. When combined with neighbouring Ayeyarwady, the poverty share becomes 26.7 per cent. If Yangon alone has to

address poverty in Mandalay and Magway, which is part of the highly populated and poor CDZ, the poverty share will increase to 50.6 per cent. This figure is clearly too high. As such, a poverty eradication strategy that is dependent on mono-centric economic agglomeration in Yangon would be risky. Given that economic agglomeration in Mandalay is already relatively high, it would be more reasonable for Mandalay to address its own poverty problem including that of neighbouring Magway (and Sagaing). As is the case in Vietnam, a two-polar economic structure is desirable in Myanmar.

FIGURE 4

The Number of Growth Poles, National GDP and GDP Share of Yangon and Mandalay (as of 2030)



SOURCE: Authors' calculation using the IDE-GSM.

IV.2 Border Development with Enhanced Connectivity

As previously discussed, a certain degree of concentration of economic activity is inevitable and even desirable in the early stages of economic development. However, regions along the economic periphery, such as the mountainous border regions of Myanmar, need special attention. It is difficult to encourage certain types of industries to invest in less-developed regions with small populations.

The first principle of economic development discussed in this paper is that scarce development resources should not be spread across many regions, especially in the early stages of economic development. Given that Myanmar is surrounded by wealthier neighbouring countries, enhancing connectivity with these nations is key to balanced development that will not divert a large amount of resources away from the country's economic centres.

The economic effects of enhancing connectivity are also analysed using the IDE-GSM. In this "enhanced connectivity" scenario, we combine the following policies: (a) customs facilitation measures at select national borders in 2015–20; (b) upgrades to roads connecting these borders that pass through major cities in Myanmar in 2015–20; and (c) connections between Dawei and Kyaukphyu ports with India and Europe by 2020.¹¹

Table 5 indicates that income gaps between and among the seven regions in which most Myanmar people live and the seven states in which ethnic minorities primarily live was narrowed through the enhancement of connectivity. Moreover, the average income of the above-mentioned regions and states was higher than the estimated outcome of our two-polar strategy (without enhanced connectivity). This simulated result reveals that enhancing connectivity considerably increases GDP in periphery regions without reducing it in economic centres. This simulation also showed that enhanced connectivity greatly improves inequality measures.

A two-polar growth strategy combined with border development and enhanced connectivity prevents over- or under-concentration and

facilitates high and balanced growth. To facilitate the implementation of this strategy, spatially targeted investment, including physical and institutional infrastructure, is required in Yangon, Mandalay, and select border areas.

It is a challenge to turn Yangon and Mandalay into growth poles and to enable them to contribute to poverty alleviation. Accordingly, establishing special economic zones (SEZs) can help promote industrial clusters in targeted areas. And, as was mentioned above, attracting FDI is an important policy tool. In this regard, Yangon and Mandalay are the keys to unlocking FDI inflows.

V. The Re-emergence of Myanmar: From a Missing Link to a Connecting Node

V.1 *New International Environment*

Despite being an ASEAN member state since 1997, Myanmar's economy has been substantively insulated from regional and global economies, with the significant exception of China. While Myanmar remained isolated for decades, neighbouring developing Asian countries went on to achieve remarkable economic growth. They are now strongly connected to the global economy through regional production networks. In fact, Myanmar has long been the significant missing link in regional production networks. Paradoxically, this is the breakthrough. Although regional production networks have not expanded to Myanmar, they have reached its neighbouring countries such as Thailand, China and India. By enhancing its connectivity with these countries, Myanmar can join well-developed regional production networks. This strategy accelerates Myanmar's re-emergence into the global economy. In addition, Myanmar is expected to become the node connecting three of the world's most vibrant economies: China; India; and ASEAN.

For this to occur, the following recommended steps have to be taken. First, Myanmar needs to develop domestic economic corridors that are effectively connected to international economic corridors, which have already expanded to neighbouring countries. Figure 5 highlights

TABLE 5
Inequality between Seven Regions and Seven States in Myanmar by Development Strategy

| | <i>Seven Regions (vs. Seven States=1.0)</i> | | <i>GDP per capita (national avg. [2005]=1.0)</i> | | |
|-----------------------------|---|-----------------------|--|---------------------|-----------------|
| | <i>GDP</i> | <i>GDP per capita</i> | <i>Seven Regions</i> | <i>Seven States</i> | <i>National</i> |
| Actual (2005) | 3.01 | 1.12 | 1.03 | 0.92 | 1.00 |
| No Public Investment (2030) | 3.42 | 1.15 | 3.63 | 3.15 | 3.51 |
| 1-Polar (2030) | 5.73 | 1.74 | 5.47 | 3.14 | 4.93 |
| 2-Polar (2030) | 5.92 | 1.79 | 5.64 | 3.15 | 5.06 |
| 2-Polar+Connectivity (2030) | 5.80 | 1.76 | 5.75 | 3.26 | 5.17 |
| Many-Polar (2030) | 4.02 | 1.30 | 4.35 | 3.33 | 4.10 |

SOURCE: Authors' calculation using the IDE-GSM.

