GRIPS Development Forum

The Middle Income Trap

Implications for Industrialization Strategies in East Asia and Africa

Three Policy Discussion Papers by

Kenichi Ohno

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Preface

The four discussion papers contained in this volume were drafted in the course of the year 2008. While targeting different audiences, they all evolve around the same principal message which I have harbored for years. The message is that latecomer countries may reach an intermediate level of development by macroeconomic stabilization, institution-building, and opening up and liberalizing the national economy, but to go beyond middle income the government must launch more active industrial strategies with tenacity and dexterity. In other words, while private sector dynamism is certainly needed for economic development, letting it loose alone will not attain the economic performance comparable to Japan, Taiwan or South Korea. This is the truth that does not change even in the early 21st century when the policy space for protection is severely limited in comparison with the 1960s, 70s or 80s when the aforementioned economies were rapidly industrializing. But this volume argues that effective policy actions are still possible without violating any WTO rules or other international commitments of our age.

The first chapter, written for the research project organized by Professor Linda Yueh of Oxford University, is addressed to the middle income countries in East Asia, especially Malaysia and Thailand, that actually face the risk of being trapped in middle income. The second chapter, drafted jointly with Izumi Ohno for the Initiative for Policy Dialogue (IPD) African Task Force organized by Professor Joseph Stiglitz of Columbia University, discusses the transferability of the East Asian experience to the African soil. The third chapter, prepared for the Institute of Southeast Asian Studies (ISEAS) Conference on Vietnam held in Singapore, warns Vietnamese policy makers of future risks and offers practical suggestions to avoid the identified problems. Based on that, the fourth chapter is a concrete policy proposal that hopes to stimulate action-oriented industrial policy formulation in Vietnam with the cooperation of the Japanese government and businesses.

None of these drafts have been formally published. The first three are to be properly reviewed, edited, and published in due course. The last was initially intended to be an internal document. Nonetheless, the author wishes to bind them together as a collection of discussion papers for the review and criticism of interested readers.

Since the four chapters are variations on the same theme, there will be a large amount of duplication in text, data and diagrams for which I apologize in advance. In particular, the graph that shows different speeds of catching up (Figure 2 in Chs.1 and 3; Figure 1 in Ch.2), prepared by Dr. Le Quoc Hoi of the Vietnam Development Forum (VDF), was the source of inspiration that drove me to produce these papers. I am grateful to Dr. Hoi, and I would like to also thank Ms. Yayoi Kikkawa and Ms. Azko Hayashida of the GRIPS Development Forum (GDF) for collecting additional data and compiling this volume.

Hanoi, January 2009
The Author

Contents

Acronyms and Abbreviations

ADB	Asian Development Bank
ADLI	Agriculture Development Led Industrialization
AFTA	ASEAN Free Trade Area
ASEAN	Association of South East Asian Nations
ASMED	Agency for SME Development
BOI	Board of Investment
BUILD	BOI Unit for Industrial Linkage Development
CGF	Credit Guarantee Fund
CPRGS	Comprehensive Poverty Reduction and Growth Strategy
EPU	Economic Planning Unit
FDI	Foreign Direct Investment
FTA	Free Trade Agreement
GNI	Gross National Income
GRIPS	National Graduate Institute for Policy Studies
GTZ	German Technical Cooperation
HRV	Hausmann, Rodrik and Velasco
IBRD	International Bank for Reconstruction and Development
ICOR	Incremental Capital Output Ratio
IDA	International Development Association
ILP	Industrial Linkage Program
IMF	International Monetary Fund
IMP2	Second Industrial Master Plan
IPD	Initiative for Policy Dialogue
4J	Japanese Embassy, JICA, JBIC, JETRO
JBIC	Japan Bank for International Cooperation
JETRO	Japan External Trade Organization
JICA	Japan International Cooperation Agency
MATRADE	Malaysia External Trade Development Corporation
MDG	Millennium Development Goals
MFEZ	Multi Facility Economic Zones
MIDA	Malaysian Industrial Development Authority
MITI	Ministry of International Trade and Industry
MNC	Multi National Company

MOET	Ministry of Education and Training
MOF	Ministry of Finance
MOI	Ministry of Industry
MOIT	Ministry of Industry and Trade
MOLISA	Ministry of Labour, Invalids and Social Affairs
MOST	Ministry of Science and Technology
MPC	Malaysia Productivity Corporation
MPI	Ministry of Planning and Investment
MTEF	Medium Term Expenditure Framework
NEDA	National Economic Development Authority
NESDB	National Economic and Social Development Board
NEU	National Economics University
NSDP	National Supplier Development Program
ODA	Official Development Assistance
OECD	Organization for Economic Co-operation and Development
PMRC	Prime Minister's Research Commission
PRSC	Poverty Reduction Support Credit
PSD	Private Sector Development
QCD	Quality, Cost and Delivery
SME	Small and Medium Sized Enterprise
SMEFP3	JBIC two-step loan program
SMIDEC	Small and Medium Industry Development Corporation
SOE	State Owned Enterprise
TAC	Technical Assistance Center
TFP	Total Factor Productivity
TVET	Technical and Vocational Education and Training
UNIDO	United Nations Industrial Development Organization
USAID	United States Agency for International Development
VDF	Vietnam Development Forum
VDP	Vendor Development Programme
VCCI	Vietnam Chamber of Commerce and Industry
VJCC	Vietnam - Japan Human Resources Cooperation Center
VJJI2	Vietnam-Japan Joint Initiative Phase 2
WGI	Worldwide Governance Indicators
WTO	World Trade Organization
WW2	World War II

Chapter 1

Overcoming the Middle Income Trap

The Challenge for East Asian High Performers

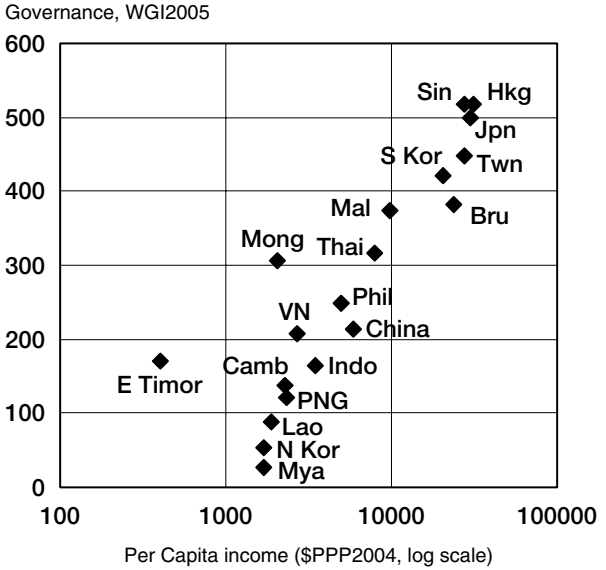
East Asia has attained high growth on average, but good performance is not uniform across countries. While the middle income economies in East Asia, such as Malaysia and Thailand, participate actively in the region's production network, they have not risen to the status of advanced economies such as Taiwan and South Korea, where foreign dependence in technology and management has long been overcome and internal industrial capability now reaches a global level. Differences in industrial performance cannot be attributed to the early start of the latter group since both groups have spent about the same amount of time in industrialization. Liberalization and external integration can bring middle income, but aiming higher requires building of industrial skill, supporting industries and efficient logistics. This in turn hinges on government leadership beyond the Washington Consensus and strong private sector dynamism, two factors that are not easily amenable to external manipulation.

This paper discusses issues that ought to be of central concern to a number of the so-called *high performing economies* in East Asia, a group of countries that participate in East Asian growth dynamism and have already achieved middle income levels. The topic is related to the competitiveness of the manufacturing sector in economies that receive a large amount of FDI and have formed a sufficiently large base for producing and exporting manufactured products. The challenges analyzed here are quite different from and pertinent to a much higher development level than those faced by typical low income countries in Sub-Saharan Africa and other regions, where enticing investors to form an initial industrial base is the main policy objective. East Asia's middle income economies, with an aspiration to join the ranks of highly advanced countries, must overcome the barriers that keep them in the middle stage of development.

1. High versus middle performers

East Asia's economic development has been quite remarkable, but high performance has not been uniform across countries. Figure 1 shows a wide range of achievements in governance and economic development in East Asia with a strong positive correlation between the two measures (0.90)[1]. In analyzing East Asia and drawing lessons for other regions, most studies examine only successful economies for an obvious reason that excellence is more interesting to talk about and disseminate than failure. This winners' bias tends to hide the

Figure 1. East Asia: Governance and Income



Sources: Compiled from World Bank, Worldwide Governance Indicators, Sep. 2006; and World Bank, *World Development Indicators*, 2006. Unofficial income data from various sources are used for countries without World Bank income data.

Note: Worldwide Governance Indicators (WGI) consist of six dimensions (voice and accountability, political stability, government effectiveness, regulatory quality, rule of law, control of corruption) with each carrying 0 to 100 points. The vertical value in this diagram simply adds these points for each country or area.

[1] It should be added immediately that correlation does not necessarily imply causality, either from income to governance or vice versa. More information and analysis are needed to argue causality. See also Khan (2008).

fact that East Asia also contains poor countries that are struggling to take off economically, just as in the rest of the developing world.

In reality, only a subset of economies belonging to this region has achieved or is achieving economic miracles. Japan, Singapore, and Hong Kong have already reached high income and life style comparable to the richest countries in the West. Taiwan and South Korea are very near that level. Malaysia, Thailand, China, and Vietnam, although in different development stages, are in the process of catching up. These nine economies are full participants of the East Asian production network. On the other hand, Indonesia and the Philippines are participants in the regional dynamism, but their performance and future prospects are more precarious[2]. Moreover, a number of economies lie outside the East Asian production network for various reasons. Cambodia, Laos, Mongolia, Papua New Guinea, and East Timor are struggling for political stability or economic take-off, or both. At present, Myanmar and North Korea are political outcasts for which no meaningful growth strategy can be discussed. Finally, Brunei is a small oil-rich country that does not join East Asia's flying geese formation.

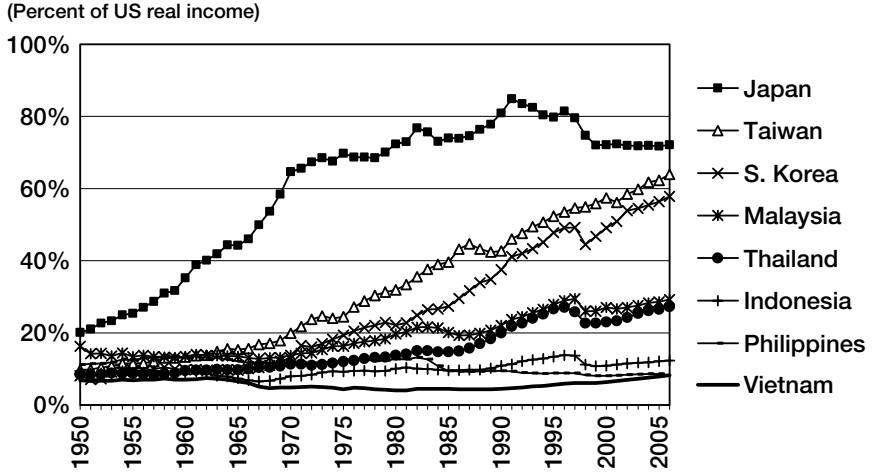
More importantly for the purpose of this paper, East Asian growth performance has differed significantly in depth and speed even among countries that are considered "successful." There should be a clear distinction among Taiwan and South Korea (high achievers), Malaysia and Thailand (moderate achievers), and Indonesia and the Philippines (low achievers). They are often collectively praised for good economic performance, but the first group is far ahead of the second or the third in terms of income and industrial capability[3].

Figure 2 shows per capita real income of selected East Asian economies relative to the United States level. Until the mid 1960s, these economies (except Japan) showed no clear sign of catching up. However, Taiwan and Korea, which started from equally low levels, took off in the late 1960s and have improved income dramatically. In comparison, the catching up of Malay-

[2] In late 2006, Thailand also faced political and economic difficulties following the ousting of former Prime Minister Thaksin Shinawatra. However, it should be noted that Thailand has grown fairly consistently in the past despite many political crises and changes in government.

[3] Without denying the possibility of a non-manufacturing sector such as agriculture, mining, commerce, tourism and finance becoming a growth engine, this paper focuses on the analysis of the manufacturing sector.

Figure 2. Different Speed of Catching Up



Sources: Angus Maddison, *The World Economy: A Millennium Perspective*, OECD Development Centre, 2001; the Central Bank of the Republic of China; and IMF *International Financial Statistics* (for updating 1998-2006).
Note: Per capita real income relative to US as measured by the 1990 international Geary-Khamis dollars.

sia and Thailand looks less impressive, and Indonesia and the Philippines failed to improve their relative positions vis-à-vis the US. Clearly, divergent performance comes from different speed of catching up rather than delayed starts[4]. ASEAN4 are taking much longer to reach the industrial capability that Taiwan and Korea had achieved in the 1980s and 90s.

South Korea was a divided, war-torn, and US aid-dependent country in the late 1950s. Most observers regarded it as a hopeless basket case until 1961 when Army General Park Chung-hee seized power. By the late 1980s, South Korea had a formidable industrial base that could produce high-quality electronic and machinery products with well-recognized brand names that encroached the global market. It joined the OECD, a club of advanced industrial countries, in 1996. The industrial development of Taiwan, an island once famous for rice, sugar, and bananas, was initiated by the Kuomintang govern-

[4] Except Vietnam where wars and socialist planning prevented economic growth until the late 1980s. Vietnam began to take-off and integrate into the global economy in the early 1990s.

ment which fled from Mainland China in 1949. By the 1980s, Taiwan was a leading producer of electronic products in the world with strong SMEs backed by international commercial networks. Through active outward FDI, South Korea and Taiwan are now creators of global industrial structure, no longer dependent on foreign managers or engineers for progress.

The important point is that it took Taiwan and South Korea only about three decades to move up from a poor agricultural economy to a global industrial power. Their capacity to absorb technology was exceptionally high. When South Korea built its first integrated steel mill in the 1970s or modern automobile factory in the 1980s, assisting Japanese engineers were no longer needed after a few years.

Compared with these achievements, the industrial capability of Malaysia and Thailand looks less impressive, although it still shines by the standard of average developing countries. As with Taiwan and South Korea, ASEAN4 started industrialization in the 1960s with an aim of ending monoculture and diversifying economic structure into manufacturing. As with Taiwan and South Korea, they first tried import substitution but later shifted to export orientation. Their long-term macroeconomic records have been good despite shocks such as the recession in the early 1980s and the financial crisis in 1997-98. But they all have failed to graduate from heavy reliance on foreign management and technology in manufacturing.

While the electronics industry in Malaysia and the automobile industry in Thailand have grown remarkably in terms of volume, high-tech materials, key components and important processes such as design and marketing are still supplied mainly by FDI firms or through direct imports. As a result, locals only assemble or produce "easy" parts while most value continues to be created and captured by foreigners[5]. FDI is still courted and foreign general directors still stay. After four decades of industrialization, the lack of discipline and skills of workers and the shortages of top and middle managers are still at issue. These problems were overcome long ago in Taiwan and South Korea.

[5] In the case of the Thai automobile industry, which boasts the largest cluster of that industry in ASEAN, roughly 30% of parts are imported, 45% are supplied by FDI firms, and only about 25%, consisting of relatively simple parts, are produced by local firms. This information is provided by the Nomura Research Institute in 2004 as quoted in Mori and Ohno (2005), p.117.

We ask why ASEAN4 have not performed as brilliantly as Taiwan and South Korea, and whether and how emerging industrial powers such as China and Vietnam can avoid the same problem. These questions may sound too harsh on ASEAN4 since assessment of country performance depends critically on the comparator. The glass may be half empty and half full at the same time. But it is quite certain that East Asia's middle performers, with a strong aspiration for industrial excellence in the global value and supply chains, would prefer to be judged by the standard of best achievers rather than by the attainment of the Millennium Development Goals[6].

The difference between East Asia's first-, second-, and third-tier economies is sometimes explained by historical or cultural factors such as colonial past and the prevalence of Confucius value. Without denying such explanations entirely, however, this paper highlights policy as a key shaping factor that can even partially modify these initial conditions.

2. The East Asian competitive ladders

East Asian growth was attained through the very existence of the East Asian region as an arena for economic interaction among its members. One by one, countries in different development stages initiated economic growth by participating in the dynamic production network spanned by private firms. Linked by trade and investment, international division of labor with clear order and structure has emerged in the region. Industrialization has proceeded through geographic spreading on the one hand and structural deepening within each country on the other. The term *flying geese* referred to these systematic supply-side developments. To understand this mechanism, evaluating the policies of individual countries, as done in the World Bank's *East Asian Miracle* report (World Bank, 1993), is not enough. It is necessary to analyze East Asia as a whole, with its production structure, intra-regional trade, investment flows, and technology transfer.

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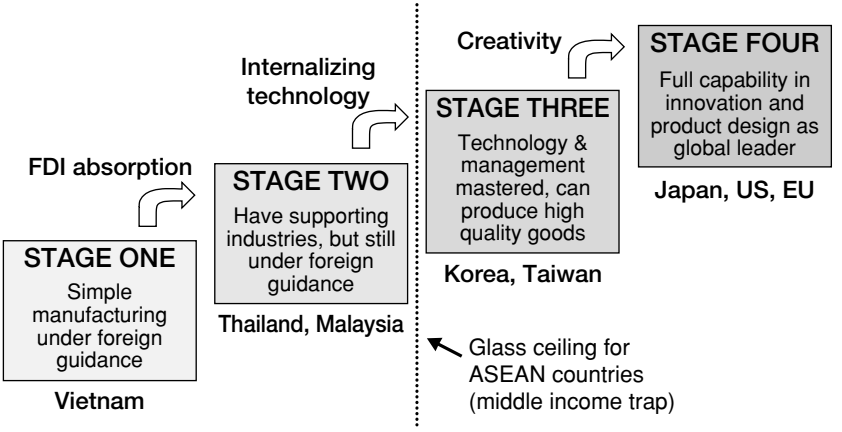
[6] The Millennium Development Goals set forth by the United Nations Group for low income countries consist of the following eight targets: poverty reduction, universal primary education, gender equality, reduction of child mortality, maternal health, combating infectious diseases, environmental sustainability, and global partnership.

For countries in East Asia, development was—and still is—tantamount to jumping into this regional production network and becoming one crucial dynamic link in it. Each country is under constant competitive pressure from the countries moving ahead of it as well as behind it, which compels it to continuously climb the ladders of development. What drove them were the desire for material well-being and the pursuit of national pride in the context of this regional competition, not policy matrices introduced by international organizations.

Industries are constantly passed from the first-tier countries to the next and down the line. Since this industrial passing occurs mainly through FDI, countries wishing to strengthen their positions court FDI vigorously. Japanese corporations have been the chief architect of the East Asian production network, together with EU and US multinationals. The extensive business networks of Taiwan, Hong Kong, and overseas Chinese as well as bold business moves by Korean *chaebols* have also invigorated this region. Since the 1990s, the emergence of China as producer and investor has become the new important factor. No other developing region has experienced such an organic and dynamic interdependence as East Asia. This fact must be taken into account when the replicability of East Asian experiences in other regions is considered.

Figure 3 illustrates the four steps that East Asia's competing economies must take to catch up with the forerunners. Industrialization of developing countries usually starts with the arrival of FDI companies in substantial number. In Stage 1, simple production such as contract manufacturing of garment and footwear, food processing, and manual assembly of electronic parts are established under foreign dominance. Virtually all inputs are imported from abroad and value-creating processes such as management, R&D, production of raw materials and key components, logistics, and marketing are performed by foreigners.

Figure 3. Breaking the "Glass Ceiling" in Manufacturing



In Stage 2, as contract manufacturing and machinery assembly reach a critical mass, domestic supporting industries[7] start to develop. Over time, most parts and components except the most difficult are produced by either FDI or local suppliers in the country. However, production is still highly dependent on foreign technology and management. The competitive firms and factories continue to be directed by foreign managers. In Stage 3, technology and management capability are internalized, localization expands from physical inputs to human resources, and foreign dependency is significantly reduced. The country becomes an exporter of high-quality manufactured products and vigorously invests to build production bases abroad. Finally, in Stage 4, capability to create new products and lead global industrial markets is achieved through innovation.

Climbing up this ladder is extremely difficult for most developing countries. A large number of low income countries which receive too little FDI in manufacturing remain entirely out of the picture. Even in East Asia where industrialization is said to be quite successful, only Taiwan and Korea have reached Stage 3. Within ASEAN4, there is no country that has broken the barri-

[7] The term supporting industries refers to a layer of production establishments that supply parts and components to assembly-type manufacturing industries. The term was first used officially by Japan's White Paper on Economic Cooperation in the mid 1980s (MITI, 1985). They are also called subcontractors, ancillary industries (mostly in India), and vendors (often used in Malaysia). See Nguyen Thi Xuan Thuy (2007) for more on definition.

er between Stage 2 and 3. It is as if there is an invisible glass ceiling preventing ASEAN countries to go up[8]. For a latecomer country such as Vietnam, the immediate goal is to rise from Stage 1 to 2 by absorbing as much FDI as possible, but it is also well advised to simultaneously prepare for the next move from Stage 2 to 3. Measures required for this will be discussed in the next section.

The glass ceiling for ASEAN can be generalized as the *middle income trap*, a phenomenon which can occur in any part of the world. A large number of Latin American countries, which attained "high income" as early as in the 19th century, are such examples. The middle income trap, at the per capita income level of thousands of dollars, is an entirely different problem from the low income trap of Sub Saharan Africa and others, at the per capita income level below one thousand dollars.

3. Internal capability for manufacturing

What are the key requirements for middle performers to climb to the higher level in manufacturing? To answer this question, misleading notions, which may collectively be called the *high-tech myth*, should be dismissed first.

Many developing countries officially promote IT, bio-tech, nano-tech, and other high-tech sounding activities as a means to leapfrog to a higher level of income and technology. The extreme popularity of such a strategy among low and middle income countries is surprising and even alarming. Operating machinery that embodies high technology is easy. But developing and commercializing such technology from scratch, which generates great value, is extremely difficult. This is possible only by a country at the summit of an industrial pyramid having large bases of R&D, human resource, production technology, and effective policy. Using internet and creating a new generation of OS should not be confused.

[8] Within ASEAN, Singapore and Brunei have achieved high income through non-manufacturing industries (high-value services and oil and gas, respectively) and therefore do not belong to this picture. Figure 3 covers manufacturing only, especially assembly-type manufacturing such as electronics, automobiles and other types of machinery which has played a key role in East Asia's economic dynamism.

Another common mistake is to identify the level of technology with the product. For example, it is said that computers and mobile phones are high-tech but jeans and frozen shrimp are low-tech. However, this view ignores the fact that electronic gadgets are produced in a long value chain that stretches from innovation in fundamental technology to product and software development, production of raw materials and key components, procurement of non-key inputs, assembly, marketing and advertisement, sales, and post-sale services. Whatever the product, what developing countries are asked to do initially is to fill the lowest segment of such a value chain, namely, labor-intensive assembly under foreign directives. In this sense, stitching jeans and putting electronic parts together are essentially the same type of industrial activity, requiring the same kind of workers and paying similar wages. In many cases, exporting farm products and seafood under strict hygienic standards of the EU, US and Japanese markets is far more "high-tech" than assembling computers, a task which can be done at any computer shop.

When these popular but often misleading slogans of high-tech promotion are stripped away, what are the requirements that elevate domestic manufacturing capability from Stage 1 and 2 to 3? The East Asian experiences, especially those of Taiwan, South Korea and ASEAN4 countries, show that they are *industrial human resource*, *supporting industries*, and *logistics*, the three factors that are mutually enhancing. These may not sound as exciting as computer science or DNA engineering, but they can raise the competitiveness of a large number of manufactured products regardless of product cycles. This is the realization that many East Asian countries come to after flirting with unreachable "high-tech" goals for a few decades.

Industrial human resource

The importance of human resource in development is well recognized, but for industrial competitiveness general promotion is not enough. High literacy and universal primary education are certainly necessary but not sufficient for competing fiercely in the global market. Technical and vocational education and training (TVET) must be integrated with the nation's industrial positioning strategy with specific goals and time tables. For each type of required industrial human resource-business leaders, engineers and production man-

agers, and workers—realistic targets must be set, action plans and monitoring mechanisms must be installed, and necessary funding must be secured including external assistance. While many national and international programs for upgrading industrial human resources exist in East Asia[9], the speed of leveling up differs significantly across countries.

In East Asia, a number of common difficulties have emerged in industrial human resource development such as:

- Ambiguity of national industrial goals, required industrial human resources, and action plans to produce such human resource.
- Popularity of computer science, finance, business administration and foreign language as preferred subjects among students and the corresponding lack of interest in engineering and industrial technical training.
- Short-termism and materialism of workers who prefer higher salaries and larger benefits today rather than striving for higher technical competency in the long run, generating high incidents of job hopping which discourages firm-based training.
- Difficulty in designing incentive structure and promotion mechanisms within factories and in national labor and technology markets to encourage and reward learning and excellence.
- Lack of enthusiasm on the part of indigenous enterprises to improve skills and technology and conduct aggressive marketing to become business partners of foreign companies.
- Difficulty in matching the demand and supply of industrial labor, and aligning school curriculums to the specific needs of manufacturing firms that will employ graduates.

[9] In Vietnam, for example, the following externally assisted programs were operative in 2007: Technical Assistance Center (Japan International Cooperation Agency); Japan-Vietnam Cooperation Center (JICA); quality control, factory management, *kaizen*, management technology (JICA); SME and IT promotion (Japan Bank for International Cooperation), overseas technical training (Japan Overseas Development Corporation); supporting industry seminars (Japan External Trade Organization); training for industrial park workers and TVET (Singapore); industrial vocational training (Germany); SME development (Asian Development Bank); national and provincial SME support infrastructure (Italy, Finland); and SME promotion and Research and Training Center (Australia). This list is not comprehensive, and each program often has multiple phases and carries several or more action components.

To solve these problems and supply high-quality managers and workers in sufficient quantity, a comprehensive and sustained policy effort is required. However, part of the difficulties may arise from ingrained national characters which policy can address only indirectly (see the final section).

Supporting industries

Supporting industries are multiple layers of domestic manufacturing establishments that produce parts and components for machinery assemblers such as electronics, automobiles, and motorcycles (see footnote 7). Since the largest value (typically 80-90%) of mechanical products comes from parts and components while labor-intensive assembly adds relatively little value (typically 5-10%), international competitiveness requires easy and stable access to suppliers of parts and components that can offer QCD[10]. Industrial human resource and supporting industries are the two sides of the same coin, the one emphasizing human capability and the other pointing to the supply of needed physical inputs.

Among East Asian "miracle" countries, Japan and Taiwan are particularly well equipped with strong supporting industries. In most developing countries, however, supporting industries are either nonexistent or very weak, which has negative impacts on FDI attraction, building of industrial clusters, and technology transfer. In fact, the term *supporting industries* (or *susono sangyo* in Japanese) was created by Japanese firms to point out the absence of such industrial activities in Southeast Asia when Japanese FDI inflows to that region greatly increased in the 1980s (MITI, 1985).

For the governments of developing countries, properly understanding the concept and significance of supporting industries is already a challenge. At first, highest value components—engines for automobiles and motorcycles, optical devices for DVDs and hard disks, compressors for air-conditioners and refrigerators, and so on-are often targeted for domestic production for several years until the country realizes that they are too difficult to produce without heavy foreign help. What FDI manufacturers expect from low to middle income

[10] Quality, Cost and Delivery (zero defects, low cost, and on-time delivery). QCD is recognized by Japanese manufacturing firms as the general source of competitiveness as well as the criteria for selecting business partners and subcontractors.

countries is not the production of key components but the provision of bulky, common, and low-tech inputs that satisfy QCD.

More specifically, what assembly-type FDI manufacturers desperately need is a critical mass of reliable domestic producers (this includes both indigenous and FDI firms) that can perform basic production processes such as *pressing, casting, forging, molding, machining, plating,* and *heat treatment* on metals, plastic, rubber and other industrial materials at zero defects and low cost with prompt delivery. These processes are generic and can support different assembly-type industries and products, be it automobiles, motorcycles, industrial and construction machinery, electronics, or home appliances. Among such processes, by far the most crucial task is the *production and maintenance of dies and molds* for metal and plastic processing. These are the most common responses in surveys conducted on FDI manufacturers in Southeast Asia (Ichikawa 2005; VDF 2007). To perform these processes at variable quality is easy; the only requirement for that is the purchase of relevant equipment. But to do them at the level required by demanding FDI assemblers is extremely hard. This difference determines whether or not the supplier can become part of the global value chain, and that is what ASEAN4 countries, by and large, fail to attain after many decades of trying.

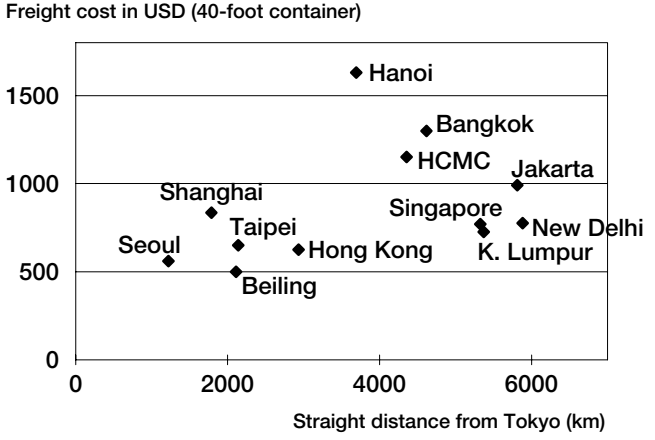
One way to promote industrial human resource and supporting industries is to develop SMEs in particular and the private sector in general. Among aid donors, SME promotion and private sector development (PSD) are popular interventions. However, these policies usually have two overlapping purposes: generation of jobs and income (for poverty reduction) and improving technology and productivity (for competitiveness). For the former, a broad segment of private enterprises should be targeted without discrimination; for the latter, only those firms that are making realistic effort to be globally competitive should be supported with appropriate selection criteria and monitoring mechanisms. While both purposes are loadable, we prefer not to mix them in our analysis. Our argument is focused on bolstering competitiveness and overcoming the middle income trap.

Logistics

Logistics—moving things—includes both hardware such as transport and telecom infrastructure and software such as distribution systems, tax and customs procedures and a reliable legal framework. Together they create an efficient business environment that can reduce the cost of doing business. In terms of QCD, good logistics enables manufacturers to achieve the quick delivery of both inputs and finished products, the reduction of time and transport costs, and the shortening of production lead-time. These are essential conditions for attracting investors, especially those firms that produce high-value products in response to rapidly changing customer demands such as mobile phones, digital cameras, and fashion garment.

The Toyota production system featuring just-in-time manufacturing aims at raising productivity and reducing cost by eliminating wasteful movements and the inventory of intermediate inputs. Through trial-and-error, Toyota introduced such techniques as *kanban* (index cards), *heijunka* (production smoothing) and *jidoka* (automation with human intelligence) over the years and minimized all sorts of *muda* (waste) in production. While Toyota's method is

Figure 4. Sea Transportation Cost to Tokyo



Source: JETRO, "The 15th Survey of Investment-related Cost Comparison in Major Cities and Regions in Asia," March 2005.

Note: Sea transport cost from the city via the nearest port to Yokohama Port (adjacent to Tokyo) as of November 2004.

the most advanced in Japan, other Japanese manufacturing firms with global operation also attempt to achieve a smooth flow of production by reducing waste and unnecessary waiting. However, this cannot be realized unless efficient logistic support is available.

To deliver products quickly and on-time without fail requires not only short distance, but reliable transport infrastructure such as ports, roads, air links and cargo handling facilities as well as improvements in collection, delivery, sorting, loading and unloading; reasonable tax and customs procedures; and supporting functions such as finance, insurance, storage and trucking.

Figure 4 illustrates shipping costs of 40-foot container from various Asian cities to Tokyo. It is clear that distance alone cannot explain the transportation cost of each location. Despite relatively large distance, freight costs from Singapore, Kuala Lumpur, Jakarta and New Delhi are similar to those from much closer cities such as Shanghai and Taipei. Hanoi has the highest freight cost among all these cities, and Bangkok and Ho Chi Minh City are not very competitive either.

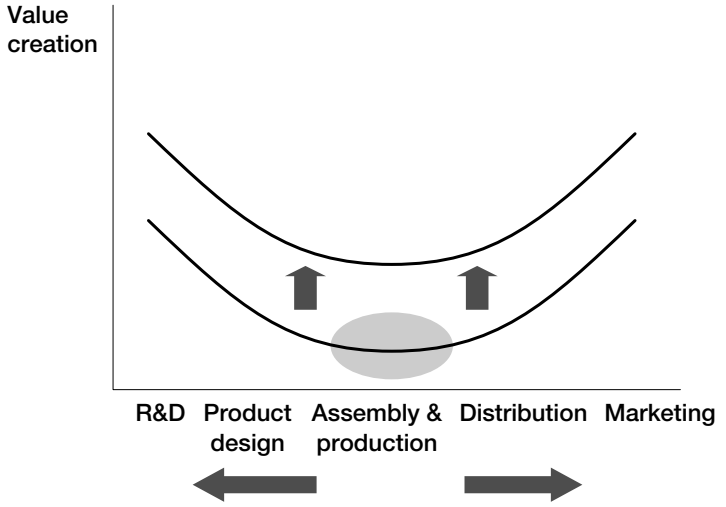
Hanoi's high transportation cost reflects many inefficiencies such as the lack of deep sea ports and modern container berths, lopsided cargo traffic (inbound freight is larger than outbound), uncertainty in taxation and customs clearance, and traffic congestion and restriction in urban areas. This seriously impedes Northern Vietnam's ability to integrate effectively into the regional production network-something that the Vietnamese government should seriously worry about.

Solving these basics—industrial human resource, supporting industries, and logistics—is key to improving the country's standing in global industrial competition. That in turn permits the country to break through the middle income trap and move to the higher level of income and technology. Below, two viewpoints are offered to address these problems in slightly different angles.

Manufacturing++ and industrial clusters

Manufacturing plus plus and *cluster based industrial development* are two related concepts in Malaysia's Second Industrial Master Plan (IMP2) 1996-2005 which concisely stated what this country hoped to do to bolster competi-

Figure 5. Manufacturing ++ Strategy of Malaysia



Source: Economic Planning Unit of the Prime Minister's Department, Malaysia (edited).

tiveness (Ohno, 2006). They also point to a fairly general strategy for middle income countries to climb up to Stage 3. Manufacturing plus plus expresses a two dimensional desire to (i) expand along the value chain to encompass higher value-added activities; and (ii) uplift the whole value chain by raising productivity (Figure 5). Since Malaysia started industrialization as a conventional assembler, which was the lowest point in the value chain, it wanted to master R&D, design, product development, distribution, marketing, and so on horizontally, and improve the skills of all these activities vertically.

Cluster-based industrial development broadens the concept of industry. An industrial cluster is defined as "an agglomeration of inter-linked or related activities comprising industries, suppliers, critical supporting business services, requisite infrastructure and institutions" (IMP2, p.23). In other words, it is a collection of supporting industries and services as well as hard and soft infrastructure that surround any particular industrial activity. IMP2 selected eight industrial clusters to be strengthened: electronics and electricals, textiles and apparel, chemicals, resource-based industries, food processing, transportation equipment, materials, and machinery.

Thus, the policy intention of IMP2 was very clear[11]. However, whether Malaysia could make significant progress along these lines during 1996-2005 is another matter. Among the monitoring criteria, investment targets were surpassed but other targets, more directly related to the broadening and raising of value chains, did not produce remarkable results. Problems in industrial human resources and supporting industries continued to persist, and the Malaysian automobile industry, one of the most protected sectors of Malaysia, was reeling from limited domestic demand and severe global competition. Part of the reason for less-than-expected performance was undoubtedly the Asian financial crisis in 1997-98 whose negative impacts were however dissipated by 2005. Another reason seems to have been the generality of goals; it was very difficult to simultaneously improve scope and productivity of eight industrial clusters which represent virtually all manufacturing activities of this country. Finally, despite fairly active policy support, responses of the local private sector appeared to have been weak. This last issue will be taken up again in the last section.

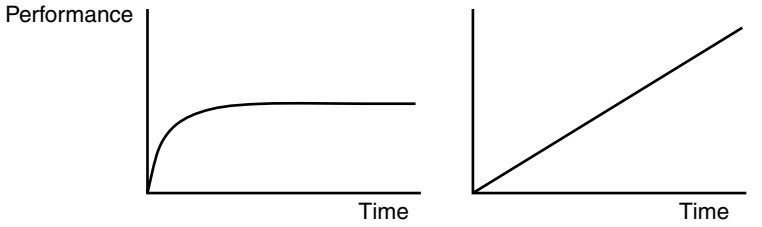
Integral manufacturing versus copy production

The importance of building human and non-human capacity in manufacturing can also be highlighted from the perspective of business architecture. Takahiro Fujimoto and his research team at the University of Tokyo have advanced a business architecture theory to explain the fundamental differences among manufacturing industries of major economies, such as the United States, Japan and China (Fujimoto, 2004, Fujimoto and Shintaku, 2005, Ohno and Fujimoto, 2006). According to this theory, there are two basic architectural types in manufacturing: *modular* and *integral*. In modular architecture, the modality of interaction among components is standardized for easy assembly. For example, desktop computers are a typical modular product in which globally common components from various companies can be freely combined, be it

[11] The clarity of analysis in government documents such as this is relatively rare. In the case of Malaysia's IMP2, the fact that the background paper was prepared by a researcher at the Malaysian Institute of Economic Research, a reputable think tank, gave IMP2 a lucid academic style. By contrast, IMP3 covering 2006-2020 was drafted in a more "usual" fashion with each chapter written by different groups without a common structure imposed from above.

Figure 6. Modular versus Integral Manufacturing

	Modular manufacturing	Integral manufacturing
Parts interface	Parts are common and can be used for any model	Each product has unique parts, specifically designed
Merits	Quick results and flexibility	Endless pursuit of quality
Demerits	No differentiation,excess entry, low profit, lack of R&D	Much energy and time to achieve results
Institutional requirements	Openness, quick decision making, flexible outsourcing	Long-term relations, building internal skills & knowledge



Source: author's summary from Fujimoto (2004), Fujimoto and Shintaku (2005), and Ohno and Fujimoto (2006).

Korean, Taiwanese, or Thai. By contrast, in integral architecture, the complexity of interaction among components is happily accepted, and improvements are achieved through numerous trials and errors involving an assembler and a large number of component producers. For example, automobiles must be manufactured with integral architecture if multiple objectives such as power, comfort, style, safety, environment, low cost, and fuel efficiency are to be attained simultaneously. Generally speaking, modular architecture is suitable for obtaining quick results at low cost while integral architecture is appropriate for the pursuit of ever-higher product quality in the long run (Figure 6).

Correspondence between products and business architecture is not fixed; it evolves dynamically with the business strategy of each firm or country, technical progress, and consumer tastes. For instance, a motorcycle can be produced as an integral product (as in Japan) or a modular product (as in China) with different product quality and targeted customers. In addition, business architecture often has structural layers in which, for example, modularization may proceed in final assembly while integration may deepen in components.

Japan is a country of integral architecture, intensely interested in efficient factory operation and product integrity. By contrast, the United States excels in modularization and is good at slicing the supply chain of a product into appropriate elements, standardizing them, and making profits by the novelty of combination. China is also a country of modular architecture, but its comparative advantage lies in labor-intensive modular products rather than knowledge-intensive modular products as in the case of the US. Fujimoto considers China to be a country of *quasi-modularity* since its manufacturing features mass production of products with copied design and technology rather than original innovation (Fujimoto and Shintaku, 2005).

In general, there is no absolute superiority of either business architecture. At advanced stages of economic development, two business architectures co-exist and complement each other. Which architecture is more suitable depends heavily on each product as well as the strategy of each manufacturer. However, producers in developing countries usually start with (sometimes illegal) copy production of established products with low to medium quality and low prices. This is expectable because they are initially in possession of little capital and technology. Such copycats are often collectively trapped in the vicious circle of too many entries, too low prices, and too little profit for investing in higher technology-a situation which Fujimoto dubs as *technological lock-in*. This is a very common problem among indigenous industries in developing countries (Sonobe and Otsuka, 2006). To break free from this trap and raise overall productivity, a small number of innovative entrepreneurs who adopt new management, technology and marketing must lead the way, with less efficient producers exiting the scene. In Japan, Taiwan and South Korea, there were business innovators in sufficient number, at least in the past, which enabled these countries to proceed to the next level of industrialization. However, innovators are far scarcer in developing countries where the situation of low quality and low price persists.

From the perspective of business architecture theory, developing countries may start from, but should not stay forever at, the stage of copy production based on simple modular manufacturing with little value-added. To create value, there are two ways ahead: a move toward integral manufacturing, which is far more difficult but eventually rewarding; and perfecting modular

manufacturing by becoming a master of new combination of what other countries produce. The first path builds a strong manufacturing country while the second leads to a mercantile or service-oriented economy such as Hong Kong and Singapore.

If the first path is chosen, what needs to be done is fairly clear. To become a country of integral manufacturing requires ability to operate factories efficiently; maintain, adjust and repair machines; design parts; produce precision dies and molds; supply highly skilled industrial *Meister*s and workers, and so on, which we have already summarized as industrial human resource and supporting industries. Doubling effort to master integral manufacturing will propel middle income countries from simple assembly by foreign orders to participation as indispensable players in the global manufacturing network. Fujimoto (2006) regards Vietnam and Thailand as prime candidates for becoming producers of labor-intensive integral architecture goods.

4. Determinants of greater success

Let us now return to the initial question: why do some countries succeed in breaking away from the middle income trap in manufacturing while others fail (or take a very long time to overcome it)? A policy package of liberalization and global integration combined with the provision of physical infrastructure and a modern legal framework can push up a country to the middle income level, but climbing higher seems to require more. It is hypothesized that aggressively capturing the most lucrative segments of the value chain, rather than passively filling foreign orders, requires two conditions: high policy capability and private sector dynamism. In other words, high income cannot be attained in a country where policy intervention does not go beyond the Washington Consensus or where the private sector fails to respond strongly to such policy intervention.

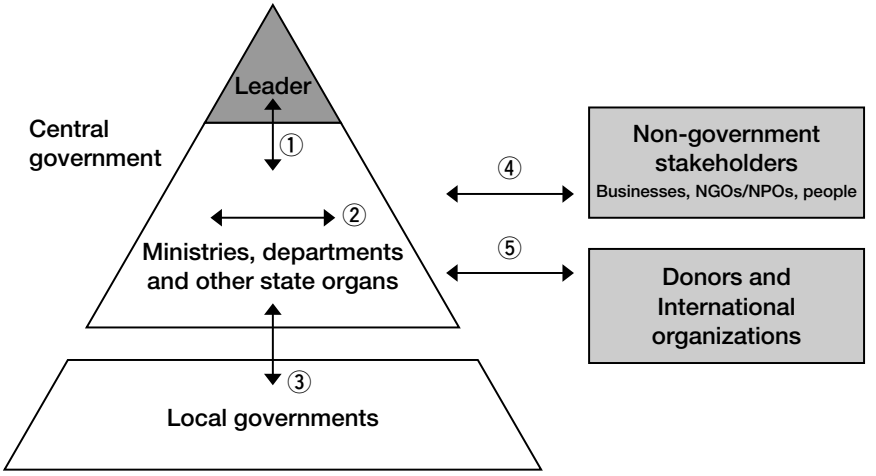
Policy capability (or good leadership)

The lack of information about appropriate policy is a possible cause of economic stagnation, but it may not be the only one. Policy makers in developing countries are already immersed in such advice from academics and

donors and can seek more if they want to. In many instances, the problem is not the shortage of ideas but inability to prioritize and implement them effectively under the political and social constraints of a particular country in question. This calls for the existence of an outstanding person who leads and decides, evokes awe and respect, galvanizes government and population, manages troubles and oppositions, and takes responsibility for the nation's fate.

Leadership in the narrow sense means the top political leader—the president or the prime minister, whichever the case may be. In a broader sense, leadership also includes the entire government at the command of the top leader. When viewed this way, leadership can be understood as a public sector capability to consistently produce, implement and adjust necessary policies. In the past experience of East Asia, conditions for an effective developmental state included a good leader, a group of elite technocrats who concretize and carry out the policies of the leader, a clear national vision and ideology that affirm growth, and political legitimacy through delivering prosperity (Watanabe, 1995, Ohno, 2008). Among these, a good leader is primary since other elements can be created by such a leader if they do not already exist. The importance of hav-

Figure 7. Key Relations in Development Policy Making



Source: "The Framework and Players: An Overview," online course in Policy Design and Implementation in Developing Countries, National Graduate Institute for Policy Studies, Tokyo, 2008.

ing a wise (economically literate) and decisive leader for development can hardly be overemphasized. However, the economic, social and political backgrounds from which such leaders are likely to emerge are not yet well understood. If the policy capability of Japan, Taiwan and South Korea has been the decisive cause of their economic success, how can that be taught and transferred to other countries?

The top leader (and his or her government) in a developing country must manage five key relations as indicated in Figure 7: (i) leader-central government; (ii) coordination among central ministries and agencies; (iii) central-local government; (iv) government-private sector; and (v) government-donors. The most effective way of managing these relations is case-dependent and also hinges on the initial conditions of each country.

For example, in formulating industrial strategies, Japan and South Korea in their fast growing periods adopted the *super-ministry model*, in which one organization (the Ministry of International Trade and Industry and the Economic Planning Board, respectively) with strong and broad authority orchestrated the entire industrial policy process. Malaysia drafts industrial master plans in the *multiple layer model* which consists of the minister-level committee, the steering committee and technical resource groups. Thailand under Thaksin Shinawatra (2001-2006), in what may be called the *central coordination model*, assigned newly created institutes, such as the Thai Automotive Institute and the Electrical and Electronics Institute, to coordinate among businesses, government and experts to draft policies and conduct supportive activities.

All of these policy formulation models worked reasonably well to produce results on each occasion, but they are not suitable for all countries at all times. Matching these models with country-specific situations is crucial. The same can be said about central-local government relations, working with donors, and government-business cooperation. In many latecomer countries including Vietnam, Laos and Cambodia, a workable model for conducting consistent industrial policies is not yet in place. These countries must build their own models that reflect both local circumstances and international experiences.

In the international aid community, there is no consensus on the proper scope of government leadership required in a developing country, a fact reflected in the broad range of views from the big push to the Washington Con-

sensus. The desired style of leadership, from a strong state to decentralization, has also failed to converge. In recent years, controversy over leadership has taken the form of *governance* debate.

The dominant view interprets good governance as the government capability to promote market efficiency, and emphasizes such factors as low corruption, democratic accountability, administrative efficiency, transparency in business environment, and the rule of law. Delivering good governance in this sense is considered imperative in releasing the true power of markets whose dynamism is not in question. The Worldwide Governance Indicator of the World Bank, which was used to draw Figure 1 above, measures performance in market-enhancing governance in individual countries. However, the current good governance agenda, which is uniform, broad and derived from the reality of advanced Western countries, is criticized as being unrealistic or too difficult to achieve in developing countries. The fact that East Asian high performers did not score any higher than others in governance indicators at the beginning or middle of their rapid growth periods casts serious doubt on the desirability of concentrating development effort on improving market-enhancing governance (Khan 2008).

Two proposals for ameliorating these problems include *growth-enhancing governance* and *growth diagnostics*. Growth-enhancing governance, as presented by Khan (2008), argues that the extensive requirements of the good governance agenda are unattainable in low income countries because of low productivity and structural problems inherent in their economies. The weakness in property rights and the prevalence of corruption and rent-seeking are not the results of greed of particular individuals but natural phenomena that sustain economic activities in a society where efficient market solutions are impossible. Instead of trying to eliminate them prior to economic take-off, Khan suggests that the government manage incentives and opportunities in such a way that these non-market transfers—bribery, patron-client politics, and so on—are directed toward increasing investment, upgrading technology, and maintaining political stability which together foster productive capitalism, rather than toward waste and self-enrichment of the few. Whether the government has this ability, which he calls growth-enhancing governance capability, determines the economic fate of a developing country between catching up and

stagnation.

Growth diagnostics is proposed by Hausmann, Rodrik and Velasco (2005, 2006) as a way to design country-specific growth strategies with clear priorities. The main objective is to identify a few most binding constraints on economic activities in the local context, whose process can be summarized as a decision tree. They start by asking what keeps growth low: is it inadequate returns to investment, inadequate private appropriability of the returns, or inadequate access to finance? If it is the first case, then they ask if it is due to poor geography, shortages of complementary factors of production such as human resource or infrastructure, or the lack of access to imported technology, and so on. For each of the possibilities, one can trace down the decision tree to discover the most fundamental cause for that country. The authors hope to produce a useful manual for policy makers that encompasses all existing development strategies as special cases. Inspired by this approach, the World Bank and the British Department for International Development have already begun to conduct such diagnostics in a number of countries.