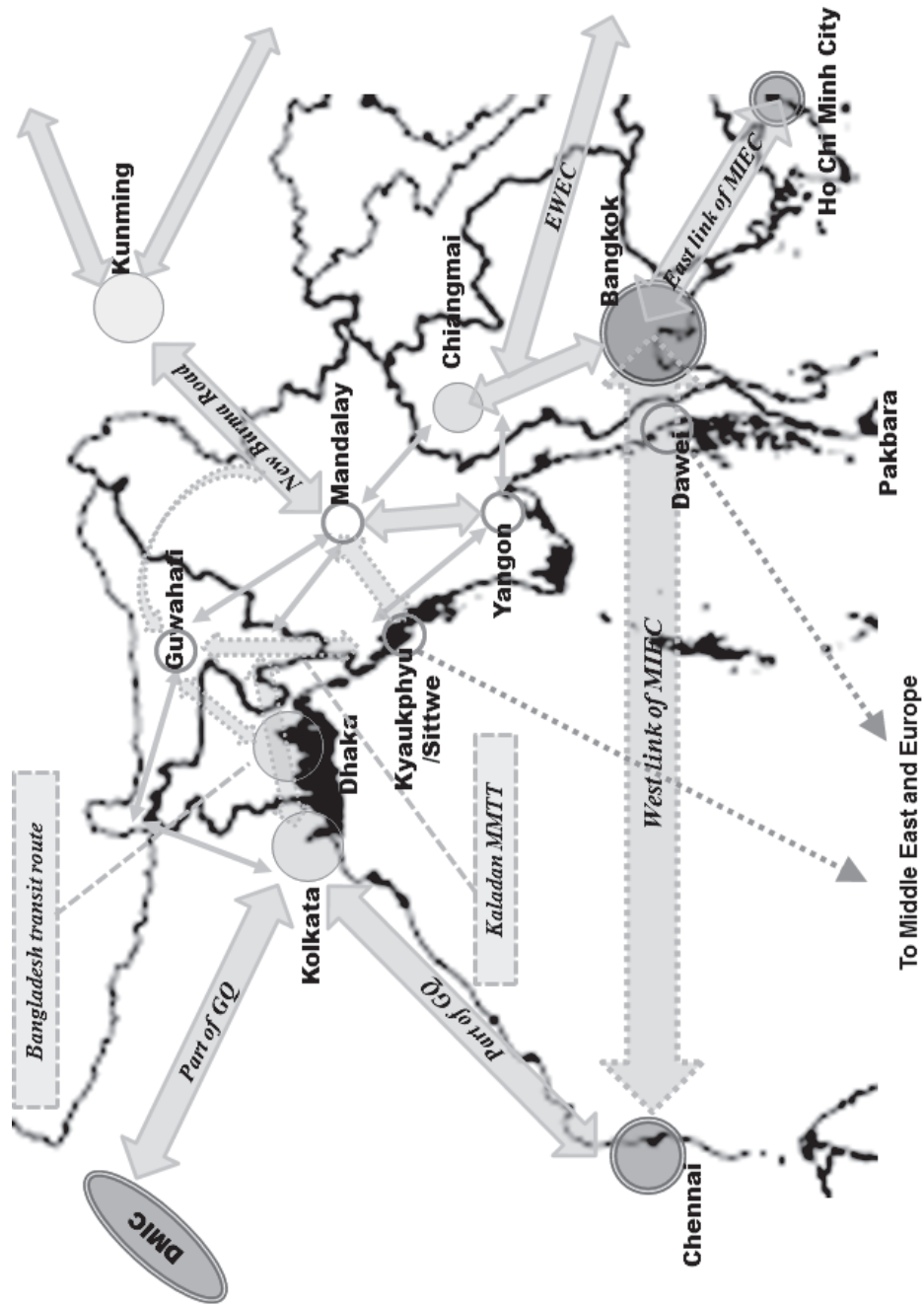
Myanmar's strategic location as a regional connecting node. The arrows indicate two main routes through which Myanmar can connect to the other ASEAN countries and to India. The "Westlink of the Mekong-India Economic Corridor (MIEC)" is a sea route that will link Thailand and Myanmar to India. As the name suggests, this route will serve as the western link of the MIEC. The arrows also highlight various land and other optional routes along a trilateral highway connecting Thailand, Myanmar and India.