Both growth-enhancing governance and growth diagnostics reject the one-size-fits-all approach of the Washington Consensus and emphasize the importance of country specificity, which can be considered progress. However, by and large, they still remain too general to be immediately useful for policy makers. As noted earlier, the core problem in the reality of developing countries may not be informational but operational. Senior officials are usually well informed about the barriers to growth in their countries. They need to know more than the necessity of investment, productivity and political stability, or a decision tree that helps them discover bad infrastructure, low human capital or the lack of domestic saving.

This brings us back to the question of how good policy can be conveyed to others. Analysis of the content and organization of effective leadership, such as above, is useful, but East Asia's success was also built on something emotional rather than just cool calculation. Japanese officials and academics (and some of their East Asian colleagues) are poor communicators of developmental ideas. What they practice in East Asia is quite impressive but they cannot put it into words which can be understood by all. This is partly due to deficiency in language and presentation skills, but there seems to be a more fun-

damental reason for incommunicability. Perhaps some critical knowledge cannot be expressed in writing.

The epistemological difference between the logical West and the experiential East is well recognized. This difference also permeates in the economic discourse as seen in the quest for generalization in the West versus sharing individual experiences in the East (Murakami, 1992). In a similar spirit, Yanagihara (1992) distinguishes the *framework approach* of Western development economics and the *ingredients approach* of Eastern developmental practice. The Eastern teaching of art and sport as well as manufacturing relies on doing without reasoning, learning by doing, stealing the master's technique by the eye, sharpening intuition, and the like. Textbooks and manuals are certainly useful, especially for beginners and outsiders, but when analysis comes to the final obstacle specific to the country in question, decision trees and policy matrices are unlikely to tell us how that should be broken. The original way to overcome the middle income trap must be invented by each country.

Private sector dynamism

Difference in national character is a sensitive matter that should be treated carefully. Many choose to presume that all people are equal and can respond equally to good business environment regardless of nationality. This leads to the conviction that any failure of development relative to initial conditions must be blamed on the government and its policies. While this view is politically correct, it is not very convincing economically[12]. It is almost impossible to explain why some countries attain high income quickly while others are stuck at the middle income level without reference to difference in private sector capability in responding to national visions, business opportunities, and policy reforms.

[12] A Western economist with limited knowledge of East Asia strongly protested to the notion that Thai workers were less diligent than Korean workers even under the same management. However, this observation is supported by the majority of general directors of multinational corporations operating in East Asia and corroborated in, for instance, the 19 consecutive years of survey on Japanese manufacturing firms conducted by the Japan Bank for International Cooperation (2008) and 21 similar annual surveys since 1987 by Japan External Trade Organization (2008).

Good policy may bring a country up to middle income, but that alone may not be sufficient to attain high income. While the assertion that every person should have equal rights and opportunities is broadly acceptable, it is an entirely different matter to argue that all people are equipped with the same ability to play football, compose music, or produce cars. We must start with the premise that different people are good at different things.

As noted earlier, Malaysia and Thailand have come a long way to improve economic administration and deliver good policy to their people. In many aspects, including morale, professionalism, reform mindset, academic achievements and presentation skills, central government officials in these countries are superior to their Japanese counterparts. Despite this, these countries continue to rely heavily on Japanese MNCs, overseas Chinese, Korean chaebols and other foreigners mainly because their domestic businesses lack dynamism.

Following the 1969 racial riot, Malaysia abandoned laissez-faire economic management and introduced ethnicity-based affirmative action in favor of *Bumiputra* (indigenous Malays) against other ethnic groups, especially urban rich Chinese. The New Economic Policy of 1970 imposed comprehensive rules in allocating public positions, business management, workforce, and other incentives to Bumiputra. With the coming of power of Dr. Mahathir in 1981, and under the recessionary pressure of the early 1980s, aggressive industrial policy was introduced. *Look East* Policy and heavy industrialization, including the automobile industry, were initiated. With the help of the yen appreciation starting in 1985, Malaysia succeeded in absorbing a large number of manufacturing FDI and turning itself into the world's major electronics exporter. However, heavy industrialization based on self-help was less successful. In 1986, policy emphasis shifted back partly from social equity to wealth creation. There was a gradual easing of Bumiputra policy, and more pro-market, outward-looking measures were adopted.

Strong measures favoring ethnic Malays may have maintained social harmony but they did not succeed in sending Malay firms to the global market. Proton, Malaysia's heavily supported national car company established in 1983, did produce popular vehicles for the protected domestic market, but it did not become competitive enough for export. As tariffs and trade restrictions are lift-

ed and global competition accelerates, Proton now desperately needs strategic alliance with one of the big-name foreign producers for survival. At the same time, Malaysia continues to receive foreign technical assistance to level up its local supporting industries. The contrast with the South Korean automobile industry is striking. Koreans also faced a small domestic market and received strong policy support and foreign technical assistance initially, but was soon able to export its products. In 1975, Hyundai Pony, the first-Korean developed car, was produced. In 1986, Hyundai entered the US market with Excel and set the record of selling the largest number of cars (126,000) in the first year of business in the US. Koreans are now recognized as one of the few truly independent automobile producers in the world. Dr. Mahathir's lament on the lackluster performance of Malay businesses which received generous support for years is understandable (Mahathir, 2001).

National characters embedded in history and social structure are slow to change, but they are not immutable. The only thing that can be said generally is that both genes and effort matter, a maxim that is equally applicable to art, sports, or manufacturing. About a century ago, a survey of factory workers in Japan found that Japanese workers were lazy, unskillful and unspecialized with a low propensity to save and high inclination to job hopping (Ministry of Agriculture and Commerce, 1901). To accumulate skills and retain workers, Japanese large manufacturing firms began to introduce new incentives and promotion mechanisms in the 1910s. The transformation of footloose workers into loyal and responsible workers was further carried out during the war years (1937-45). After WW2, Japanese had turned into hard workers with high saving propensity and lifetime dedication to their companies.

This means that, at the middle income level, policy must go much deeper than just providing infrastructure or unleashing the power of markets if the country wants to obtain higher income through manufacturing. What is required is the transformation of people's aspiration and value in a country where relaxed attitude toward production and services rules. There is no need to succumb to economic determinism, but patience is required to change national characters.

References

Fujimoto, T. (2004). *Nihon no Monozukuri Tetsugaku* [Japan's Monozukuri Philosophy]. Tokyo: Nihon Keizai Shimbunsha.

———— (2006). Architecture-based Comparative Advantage in Japan and Asia. In K. Ohno, and T. Fujimoto (Eds.), *Industrialization of Developing Countries: Analyses by Japanese Economists* (pp. 1-10). Tokyo: National Graduate Institute for Policy Studies.

Fujimoto, T. and Shintaku, J. (2005). *Architecture-based Analysis of Chinese Manufacturing Industries*. Tokyo: Toyo Keizai Shimposha.

GRIPS Development Forum. (Ed.). (2008). *Diversity and Complementarity in Development Aid: East Asian Lessons for African Growth*. Tokyo: National Graduate Institute for Policy Studies.

Hausmann, R., Rodrik, D., and Velasco, A. (2005). Growth Diagnostics. Mimeo. MA: Harvard University, Kennedy School of Government.

———————————————— (2006). Getting the Diagnostics Right: A New Approach to Economic Reform. *Finance and Development* 43:1. International Monetary Fund.

Ichikawa, K. (2005). Building and Strengthening Supporting Industries in Vietnam: A Survey Report. In K. Ohno and N. V. Thuong (Eds.), *Improving Industrial Policy Formulation* (pp.95-112). Vietnam Development Forum. Hanoi: The Publishing House of Political Theory.

Japan Bank for International Cooperation Institute. (2008). Survey Report on the Overseas Business Investment of Japanese Manufacturing Firms: Results of the 2007 (19th) Foreign Direct Investment Questionnaire. *JBIC Institute Review*. Tokyo: JBIC Institute.

Japan External Trade Organization (JETRO). (2008). *Business Survey of Japanese Firms in Asia: ASEAN and India, Survey in 2007*. Tokyo: JETRO.

Khan, M. H. (2008). Governance and Development: The Perspective from Growth-enhancing Governance. In GRIPS Development Forum (Ed.), *Diversity and Complementarity in Development Aid: East Asian Lessons for African Growth* (pp. 107-152). Tokyo: National Graduate Institute for Policy Studies.

Mahathir, M. (2001). *Malays Forget Easily.* Kuala Lumpur: Pelanduk Publications.

Ministry of Agriculture and Commerce. (1901). *Survey of Factory Workers*.

Ministry of International Trade and Industry (MITI). (1985). *Keizai Kyoryoku Hakusho* [White Paper on Economic Cooperation]. Tokyo: MITI.

Mori, J. and Ohno, K. (2005). Optimal Procurement Strategy: Determinants of Parts Localization under Regional Linkage and Competition. In K. Ohno and N. V. Thuong (Eds.), *Improving Industrial Policy Formulation* (pp. 113-136). Vietnam Development Forum. Hanoi: The Publishing House of Political Theory.

Murakami, Y. (1992). *Han Koten no Seiji Keizaigaku* [Anti-classical Political Economy], vol.2. Tokyo: Chuo Koronsha.

Son, N. N. (2006). Transportation in and around Hanoi: Current Issues and Challenges. In K. Ohno and N. V. Thuong (Eds.), *Business Environment and Policies of Hanoi* (pp. 63-121). Vietnam Development Forum. Hanoi: Publishing House of Social Labour.

Thuy, N. T. X. (2007). Supporting Industries: A Review of Concepts and Development. In K. Ohno (Ed.), *Building Supporting Industries in Vietnam*, vol.1 (pp. 27-50). Hanoi: Vietnam Development Forum.

Ohno, K. (Ed.). (2006). Malaysia. In K. Ohno (Ed.), *Industrial Policy Formulation in Thailand, Malaysia and Japan: Lessons for Vietnamese Policy Makers* (pp. 45-60). Vietnam Development Forum. Hanoi: Publishing House of Social Labour.

———— (2008). The East Asian Growth Regime and Political Development. In GRIPS Development Forum, *Diversity and Complementarity in Development Aid: East Asian Lessons for African Growth* (pp. 37-61). Tokyo: National Graduate Institute for Policy Studies.

Ohno, K. and Ohno, I. (Eds.). (1998). *Japanese Views on Economic Development: Diverse Paths to the Market*. London and New York: Routledge.

Ohno, K. and Fujimoto, T. (Eds.). (2006). *Industrialization of Developing Countries: Analyses by Japanese Economists.* Tokyo: National Graduate Institute for Policy Studies.

Sonobe, T. and Otsuka, K. (2006). *Cluster-based Industrial Development: An East Asian Model*. New York: Palgrave Macmillan.

Vietnam Development Forum (VDF). (2007). Supporting Industries in Vietnam from the Perspective of Japanese Manufacturing Firms. In K. Ohno. (Ed.), *Building Supporting Industries in Vietnam*, vol.1 (pp.1-26). Hanoi: VDF.

Watanabe, T. (1995). *Shinseiki Asia no Koso* [Designing Asia for the New Century]. Tokyo: Chikuma Shinsho. Partly translated and published as chapter 11 in K. Ohno

and I. Ohno. (Eds.), (1998).

World Bank. (1993). *The East Asian Miracle: Economic Growth and Public Policy.* New York: Oxford University Press.

Yanagihara, T. (1992). Development and Dynamic Efficiency: 'Framework Approach' versus 'Ingredients Approach'. Translated and published as chapter 4 in K. Ohno and I. Ohno. (Eds.), (1998).

Chapter 2

Dynamic Capacity Development

What Africa Can Learn from Industrial Policy Formulation in East Asia

The essence of East Asian development experience should be sought in the methodology of policy formulation rather than individual policy measures whose applicability differs greatly across countries. East Asia approaches development as a joint process of political and economic factors where leadership and nationalism matter as much as technicalities. Policy formulation in East Asia is characterized by real-sector pragmatism, goal orientation, and aspiration for building the country's unique strength rather than removing general negatives. The problem of weak policy capability is overcome through focused hands-on endeavor to achieve concrete objectives, which we call *dynamic capacity development*, rather than trying to improve governance scores generally vis-à-vis the global standard. These features are sharply distinct from the dominant development thinking of Western donors which emphasize good governance and an early adoption of policies and institutions that copy international best practices. Examples of dynamic capacity development are presented, and four entry points for bringing this methodology to Africa are suggested.

1. Introduction

Transferability of East Asian experience to Sub-Saharan Africa is a popular topic in development economics, but investigation into this matter needs to go deep to be useful for policy makers. An ad hoc introduction of what an East Asian country did in the past, without analyzing its social context or transferability to other societies, is hardly informative. Similarly, general refutation that Africa is different from East Asia and thus cannot adopt what the latter did is not very constructive.

Diversity of ecology, history, and social and economic structure is common to any region including East Asia and Sub-Saharan Africa. In view of this intra-regional diversity, it is futile to come up with one or a few concrete policy lessons from East Asia or to offer one or a few concrete policy recommendations to all economies in Sub-Saharan Africa. The lessons from East Asia

should not take the form of a small number of generally applicable policy packages. At the minimum, various policy experiences in East Asia should be construed as raw materials from which a development strategy unique to each country is built with selectivity and modification.

However, East Asian experience should not be reduced to mere policy references. If that is the case, references should be sought throughout the world as there is no reason to confine the search to East Asia. What is striking in East Asia is not the similarity of development policies within the region—which does not really exist—but the *methodology* by which individually unique but equally effective policies are designed and implemented. This methodology, in a broad sense, includes not only technicalities of policy making procedure and organization but also the way non-economic factors such as passion, nationalism and the sense of pride and humiliation are strategically mobilized under strong leadership to serve as driving forces of catch-up industrialization. This, more than anything else, is the aspect of East Asian policy formulation that is highly distinct from the mainstream development trends dominated by European donors and international organizations.

This paper aims to extract the methodological essence of East Asian policy formulation in its ideal form for policy practitioners in the rest of the world who is seriously interested in what East Asia did in the past. The next section stresses the diversity of East Asian experiences which include both miracles and disasters as well as "high performing economies" with significantly different speeds of catching up. Section 3 makes a general point that the lack of consideration of interaction between politics and economics has been a major cause of development policy failure. Section 4 presents the key ingredients of industrial policy formulation in East Asia with some examples of such policy making from the past and present. Finally, section 5 addresses the question of how Japan, a donor with rich experience in assisting East Asian countries into graduation from aid, can make a meaningful contribution to African development. Four entry points are suggested.

2. Diversity of East Asian experiences

East Asia is a region that draws awe and admiration from other devel-

oping regions. The region works as if it were a big factory with individual economies competing to become more effective machines in it. One by one, countries in different stages of development initiate economic growth by participating in the production network spanned by private firms. Linked by trade and investment, an international division of labor with clear order and structure has emerged. Industrialization has proceeded through geographic spreading on the one hand and structural deepening within each country on the other. The term *flying geese* refers to these systematic supply-side developments. In this sense, the very existence of the East Asian region provides an arena for economic interaction among its members. There is no other developing region that has established such an organic intra-regional dynamism as East Asia (Ohno, 2008a).

Despite its success *on average*, the most striking feature of East Asia is diversity. It has been noted earlier that each region is diverse. East Asia, together with Africa, is a region that exhibits greater diversity than Europe, Latin America, or the Former Soviet Union in terms of country size, income level, religion, and so on (Table 1). It contains societies boasting the world's highest income and advanced democracy as well as the world's most oppressive regimes with horrendous economic mismanagement. The population size also ranges from giant China (over 1.3 billion) to tiny Brunei (0.4 million). All the three major religions of the world are strongly represented in the region. Because of this diversity, the *average* picture of East Asia is highly misleading.

In this regard, the fact that not all East Asian countries are the paragon of high economic performance deserves special mention. The region contains both economic miracles and disasters. There are both participants and non-participants in the East Asian production network. When researchers extract lessons from East Asia, they almost invariably look at experiences in a subset of economies with relatively good performance. The winners' bias is quite understandable because success is far more interesting to analyze and report than failure. But meaningful research can also be conducted by explaining the gap between the winners and the losers in East Asia and their causes.

Even among the so-called "high performing economies" of East Asia (World Bank 1993), degrees of success vary considerably. In this regard, there should be a clear distinction among high achievers such as Taiwan and South

Table 1. Comparison of Regional Diversity

(a) Population (million, 2005)

	No. of countries	Mean	Coef. of variation
East Asia	17	122.8	2.52
Africa	47	19	1.28
Former Soviet Union	15	18.9	1.93
Europe	27	18.7	1.20
Latin America	22	24.9	1.70

(b) Per capita income (USD adjusted for purchasing power, 2005)

	No. of countries	Mean	Coef. of variation
East Asia	17	11,590	1.07
Africa	47	3,000	1.17
Former Soviet Union	15	7,454	0.79
Europe	27	23,970	0.45
Latin America	22	7,342	0.55

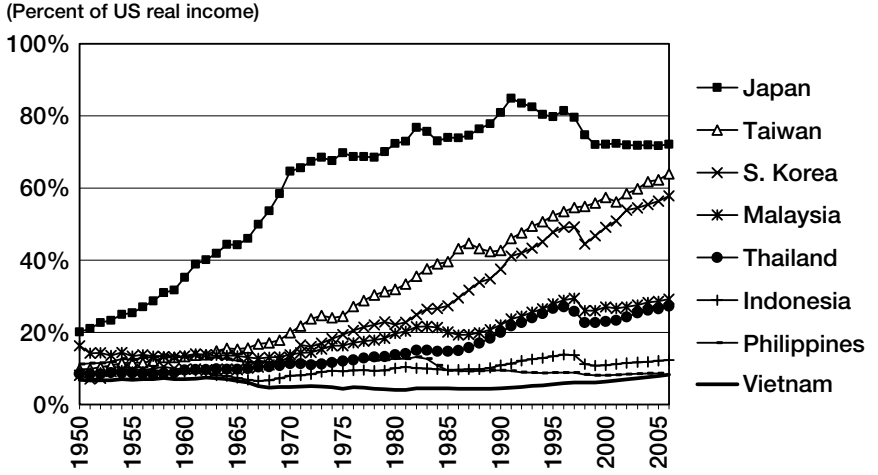
(c) Most practiced religion (number of countries)

	No. of countries	Christianity	Islam	Buddhism	Animism & Shamanism	Other
East Asia	17	2	2	11	2	0
Africa	47	24	15	0	7	1
Former Soviet Union	15	9	6	0	0	0
Europe	27	25	2	0	0	0
Latin America	22	22	0	0	0	0

Note: The coefficient of variation is standard deviation divided by mean.
Sources: World Bank, *World Development Indicators*, 2005 (population and income);
United States Central Intelligence Agency, *The World Fact Book*, 2009 (religion).

Korea, middle achievers such as Malaysia and Thailand, and low achievers such as Indonesia and the Philippines. The first group is far ahead of the second or the third in terms of income and industrial capability. Figure 1 shows per capita real income of selected East Asian economies relative to the United States level. Until the mid 1960s, these economies (except Japan) showed no clear sign of catching up. However, Taiwan and Korea, which started from equally low levels, took off in the late 1960s and have improved income dramatically. In comparison, the catching up of Malaysia and Thailand looks less impressive, and Indonesia and the Philippines failed to improve their positions vis-à-vis the United States. Divergent performance comes from different speeds of catching up rather than delayed starts (except Vietnam where wars and socialist planning prevented economic take-off until the early 1990s). ASEAN4 are taking much longer to reach the industrial capability that Taiwan and Korea

Figure 1. Different Speeds of Catching Up



Sources: Angus Maddison, *The World Economy: A Millennium Perspective*, OECD Development Centre, 2001; the Central Bank of the Republic of China; and IMF *International Financial Statistics* (for updating 1998-2006).

Note: Per capita real income relative to the United States as measured by the 1990 international Geary-Khamis dollars.

had achieved in the 1980s and 90s. The image of flying geese in perfect formation with all birds flying at the same speed is not quite right. In addition, there are economies which are not even on our radar screen—those that continue to struggle at the bottom of income ladders such as Cambodia, Laos, Myanmar, North Korea and East Timor.

Different income performance closely reflects different industrial capability. Income rises greatly only when difficult processes in the value chain are internalized. Figure 2 illustrates four typical steps in climbing the ladders of industrialization in East Asia. The pre-industrialization stage is characterized by a very low income, limited integration through trade and investment, and heavy reliance on extractive industries, monoculture exports, subsistence agriculture or foreign aid (stage zero). Economic take-off starts with the arrival of a sufficient mass of manufacturing FDI firms that perform simple assembly or processing of export-oriented light industry products such as garment, footwear, and foodstuff. Electronic products and components can also be assembled in this way. In this early stage, design, technology, production and marketing are

all directed by foreigners, key materials and parts are imported, and the country contributes only unskilled labor and industrial land (stage 1).

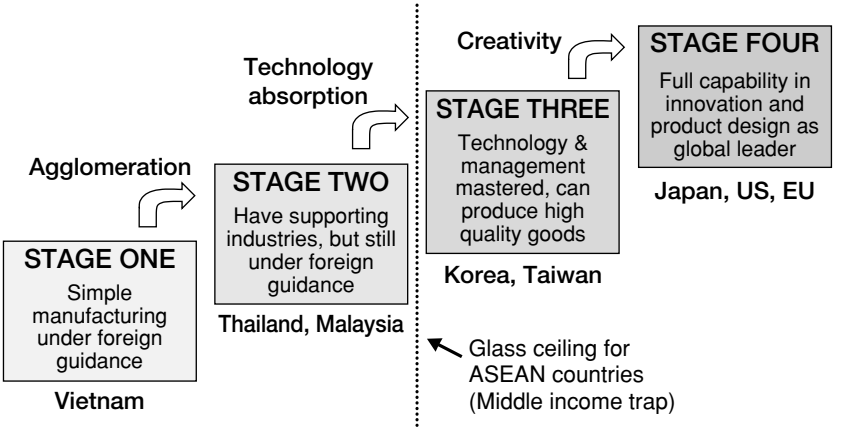
In the following stage, as FDI accumulates and production expands, the domestic supply of parts and components begins to increase. This is realized partly by the inflow of FDI suppliers and partly by the emergence of local suppliers. As this occurs, assembly firms become more competitive and a virtuous circle between assemblers and suppliers sets in. The industry grows quantitatively through the internal supply of physical inputs. Internal value creation rises moderately, but production basically remains under foreign management and guidance (stage 2). The next challenge is to internalize skill and knowledge by accumulating industrial human capital. Locals must replace foreigners in all areas of production including management, technology, design, parts and components, factory operation, logistics, quality control, and marketing. As foreign dependence is reduced, internal value rises dramatically (stage 3). In the final stage, the country acquires the capability to create new products and lead global market trends (stage 4).

However, progress is not guaranteed for all. A large number of countries that receive too little manufacturing FDI stay at stage zero[13]. Even after reaching the first stage, climbing up the ladders becomes increasingly difficult. Another group of countries are stuck in the second stage because they fail to upgrade human capital. It is noteworthy that none of the ASEAN countries, including Thailand and Malaysia, has succeeded in breaking through the invisible "glass ceiling" in manufacturing between the second and the third stage. In Latin America, many countries remain middle income even though they had achieved relatively high income as early as in the 19th century. This phenomenon can be collectively called the *middle income trap*. The shortage in internal capability, especially private sector dynamism and policy formulation capacity, is the cause of this divergent performance.

Another important fact is that policy content and industrial outcome also differed significantly among economies that have reached middle to high

[13] Low-income countries may receive FDI in mining, telecom, power, tourism, or property development. While such projects are lucrative for investors and can generate jobs for the poor and provide basic infrastructure for the nation, these alone cannot put the country on a dynamic path of structural transformation as manufacturing does.

Figure 2. Stages of Catch-up Industrialization



stages. With respect to government intervention, Korea and Singapore had very strong states while Hong Kong consistently pursued laissez-faire policy. Taiwan, Malaysia and Thailand stayed in the middle of this scale. In mobilizing foreign savings, Japan did not avail itself to FDI or foreign loans, Korea accepted foreign loans but not FDI, whereas China and ASEAN4 vigorously courted FDI as the main engine of growth before opening the capital account. With respect to the manufacturing sector, heavy industry promotion was successful in Japan and Korea but not so in Malaysia and Indonesia. Most latecomers specialized in labor-intensive manufacturing industries such as electronics, garment, footwear and food processing, but city economies of Hong Kong and Singapore achieved high income through finance, commerce and other high-value services. It is impossible to extract one development model from such diverse experiences.

The final point about East Asia is that most countries initially had low capabilities just as in the rest of the developing world. Competitiveness was weak in the private sector and governance was wanting in the public sector. In the early 20th century, an official report found that Japanese workers were lazy, unskilled and only half as productive as American workers, and that they never saved and hardly remained in one factory to accumulate skill and experience (Ministry of Agriculture and Commerce, 1901). Until 1960, South Korea was considered a basket case with inept and corrupt officials, heavy dependence on

US aid for survival, and no prospect for profitable investment in comparison with the resource-rich North (World Bank, 1993; Kim and Leipziger, 1993). In 1959, the World Bank report on Thailand pointed to the severe shortage of trained manpower, managers and administrators as well as the sheer absence of planning in public investment (World Bank, 1959). These are familiar scenes in developing countries, but many East Asian economies have by now overcome these problems. Clearly, capabilities were built in the process of industrialization; they were not prepared *ex ante* as the precondition for growth.

3. Interaction of politics and economics

Development is a political as well as an economic process. It succeeds only when both aspects are fully taken into consideration, especially the complex interaction between the two, and appropriate visions, strategies and action plans are fleshed out and executed. Here, the politics of development refers broadly to *what can be done* under the political landscape of the country as well as the administrative capacity of the government, whereas the economics of development refers to *what should be done* in terms of policy content to move the economy to a higher level given its initial conditions. The one is about the feasibility of development policy and the other is about its desirability.

Not all feasible policies are desirable and not all desirable policies are feasible. To be effective, a policy maker at any level or in any organization must rack his brains for a narrow and delicate set of actions that satisfy both feasibility and desirability. Because all countries are different in both aspects, no one-size-fits-all solution can apply. Since the first best from the viewpoint of economics is often impossible from the viewpoint of politics, compromises must be made and a detour may have to be taken. Policy making is a very complex game, and any advice that looks only at one aspect is easy to formulate but certain to fail. While this general point may be too obvious to anyone, it must be stressed that the lack of consideration of this obvious fact constitutes a major cause of failure in development policy advice.

While the government is directly responsible for designing and implementing development policies, the weight of foreign advice cannot be ignored

in latecomer countries. Depending on what they say, foreign advisors from aid organizations or academic institutions can contribute significantly to the country's welfare or bring misery and despair to its people. Although there is no need to explicitly state the political and administrative constraints of a developing country, foreign advisers are well advised to take them fully into consideration when they draft any report. Some advisers seem to believe that their job is to find an economically sound solution while implementation is the problem of the host government. But if the advice is meant to be practical rather than academic, the fact is that policy advice not based on (implicit) feasibility analysis can hardly be implemented regardless of whether proposed actions are a few or many, or whether they are globally common or tailor-made to a particular country.

From this perspective, the shortcomings of the traditional IMF conditionalities and World Bank policy matrices are clear enough and need no further elaboration. By now, few economists defend an international organization that imposes a long list of common policies on countries struggling with macroeconomic crisis or popular discontent.

The argument for good governance suffers from the same problem. The advocates of this view regard the inadequacy of governing institutions as the main source of poor policies. They extract desirable attributes of growth-friendly governments from the advanced West and evaluate and rank developing countries by these criteria. For instance, the World Bank's Worldwide Governance Indicators (WGI) consist of six scales: voice and accountability, political stability, government effectiveness, regulatory quality, rule of law, and control of corruption. Member countries are given grade points ranging from 0 to 100 on each of these scales. This approach is criticized from various angles including the confusion of causality between growth and governance, the impossibility—and even non—necessity of attaining good governance in low-income countries, the need for a smaller or different set of institutional targets to start with, and the absence of empirical evidence that good governance is necessary for growth (Grindle, 2004; Khan, 2008; Shimomura, 2005). On the last point, it should be recalled that high performing economies in East Asia generally had poor records in public-sector efficiency, transparency or cleanliness at the beginning or even during their high growth periods. From the view-

point of interaction of politics and economics, however, the most fundamental shortfall of the good governance drive is the total lack of analysis on the political and administrative feasibility of Western-style governing principles in the socio-political context of the country in question.

Growth diagnostics, which is supposed to overcome the problems associated with the long and universal policy menu of the Washington Consensus, is subject to similar criticism. This research program was proposed by three economists associated with Harvard University (Hausmann, Rodrik and Velasco, 2005) to discover a small number of most binding constraints to growth in each country. It proposes a logic tree (the HRV tree) that instructs researchers to look systematically for such binding constraints and also serves as a checklist—albeit a rather simple one. The HRV tree assumes that boosting private investment is the key to growth, which can be thwarted by either low return or high financing cost. For each case, the inquiry continues by asking the reason why it occurs. The idea that policy advice should be simple and geared to the situation of each country is commendable. This research program has already produced a large number of country growth diagnostics at Harvard University, the World Bank, the Inter-American Development Bank, the Asian Development Bank, and the British Department for International Development. However, it must be pointed out that growth diagnostics writes prescriptions only from the economic side. When political and administrative constraints are added, it is highly doubtful that a small number of economic problems identified to be most binding in a particular country are the correct entry point for reform. Sometimes it is more effective not to tackle the greatest constraint head-on, and instead work on peripheral issues first to gain political support and administrative competence for a bolder action later. There may also be other sophisticated scenarios for improving the chance of success. It must therefore be concluded that the analytical scope of growth diagnostics is too narrow. Policy sequence which works in real world requires far deeper thinking than just following down the HRV tree.

How should we cope with the nexus of politics and economics in development with the understanding that the two are inseparable? One obvious suggestion, at least for academicians, is to conduct inter-disciplinary research. However, the producing a book with economists and political scientists analyz-

ing development independently and without intellectual cross-fertilization hardly helps. Each discipline is deeply entrenched in its methodology which is scarcely mutable. Operationally meaningful results cannot be had simply by inviting them into the same conference room.

The World Bank's *World Development Report* in 1997 proposed a strategy which may be dubbed as *policy-capability matching* (World Bank, 1997)[14]. It acknowledged that some policies, such as selective industrial policy, were inherently more difficult and required far more information and policy skill than others, such as providing universal primary education or a level playing field for all businesses. It argued that countries with already advanced institutions might try difficult policies but those without them should first build institutional capabilities in three areas: (i) effective rules and restraints, (ii) greater competitive pressure, and (iii) increased citizen voice and partnership. The latter group should content themselves with easy policies (or "fundamentals") for now and leave difficult ones for later when their institutions were upgraded. This advice can be useful in preventing developing countries from over-reaching themselves, but it shares the same weakness as the good governance approach. It is based on the belief that institutions and capabilities can be enhanced generally and more or less independently from the particular development path that the country has chosen to tread. But such unfocused effort at capacity development is difficult to rally politically and too broad to implement administratively. There should be an alternative and more concentrated way to strengthen capability that appeals to the political constituencies as well as the hearts of the general public.

What East Asia's successful economies practiced was quite different from any of the above. Starting from an incompetent and often corrupt government, a leader rose to take over power, either legally or illegally, to establish a new government with the sole purpose of achieving rapid economic development to maintain national unity or defend the nation from external threats. Such

[14] The exact phrase used in the report was the two-part strategy of "matching the state's role to its capability" and "raising state capability by reinvigorating public institutions." The latter included the five "fundamental tasks" of (i) establishing the foundation of law; (ii) nondistortionary policy environment including macroeconomic stability; (iii) social services and infrastructure; (iv) protecting the vulnerable; and (v) protecting the environment (World Bank, 1997, pp.3-4).

a leader often launched the political regime of authoritarian developmentalism where he himself became the prime driving force of development. He was backed by a technocrat team to concretize his vision, national ideology that glorified material advancement, unwavering belief in upgrading technology and competitiveness, popular support for rising living standards, and political legitimacy based on industrial results rather than democratic procedure (Ohno, 2008a; Watanabe, 1995). Military-like discipline ruled to largely wipe out corruption and nepotism. In this process, politics and economics were deeply intertwined. Leaders had no illusion that politics and economics could be practiced separately or solved independently from each other. Social scientists have a lot of catching up to do to analyze what these policy practitioners actually did.

East Asian economies raised policy capability through hands-on efforts to attain concrete goals rather than trying to improve governance generally and aimlessly. Organizations were created or restructured, and officials and advisors were mobilized or re-assigned, to execute specific tasks required by the five-year plan, the master plan for a priority industry, or the blueprint for a new industrial zone. This approach had several advantages such as concentrating limited human and financial resources on truly needed areas, clear criteria for monitoring and assessing performance, flexible reshuffling of resources in response to initial results or changing circumstances, and the cumulative pride and sense of achievement that emerge as specific targets were realized one by one. We shall call this approach *dynamic capacity development*. The next section will explain it more in detail with some concrete examples.

4. Industrial policy formulation in East Asia

There are three inter-related features of industrial policy formulation in East Asia that are quite distinct from the dominant development thinking. Dynamic capacity development takes place in the process of designing and implementing policies that satisfy these conditions. They are (i) real-sector orientation; (ii) goal orientation under the multiple policy layers of visions, strategies and action plans; and (iii) enhancement of unique strength instead of removing general negatives. These features are explained below.

Real-sector pragmatism

Yanagihara (1992) distinguishes the "framework approach" practiced by Western aid donors and the "ingredients approach" adopted by the Japanese government in its development aid strategy. The framework approach emphasizes the rules of the game according to which the private sector acts and policy makers make decisions while leaving the actual outcome of the game to individual matches and players. In this approach, the functioning of markets, the principle of official intervention, budget and public investment frameworks, empowerment and participation, monitoring mechanisms, administrative efficiency and accountability, and the like, receive great attention. Aid harmonization and general budget support are clearly couched in this tradition. In contrast, the ingredients approach takes deep interest in how individual players are doing in the field and the outcome of each game. It examines the state of technology, factors of production, demand trends, product mixes, industrial structure, marketing and logistic efficiency, and the like, in the concrete context of individual sectors and regions of the country in question. Matching crop species with particular soil or training factory inspectors for *kaizen* and efficient use of equipment are considered to be crucial for successful development[15]. Similarly, the technical specification of roads and bridges to be built, the lot size and administrative supports in an industrial zone, and other details which are normally left to consultants and contractors are the proper concern of Japanese aid officials.

Both approaches are indispensable and should be highly complementary since general frameworks need to be filled with concrete contents. Yet, the two approaches are not well integrated in reality. Japan feels uncomfortable with the explosion of new aid rules, tools and meetings set up by European donors while the latter do not look kindly on "selfish" donors who refuse to participate in aid harmonization or do so only unwillingly. Europeans should broaden the scope of aid to embrace more concrete ingredients while the Japan-

[15] Kikuchi (2008) reports that the same goal of boosting the competitiveness of Tunisian industries was approached in two different ways. The EU's Industrial Modernization Project aimed to assist acquisition of ISO certification while Japan's Study on the Master Plan for Quality and Productivity Improvement tried to level up the operation of 30 companies in electronic assembly and food processing by dispatching experts with experience in factory management and training the Tunisian trainers. A senior manager of the EU project described this difference as ready-made versus order-made.

ese side needs to effectively communicate what it has been doing and become part of the broader aid framework.

Goal orientation

In high performing economies in East Asia, industrial policy has usually taken a goal-targeting form. The top government leader proclaims a long-term national vision which shows a direction without specifying details. To realize this, appropriate government organizations are created or designated to draft ambitious but feasible strategies and execute concrete action plans. Strategies and action plans may be revised as circumstances change, but the long-term vision remains intact. Working backwards from broad goals to phased strategies and concrete action plans, while making necessary adjustments and accumulating experience and confidence along the way, has been the hallmark of East Asian development planning. This is in sharp contrast to the call for wide-ranging reforms without specific real-sector targets such as those of IMF conditionalities, World Bank policy matrices, good governance drive, and other institutional reform agenda.

Japan in the 1960s had the goal of doubling income within the decade as well as competing effectively with Western multinationals as trade barriers were lifted under the GATT Kennedy Round commitments. The Ministry of International Trade and Industry (MITI) together with the Japan Development Bank coordinated and assisted private efforts in improving productivity. Taiwan in the 1980s launched high-tech industry promotion to replace the heavy industry drive of the 1970s. Priority areas were designated, a science and technology industrial park was created in Hsinchu, FDI marketing was conducted, and measures were introduced to support R&D and financing of eligible companies. More examples are given below.

Enhancing unique strength rather than removing general negatives

Instead of comparing countries across the board to rank them or find faults with individual countries relative to the global norm, the East Asian approach is to identify the future potential (dynamic comparative advantage) unique to each country. Limited resources are poured into this area to realize that potential rather than scattered across many unrelated programs. The devel-

opment strategy of a land-locked country with rich mineral resources should be entirely different from that of a country with long coastal lines and excellent seaports. A society with nomad population cannot tread the same path as a densely populated agricultural society. Unique potential for each country should be identified, and main policy effort must be directed to removing barriers to attain that potential (Secretariat of the Stocktaking Work, 2008).

As noted in section 2, domestic capability of a latecomer country is initially very weak. Corruption and rent seeking are rampant. However, Khan (2008) contends that it is not only difficult but even *undesirable* to eradicate these "evils" in an economy where market-enhancing rules and institutions are severely underdeveloped. In such an economy, commerce, production, and investment are carried out with the help of these non-market activities and their sudden removal (by strict policing and punishment, for example) would bring the economy to a halt. According to Khan, what is required is to design policies and incentives so that these non-market activities are channeled towards learning, productive investment, and political and social stability. Khan calls this capability *growth-enhancing governance*.

Foreign investors do not expect a latecomer country to become an investors' paradise overnight. They know that inefficiencies and irregularities are part and parcel of a developing country. What they really need is a few specific guarantees that are crucial to their investments and not an overall reform. Masaki Miyaji, a JICA expert with extensive business experience in Africa, asks each African country to declare its "charm point," an (untapped) advantage unique to that country that would attract investors. Then the government should defend that advantage by all means to realize the promised returns. After all, there is no need for a country to improve on all fronts before launching a growth strategy.

When a country clearly understands its real-sector potential and is equipped with a policy system of vision, strategies and action plans to attain it, it is not difficult to know where to start building capability. Action plans must be implemented, and specific problems arising in this process must be solved as a matter of highest priority. Weak coordination among concerned ministries, gaps in budgeting and execution, delays in land procurement and resettlement, training of officers in charge, and devising incentives to curb brain drain are

some of the issues that may be encountered. Capacity is created where it is needed through solving such problems one by one, rather than by a general campaign to eradicate corruption or promote administrative efficiency. Dynamic capacity development is a natural consequence of the East Asian policy making characterized by real-sector pragmatism, goal orientation and the pursuit of unique strength.

More Examples

Generally speaking, East Asian countries are good practitioners of development but they are not very good at explaining their achievements or articulating their differences from the Western way. There are numerous development policies worthy of study in the region, but few are known to the rest of the world. Four stories from Japan, China, Malaysia and Thailand are added below to illustrate East Asian policies which are individually different yet share the three common features stated above.

Japan in the late 19th century was a backward agricultural country just out of the feudal system. Trade with the West was resumed in 1858 and imports of British cotton products surged. Under the strong competitive pressure from the Western powers, the Meiji government promoted industrialization for *yunyu boatsu* (import substitution). One of the key policy targets was to establish a cotton spinning industry to replace imported cotton yarn with domestic production. State-owned enterprises were set up in the 1870s but they did not succeed economically. The reasons for the failure included the lack of capital, small capacity, use of water power which was constrained by location and operation hours, and the general lack of expertise. The turning point came when private Osaka Spinning Company was established in 1883 by the strong leadership of Eiichi Shibusawa, a super business coordinator and former MOF official[16]. Shibusawa was determined to build a factory that overcame the defects of the previous SOEs. Innovations were made in production scale

[16] Shibusawa mobilized capital, technology and human resources for setting up companies but never assumed general directorship. He delegated the running of the company to others and went on to establish over 500 companies, numerous economic institutions such as the stock exchange and the chamber of commerce, and non-economic organizations such as hospitals and universities. Unlike Yataro Iwasaki who founded the Mitsubishi group, Shibusawa did not form his own *zaibatsu*.

(10,500 spindles instead of 2,000), the use of steam engines for 24 hour operation, adoption of the Ring spinning machine rather than the traditional Mule, and the use of low-cost Chinese cotton instead of domestic one. Osaka Spinning was a joint stock company subscribed by big merchants and former samurai lords who were personally persuaded by Shibusawa to invest. For working capital, loans from the First National Bank, where Shibusawa was the president, were made available. But what contributed most to Osaka Spinning's performance was the recruitment of Takeo Yamanobe, a young engineer who was persuaded and then financially supported by Shibusawa to study the cotton industry in the United Kingdom. Equipped with the latest technology and pragmatic knowledge, Yamanobe could lead the company into instant success in the first year of operation. This had a powerful demonstration effect. Soon, several spinning factories modeled after Osaka Spinning were established. By the early 20th century, Japan overtook the United Kingdom to become the top textile exporter in the world and the City of Osaka, where many textile mills were located, was called the "Manchester of the Orient." Without Shibusawa's endless passion and meticulous attention on details, this feat could not have been achieved (Ohno, 2006b).

Deng Xiaoping, who held power in China during 1978-1997, was a very pragmatic leader penchant for material progress in sharp contrast to Mao Tsetung who ruled during 1949-1976 with political ideology and radicalism which brought chaos and misery to the Chinese people. This leadership switch completely changed the economic landscape of China. Under Deng, agricultural liberalization and gradual international integration became the two pillars of "reform and opening" policy[17]. His method was to try everything, even capitalist mechanisms and foreign elements, to increase production, then continue if it works and adjust or abandon if it does not. Many of his dictums, such as "It does not matter whether the cat is white [SOEs] or black [FDI or private] as long as it catches mice [increases output]," "My invention is staying away from debates," "Poverty is not socialism," and "Even try the stock market and see,"

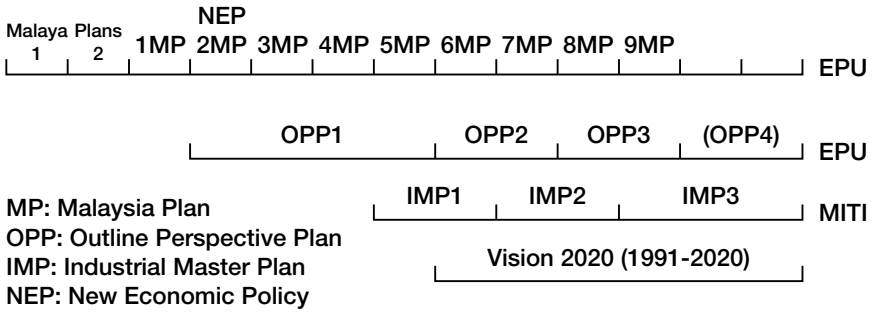
[17] Though SOE reform was also attempted, it met with limited success. Township and village enterprises became another source of Chinese dynamism in much of the 1980s and 90s, but they emerged more or less spontaneously and cannot be regarded as the direct outcome of Deng's industrial drive.

exemplify his unwavering pragmatism. The greatest engine of the Chinese economy introduced by Deng was the attraction of FDI into special economic zones and economic development zones along the eastern and southern coast. FDI flows, initially timid and cautious, turned into a tsunami in the 1990s. The event that precipitated this inflow was a series of pep talk Deng gave in Shanghai and Southern China in early 1992. Strong reaffirmation of "reform and opening" policy by the supreme leader reinvigorated investors' psychology, and China started to grow at double digits ever since. Deng also denied egalitarianism, the hallmark of socialism, and encouraged the pursuit of wealth by those who were able and let all others follow later. This idea was highly effective in removing the stigma of materialism and accelerating growth but also created a huge gap in income and wealth by the early 21st century.

In Malaysia, *Vision 2020*, an aspiration to become a "fully developed country" by 2020 set by former Prime Minister Dr. Mahathir in 1991, remains the overarching goal. The Economic Planning Unit (EPU) of the Department of the Prime Minister directs national effort to concretize this vision under a system of overlapping policy documents and cascading organizations (Figure 3). Dr. Mahathir mentioned nine general challenges without further elaboration. They are national unity, confidence, democracy, moral and ethics, tolerance, science and technology, caring culture, economic justice, and prosperity. To achieve this, Malaysia drafts multiple layers of policy documents such as industrial master plans (MITI), Outline Perspective Plans (EPU), and Malaysia Plans (i.e., five-year plans, EPU). Under MITI, special agencies such as MIDA (FDI policy), SMIDEC (SME promotion), MATRADE (trade), and MPC (productivity) have been established. Although this policy structure may sound quite complex, the Malaysian government manages it surprisingly well without being bogged down in bureaucracy. In terms of industrial policy framework, Malaysia has reached a level where no significant improvements are possible[18]. If Malaysian industries still fail to emerge strongly, the blame should be on the dearth of local private dynamism rather than the shortage of policy sophistica-

[18] In 2006, a policy research mission from Vietnam asked the representative of the Japan External Trade Organization (JETRO) in Kuala Lumpur to list main constraints for foreign investors in Malaysia. He paused, and replied that he could think of none as far as policies and institutions were concerned.

Figure 3. Malaysia: Overlapping Policy Structure



tion (Ohno, 2006a).

The entire working of the government of Thailand changed in 2001 when Thaksin Shinawatra came to power. Previously, most Thai governments were weak and uncoordinated. But Prime Minister Thaksin was strong and wanted to run the country as if it were a private company. He determined general directions and ordered related ministries and organizations to work out the details and implement actions. This top-down decision making affected the entire scope of policy making. The role of economic ministries changed from building policies from bottom up to concretizing pre-determined policy orientation. Many officials positively evaluated this change. Previously, Thai ministries did not talk to each other and their policies were often at cross purposes. Under Thaksin, policies became more integrated under his vision, decision making became faster, and dialogue among concerned ministries, domestic and foreign firms, and international partners was activated. Policy directions were also clearer. The Thaksin government wanted to promote industries that had high domestic value-added and created many jobs regardless of the nationality of the firm. Targeted industries included automobiles, agro-industry, fashion goods, high-value services, electronics and ITC, and energy and renewable energy. For the automobile industry, Thaksin declared the vision of Thailand becoming the "Detroit of Asia" while leaving the Ministry of Industry (MOI) to define what it exactly meant. For this purpose, the master plan of the automobile industry 2002-2006 upheld the following numerical targets: (i) produce 1 million cars per year; (ii) export 40% of the cars; (iii) produce 2 million motorcycles; (iv) export 20% of the motorcycles; (v) export 200 billion baht of high

quality parts; and (vi) achieve localization of over 60%. These targets were fulfilled in 2005, one year ahead of schedule, by close cooperation among producers, MOI, and the Thai Automotive Institute, a body set up by the Thaksin government to promote the industry. While Thaksin was ousted for corruption charges in 2006 and the overall effectiveness of his rule remains an open question, his leadership style in industrial promotion has attributes that are well worth investigation (Ohno, 2006a)[19].

5. Entry points for African industrialization

It was argued earlier that policy making in latecomer countries is a complex game due to the interaction of politics and economics. How outsiders such as donors and foreign advisors can help in this process, by bringing new insights that fit the economic reality, political configuration, and administrative capacity of the country, is even more complex. In this final section, four suggestions are made so that Japan, a donor with rich experience in assisting East Asian developing countries, may begin to make a meaningful contribution to the development of Sub-Saharan Africa (GRIPS Development Forum, 2008b). All of the four entry points for engagement proposed here are the ones that are commonly practiced in East Asia. But their application to a new region requires care and sufficient lead-time because the East Asian way is unfamiliar there and initial conditions, including the state of intra-regional manufacturing dynamism, are not the same as in East Asia.

Align assistance to existing policy vision and strategies

If the country already has a valid vision and strategies for development, donors and foreign advisors should provide support for their realization. The vision and strategies must be clear, mutually consistent, and have the quality of being ambitious yet attainable with concentrated effort among all stakeholders. They must be strongly owned by the country's top leaders and shared by all policy makers. However, latecomers that satisfy these conditions are not

[19] Another policy that Thaksin introduced was subsidies and support for the rural poor who had long been neglected by Thai politics. This made him unpopular with urban voters and partly contributed to his downfall.