The western MIEC link, which connects Bangkok to Chennai via Dawei, is designed to enhance connectivity between Bangkok and Chennai, where large manufacturing agglomerations have formed (due to significant FDI inflows), especially in the automotive and electronics sectors. Greater connectivity between Bangkok and Chennai would enable manufacturing companies to improve their competitiveness by reviewing and restructuring their production networks. This would include further fragmenting certain production processes. In recognition of the potential benefits to the region, ASEAN leaders agreed to promote the completion of the MIEC in their Master Plan on ASEAN Connectivity (ASEAN 2010).

However, the completion of the MIEC cannot sufficiently address several challenges that the region faces. To effectively expand existing production networks in the region, physical infrastructure for land transportation must be improved. There remains a large region along the north bank of the Andaman Sea, straddling both Myanmar and northeast India, which has a per capita income of less than US\$500. Regions like this one have fewer manufacturing activities and are still dominated by agriculture and other natural resource industries. Enhanced connectivity with neighbouring cities and countries is essential to widen these regions' access to large markets and to invite new industries and fragmented production processes based on their locational advantages.

Secondly, to effectively join regional production networks, Myanmar must substantially reduce service link costs, which comprise the costs to link remotely located production blocks (ERIA 2010). The lower the service link costs, the greater the opportunities for foreign investors to consider Myanmar as a destination for the second unbundling. Some of the most essential measures, such as trade liberalization and facilitation,

FIGURE 5
Myanmar as an Emerging Connecting Node



SOURCE: Kimura, Kudo and Umezaki (2011).

investment liberalization and facilitation, service liberalization, infrastructure development and transport facilitation are included in the ASEAN Economic Community (AEC) Blueprint (ASEAN 2009). Although Myanmar has encountered difficulties in implementing the AEC blueprint, it can now expect unprecedented assistance from the international community.

V.2 Domestic Economic Corridors

As was mentioned above, the development of domestic economic corridors is essential to enhancing domestic and international connectivity. International economic corridors, together with regional production networks, have only reached Myanmar's borders. To extend these corridors into Myanmar, we envision the creation of four domestic corridors: North–South; East–West; Right Sash; and Left Sash.¹²

The North–South Corridor will be the primary corridor, connecting the two growth poles, Yangon and Mandalay, and will extend to Kachin State right up to the Myanmar–China border. This corridor is intended to serve as the primary route for border trade as well as for the transmission of goods from Upper Myanmar to Yangon's ports for export.

The East–West Corridor will become a sub-route of the Greater Mekong Subregion (GMS) North–South Corridor that links Thailand and China through Myanmar and will ease costs along the trade route between India and Thailand, which has borne relatively high transaction costs due to insufficient road infrastructure. In addition, this corridor will connect to the GMS East–West Corridor (EWC), which begins at Danang in Vietnam and ends at Mawlamyaing in Myanmar.

The Right Sash (Northeast–Southwest) Corridor, connecting Muse in the north to Kyaukphyu in the south through Mandalay, will be a new trade route between China and India along the China–Myanmar oil and gas pipeline, linking Yunnan Province to the Bay of Bengal through Myanmar. It will connect with the GMS Northern Corridor along the breadth of Yunnan Province before

connecting with northern Myanmar on the west and finally reaching the Indian border at Tamu. Infrastructure development between Kyaukphyu and Muse will not only facilitate trade between China and India but also trade with ethnic groups residing and trading along the corridor.

The Left Sash (Southeast–Northwest) Corridor will be an extension of the GMS East–West Economic Corridor (EWEC) by including the Yangon–Hpa-an link. It will address the weak physical connectivity between Myanmar and North India and will provide a route for an attractive industrial location for exports to Thailand. Once the GMS East–West Corridor is operational, Mawlamyaing and Myawaddy will become regional hubs, attracting industries from Thailand and Southeast Asia to invest along the corridor.