Table 2. Japan: Policy Menu for Enhancing Industrial Capability in East Asia

Policy area	Measures
1. Capacity building (for specific firms)	- *Shindanshi* (enterprise evaluation) system - TA for management and technology - Mobilization of current or retired Japanese engineers - Intensive support for limited sectors (e.g., die & mold) - Awards, PR and intense support for excellent local companies
2. Human resource (general or institutional)	- Management/technical centers and programs - Mobilization of current or retired Japanese engineers - Alliance between FDI firms and local universities/centers - *Monozukuri* school (to be upgraded to university) - Meister certification system
3. Finance	- Credit guarantee - SME finance institutions - Two-step loans
4. Incentives	- Exemption or reduction of taxes and custom duties - Grants or loans for specified actions
5. FDI-local linkage	- Database and matching service - FDI-vendor linkage program - Parts Industry Association and Business Study Meetings - Trade fairs and reverse trade fairs - Improving logistics
6. FDI marketing	- Creation of strategic industrial clusters - Industrial parks and rental factories - Efficient logistics and infrastructure - FDI marketing targeted to specific sectors or companies
7. Policy framework	- Supporting industry master plan - SME law - SME ministry - Business associations and industry-specific institutes - Quality standards and testing centers

Note: this table summarizes Japan's assistance measures to East Asian countries contained in the New Aid Plan for ASEAN (late 1980s to early 1990s), the Mizutani Report for Thailand (1999), the Urata Report for Indonesia (2000), and ongoing discussion for strengthening Vietnam's supporting industries (Ohno, 2008b).

very many[20]. Five-year plans, industrial master plans, and vision papers are produced in abundance but few are really operational.

If the vision and strategies are reasonably good, there is no need to start from debating a national vision. Existing strategies may be revised over time but should be accepted in principle. However, even in a country with a well-formulated vision and strategies, implementation is usually weak and con-

[20] Ethiopia, which has a core vision of Agricultural Development Led Industrialization (ADLI, formulated in 1991) backed by the Ethiopian Industrial Development Strategy (2003), the Rural Development Policies, Strategies and Instruments (2002), PASDEP (five-year plans), and other strategic and sectoral documents, MTEF and annual plans, may be an exception.

ditions that facilitate implementation are missing—including human and financial resources, institutional mechanisms, private-public partnership, and coordination among programs. Thus, enhancing the ability to design and execute concrete action plans becomes crucial.

In East Asia, there is a standard set of policy measures for industrial promotion. Table 2 shows such measures contained in recent support programs of the Japanese government. In light of the fact that both FDI and local firms must play important roles in industrialization, some of these measures assist local firms, others are aimed at inviting a sufficient volume of targeted FDI firms, and still others provide links between the two groups of firms and a business-friendly policy framework for all.

In Africa, JICA has recently provided technical cooperation to assist the formulation of a master plan for quality and productivity improvement in Tunisia, where concrete measures were introduced at individual pilot firms in the electronic and electrical industry and the food processing industry (Kikuchi, 2008).

Policy dialogue with a view to future actions

If the country does not yet have a vision and strategies that are good enough, Japan usually prefers to start with a bilateral policy dialogue which leads either immediately or eventually to concrete actions. This may take government-to-government form or private-public partnership depending on the agenda. Each project usually lasts for two to three years, but policy dialogue often continues in multiple phases or overlapping projects with slightly different objectives.

In a country with little knowledge of East Asian policy formulation or a transition country unfamiliar with the market mechanism or global competition, a general research project that assesses the country's current status and introduces relevant international experiences may be initiated (the Okita Project for Argentina, the Ishikawa Project for Vietnam, the Hara Project for Laos, and the Shiraishi and Asanuma Project for Indonesia, and the Odaka Project for Myanmar; the name of the project refers to the professor(s) who led the research group). If the target area for policy action is already identified, the dialogue may take an appropriate style for that purpose such as the business forum

Table 3. Japan-Vietnam Bilateral Policy Dialogue for Industrial Competitiveness

Program	Period	Principal actor(s)	Content
Ishikawa Project (Study on the Economic Development Policy in the Transition toward a Market-oriented Economy in Vietnam)	1995-2001 (3.5 phases)	MPI-JICA	Joint research on macroeconomics, finance, agriculture, industry, integration, currency crisis, SOE reform, PSD; based on the principle of country ownership and mutual respect, with emphasis on long-term real sector issues.
New Miyazawa Initiative (Economic Reform Support Loan)	1999-2000	JBIC	Quick disbursing loan (20 billion yen) with conditionalities in PSD, SOE auditing, and tariffication of non-tariff barriers. Action plans in PSD were monitored and evaluated.
Vietnam-Japan Joint Initiative to Improve Business Environment with a View to Strengthen Vietnam's Competitiveness	2003-2009 (3 phases, ongoing)	MPI-4J	Bilateral agreement and implementation of concrete action plans which were monitored and reported to high-level, with focus on removal of FDI/business impediments, strengthening of local capabilities, and drafting of missing industrial strategies.
Joint Work between Vietnam and Japan to Strengthen the Competitiveness of Vietnamese Industries	2004	MPI-4J	Analyses by Vietnamese and Japanese experts as inputs to the drafting of the Five-year Plan 2006-2010, with attention on industrial policy formulation and competitiveness issues of individual industries (automobile, electronics, supporting industries, etc.)
Joint drafting of Motorcycle Master Plan under MOI and VJJI2	2006-2007	Joint Working Group (MOI, VDF, producers, experts)	Drafting of master plan following new content and method, with active participation of large motorcycle assemblers and interaction with other stakeholders; VDF serving as facilitator. Master plan approved in August 2007.
Vietnam-Japan Monozukuri Partnership for Supporting Industries	(Under preparation)	(To be decided)	Build strategic partnership for monozukuri (high-skill manufacturing) with Japan transferring its know-how to Vietnam. Action plans for supporting industry promotion to be implemented with joint effort.

for improving investment climate and the producer-government dialogue for drafting an automobile master plan. Table 3 lists past and current action-oriented policy dialogues between Japan and Vietnam. Similar bilateral dialogues are also conducted in other ASEAN countries.

The Ishikawa Project, formally the "Study on the Economic Development Policy in the Transition toward a Market-Oriented Economy in the Socialist Republic of Vietnam," was the first large-scale bilateral research project for

Vietnam after diplomatic relations with the West were restored in the early 1990s. The project was officially agreed by the two governments when the Communist Party General Secretary Do Muoi visited Tokyo in April 1995. Shigeru Ishikawa, professor emeritus of Hitotsubashi University, was appointed by the General Secretary as the leader on the Japanese side. The Ishikawa Project was implemented jointly by Vietnamese and Japanese teams over six years in 3.5 phases as part of JICA technical cooperation. The research examined issues related to the formulation and implementation of Vietnam's long-term development plans and made policy proposals to address them.

An increasingly popular format is the one adopted by the Vietnam-Japan Joint Initiative. Several issue areas such as law and regulations, industrial policy, labor issues, etc. are identified and a working team is set up for each. Representatives from relevant ministries are appointed on the Vietnamese side and general directors of Japanese firms operating in Vietnam and industrial experts are appointed on the Japanese side. In each working team, concrete targets are proposed, agreed, implemented, monitored, and followed up if not properly executed. Each phase lasts for two years and the Initiative is currently in its third phase. In each phase, a total of about 45 problems are solved with a high completion rate of 70-80%[21].

In Africa, JICA is conducting the "Triangle of Hope" project in Zambia, mobilizing a Malaysian consultant to provide policy advice to improve the investment climate as an example of South-South cooperation. The working format is somewhat similar to the Vietnam-Japan Joint Initiative in that concrete tasks to be completed are reported in matrix form with vivid colors showing the degree of progress made for each task. Based on this work, FDI marketing is underway, targeting Indian and Malaysian firms who might be interested in coming to Zambia. Also, a master plan and a feasibility study for the establishment of Multi-Facility Economic Zones (MFEZ), as a receiver of FDI firms, are being conducted.

[21] In the first phase, 44 items were chosen for improvement and 85% of them were successfully implemented. In the second phase, 46 items were chosen and 74% were achieved. In the ongoing third phase, 37 items have been raised.

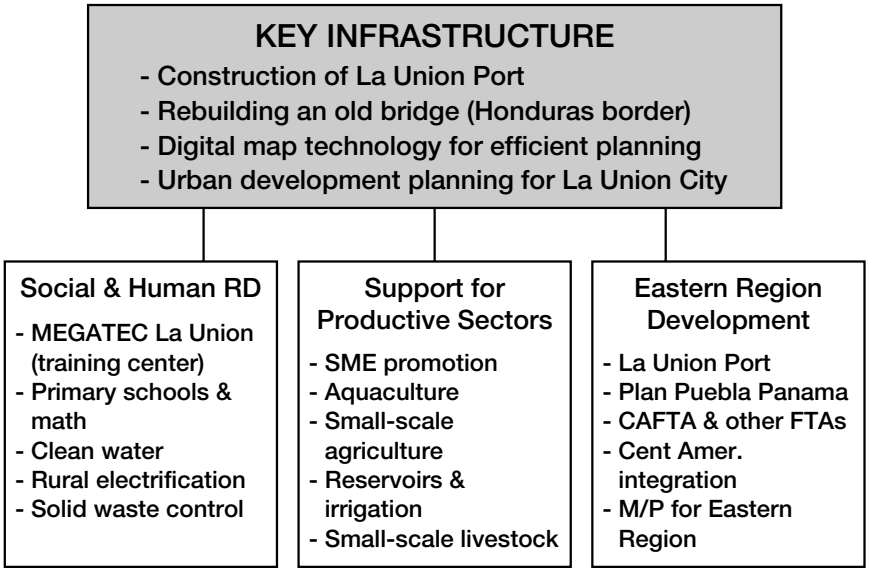
Regional development around a core infrastructure

A large part of Japanese ODA regularly goes to building large-scale infrastructure, especially in the transport and power sectors. When such infrastructure is built, it is customary that supporting programs that take advantage of that infrastructure or complement it are also provided for effectiveness and synergy. This includes the formulation of master plans for regional or industrial development, operation and maintenance programs, human resource development, safety and environment programs, local SME development, the "one village one product" program, and the installation of one-stop border posts.

In East Asia, there are a large number of core infrastructure projects accompanied by satellite programs. Examples include the Eastern Seaboard Development Program in Thailand that created huge industrial zones around a port infrastructure; the development of the Hanoi-Haiphong transport corridor along National Highway No.5 in conjunction with Haiphong Port improvement, FDI attraction, and traffic safety programs in Vietnam; and the development of Sihanoukville Port and power and telecommunication networks combined with the construction of a special economic zone and FDI marketing in Cambodia. At even a larger scale, the development of the Greater Mekong Region encompassing six countries (China, Thailand, Vietnam, Laos, Cambodia, and Myanmar) is promoted under the leadership of Japan and the Asian Development Bank where the East-West and the North-South corridors serve as the core infrastructure.

In El Salvador, Japan supports the development of La Union Port situated in the Eastern Region of this small country. By international standards, the quality of El Salvador's transport infrastructure—seaports, airports and the road network—is above average and even considered the best in Central America. For this reason, infrastructure was not identified as the "binding constraint" in the growth diagnostics conducted for this country by Hausmann and Rodrik (2005). However, the government of El Salvador hoped to upgrade the existing port to augment the country's position as the regional transport hub. This could also contribute to the development of the Eastern Region which was the poorest region of this country. The Japanese government assisted the drafting of the Master Plan for the Development of the Eastern Region, provided an ODA loan to expand La Union Port as the core infrastructure, and aligned other aid pro-

Figure 4. El Salvador: The Japanese Aid Package around La Union Port



grams to it. For example, an old bridge on the Honduras border was rebuilt, digital map technology was introduced, and the development planning of La Union City was conducted. In addition, Japan provided training for port workers and implemented social sector programs such as education, clean water and rural electrification as well as productive sector programs for SME promotion, aquaculture, agriculture, irrigation and livestock (Figure 4). Although this assistance took place outside East Asia, it had all the features of East Asian policy formulation such as real-sector pragmatism and boosting the country's strength rather than working generally on its weaknesses.

In Africa, Japan is interested in a multi-faceted project along the Nacala corridor in Mozambique which will be coupled with industrial development in the Nacala port area—with more programs to follow. The Nacala corridor will become an international corridor when it is extended into Malawi and Zambia, with a possibility of even greater impact on the regional development across national borders.

Providing conditions for concrete foreign investment

Finally, Japanese ODA may be mobilized in conjunction with the

planned investment by a large-scale foreign (especially Japanese) firm. In a low-income country, FDI with a large sunk cost (requiring large capital equipment or geological exploration, for example) will not occur unless sufficient infrastructure and friendly policy environment are in place. Moreover, Japanese manufacturing enterprises are by far the most cautious investors in the world and Africa is a destination largely unknown to them. To reduce the cost and uncertainty associated with the proposed investment, the Japanese government may build the necessary infrastructure and engage in a policy dialogue with the host government to improve the business environment surrounding the project. The private decision to invest and the official decision to build infrastructure must be made in tandem and in close consultation to overcome the coordination problem. Without such cooperation, the investment will not happen and the ODA project will be underused. In this way, ODA can catalyze private investment in a new region.

For a long time, the Japanese government has been cautious about using public money to assist only one firm (or a very few firms). However, such stigma is gradually melting away and active support for Japanese firms with concrete investment projects abroad is becoming more acceptable—and even desirable in the name of public-private partnership. Although there is no theoretical reason to exclude non-Japanese firms to participate in this strategy, the core investment is most likely by a Japanese firm for political reasons. In Japan, there are some constituencies that insist that ODA should be used mainly or even exclusively for pursuing (narrow) national interest.

In reality, Japan has often built large-scale infrastructure in developing countries with the implicit understanding that FDI firms will surely come after its completion (or even before). The two examples mentioned above, the Eastern Seaboard Development Program in Thailand and the Hanoi-Haiphong transport corridor along National Highway No.5 in Northern Vietnam, attracted a large number of Japanese manufacturers in the automobile industry in the former and the motorcycle and printer industries in the latter.

In Sub-Saharan Africa, initial large-scale investors from Japan may be in the extractive or energy-intensive sector rather than manufacturing. For this reason, the interest of the host country and the interest of Japan may have to be properly adjusted and aligned. Although ODA may be used to build trans-

portation or power capacity to execute a particular investment for the benefit of a Japanese private firm, the core infrastructure should be accompanied by a range of other programs such as regional development, SME promotion, human resource development in the same way as discussed in the previous subsection. Corporate social responsibility of the investing firm may also be evoked to generate the spillover effect to the host society.

References

Fujimoto, T. (2004). *Nihon no Monozukuri Tetsugaku* [Japan's Monozukuri Philosophy]. Tokyo: Nihon Keizai Shimbunsha.

———— (2006). Architecture-based Comparative Advantage in Japan and Asia. In K. Ohno and T. Fujimoto (Eds.), *Industrialization of Developing Countries: Analyses by Japanese Economists* (pp. 1-10). Tokyo: National Graduate Institute for Policy Studies.

Fujimoto, T. and Shintaku, J. (2005). *Architecture-based Analysis of Chinese Manufacturing Industries*. Tokyo: Toyo Keizai Shimposha.

Grindle, M. (2004). Good Enough Governance: Poverty Reduction and Reform in Developing Countries. *International Journal of Policy, Administration and Institutions*, vol.17, no.4, pp.525-548.

GRIPS Development Forum. (2002). *Japan's Development Cooperation in Vietnam: Supporting Broad-based Growth with Poverty Reduction* (English, Japanese, and Vietnamese). Tokyo: National Graduate Institute for Policy Studies.

———————————— (Ed.). (2008a). *Diversity and Complementarity in Development Aid: East Asian Lessons for African Growth*. Tokyo: National Graduate Institute for Policy Studies.

———————————— (2008b). *Proposal for a New African Growth Support Initiative*. Policy Note No. 5. GRIPS Development Forum. Tokyo: National Graduate Institute for Policy Studies.

Hausmann, R. and Rodrik, D. (2005). Self-Discovery in a Development Strategy for El Salvador. Economia, vol.6, no.1, pp.43-101, Brookings Institution Press, Fall.

Hausmann, R., Rodrik, D., and Velasco, A. (2005). Growth Diagnostics. Mimeo. MA: Harvard University, Kennedy School of Government.

Khan, M. H. (2008). Governance and Development: The Perspective from Growth-enhancing Governance. In GRIPS Development Forum (Ed.), *Diversity and Complementarity in Development Aid: East Asian Lessons for African Growth* (pp. 107-152). Tokyo: National Graduate Institute for Policy Studies.

Kikuchi, T. (2008). The Quality and Productivity Improvement Project in Tunisia: A Comparison of Japanese and EU Approaches. In GRIPS Development Forum (Ed.), *Diversity and Complementarity in Development Aid: East Asian Lessons for African Growth* (pp. 183-204). Tokyo: National Graduate Institute for Policy Studies.

Kim, K. and Leipziger, D. M. (1993). The Lessons of East Asia: Korea, A Case of Government-Led Development. World Bank.

Ministry of Agriculture and Commerce. (1901). *The Survey of Industrial Workers* (Japanese).

Motorbike Joint Working Group. (2007). *For Sound Development of the Motorbike Industry in Vietnam.* Hanoi: Publishing House of Social Labor (English and Vietnamese).

Thuy, N. T. X. (2007). Supporting Industries: A Review of Concepts and Development. In K. Ohno (Ed.), *Building Supporting Industries in Vietnam*, vol.1 (pp. 27-50). Hanoi: Vietnam Development Forum.

Ohno, I. (Ed.). (2005). *True Ownership and Policy Autonomy: Managing Donors and Owning Policies*. GRIPS Development Forum. Tokyo: National Graduate Institute for Policy Studies.

Ohno, I. and Shimamura, M. (2007). *Managing the Development Process and Aid: East Asian Experiences in Building Central Economic Agencies*. GRIPS Development Forum. Tokyo: National Graduate Institute for Policy Studies.

Ohno, K. (Ed.). (2006a). *Industrial Policy Formulation in Thailand, Malaysia and Japan: Lessons for Vietnamese Policy Makers*. Hanoi: Vietnam Development Forum (English and Vietnamese).

———— (2006b). *The Economic Development of Japan: The Path Traveled by Japan as a Developing Country*. GRIPS Development Forum. Tokyo: National Graduate Institute for Policy Studies.

———— (Ed.). (2007). *Building Supporting Industries in Vietnam*, vol.1. Hanoi: Vietnam Development Forum (English and Vietnamese).

———— (2008a). The East Asian Growth Regime and Political Development. In GRIPS Development Forum, *Diversity and Complementarity in Development Aid: East*

Asian Lessons for African Growth (pp. 37-61). Tokyo: National Graduate Institute for Policy Studies.

———— (2008b). Vietnam-Japan Monozukuri Partnership for Supporting Industries: For Leveling Up Vietnam's Competitiveness in the Age of Deepening Integration. Hanoi: Vietnam Development Forum.

Ohno, K. and Ohno, I. (Eds.). (1998). *Japanese Views on Economic Development: Diverse Paths to the Market*. London and New York: Routledge.

Ohno, K. and Fujimoto, T. (Eds.). (2006). *Industrialization of Developing Countries: Analyses by Japanese Economists*. Tokyo: National Graduate Institute for Policy Studies.

Secretariat of the Stocktaking Work. (2008). *Report on the Stocktaking Work on the Economic Development in Africa and the Asian Growth Experience*. A joint work by the Japan International Cooperation Agency and the Japan Bank for International Cooperation.

Shimomura, Y. (2005). The Role of Governance in Development Revisited: A Proposal of an Alternative View, FASID Discussion Paper on Development Assistance, no.5.

Tsai, M. H. (2006). The Myth of Monozukuri: Manufactured Manufacturing Ideology. ITEC Working Paper Series 06-04, Doshisha University.

Vietnam Development Forum (VDF). (2007). Supporting Industries in Vietnam from the Perspective of Japanese Manufacturing Firms. In Ohno, K. (Ed.), *Building Supporting Industries in Vietnam*, vol.1 (pp.1-26). Hanoi: VDF.

Watanabe, T. (1995). *Shinseiki Asia no Koso* [Designing Asia for the New Century]. Tokyo: Chikuma Shinsho. Partly translated and published as chapter 11 in K. Ohno and I. Ohno (Eds.), (1998).

World Bank. (1959). *A Public Development Program for Thailand, Report of a Mission organized by the IBRD at the request of the Government of Thailand*. The Johns Hopkins Press.

————— (1993). *The East Asian Miracle: Economic Growth and Public Policy*. New York: Oxford University Press.

————— (1997). *World Development Report 1997: The State in a Changing World*. New York: Oxford University Press.

Yanagihara, T. (1992). Development and Dynamic Efficiency: 'Framework Approach' versus 'Ingredients Approach.' Translated and published as chapter 4 in K. Ohno and I. Ohno. (Eds.), (1998).

Chapter 3

Avoiding the Middle Income Trap

Renovating Industrial Policy Formulation in Vietnam

Vietnam's growth in the last one-and-half decades has been driven by the liberalization effect and large inflows of external purchasing power. Now that the processes of systemic transition and global integration have deepened, Vietnam needs to create internal value to continue to grow and avoid the "middle income trap." The country has reached the point where growth towards higher income cannot be secured unless policy making is renovated significantly to activate the country's full potential. The vision of *Industrialization and Modernization* to be achieved by 2020 must be backed by realistic industrial strategies and concrete action plans, which are currently lacking. Stakeholder involvement in policy design, inter-ministerial coordination, clear directives from the top, and incentive structure for government officials must be improved. This in turn calls for radical changes in policy administration. A new style of leadership, a technocrat team directly serving the top leader, and strategic alliance with international partners are proposed as key entry points for the renovation of Vietnam's industrial policy formulation.

1. Entering a new era

The Vietnamese economy has grown rapidly with the average growth rate of 7.5% in 1991-2007. In 1990, Vietnam was among the world's poorest countries with GDP per capita of $98 (ADB data). By 2007, with the GDP per capita of $835, Vietnam is swiftly approaching the status of a lower middle income country by the World Bank classification method[22]. The growth has

[22] The World Bank revises country classification annually. Based on the World Bank's 2007 GNI per capita data, the current classification is as follows: low income countries ($935 or less); lower middle income countries ($936-$3,705), upper middle income countries ($3,706-$11,455); and high income countries ($11,456 or more). Separately, the World Bank defines IDA-only countries to be those with per capita income of less than $1,095 (using 2007 data) and lacking the financial ability to borrow from IBRD. IDA loans are deeply concessional but IBRD loans are non-concessional. Due to inflation and overvaluation, Vietnam is likely to become a "middle income country" sooner than expected, in 2008.

been broad-based and touches virtually everyone's life and generates profound social changes in the entire country. This is quite different from the experiences in Latin America or Sub-Saharan Africa where growth occurs in limited sectors and benefits only few people while poor farmers see little improvement in their lives. However, Vietnam's achievements up to now have been driven mainly by one-time liberalization effects and external forces associated with global integration rather than internal strengths. Despite impressive growth records and reform efforts in the last one-and-half decades, local firms remain generally uncompetitive, and policies and institutions remain very weak by East Asian standards.

From the mid 1980s to the mid 1990s, growth was stimulated by the incentive and re-allocation effects of internal economic liberalization (*doi moi*). Subsequently, from the mid 1990s to present, growth has been supported by new trade opportunities as well as large inflows of foreign funds. Industrial activities—especially manufactured exports-continue to be dominated by foreign firms, and value creation by local firms and workers has been limited. Now that Vietnam is nearing the final stages of systemic transition and global integration, productivity breakthrough is needed to climb further. Future growth must be fueled by skill and technology rather than a mere injection of purchasing power.

Growth statistics presented in Table 1 are consistent with this interpretation. Until the mid 1990s, the incremental capital-output ratio (ICOR) was low and the contribution of total factor productivity (TFP) to growth was high, which indicates that growth was achieved through improved efficiency-albeit from a very low level of planning years-without much investment[23]. In the latter period, ICOR rose, TFP's contribution to growth declined, and capital's contribution increased significantly. That is an indication of investment-driven growth with low efficiency in capital use.

The "Washington Consensus" policy package prescribed by the World Bank and the IMF such as liberalization, privatization, legal reforms,

[23] ICOR is computed as investment ratio (I/Y) divided by real growth (ΔY/Y). The higher the ICOR, the more capital formation is required for growth (i.e., investment is inefficient). TFP is a broad definition of productivity calculated as residual growth after the increases in factor inputs such as labor and capital are accounted for.