The immediate and most obvious benefit of the economic corridors is their contribution to border trade. Myanmar's domestic economic corridors can accommodate international trade among China, India, Myanmar and Thailand, and have the potential for transit trade if a cross-border transportation mechanism materializes. In addition, regions along the corridors may benefit from positive spill-over effects, because such places are untapped eco- and cultural tourism destinations.

VI. Concluding Remarks

We proposed five growth strategies in this paper: “An Agriculture Plus Plus”; an export-oriented strategy; an FDI-driven strategy; a two-polar strategy; and a domestic economic corridors development strategy. These growth strategies are closely related and mutually supplementary. As Myanmar is still an agrarian economy, the “Agriculture Plus Plus” strategy can be regarded as a natural first step towards development. However, as the experiences of Myanmar's neighbouring countries have shown, the agricultural sector alone cannot sustain long-term economic development at the national level. Therefore, industrialization is necessary to absorb possibly excessive labour

in the agricultural sector. Lessons from other developing countries show that export-oriented industrialization is the natural step to take, particularly in this increasingly globalizing world. For this purpose, FDI can play a significant role by bringing in capital, technology, and more importantly, access to international markets. In order to attract FDI, Myanmar needs to provide necessary infrastructure such as industrial zones with reliable electricity and water supply, efficient logistic networks based on sound transport infrastructure and related institutions, and so on. However, due to limited resources, Myanmar needs to be selective with resource allocation for infrastructure development. As such, we recommended the two-pole development strategy with enhanced connectivity between international and domestic economic corridors.

These growth strategies still need to be translated into a series of implementable programmes and projects. Such a task is beyond the scope of this paper and requires a shared comprehensive development vision and close consultation with

all stakeholders. We believe that Myanmar will be able to pursue high, sustained and balanced growth in the future if the country considers these proposed growth strategies.

However, being too optimistic about Myanmar's growth prospects would be naïve. The road to reform includes challenges and transition costs. The limited absorptive capacity of institutions may render reforms ineffective or at least hamper their effectiveness. Although an effective and efficient bureaucracy is desirable for designing and implementing a national economic development policy, it is usually not available for developing countries particularly in the early stages of development. Myanmar needs to address these difficult developmental tasks while improving institutional capacity.

These words of caution are not intended to discourage progress or retard the speed of growth-related reforms in Myanmar. However, it is important to take stock of weak links in the reform process and address them even as the country progresses towards greater openness.

NOTES

1. This section is primarily drawn from Kudo, Kumagai and Ishido (2013).
2. The Statistics Division of the **Food and Agriculture Organization of the United Nations (FAO)**.
3. The FAO defines "agricultural population" as "all persons depending for their livelihood on agriculture, hunting, fishing and forestry. It comprises all persons economically active in agriculture as well as their non-working dependents" (FAOSTAT).
4. According to FAOSTAT, paddy production per area (tons/ha) in selected East Asian countries in 2010 were Republic of Korea (6.88), China (6.55), Japan (6.51), Vietnam (5.32), Indonesia (5.02), Myanmar (4.12), Malaysia (3.78), the Philippines (3.62), Laos (3.59), Cambodia (2.97), and Thailand (2.88). The averages of these eleven countries and eight ASEAN countries are 5.11 and 4.14 respectively.
5. Figures in this paragraph are based on various issues of the annual *Statistical Yearbook* by the Central Statistical Organization (CSO).
6. This section is primarily drawn from Kudo and Kumagai (2013).
7. For details, see Kudo and Kumagai (2012).
8. Although Vietnam has a larger population than Myanmar, both are mid-sized countries in mainland Southeast Asia.
9. IDE-GSM has been developed for the purpose of predicting the impacts of infrastructure development projects on the economy at the sub-national level, based on the theories of spatial economics and the new economic geography. For more details of the simulation model, see Kumagai et al (2013).
10. We adopted a "neutral" assumption between the level of development expenditure and its effectiveness, because the relationship differs by the type of development. If the effectiveness of the development expenditure is increasing returns to scale (decreasing returns to scale), this assumption may lead to over (under) estimates of the optimal number of growth poles.

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11. No diversion of public expenditure from the development poles is assumed for the policy measures. The financial support from international community will be crucial.
 12. Beginning in 2012, the four corridors are being surveyed by Myanmar Marketing and Research Development (MMRD) as part of an exercise by Myanmar Comprehensive Development Vision (MCDV). This exercise is being jointly conducted by the Myanmar Ministry of National Planning and Economic Development (MNPED) and ERIA.

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