Table 1. Vietnam: Summary of Growth Performance

	Populat-ion (million)	GDP (USD billion)	GDP per capita (USD)	Economic size relative to ASEAN4	Real GDP growth (%)	Growth accounting (%)			ICOR
						Capital	Labor	TFP	
1990	66.0	6.5	98	2.2%	5.1	6.6	43.9	49.5	3.31
1991	67.2	7.6	114	2.4%	5.8	8.4	16.9	74.7	2.92
1992	68.5	9.9	144	2.7%	8.7	13.0	14.5	72.5	2.23
1993	69.6	13.2	189	3.3%	8.1	41.5	21.6	36.9	3.25
1994	70.8	16.3	230	3.5%	8.8	39.0	18.5	42.5	3.14
1995	72.0	20.7	288	3.9%	9.5	39.9	16.2	43.9	3.12
1996	73.2	24.7	337	4.2%	9.3	36.4	1.5	62.1	3.34
1997	74.3	26.8	361	4.9%	8.2	54.9	16.0	29.1	3.80
1998	75.5	27.2	361	7.9%	5.8	64.1	18.6	17.3	5.59
1999	76.6	28.7	374	6.9%	4.8	62.2	17.4	20.4	6.59
2000	77.6	31.2	402	6.8%	6.8	47.4	13.8	38.8	4.80
2001	78.7	32.7	415	7.4%	6.9	59.9	20.6	19.4	4.89
2002	79.7	35.1	440	7.0%	7.1	44.2	27.7	28.2	5.01
2003	80.9	39.6	489	7.0%	7.3	72.1	43.7	-15.8	5.09
2004	82.0	45.4	554	7.2%	7.8	61.5	21.9	16.6	4.91
2005	83.1	52.9	637	7.6%	8.4	59.8	16.4	23.8	4.68
2006	84.2	60.9	723	7.2%	8.2	57.1	14.3	28.6	4.88
2007	85.2	71.1	835	...	8.4	59.5	14.8	25.7	4.90

Sources: General Statistical Office (GSO); Asian Development Bank *Key Indicators* (2008); For growth accounting, Tran Tho Dat, Nguyen Quang Thang and Chu Quang Khoi, "Sources of Vietnam's Economic Growth 1986-2004," mimeo, National Economics University (2005) for 1990-2004 and unofficial calculation by GSO's SNA Department for 2005-2007. Continuity between the two is not guaranteed.

macroeconomic stability, and so on, may achieve middle income if they are properly executed, but that is not enough for continued growth to higher income. Vietnam's growth pattern basically follows the past experiences of East Asian neighbors whose features include openness and regional integration as an initiator of growth; deepening intra-regional trade and FDI; high savings and investment; dynamic transformation of industrial structure; urbanization and rural-urban migration; and growth-generated problems such as income and wealth gaps, congestion, pollution, financial bubbles, and so on. At the same time, a number of new elements for Vietnam, such as faster integration than ASEAN4, must also be acknowledged.

Within this dynamic East Asian context, Vietnam must successfully conduct three crucial policies to sustain growth, namely: (i) generation of internal value; (ii) coping with new social problems caused by rapid growth; and

(iii) effective macroeconomic management under financial integration. The first promotes drivers of growth while the second and the third prepare political stability and social support without which industrialization and modernization cannot be sustained. By 2008, the risks of social problems such as traffic congestion and environmental destruction as well as macroeconomic imbalance such as asset bubbles and price instability have become evident in Vietnam. Management of industrialization in this broad sense must be installed to face new challenges, or the entire process of industrialization may stall (Murakami 1992, 1994). While all three tasks are important, the present analysis focuses on the first issue of internal value creation while leaving the discussion of the remaining two to other occasions.

2. The middle income trap

A low income country which has gone through a war, political turmoil, socialist planning, or severe economic mismanagement is usually characterized by a fragile economic structure. It relies heavily on extractive resources, monoculture export, subsistence agriculture, or foreign aid. Internal value created by traditional industries such as mining and agriculture is small, but the absence of vibrant manufacturing activities makes them loom large in production and trade shares. This is stage zero on a long road to industrialization.

From the East Asian perspective, economic take-off starts with the arrival of a sufficient mass of manufacturing FDI firms that perform simple assembly or processing of light industry products for export such as garment, footwear, and foodstuff. Electronic devices and components may also be produced this way. In this early stage (stage 1), design, technology, production and marketing are all directed by foreigners, key materials and parts are imported, and the country contributes only unskilled labor and industrial land. While this generates jobs and income for the poor, internal value remains small and value created by foreigners dominates. Vietnam's industrialization up to now is basically characterized by this situation.

In the second stage, as FDI accumulates and production expands, the domestic supply of parts and components begins to increase. This is realized partly by the inflow of FDI suppliers and partly by the emergence of local sup-

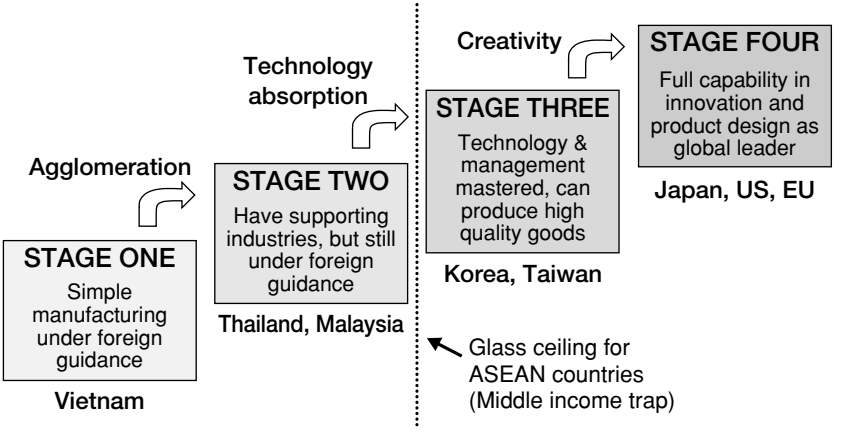
pliers. As this occurs, assembly firms become more competitive and a virtuous circle between assemblers and suppliers sets in. The industry grows quantitatively through the internal supply of physical inputs. Internal value creation rises moderately, but production basically remains under foreign management and guidance. Obviously, local wage and income cannot rise very much if all important tasks continue to be performed by foreign hands. Thailand and Malaysia have already reached this stage.

The next challenge is to internalize skill and knowledge by accumulating industrial human capital. Locals must replace foreigners in all areas of production including management, technology, design, factory operation, logistics, quality control, and marketing. As foreign dependence is reduced, internal value rises dramatically. The country emerges as a dynamic exporter of high-quality manufactured products challenging more advanced competitors and reshaping the global industrial landscape. Korea and Taiwan are such producers.

In the final stage, the country acquires the capability to create new products and lead global market trends. Japan, the United States, and some members of the European Union are such industrial innovators.

However, progress is not guaranteed for all. A large number of countries that receive too little manufacturing FDI stay at stage zero[24]. Even after reaching the first stage, climbing up the ladders becomes increasingly difficult.

Figure 1. Stages of Catching-up Industrialization



Another group of countries are stuck in the second stage because they fail to upgrade human capital. It is noteworthy that none of the ASEAN countries, including Thailand and Malaysia, has succeeded in breaking through the invisible "glass ceiling" in manufacturing between the second and the third stage[25]. A majority of Latin American countries remain middle income even though they had achieved relatively high income as early as in the 19th century. This phenomenon can be collectively called the *middle income trap*.

East Asian growth performance has differed significantly in depth and speed even among countries that are considered "successful." There should be a clear distinction among Taiwan and South Korea (high achievers), Malaysia and Thailand (middle achievers), and Indonesia and the Philippines (low achievers). The first group is far ahead of the second or the third in terms of income and industrial capability.

Figure 2 shows per capita real income of selected East Asian economies relative to the United States level. Until the mid 1960s, these economies (except Japan) showed no clear sign of catching up. However, Taiwan and Korea, which started from equally low levels, took off in the late 1960s and have improved income dramatically. In comparison, the catching up of Malaysia and Thailand looks less impressive, and Indonesia and the Philippines failed to improve their positions vis-à-vis the United States. In addition, there are economies which are not even on our radar screen-those that continue to struggle at the bottom of income ladders such as Cambodia, Laos, Myanmar, East Timor, Myanmar, and North Korea. Divergent performance comes from different speed of catching up rather than delayed starts (except Vietnam where wars and socialist planning prevented economic take-off until the early 1990s). ASEAN4 are taking much longer to reach the industrial capability that Taiwan and Korea had achieved in the 1980s and 90s.

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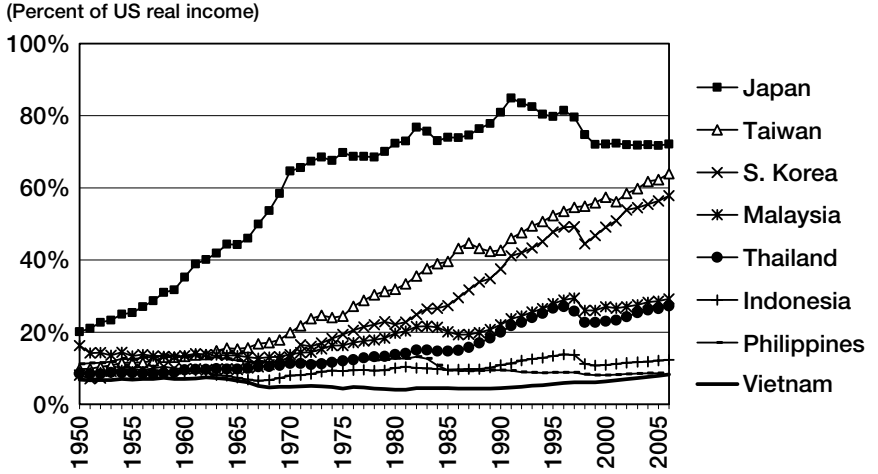
[24] Low-income countries may receive FDI in mining, telecom, power, tourism, or property development. While such projects based on locational advantages are lucrative for investors and can generate jobs for the poor and provide basic infrastructure for the nation, these alone cannot put the country on a dynamic path of structural transformation as manufacturing does.

[25] Within ASEAN, the two small nations of Singapore and Brunei have achieved high income through non-manufacturing industries (high-value services and oil and gas, respectively) and are therefore beyond the scope of our analysis. Figure 1 illustrates manufacturing, especially assembly-type manufacturing such as electronics, automobiles, motorcycles, industrial machinery and precision equipment which has played a key role in East Asia's growth dynamism.

Figure 2. Different Speed of Catching Up



Sources: Angus Maddison, *The World Economy: A Millennium Perspective*, OECD Development Centre, 2001; the Central Bank of the Republic of China; and IMF *International Financial Statistics* (for updating 1998-2006).

Note: Per capita real income relative to the United States as measured by the 1990 international Geary-Khamis dollars.

Starting from a very low level, Vietnam is currently in the first stage of industrialization trying to reach the second in Figure 1. Large FDI inflows, a necessary condition for this transition, are already happening. Neighboring ASEAN countries even fret about losing FDI to Vietnam. While Vietnam's short-term goal is the attainment of physical expansion of the industrial base, it should also simultaneously prepare to avoid the middle income trap in the next stage. For this, front-loaded and well-targeted policy action for upgrading industrial human resources is the key.

In order to overcome the middle income trap, a developing country needs to acquire capability to embrace an appropriate industrial vision and implement effective measures toward it. Required action is more aggressive than suggested by the Washington Consensus. Deregulation, privatization, integration, and providing a sound business environment are good enough up to Stage 2 in Figure 1, but insufficient to improve skill and technology and break the glass ceiling towards Stages 3 and 4. This is true even in the 21st century

when globalization has deepened and WTO rules and FTA proliferation have significantly narrowed the policy space of latecomer countries.

Even under the restricted policy space currently available, however, it is possible to design and execute meaningful strategies to accelerate industrialization. For example, the promotion of supporting industries and industrial human resources does not violate WTO rules at all. Measures to enhance infrastructure, logistics, industrial clusters, technology transfer, education and training, FDI marketing, SME finance, factory evaluators, industrial parks, and so on, are also permissible under the current international regime.

At the same time, it should also be recognized that the catching up of latecomers is becoming increasingly difficult for the following three reasons. First, because of forced early integration, they are not given temporary protection periods which were available to their predecessors. Second, today's latecomers generally lack a strong private sector comparable to Japanese industrial groups, Korean chaebols, or Chinese and Indian merchant networks. Third, their governments are often without developmental orientation or sufficient policy capability. The last two can be regarded as weaknesses associated with the losers' bias. If they initially had a strong private sector and a good government, they would have joined the flying geese much sooner and would not have stayed poor until now. How to overcome these latecomer problems in the early 21st century will be the topic of the remaining sections.

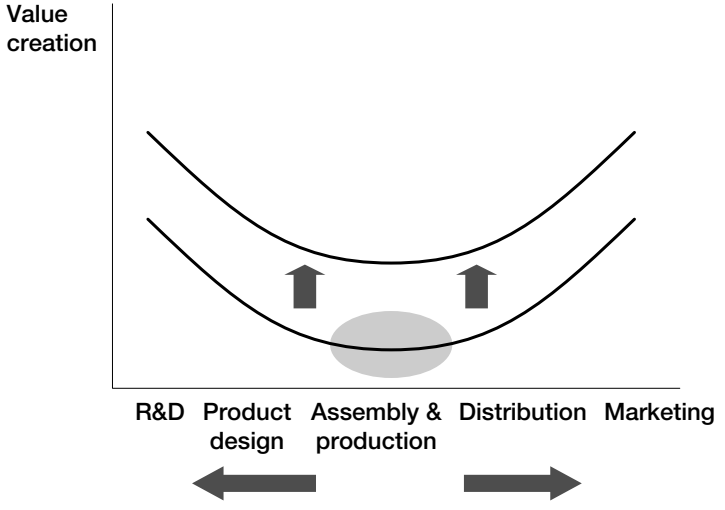
The point that developing countries must acquire skill and technology, rather than just offering factory space and cheap labor, can be stressed in various ways. Four such arguments are presented below to make this point from different angles.

First, at the general level, it can be argued that the only way for a country to remain competitive is to improve labor productivity faster than wage increase. Competitiveness depends on the difference between the two, not on the absolute wage level. Wage increase should be a boon to workers, and there is no reason to fear it as long as productivity is improving in tandem. In the context of Vietnam, this point has consistently been made by Professor Tran Van Tho of Waseda University since the mid 1990s. Under wage pressure, Malaysia and China have already stopped inviting labor-intensive FDI projects and turned to more "high-tech" investors. Vietnam is also experiencing rising

wages as a result of large concentration of labor-intensive FDI in some areas such as northern Dong Nai as well as an inevitable response to the 2007-08 inflation. If wages begin to rise rapidly now, Vietnam may not have enough lead-time to improve productivity.

Second, the concept of *manufacturing plus plus*, which governed Malaysia's Second Industrial Master Plan (IMP2) 1996-2005, is instructive because it concisely states what middle income countries should do to climb up to Stage 3 Manufacturing plus plus expresses the two dimensional desire for domestic industries to (i) expand along the value chain to encompass higher value-added activities; and (ii) uplift the whole value chain by raising productivity (Figure 3). Since Malaysia started industrialization as a conventional assembler, which was the lowest point in the value chain, it wanted to master R&D, design, product development, distribution, marketing, and so on horizontally, and improve the skills of all these activities vertically. In principle, this is what Vietnam—and all other latecomers—should do. IMP2 selected eight industrial clusters to be thus strengthened: electronics and electricals, textiles and apparel, chemicals, resource-based industries, food processing, transporta-

Figure 3. The Manufacturing ++ Strategy of Malaysia



Source: Economic Planning Unit of the Prime Minister's Department, Malaysia (re-drafted by author).

tion equipment, materials, and machinery. However, Malaysia did not succeed greatly in achieving this goal during the implementation period of IMP2 (Ohno 2006).

Third, the Japanese concept of *monozukuri*, which literally means "making things," may give some hints on the direction to go. *Monozukuri* is manufacturing for the primary purpose of achieving customer satisfaction through high quality in the spirit of a proud and dedicated artisan, rather than just making profits. To achieve this, long-term relationship and internal accumulation of skill and knowledge are institutionalized within each company as well as among partner companies (between assemblers and suppliers, for example). Practical means of productivity improvement such as 5S, QCD[26], *kaizen*, just-in-time method, and quality control circles have been established and available to companies in the developing world through experienced instructors and manuals. In the policy realm, the concept of *monozukuri* is often highlighted by the Japanese government for the purpose of upgrading domestic manufacturing capability and spreading the Japanese business model abroad (Tsai, 2006).

Fourth, the theory of business architecture advanced by Takahiro Fujimoto and his research team at the University of Tokyo elaborates how firms in developing countries can form strategic alliance with Japanese manufacturing firms (Fujimoto, 2004, 2006; Fujimoto and Shintaku, 2005). According to this theory, business models can be divided into two broad categories: *modular* and *integral*. Modular manufacturing is characterized by easy assembly of globally common parts and components (for example, a desktop computer) while integral manufacturing features unique design of parts and components for each model based on long-term collaboration among assemblers and suppliers (for example, a passenger car). The former is suitable for realizing quick profits under flexible combination of outsourced business components while the latter permits a continuous pursuit of high quality over time. Fujimoto argues that the

[26] The 5S is the most elementary yet important way to improve production efficiency by keeping the factory tidy and well organized. Its elements are *seiri, seiton, seiso, seiketsu,* and *shitsuke,* which roughly mean remove unnecessary things, arrange tools and parts for easy view, keep the work place clean, maintain personal hygiene, and behave with discipline. Meanwhile, QCD means Quality, Cost and Delivery (zero defects, cost reduction, and on-time delivery without failure). Japanese manufacturing firms recognize them as the general source of competitiveness as well as the criteria for selecting business partners and subcontractors.

United States and China are appropriate production partners because they both practice modular manufacturing. Meanwhile, Japan is an integral producer without an effective international partner. For developing countries, integral manufacturing is harder to learn but eventually more rewarding as production technology is internalized rather than outsourced. While none of the ASEAN countries has acquired sufficient skill and technology for integral manufacturing, Fujimoto regards Thailand and Vietnam as likely candidates for Japan's future *monozukuri* partner provided that they level up their internal capability (Fujimoto and Ohno, 2006).

While the Malaysian experience or the Japanese business theory may not fit every country, they point clearly to the importance of internal value creation through skill and technology and the existence of concrete strategies and methods to attain it.

3. Policy vision and orientation

In high performing economies in East Asia, industrial policy has usually taken a goal-targeting form. The top government leader launches a long-term national vision which shows a general direction without specifying details. To realize this, appropriate government organizations are designated or newly created to draft feasible strategies and execute concrete action plans. Action plans may take the form of readable documents and matrices or may remain a process without such documentation. Strategies and action plans may be revised as circumstances change, but the long-term vision remains intact.

Japan in the 1960s had the goal of doubling income within the decade as well as competing effectively with Western multinationals as trade barriers were lifted. The Ministry of International Trade and Industry (MITI) together with the Japan Development Bank coordinated and assisted private efforts in improving productivity. In Malaysia, *Vision 2020*, an aspiration to become a "fully developed country" by 2020 set by former Prime Minister Dr. Mahathir in 1991, remains the overarching goal. The Economic Planning Unit (EPU) of the Department of the Prime Minister directs national effort to concretize this vision under a system of overlapping policy documents and cascading organizations[27]. Thailand under Prime Minister Thaksin Shinawatra (2001-2006) put up

industrial visions which were both ambitious and ambiguous, such as becoming the "Detroit of Asia," the "Hub of Tropical Fashion," or the "Kitchen of the World," while leaving the details to be worked out among relevant ministries, private businesses, and experts. For execution, industry-specific committees and industry-specific institutes were established, and the private sector additionally had direct access to the prime minister when necessary (Ohno, 2006).

This policy formulation method, which has been the hallmark of successful East Asian development policies, can be summarized as working backwards from broad goals to phased strategies and concrete action plans, while making necessary adjustments and accumulating experience and confidence along the way. This pragmatism, which we prefer to call *Dynamic Capacity Development*, allows the gradual building of policy capability as concrete problems and challenges are encountered over time.

At the beginning of industrialization, most East Asian countries had weak governments. In 1960, the Korean civil service was widely viewed as a corrupt and inept institution (World Bank, 1993). Similarly, in 1959, Thailand was given a low mark for the absence of investment planning and an acute shortage of qualified personnel (World Bank, 1959). But through trials and errors and learning by doing, their administrative capacity has greatly improved. This hands-on approach is in sharp contrast to the current global aid practice, such as the good governance drive[28], where all countries are urged to correct their weaknesses *ex ante* relative to some international norm without reference to any concrete national goal and before formulating a specific growth strategy.

From this perspective, Vietnam's industrial vision leaves much to be

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[27] Dr. Mahathir advanced nine general challenges without further elaboration: national unity, confidence, democracy, moral and ethics, tolerance, science and technology, caring culture, economic justice, and prosperity. To achieve this, Malaysia drafts multiple layers of policy documents such as industrial master plans (Ministry of International Trade and Industry), Outline Perspective Plans (EPU), and Malaysia Plans (i.e., five-year plans, EPU). Under MITI, special agencies such as MIDA (FDI policy), SMIDEC (SME promotion), MATRADE (trade), and MPC (productivity) have been established.

[28] The World Bank's Worldwide Governance Indicators (WGI) consist of six dimensions: voice and accountability, political stability, government effectiveness, regulatory quality, rule of law, and control of corruption. Each country is evaluated and ranked annually according to these criteria.

desired. Vietnam already has a long-term vision of attaining *industrialization and modernization* by 2020. The ambiguity of this vision does not worry us too much as with the case of Dr. Mahathir's 2020 vision or Mr. Thaksin's call for becoming the Detroit of Asia. However, the problem with Vietnam is the lack of proper strategies, action plans, and institutions to follow up on this vision. The present administrative system does not permit necessary policies to be drafted and implemented.

It is essential that Vietnam formulate as soon as possible a clear roadmap of industrialization to inform and guide its people, investors, and policy makers. It should outline a strategic path towards the 2020 vision backed by concrete action plans. Vietnam should declare, among other things, its strong resolve and clear plan to secure an important position in the East Asian production network. It should affirm that the private sector, not the state or state-owned conglomerates, should be the agent of production and investment; that growth should be driven by the skill, technology, and hard work of the Vietnamese people; that openness and the market mechanism are defended as a matter of principle; and that the state will actively support and coordinate the private sector without dictating its business plans; Policy orientation in the areas of savings mobilization, financial development, usage of foreign resources, income gaps and other emerging social issues, and sectors under external competitive pressure should be clarified.

At present, Vietnam does not have an overall industrial master plan. The industrial chapters of the Five-year Plan and the Ten-year Strategy do not offer a consistent industrial vision. As a result, many important policy questions remain unanswered, including the future roles of SOEs, private firms, and FDI, respectively; the choice between export orientation and import substitution under deepening integration; and the scope and extent of official support to emerging as well as declining industries. Sectoral master plans for steel, automobiles, motorcycles, electronics, textile and garment, and so on, are being drafted and approved without overarching principles at a higher level. Private investments and official aid pour in without knowing exactly where Vietnam is headed in the coming decades. In this connection, it should be noted that some countries, with much lower income levels than Vietnam, already have industrial visions and action plans which are more consistent and far detailed than those

of Vietnam[29].

One of the issues in promoting a mechanical industry under globalization is the choice between direct and indirect promotion (infant industry promotion versus FDI-led industrialization). Malaysia established Proton, a national car company, in 1983 and supported it with heavy subsidies and protection. Starting from the knock-down production of Mitsubishi Lancer, Proton subsequently internalized capability in styling and design, platforms, engines, logistics, marketing, and so on. By 2005, Proton had become the largest supplier of passenger cars in Malaysia with the domestic market share of over 40% and 286 local suppliers producing its parts. However, as globalization deepened, it became apparent that Proton's production volume was too small and technology not high enough to compete with global giants from Japan, Korea, EU, and the US, and it also began to lose the domestic market as foreign models invaded. The strategy of internalizing capability under strong official support has hit a thick wall. By contrast, Thailand created a relatively free environment for FDI car makers to achieve large production volume, quality, and even exports. By not insisting on national brands, it succeeded in creating the largest automotive cluster in Southeast Asia. However, Thailand's problem is the slow pace of domestic capacity building and the continued dominance of foreign design and technology.

Vietnam has not clearly stated whether or how it wants to promote such industries as automobiles, audio-visual devices, home electronics, and general machinery. Under the current situation in which discriminatory measures are no longer permitted under WTO rules, refraining from supporting such

[29] Ethiopia, one of the poorest countries with the per capita income of $160 in 2007, established the vision of *Agriculture Development Led Industrialization* (ADLI) in 1991. Its contents are further specified in the Ethiopian Industrial Development Strategy (2003) and other sectoral strategies. This industrial strategy asserts the leading role of the private sector, agricultural development as the source of industrialization, export-orientation, importance of labor-intensive sectors, the need for strong state guidance, and so on. Prioritized sectors are meat, leather and leather goods; textile and garment; agro processing; construction; and micro and small enterprises. The master plans for leather products and textile and garment have been drafted and are being implemented with the help of UNIDO, GTZ, USAID, and other donors. The monthly Export Steering Committee reviews the performance of key industries, and the Ministry of Trade and Industry regularly talks with firms, industrial associations, and national and regional chambers of commerce. Involvement of the private sector is further activated by the enhanced Public-Private Forum.

industries and letting the market decide their fate is one option. But if the Vietnamese government wants to promote them, it must do some serious thinking to see what are realistic goals and what strategies and action plans can be adopted without violating international commitments.

4. Policy making procedure and organization

Vietnam's failure to produce effective industrial strategies and action plans comes mainly from the structural weaknesses in policy making. Vietnam's policy formulation is saddled with the legacies of planning days and cannot cope effectively with problems in the age of global competition. After the growth bout of the 1990s and the early 2000s driven by economic liberalization and large capital inflows, Vietnam has reached the point where further progress towards higher income is increasingly difficult without a radical reform in policy formulation procedure and organization.

The problems associated with Vietnam's industrial policy making are many. However, instead of presenting a long list of problems, we will highlight just two procedural problems and two organizational problems which are interrelated and constitute the main sources of formalism and the general lack of creativity and responsiveness in policy making. These problems are unique to Vietnam in the sense that they are not observable in East Asia's other high performing economies[30].

The most serious procedural problems in designing and executing industrial strategies and action plans are the *lack of involvement of the business community* and the *lack of inter-ministerial coordination*, which together render approved policies ineffective and even unimplementable. In any developing country, policy implementation is a big challenge due to shortages of budget, human resources and proper mechanisms. However, the proportion of unimplemented policies in Vietnam is exceptionally high not only in industrial matters but also in other policy areas. It can even be said that very few policies are actu-

[30] In 2005 and 2006, the Vietnam Development Forum (VDF) and Vietnam's Ministry of Industry (MOI) organized joint research missions to Thailand, Malaysia and Japan to study the design, implementation and monitoring of industrial policies of respective countries. For missions' findings, see Ohno (2006).

ally implemented as stipulated in Vietnam because of delays in preparing "implementation details;" the non-provision of necessary budget, personnel or equipment; the lack of support from the business community; and the lack of ability or interest among responsible ministries to solve these problems[31].

The policy making process in Vietnam is closed within the government with little involvement of other stakeholders. Within each ministry, an order to draft a master plan is handed down to a drafting team, which normally consists of a middle-ranking official supported by a few experts in the ministry. The team collects internal data and data from other ministries, and may commission additional analyses to experts in other ministries or research institutes. The budget for each master plan is fixed by an inter-ministerial circular and used mainly for securing external data and analyses as well as conducting domestic travel, interviews and hearings. The master plan is drafted internally by the team members and submitted to the minister or the vice minister in charge for internal review. After that, it is circulated among relevant ministries for comment (which is rarely substantive) and then submitted to the prime minister for final approval. Significant delay may occur at internal review or final approval. Requests for revision are also common. In this process, debates on the fundamental direction or crucial issues rarely take place. The drafting team is routinely overworked with a large number of master plans to finish each year, which does not allow sufficient time (or money) to think creatively, interact with non-government stakeholders, or publicize the final result. Approved master plans are neither translated into English nor uploaded for dissemination although summary versions for the prime minister's approval, in the Vietnamese original, are usually available on the web.

If a domestic or foreign firm wants to raise its voice, it must devise its own way since the current procedure does not allow meaningful involvement of the business community. Although enterprise hearings are becoming more popular in recent years, sufficient details of the master plan draft are not revealed at such hearings and enterprises therefore can only make general requests. If a firm later finds certain points in the master plan objectionable (for example,

[31] In response to the protestation by FDI firms about certain parts of an industrial master plan, an official who drafted it reassured them that there was no need to worry because master plans in Vietnam were not implemented.

demand forecasts, taxes and import duties, numerical targets for production or export, designation of producers for certain products, and so on), it needs to seek meetings with responsible ministries, use symposiums and media to make the point, or write a letter to the prime minister, to request a change in the already approved policy. This situation is in sharp contrast to Malaysia, where private sector participation is institutionalized as members of the steering committee and task forces in drafting the Industrial Master Plan; Thailand, where the private sector decides targets and action plans and the government merely accepts them; or Japan, where business decisions on technology, products, investment and so on are left to individual firms and the government provides only supplementary services such as trade negotiation and setting standards for quality, safety, environment, and industrial property (Ohno, 2006).

Another procedural problem is the absence of inter-ministerial coordination on policy substance as well as implementation details, which in turn comes from the lack of mechanism to force different ministries to work together. Compartmentalization of the government along ministerial lines is a common problem around the world, but most governments manage to somehow ameliorate it. One solution is to have a strong top leader with a good economic mindset who directs various ministries and becomes the hub of policy making himself. In this case, policy components become mutually consistent even though ministries still fail to talk to each other (Thailand under Thaksin Shinawatra, 2001-06; Ethiopia under Meles Zenawi, 1991-present). Another way is to establish a powerful technocrat team directly serving the president or the prime minister which makes key policy decisions while ministries become executing agents of the plans emanating from this team (South Korea's Economic Planning Board, 1961-1994; also see below). Still another way is to let a super ministry, with sufficient policy authority and instruments at its disposal, lead industrial policy making and be responsible for it (Japan's Ministry of International Trade and Industry in the 1960s). Finally, it is also possible to install a mechanism to guarantee the representation of all relevant ministries and non-government stakeholders in the official drafting process as well as in informal exchange (Malaysia's drafting of the Industrial Master Plan at present). In Vietnam, though all policy documents specify a leading ministry and a list of related ministries, the mechanism to make them work as one is entirely missing.

We can go deeper to see why it is difficult to ensure involvement of non-government stakeholders and inter-ministerial coordination. Behind these problems lie fundamental issues in policy making organization. The most serious ones in this regard are the *lack of clear directives from the top* and the *distorted incentive mechanism among government officials that causes brain drain*.

It is well known that Vietnam's decision making is based on consensus. Checks and balances are in place horizontally (across ministries and departments), vertically (between central and local levels) and geographically (North, South, Middle and remote areas). There are three top national leaders and the Party and the Government interact in a complex manner. This system can produce stability and continuity but it is not suitable for staging bold reforms or responding quickly to the changing world. Policies remain mostly reactive rather than pro-active. Development effort centered on a clear roadmap towards a national vision with concrete strategies and action plans, which is the hallmark of East Asian industrialization, is missing in the Vietnamese policy process.

The Vietnamese government copes with urgent issues—be it inflation or traffic jam—in a bottom-up fashion and without a clear focal point of leadership or responsibility. When a serious problem is identified, an inter-ministerial committee is called and its chair is appointed. Each ministry proposes solutions from its perspective, which are summarized into general policy recommendations without execution details. Bureaucracy can supply broad ideas touching every aspect of the problem, but it does not lead to prioritization or selectivity for real action. This approach must be supplemented by a person or an organization that decides on a short list of actions and sequencing of measures among many proposals. There should be an interaction between the high level and the implementing level of the government to produce policies which are both realistic and sharply focused.

Another problem which is common in many countries and also becoming highly visible in Vietnam is the decline of quality and morale among government officials, prompting an exodus of talented people to other sectors. Vietnam's public service must overcome the problems of overstaffing, low salary, prevalence of second jobs, formalism, rigidity, nepotism, corruption,

relation-based promotion, and ODA-related benefits (foreign travel, training, benefits associated with supervising aid projects, etc.). These were the legacies of the subsidy system existing up to the 1980s, where the public sector was the provider of jobs, minimum income and social security for all and where no alternative employment opportunities were available in the private or foreign sectors with far more attractive salaries and rewarding duties. Under the present circumstance of market orientation and global integration, the public sector only attracts people who want stability, people who genuinely believe in the importance of public service, or people who want to take advantage of official privileges to study abroad or receive training as a stepping stone to a better-paying job in the future. As a result, highly qualified and motivated people are becoming difficult to recruit or retain.

This problem cannot be solved by minor repairs or ad hoc adjustments. ODA-supported training programs of government officials may only worsen the brain drain without raising the average level of official competency. To reverse the hollowing-out of the Vietnamese government, far reaching reforms to completely remake the public administration is needed as soon as possible. This should encompass, among others, a significant down-sizing of the public sector through leaner organization, forced retirement, and outsourcing of non-essential services; a competitive and transparent recruitment system; a higher and performance-based salary schedule and promotion linked to transparent personnel evaluation; and clear rules regarding the conduct of public servants and their interaction with citizens, businesses, and service providers. Obviously, these are not easy because of the magnitude of required tasks and political resistance. But they are also absolutely necessary for Vietnam to move forward. Vietnam's public administration lags far behind other successful economies in the region such as Singapore, Malaysia, and Thailand. It should also be mentioned that the initiative for such reforms must come from the top rather than the bottom. No bureaucracy can transform itself so radically without the order from a strong leader.

5. How to break a solidified system

To propose a solution is one thing. To carry it out is quite another.

Even if Vietnam knows the best policy formulation procedure and organization, how can it make sure that they are actually adopted?

According to comparative institutional analysis, a branch of institutional economics that relies heavily on evolutionary game theory, a society may get stuck in a bad equilibrium owing to *institutional complementarity*, *strategic complementarity* and *path dependence* (Aoki 2001a, 2001b). Institutional complementarity means that any social system has resilience to shocks because its institutional components enhance each other. For example, Vietnam's education, recruitment, salary and promotion systems are mutually complementary to produce relation-based rent sharing. Strategic complementarity means that individuals in such an institutionally solidified society have little incentive to deviate from the dominant behavior. Finally, path dependence underscores the importance of the beginning. Once installed by chance or design, any social system requires a large amount of political and social energy to change it. Together, these concepts point to institutional inertia and difficulty of reforming any established system.

Policy impasse arises when an inefficient method of policy formulation is set up and then solidified, and institutional components and people's attitude to support it have formed. Removing one person or reforming one organization does not improve the situation because of institutional and strategic complementarities mentioned above. Changing the policy formulation method in a fundamental way, as proposed by this paper, will surely require enormous energy and meet fierce resistance.

However, this does not mean that there is no way out. There are times when a social system jumps to another social system. Comparative institutional analysis suggests the following occasions and agents of change.

(i) *Collective mutation*—a large number of people inside a society may mutate simultaneously, as if their DNA has changed. If only a few people behave differently, they are simply called "crazy" or "silly" and the system remains unchanged. But a sufficiently large mass begin to behave differently, institutional and strategic complementarities of the old type stop working and rules and customs start to change. This is a spontaneous and internally driven change, which may occur when a large number of people feel suppressed or victimized under the existing system. In

a rapidly growing economy, this may also happen when a generation with new values and behavioral patterns grow up, or when people begin to have new demands and expectations from the government as a result of successful development and higher income. A small incident may trigger a large social movement by letting accumulated public discontent to come to the open.

(ii) *Foreigners*—foreign governments, firms and individuals follow different systems and are not bound by the behavioral code of the domestic society. They bring and sometimes even force new elements, which causes friction and inconsistencies with the indigenous system. In low income countries, bilateral donors and international organizations are particularly powerful. Foreign firms and investors as well as international migration and human exchange may also produce foreign pressure on a society. If this prompts a change in a direction that generates healthy development, such pressure is highly welcome. However, not all foreign influences are good from the viewpoint of social evolution. For this reason, the government must guide and coordinate foreign pressure to prevent undesirable changes.

(iii) *Policy*—even without domestic or foreign pressure, the government as *deux ex machina* can start a change from inside the system by introducing policies that upset existing calculations and complementarities. Here the key question is who will activate such policies. As noted before, it is extremely difficult for bureaucrats to initiate a bold reform. Their power within the government is miniscule compared with enormous institutional and strategic complementarities they face. Drastic policy shifts are usually introduced when a new, strong top leader comes to power. Leadership equipped with strong will and economic literacy is crucial for this to succeed. When such leadership skillfully and strategically aligns with foreign partners who want go in the same direction, even a very bold reform becomes possible.

In view of these theoretical implications, let us identify three players that may make institutional reforms possible in the Vietnamese context. They are *leadership*, *the technocrat team*, and *foreign partnership*.

Leadership

Crucial importance of leadership is made sufficiently clear in the discussions above. Leadership is the prime force of change while other necessary conditions can be created or reshaped by the leader if they do not already exist. In countries with advanced political systems, policy initiative can also emerge from various domestic groups such as civil society organizations, intellectuals, interest groups, and political parties because legal mechanisms to capture and reflect their opinions are firmly in place. However, in developing countries where political systems are less well developed, only a small number of channels of effective participation are available. For all practical purposes, initiative for bold change in these circumstances must come from the top leader. When such leadership is combined constructively with the aspiration of domestic groups and foreign pressure, reforms become possible. For the leader to play proper roles in development, it is not always necessary to change the existing political regime or expending social energy to change it. The Vietnamese political regime at present is flexible enough to allow a strong leader with political savvy to emerge and orchestrate policies.

The technocrat team

In high performing economies of East Asia, the existence of a technocrat team directly under the top leader (the president or the prime minister) has played a crucial role. This team is created from the brightest officials from various ministries as well as the smartest returnees who have studied or taught abroad. Prominent business leaders with strong policy mindset may also be mobilized. The team receives full confidence and responsibility from the top leader to concretize the policies that this leader envisions. It also acts as the command post for all ministries which are obliged to implement the policies that this team drafts. It acts as the nation's brain for development without which even excellent leaders cannot function. The Economic Planning Board in South Korea, the Kuomintang technocrats in Taiwan, the Economic Planning Unit (EPU) in Malaysia, the National Economic and Social Development Board (NESDB) in Thailand, the so-called Berkley Mafia in Indonesia, and the National Economic Development Authority (NEDA) in the Philippines, all aimed to fill this need at certain critical points in their economic development

with varying degrees of success. Japan's Ministry of International Trade and Industry (MITI), although being one of the ministries rather than above all ministries, also operated effectively to strengthen the competitiveness of Japanese manufacturing industries in the high growth period of the late 1950s and the 1960s.

Vietnam also had the Prime Minister's Research Commission (PMRC) until recently, but it was an advisory group rather than a central policy making body entrusted with the power to lead the entire government. Its responsibility was too weak and its members were experienced but perhaps too old. Nor does Vietnam have a super-ministry such as Japan's MITI to centrally coordinate development effort; the Ministry of Planning and Investment (MPI) is not strong enough in terms of authority, capability and policy instruments to undertake this task. It is strongly suggested that Vietnam create a new dynamic technocrat team within the government as a focal point of policy making authority and responsibility. In its design, experiences of other East Asian countries, with necessary modifications, should be referenced. Vietnam needs such a team at least for the next few decades to climb to higher income and cope with growth-generated problems and instabilities.

Foreign partnership

Vietnam's foreign policy shifted dramatically in the early 1990s when the close ties with the Soviet bloc were replaced by multi-directional diplomatic relations and re-integration into the global economy. Since then, interaction with foreign actors has exerted indirect and subtle influences on Vietnam's development orientation although the Vietnamese government never allows foreigners to take the driver's seat (I. Ohno, 2005). Bilateral and multilateral donors have registered their desire to see faster reforms and more administrative transparency and efficiency on such occasions as the semi-annual consultative group (CG) meetings, comments on the Five-year Plan and the Ten-year Strategies, policy dialogue for the Comprehensive Poverty Reduction and Growth Strategy (CPRGS) and the Poverty Reduction Support Credit (PRSC), and so on. Foreign businesses also have pressed the government to improve the legal and policy framework, the tax and import duty system, and other business-related matters through the Vietnam Business Forum, government-business dia-

logue, trade fairs, and symposiums. As Vietnam graduates from the status of a low income transition country into the status of an industrializing middle income country, the focus of foreign concern should also shift from the removal of the negatives to the creation of Vietnam's unique strengths.

As the leading economy in East Asia, Japan has also contributed significantly to Vietnam's development through trade, investment, aid, and human and knowledge exchange. Japanese businesses and officials are particularly

Table 2. Vietnam-Japan Bilateral Policy Dialogue for Industrial Competitiveness

Program	Period	Principal actor(s)	Content
Ishikawa Project (Study on the Economic Development Policy in the Transition toward a Market-oriented Economy in Vietnam)	1995-2001 (3.5 phases)	MPI-JICA	Joint research on macroeconomics, finance, agriculture, industry, integration, currency crisis, SOE reform, PSD; based on the principle of country ownership and mutual respect, with emphasis on long-term real sector issues.
New Miyazawa Initiative (Economic Reform Support Loan)	1999-2000	JBIC	Quick disbursing loan (20 billion yen) with conditionalities in PSD, SOE auditing, and tariffication of non-tariff barriers. Action plans in PSD were monitored and evaluated.
Vietnam-Japan Joint Initiative to Improve Business Environment with a View to Strengthen Vietnam's Competitiveness	2003-2009 (3 phases, ongoing)	MPI-4J	Bilateral agreement and implementation of concrete action plans which were monitored and reported to high-level, with focus on removal of FDI/business impediments, strengthening of local capabilities, and drafting of missing industrial strategies.
Joint Work between Vietnam and Japan to Strengthen the Competitiveness of Vietnamese Industries	2004	MPI-4J	Analyses by Vietnamese and Japanese experts as inputs to the drafting of the Five-year Plan 2006-2010, with attention on industrial policy formulation and competitiveness issues of individual industries (automobile, electronics, supporting industries, etc.)
Joint drafting of Motorcycle Master Plan under MOI and VJJI2	2006-2007	Joint Working Group (MOI, VDF, producers, experts)	Drafting of master plan following new content and method, with active participation of large motorcycle assemblers and interaction with other stakeholders; VDF serving as facilitator. Master plan approved in August 2007.
Vietnam-Japan Monozukuri Partnership for Supporting Industries	(Under preparation)	(To be decided)	Build strategic partnership for monozukuri (high-skill manufacturing) with Japan transferring its know-how to Vietnam. Action plans for supporting industry promotion to be implemented with joint effort.

interested in bolstering Vietnam's industrial competitiveness and have initiated a number of bilateral programs to this end. They include the building of infrastructure especially in power and transportation, education and training of industrial human resources, and a series of action-oriented bilateral policy dialogues (Table 2).

These bilateral dialogues aim to improve Vietnamese policies where Japan has particular interest or comparative advantage. At the same time, they have the additional purpose of institutionally correcting the weaknesses of Vietnam's policy formulation by introducing new procedures and organizations. For example, concrete action plans are bilaterally agreed and rigorously monitored to prevent non-implementation (the New Miyazawa Initiative, the Vietnam-Japan Joint Initiative, and the proposed Vietnam-Japan Monozukuri Partnership). Inter-ministerial cooperation is ensured by making the leading ministry, typically MPI, responsible for the participation of all other ministries (the Ishikawa Project, the Vietnam-Japan Joint Initiative, and the proposed Vietnam-Japan Monozukuri Partnership). Active involvement of non-government stakeholders (especially major manufacturers) was enforced throughout the joint drafting process of the Motorcycle Master Plan—perhaps for the first time in Vietnam's master plan drafting. Japanese officials and businesses are well aware of the structural shortcomings of Vietnam's policy making, and they are willing to spend time and energy to work with the Vietnamese side to solve them, without which they know their dialogue will not lead to meaningful actions.

These policy dialogues have so far been initiated mainly from the Japanese side. It is suggested that the Vietnamese government should be more pro-active in reforming its policy formulation and inviting Japan (and other countries) to participate in the effort.

6. Concluding remarks

While Vietnam's past achievements as a developing and transition country are great and many, this paper has focused on the future and offered candid evaluation and advice so that Vietnam might develop its potential to the fullest extent. I trust that the Vietnamese people and government are not satis-

fied by merely achieving MDGs or stopping at middle income. Their aspiration must be set higher, and it is surely attainable if the nation clearly identifies its present shortcomings and squarely faces its challenges. The key message of this paper can be summarized as follows.

Vietnam has reached the point where further progress towards higher income can be secured only if internal value creation is enhanced. This calls for proper government action, rather than laissez-faire, to guide and complement private sector dynamism and avoid the middle income trap. To improve policy quality, Vietnam needs to change the policy formulation process. This in turn requires a radical change in the public administration system. The scope and sequencing of reforms must be chosen carefully to minimize the political and social energy needed to change the system while maximizing their positive impacts. Enlightened and strong leadership, a new technocrat team, and strategic partnership with foreigners have been proposed as effective starting points that satisfy these conditions.

References

Aoki, M. (2001a). *Information, Corporate Governance, and Institutional Diversity: Competitiveness in Japan, the USA, and the Transitional Economies*. Oxford: Oxford University Press.

———— (2001b). *Toward a Comparative Institutional Analysis.* Cambridge, MA: MIT Press.

Fujimoto, T. (2004). *Nihon no Monozukuri Tetsugaku* [Japan's Monozukuri Philosophy]. Tokyo: Nihon Keizai Shimbunsha.

————— (2006). Architecture-based Comparative Advantage in Japan and Asia. In K. Ohno and T. Fujimoto (Eds.), *Industrialization of Developing Countries: Analyses by Japanese Economists* (pp. 1-10). Tokyo: National Graduate Institute for Policy Studies.

Fujimoto, T. and Shintaku, J. (2005). *Architecture-based Analysis of Chinese Manufacturing Industries*. Tokyo: Toyo Keizai Shimposha.

GRIPS Development Forum. (2002). *Japan's Development Cooperation in Vietnam: Supporting Broad-based Growth with Poverty Reduction* (English, Japanese, and

Vietnamese). Tokyo: National Graduate Institute for Policy Studies.

Ichikawa, K. (2005). Building and Strengthening Supporting Industries in Vietnam: A Survey Report. In K. Ohno and N. V. Thuong (Eds.), *Improving Industrial Policy Formulation* (pp.95-112). Vietnam Development Forum. Hanoi: The Publishing House of Political Theory.

Motorbike Joint Working Group. (2007). *For Sound Development of the Motorbike Industry in Vietnam*. Hanoi: Publishing House of Social Labor (English and Vietnamese).

Murakami, Y. (1992). *Han Koten no Seiji Keizaigaku* [Anti-classical Political Economy], vol.2. Tokyo: Chuo Koronsha. English translation by Kozo Yamamura, *Anti-Classical Political Economy*, Stanford University Press (1996).

——————— (1994). *Han Koten no Seiji Keizaigaku Yoko: Raiseiki no tameno Oboegaki* [Outline of Anti-classical Political Economy: A Memorandum for the Next Century]. Tokyo: Chuo Koronsha. English translation of chapter 6 in K. Ohno and I. Ohno (Eds.), (1998).

Thuy. N. T. X. (2007). Supporting Industries: A Review of Concepts and Development. In K. Ohno (Ed.), *Building Supporting Industries in Vietnam*, vol.1 (pp. 27-50). Hanoi: Vietnam Development Forum.

Ohno, I. (Ed.). (2005). *True Ownership and Policy Autonomy: Managing Donors and Owning Policies.* GRIPS Development Forum. Tokyo: National Graduate Institute for Policy Studies.

Ohno, K. (Ed.). (2006). *Industrial Policy Formulation in Thailand, Malaysia and Japan: Lessons for Vietnamese Policy Makers*. Hanoi: Vietnam Development Forum (English and Vietnamese).

———— (Ed.). (2007). *Building Supporting Industries in Vietnam*, vol.1. Hanoi: Vietnam Development Forum (English and Vietnamese).

———— (2008a). The East Asian Growth Regime and Political Development. In GRIPS Development Forum, *Diversity and Complementarity in Development Aid: East Asian Lessons for African Growth* (pp. 37-61). Tokyo: National Graduate Institute for Policy Studies.

———— (2008b). Vietnam-Japan Monozukuri Partnership for Supporting Industries: For Leveling Up Vietnam's Competitiveness in the Age of Deepening Integration. Hanoi: Vietnam Development Forum. (This document was translated into English and inserted as Chapter 4 in this book.)

Ohno, K. and Ohno, I. (Eds.). (1998). *Japanese Views on Economic Development: Diverse Paths to the Market*. London and New York: Routledge.

Ohno, K. and Fujimoto, T. (Eds.). (2006). *Industrialization of Developing Countries: Analyses by Japanese Economists*. Tokyo: National Graduate Institute for Policy Studies.

Tsai, M. H. (2006). The Myth of Monozukuri: Manufactured Manufacturing Ideology. ITEC Working Paper Series 06-04, Doshisha University.

Vietnam Development Forum (VDF). (2007). Supporting Industries in Vietnam from the Perspective of Japanese Manufacturing Firms. In K. Ohno (Ed.), *Building Supporting Industries in Vietnam*, vol.1 (pp.1-26). Hanoi: VDF.

Watanabe, T. (1995). *Shinseiki Asia no Koso* [Designing Asia for the New Century]. Tokyo: Chikuma Shinsho. Partly translated and published as chapter 11 in K. Ohno and I. Ohno (Eds.), (1998).

World Bank. (1959). *A Public Development Program for Thailand, Report of a Mission organized by the IBRD at the request of the Government of Thailand*. The Johns Hopkins Press.

———— (1993). *The East Asian Miracle: Economic Growth and Public Policy*. New York: Oxford University Press.

Chapter 4

Vietnam-Japan Monozukuri Partnership for Supporting Industries

For Leveling Up Vietnam's Competitiveness in the Age of Deepening Integration

This paper was drafted by Kenichi Ohno, the co-leader of the Vietnam Development Forum (VDF), in August 2008 for the purpose of stimulating policy dialogue between Vietnam and Japan to initiate an action-oriented bilateral program to strengthen the supporting industries in Vietnam. It was prepared in three languages: English, Vietnamese and Japanese. The arguments in this paper selectively incorporate the results of VDF's industrial research, the proposal letter of the Vietnam Chamber of Commerce and Industry (VCCI) dated 16 May 2008, and a series of discussions among Japanese industrial officials and experts from May to August 2008. The analyses and proposals in this paper do not represent the official view of either government, and Ohno bears the full responsibility for the content.

Part I. The vision and the purpose

As international integration deepens, Vietnam must greatly improve the capability of local enterprises in order to survive and effectively compete with imports and global competitors. Up to now, quantitative expansion has been achieved through economic liberalization, external opening and large inflows of foreign capital. In the years to come, however, the implementation of WTO obligations and the completion of AFTA liberalization process by 2018 will exert enormous pressure on local enterprises. If local capability in technology and management remains as weak as today, a large segment of indigenous industries is likely to shrink or even disappear under severe competitive pressure, and Vietnam will be locked into the position of a producer of low-value goods under the dominance of foreign firms.

The 2020 vision of industrialization and modernization must be

achieved through domestic value creation and highly skilled manufacturing, not by a continued expansion of simple assembly or copy production with little domestic value. Vietnam needs to shift to a new manufacturing model to realize this goal.

In order to level up Vietnam's local manufacturing capability, a bilateral strategic partnership between Vietnam and Japan in *monozukuri* is proposed in sectors in which Japan has strong comparative advantage: transport equipment, electronics and electricals, and precision machinery[32]. *Monozukuri* is a Japanese term that describes a special way of organizing and executing manufacturing. It features internal skill accumulation, pursuit of high performance, demand on QCD (quality, cost and delivery), long-term trust and cooperation among assemblers and suppliers, and strict compliance with safety, environmental and intellectual property standards.

By transferring the *monozukuri* spirit and method from Japan to Vietnam, Vietnam can bolster local manufacturing capability and differentiate its products from others, while Japan can have a reliable developing country partner that can perform *monozukuri* together. For this partnership to be successful, Japan should intensify its effort to transfer technology related to *monozukuri* to Vietnam, and Vietnam should vigorously learn and absorb this technology as top national priority.

1. Vietnam's challenges

Despite good performance in growth, institutional reforms and international integration in the last decade, Vietnam's domestic capability in manufacturing has not improved dramatically. The structure of manufactured exports has not changed very much since the mid 1990s. It still relies heavily on simple labor-intensive products with large import components. High quality products are dominated by foreign names while local industrial products serve second-tier domestic markets only. FDI firms continue to complain about the lack of

[32] This includes motorcycles and automobiles; consumer electronics; white goods (refrigerators, washing machines, air conditioners, etc.); audio-visual equipment; computers, copiers and other office machines; mobile phones and other telecom equipment; digital cameras and camcorders; industrial machinery requiring precision; and so on.

quality, reliability and aspiration of local suppliers. Many weaknesses continue to be reported in management, quality control, marketing, finance, and labor quality.

Vietnam is in the final stage of global and regional integration. Commitments of AFTA, WTO and other FTAs must be implemented. In particular, protection against ASEAN products must be completely removed by 2018. This is a great concern for Vietnam since ASEAN is the strong production base of Japanese products such as automobiles and electronics. Without further cost reduction, Japanese FDI producers in Vietnam will be forced to switch to imports of their own products from neighboring countries rather than assembling them in Vietnam. If major products such as automobiles and electronics must be imported almost entirely, there will be a large negative pressure on the balance of payments.

In addition, wage pressure is already visible in the labor market. If the wage and other costs continue to rise, Vietnam will no longer be a low-cost host for foreign producers and will not be able to offer a "China-plus-one" option. As a result, FDI may shift to other countries with lower costs. One way out is to devalue the currency to retain the status of a cheap-labor country. But the better solution is to increase productivity to continue to attract investors even with higher production cost.

To avoid the middle income trap or regression to simple labor manufacturing, Vietnam must now adopt a new approach to manufacturing with sufficiently large impact. Partnership with Japan will provide a great opportunity to enhance local manufacturing capability to a higher level.

2. Japan's challenges

Japan has high manufacturing technology, but its population is aging. A large number of experienced managers and engineers, born in 1947-49, began to retire in 2007. Meanwhile, young workers who are willing to learn their skills and knowledge are in short supply. This situation is expected to intensify as time passes. If no action is taken, Japan's *monozukuri* tradition may be lost forever. To retain and further develop this tradition, the Japanese government targets both domestic and foreign human resources as receivers of such

skill and knowledge.

Moreover, the wage level in Japan is very high while Japanese enterprises competing fiercely in global markets are under constant pressure to reduce cost. As a result, labor-intensive *monozukuri* processes are no longer competitive in Japan and need to be transferred to a developing country where the wage is lower. Only through a proper international division of labor, where capital-intensive processes are performed in Japan and labor-intensive processes are performed abroad, Japanese manufacturing can achieve both quality and cost. But Japan has not yet found a suitable *monozukuri* partner. While Thailand and Malaysia are improving their manufacturing capabilities, they still fall short of the expectation of most Japanese enterprises.

With diligent labor and a central location in East Asia, Vietnam is *potentially* a very attractive manufacturing partner for Japan. This is a consensus evaluation by Japanese businesses and experts in Vietnam. At present, however, inadequacy of government policy and business management prevents Japan from choosing Vietnam as such a partner.

3. Monozukuri partnership

In order to solve the problems described above, in complementarity and mutual benefit, the governments of the two countries should forge a strategic partnership to elevate the bilateral relationship to a higher level. Japan should regard Vietnam as an emerging *monozukuri* partner and provide sufficient assistance to realize this goal. In turn, Vietnam should regard Japan as a source of new skill-based manufacturing and aggressively adopt *monozukuri* skill and knowledge (with local adaptation if necessary).

This strategic partnership should be strongly owned and supported by the highest level of political leadership in each country, and be concretized in proper documentation. Vietnam should recognize the significance of this partnership in the national development strategy. Japan should do the same in its economic cooperation strategy for Vietnam.

Vietnam-Japan Monozukuri Partnership should aim to achieve the following with active participation and contribution of both Japanese and Vietnamese sides, and both governments and enterprises:

(1)*Resetting the mindset*—at present, Vietnamese managers seem passive or hesitant in acquiring new technology or approaching foreign companies. Vietnamese workers do not seem very motivated or far-sighted in improving their skills and accumulating experience. These attitudes should be changed and manufacturing should be accorded with great importance and pride by a systematic national campaign.

(2)*Technology transfer and capacity building*—supporting industries and human resource are the core to local capability building (see below). Basic knowledge for high skill manufacturing, such as 5S, kaizen and production management, should be taught at schools and centers in large numbers, while factory-specific consultation and patented knowledge should be made available with reasonable payments. There should be mechanisms to accelerate technology transfers through policy, external assistance and business contribution.

(3)*Commitment to international standards*—from the very beginning, bilateral *monozukuri* partnership should strongly adhere to international standards in product quality, safety, environment and intellectual property so that the product will be competitive in any market in the world.

(4)*Positioning in the global value chain*—Japan and Vietnam should specialize in manufactured products and components that use high skill labor while outsourcing other inputs and services. Although business firms are the ultimate designer of product and investment strategies, the two governments in consultation with businesses should provide policy support for private dynamism.

(5)*Reforming policy methodology*—Vietnam's industrial policy formulation should be renovated significantly to respond quickly to business needs and market shifts, and effectively carry out the proposed Vietnam-Japan Monozukuri Partnership.

(6)*Non-exclusivity*—although this is a bilateral partnership, any benefits it generates should be available to all firms of any nationality. By allowing such "free riders," the partnership aims to achieve the "win-win-win" situation for all (for Vietnam, Japan and others). Vietnam is also free to choose other models of manufacturing from any country it desires. The Japanese model is not imposed exclusively or unconditionally.

4. The importance of supporting industries

The promotion of supporting industries is the necessary condition as well as the first important step toward realizing the vision of Vietnam-Japan Monozukuri Partnership. The term "supporting industries" (Japanese original: *susono sangyo*) refers to multiple layers of establishments located inside a country that supply parts and components to assembly-type manufacturing firms in that country. This term was first used officially by Japanese MITI's *White Paper on Economic Cooperation* (1985) to point out the absence of such industrial activities in Southeast Asia when Japanese FDI inflows to that region greatly increased in the 1980s.

Since the largest value (typically 80-90%) of mechanical products comes from parts and components while labor-intensive assembly adds relatively little value (typically 5-10%), international competitiveness requires easy and reliable access to suppliers of parts and components that can offer QCD. Without strong supporting industries, assemblers must import a large amount of parts and components. This will add international transport cost and long lead time to production, reducing competitiveness vis-à-vis rival companies with quick access to suppliers in the same country.

When supporting industries are undeveloped, assemblers cannot expand since they have no cost advantage. But when assemblers remain small, no suppliers will invest or expand in that country since parts cost cannot be reduced with small orders. This is the vicious circle observed in the early stage of industrialization, which can be broken only by the strong policy initiative to invite both assemblers and suppliers in large numbers. This is the realization that ASEAN4 have come to after many decades of industrialization effort.

The scope of supporting industries can be decided strategically to suit the policy purpose at hand. For the purpose of improving Vietnam's manufacturing capability through the proposed bilateral *monozukuri* partnership, targeted sectors can be defined as *metal parts and processing* and *plastic parts and processing* for the industries mentioned earlier[33]. More specifically, this will

[33] See footnote 32. If necessary, rubber, glass, ceramic, cloth and other parts of mechanical products may be added to the list.

cover:

Parts—metal and plastic parts for mechanical products; electrical wiring; screws, nuts and bolts; springs;
Processes—production and maintenance of die and mold; pressing, casting, forging, machining, plating, coating, heat treatment

Targeted enterprises include both FDI suppliers and Vietnamese suppliers. The relative importance of these suppliers will vary according to specific sector, parts and processes. For FDI suppliers, strategic FDI marketing should be conducted to entice them to invest in Vietnam in accordance with the clearly formulated industrial strategy. For local suppliers, producers with strong will and potential to learn should be supported strongly but selectively, based on proper screening and monitoring.

Industrial human resources are the most important cross-cutting factor in supporting industry promotion at both FDI and local firms. They are classified into (i) top managers, (ii) middle managers and engineers, and (iii) workers. All of these segments should be targeted, with particular emphasis on the first and the second. Besides this, support for capital and equipment is sometimes also needed.

Part II. A proposal for concrete action plan contents

This part contains preliminary ideas of some Japanese experts for concretizing the Supporting Industry Promotion Action Plan for Vietnam. They are presented as an initial input to this effort and are therefore subject to revision by subsequent discussion among Vietnamese and Japanese stakeholders.

The promotion of supporting industries overlaps but does not coincide with the promotion of SMEs. The proposed Action Plan aims to strengthen Vietnam's supporting industries for industrial competitiveness rather than assisting all SMEs to generate income and employment.

ASEAN4 countries have a long history of promoting supporting industries and SMEs, and Japan has assisted their efforts with a large number of

Policy area	Measures
1. Capacity building (for specific firms)	- *Shindanshi* (enterprise evaluation) system - TA for management and technology - Large-scale mobilization of retired Japanese engineers - Intensive support for limited sectors (e.g., die & mold) - Awards, PR and intense support for excellent suppliers
2. Human resource (generalor institutional)	- Management/technical centers and programs - Large-scale mobilization of retired Japanese engineers - Alliance between FDI firms and local universities/centers - *Monozukuri* school (to be upgraded to university) - Meister certification system
3. Finance	- Credit guarantee - SME finance institutions - Two-step loans
4. Incentives	- Exemption or reduction of taxes and custom duties - Grants or loans for specified actions
5. Linkage	- Database and matching service - FDI-vendor linkage program - Parts Industry Association and Business Study Meetings - Trade fairs and reverse trade fairs - Linkage with Taiwanese suppliers (motorcycles, electronics) - Improving logistics between Hanoi and HCMC
6. FDI marketing	- Creation of strategic industrial clusters - Industrial parks and rental factories - Efficient logistics and infrastructure - FDI marketing targeted to specific sectors or companies
7. Policy framework	- Supporting industry master plan - SME law - SME ministry - Business associations and industry-specific institutes - Quality standards and testing centers

technical and financial programs. The policy menu is similar across countries, but results seem to vary according to political will, economic environment, design details, and coordination and monitoring in implementation. The policy package that Vietnam should adopt will be overlapping with this common menu.

The table below shows policy areas and possible measures for Vietnam in light of ASEAN4 experiences as well as recent discussions in Vietnam. Since all measures cannot be adopted at once, selectivity, sequencing and adjustments will be necessary.

Below, short-term means by end 2009, medium-term means by 2013, and long-term means by 2020.

For an effective implementation of the Action Plan, it is essential for the Vietnamese people to recognize the importance of *monozukuri* and support-

ing industries for Vietnam's industrialization. It is hoped that the Vietnamese Government will take a strong leadership in launching a national campaign to direct people's attention to these topics.

1. Capacity building (for specific firms)

In order to transfer the know-how of *monozukuri* to Vietnam, Japanese should visit Vietnam, Vietnamese should visit Japan, and Vietnamese who have acquired relevant skills should teach other Vietnamese. Moreover, these must go on in sufficient scale and duration to make a great impact. For this purpose, it is proposed to establish the SME management *shindanshi* (enterprise evaluator) system in Vietnam as an institutional core, and produce technology promotion instructors and management improvement instructors. At the same time, there should be a mechanism to mobilize a large number of Japanese engineers, and the programs to send Vietnamese to Japan (or Japanese firms) for education and training must also be scaled up. It is needless to say that both the Vietnamese side and the Japanese side should make utmost effort and sufficient contribution to make this endeavor successful.

<Short-term>

- Survey of capabilities required of Vietnamese local supporting industries in the near future.
- Determination of program design, organization, and roadmap for establishing the *shindanshi* (enterprise evaluator) system which fits Vietnam's reality.
- Designing a mechanism for large-scale mobilization of Japanese engineers (current and retired).
- Designing ways to expand education and training of Vietnamese students and workers in Japan or at Japanese enterprises.

<Medium-term>

- Large-scale mobilization of Japanese engineers.
- Implementation of expanded education and training of Vietnamese in Japan or at Japanese enterprises.

- Training of SME instructors (technology promotion instructors and management improvement instructors).
- Establishment and implementation of the SME management *shindanshi* system.
- Establishment, expansion, and strengthening of quality standards and testing centers.
- Design and implementation of a program to gradually transfer high-level parts and processes from FDI firms to Vietnamese firms.
- Strengthening of mechanisms for accelerating technology transfer to Vietnamese enterprises such as FDI-supplier matching, subsidies, and investment finance support.

<Long-term>

- Scaling up of the entire capacity building system with the SME management *shindanshi* as the institutional core. Its links with financial support, technical assistance, FDI-supplier linkage, and database should be enhanced.

2. Human resource (general or institutional)

Leveling up of engineering students as well as current workers will equally benefit FDI firms and Vietnamese firms. To improve their education and training, it is essential to correctly identify the requirements of enterprises and supply students and workers who can satisfy them. Improvement and expansion of curriculums, teaching staff, and teaching equipment must be done primarily for this purpose. To facilitate this effort, a mechanism for close collaboration between hiring enterprises and teaching institutions must be created.

<Short-term> Student education

- Review of current status of education and training institutions (functions of various institutions at each level, capabilities of graduates, job market situation of graduates, etc.).
- Review and problem identification of curriculums of education institutions.

- Human resource needs survey for promoting supporting industries (identification of levels and areas to be prioritized).
- Collecting information on cross-country recognition of technical education certificates (Washington Accord).

<Short-term> Worker training

- Mapping of existing training institutions (MPI, MOIT, MOST, MOLISA, VJCC, provinces, VCCI, etc.).
- Review of training programs and training organizations of Vietnamese Government (including laws and regulations such as Decision 143).
- Identification of target training institutions for supporting industry promotion.
- Review and problem identification of existing training programs (for each area such as production technology, production and quality control, management, finance and accounting, etc.).

<Medium-term> Student education

- Improvement of policy mechanism for human resource development (coordination among MOET, MOIT, MOLISA, etc.)
- Improvement of education curriculums (with the participation of Japanese firms).
- Teacher training, enhancement of education facilities, and coordination among education institutions.
- Factory visits and internship at Japanese firms, skill competition and Olympics, and job placement service for graduating students.
- Establishment of collaborative schemes between FDI firms and universities.
- Large-scale mobilization of Japanese engineers (same as 1. above).

<Medium-term> Worker training

- Improvement of training curriculums (with the participation of Japanese firms).
- Education and training of teachers.
- Implementation and scaling up of worker training (including training in

factory)

- Links with FDI-local linkage programs (inviting workers of potentially good firms to attend training and receive factory training, etc.).
- Establishment of collaborative schemes between FDI firms and training centers.
- Large-scale mobilization of Japanese engineers (same as 1. above).

<Long-term>

- Introduction of skill certification system and industrial Meister award system.
- Participation in cross-country recognition of technical education certificates (Washington Accord).
- Possible establishment of SME University or *Monozukuri* University.

3. Finance

Vietnam intends to use private commercial financial institutions as main providers of SME loans, with the backing of subsidies, credit guarantee, and two-step loans. However, this effort has just begun recently. Generally speaking, SME finance is saddled with a number of difficulties related to the lack of management and technical capabilities, insufficient corporate financial information and banks' evaluation capacity, and collateral requirement. Continuous institutional invention and adjustment is needed to overcome these problems. It is proposed that preferential measures for supporting industries be added to the process of improving SME finance in general.

<Short-term>

- Strengthening of financial services for supporting industries (establishment of supporting industry promotion department in each bank, assisting the analysis and evaluation of supporting industries and individual suppliers, introduction of asset based lending).
- Encouraging banks to take a leading role in supporting industry cluster promotion, and show initiative and commitment to the formulation of financial infrastructure policy.

- Japanese-local enterprise matching through SMEFP3 (JBIC two-step loan program), creation of model reporting format for business relations with FDI firms, and preferential loans for firms with such relations.
- Strengthening the credit guarantee fund (CGF), including review of advanced cases abroad, creation of the credit insurance system and its operational guidelines.

<Medium-term and long-term>

- Expanded use of the credit guarantee fund (institutionalization of subsidized low-interest policy loans).
- Promotion of using non-property collaterals (loans backed by accounts receivable, speedy execution of collateral rights, and utilization of non-banks and leasing).
- Upgrading of the standard of bank loans (roadmap for Basel II compliance, building a common database to share among banks information on corporate finance, bankruptcy, asset evaluation etc.).
- Development of preferential financial services for companies with technical training certificates or corporate financial statements properly checked by certified accountants or *shindanshi*.

4. Incentives

Preferential measures for production, investment, education, and training related to supporting industries should be introduced as soon as possible and at levels sufficiently competitive and reasonable (neither too much nor too little) in comparison with other East Asian countries. For this purpose, eligible firms and activities must be clearly specified.

<Short-term>

- Agreement on the definition of "supporting industries" eligible for preferential measures.
- Determination of concrete preferences in taxes, import duties, and subsidies. For example, tax holiday (reduced corporate tax of 10% during six years following the first profitable year, etc.), exemption of import duties

on equipment, subsidies on education and training, and working permit waiver and subsidies for Japanese engineers traveling to Vietnam, etc.

<Medium-term>

- Early implementation of agreed preferential measures (by 2010, for example).
- Active PR of preferential measures and FDI marketing for eligible firms and activities at investment seminars and other occasions.

<Long-term>

- Continued implementation of preferential measures. If necessary, adjust preferential measures in light of actual results and situations in rival countries.

5. Linkage

After studying the strengths and weaknesses of BUILD and NSDP in Thailand, VDP and ILP in Malaysia[34], and so on, design a new scheme for promoting FDI-local production linkage in Vietnam. For this to succeed, it is necessary to closely coordinate multiple measures such as narrowing the perception and information gaps between the two sides, database and directory construction, selection of potential local suppliers, focused assistance on selected suppliers, and enhancement of industry associations and trade fairs.

<Short-term>

- Creating the initial list of potential local suppliers based on existing sources (first step toward database construction).
- Award-giving, book publication, and PR of excellent local suppliers.
- Design of a new linkage program (target firms, content of assistance, and roadmap).
- Design of a new database based on the review of existing databases and

[34] Respectively, the Board of Investment (BOI) Unit for Industrial Linkage Development, the National Supplier Development Program, the Vendor Development Program, and the Industrial Linkage Program.

international experience.

<Medium-term>

- Further collection of supplier information, and addition of new potential local firms.
- Construction and uploading of the database (at the earliest possible date).
- Institutionalization of award-giving and PR of excellent local suppliers.
- Scaling up of technical assistance to potential local suppliers.
- Assistance in establishing industrial associations, and assistance to parts manufacturers association, enterprise study meetings, and industry-specific research institutes.
- Inclusion of third-country assemblers and suppliers into the supporting industry promotion system (for example, Taiwanese companies in electronics and motorcycle).

<All periods>

- Facilitation of enterprise matching (introduction to Japanese business practices, product marketing, changing the mindset, follow-up after initial contact, successful cases, etc.)
- Providing opportunities for enterprise matching (reverse trade fairs, exhibitions, meetings organized by individual buyers, visits to Japanese firms, inviting Japanese business missions to Vietnam, individual matching by TAC, etc.)

6. FDI marketing

For the rapid and healthy development of supporting industries, Vietnamese local suppliers and FDI suppliers investing in Vietnam both must play important roles. The exact roles and weights of these two types of suppliers should depend on the product, the required level of technical competence, and the time scope. It is necessary to come to the clear and common understanding of the role of each, and effectively implement FDI supplier attraction measures and local supplier promotion measures, respectively.

<Short-term>

- Broad-based campaign to nationally recognize the importance of supporting industries.
- Review of the current situation of Vietnam's supporting industries.
- Identification of the appropriate roles of FDI suppliers and local suppliers, and design of FDI supplier attraction measures and local supplier promotion measures based on their respective roles.
- Conducting active PR on policy measures. Use investment seminars to explain preferred parts investment to FDI suppliers, and use various seminars, brochures, and media ads to explain to local suppliers.
- Study and design the industrial cluster strategy.
- Prepare a plan for supporting industry industrial parks. They should provide small rental lots (5,000m^2 for example), standardized rental factories, support center on the premise (administration, accounting and personnel services for companies in the industrial park), etc.

<Medium-term and long-term>

- Construction and marketing of supporting industry industrial parks.
- Strategic enhancement of infrastructure and logistics for the promotion of supporting industries and supporting industry industrial parks.
- Implementation of the industrial cluster strategy.

7. Policy framework

Although ASMED/MPI is designing and implementing SME promotion policies, assistance to SMEs remains inadequate in both quality and quantity. These policies must be strengthened. At the same time, supporting industry SMEs (which are a subset of SMEs) should be properly recognized for their importance, and a legal framework and policies to specifically assist them should be installed. Policy authority is decentralized at present, which prevents strong and consistent SME policy formulation. In the future, after a sufficient review of international experiences, reorganization of the SME promotion system as well as the possibility of a new unified organization may be considered.

<Short-term>

- Completion of revision of Decree 90, currently under way at MPI/ASMED (key points include sector-specific definitions of SMEs, prioritization of policy support, assistance of policy formulation at the local level, credit guarantee fund, SME promotion fund, etc.)
- Missions to Japan and neighboring countries for the study of SME policy formulation and implementation.
- Determining the scope of "supporting industries" for policy purposes.
- Selection of prioritized assistance areas (for example, die-and-mold, pressing, casting, welding, etc.)
- Government-led popular campaign for better understanding and higher interest in *monozukuri* and supporting industries.

<Medium-term>

- Drafting and passing of the Basic Law of SMEs and the Law on the Promotion of SMEs.
- Design and implementation of action plans for activating inter-ministerial collaboration, private-public partnership, and industry-university partnership.

<Long-term>

- Establishment of a new government body specializing in SME promotion (reorganized ASMED or a new organization).
- Revision of the Supporting Industry Development Master Plan in order to greatly level up supporting industries, including material industries, so that Vietnam will become a truly industrialized country.

About the Author

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