〈論　説〉

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Economic Development and Industrial Policies in East Asia

Kaoru Natsuda* and Hideki Sato**

1. Introduction

The purpose of this paper is to examine the industrial policies and the contemporary issues surrounding East Asian developmental states, particularly in relation to recent industrial policy changes after the rise of the free trade regime facilitated by the World Trade Organisation (WTO).

Many scholars stress the importance of state guidance and intervention in economic development. For instance, Wade (1990a: 260) observed the economic development of East Asia as follows:

> "We began with the mainstream interpretation of East Asian success within economics, which I call the self-adjusting market theory. It gives government an important but background role as regulator and provider of public goods. Whatever else we conclude from the present evidence, we can surely say the governments of Taiwan and South Korea have gone well beyond this theory-beyond the role described for them in neoclassical accounts, and beyond both the practice of

* The University of Sydney
**Kyushu-Sangyo University

> Anglo-American governments and the neoclassical principles of good economic management. The second conclusion is that much of this intervention has been of a leadership rather than just a followership type. It has done more than assist private producers to go where they have gone anyway."

This study begins with identifying the characteristics of Northeast Asian countries. In Northeast Asia, the governments adopted various forms of state intervention in order to enjoy rapid industrial development. Northeast Asian counties have been pursuing "developmentalism" represented by strong state capacity and a close public-private relationship over the last half century.

The next issue raised is whether Southeast Asian nation-states can be classified as "developmental states". In fact, Southeast Asian states seem to vary economically from their Northeast Asian counterparts.

As the third issue, we explore Japan's strategy to spread the concept of the "developmental state", particularly in regards to the World Bank's report, *The East Asian Miracle: Economic Growth and Public Policy* in 1993. The Japanese nation-state has been promoting its concept of the "developmental state" or "industrial policy" in opposition to the World Bank's neoclassical economic policy since the late 1980s.

In the final issue, we examine the shifts in industrial policy of East Asian developmental states in recent years. As a result of the Asian Crisis, the rise of the free trade agreements, and the elaboration of multilateral trading rules promoted by the WTO, East Asian developmental states have been required to redesign methods of state intervention, particularly since the late 1990s.

2. Northeast Asian Developmental States

The Developmental State School argues that the remarkable aspects of East Asian industrialisation were brought about not by market-led growth, but by the role of the state in co-operation with private capital. In other words, they emphasise the capacity of the state to enhance economic development. The concept of the "developmental state" was articulated by Johnson (1982) and was originated in the observation of Japan's economic success. Thereafter, this concept is adopted by Amsden (1989), Evans (1995), Pempel (1999), Wade (1990a; 1990b), and Weiss (1995) among others. They emphasis the importance of state intervention in economic development and address that development in East Asia was achieved by management of the market, industrial strategies, public investment and export strategies in accordance with state-business co-operation. For instance, according to Pempel (1999: 139), "developmental states... defined their missions primarily in terms of long-term national economic enhancement. They actively and regularly intervene in economic activities with the goal of improving the international competitiveness of their domestic economies. Rather than accepting some predefined place in a world divided on the basis of "comparative advantage", such states seek to create "competitive advantages".

In the literature of economic development, Johnson (1982) contributes to raise an alternative explanation. From the perspective of Johnson, the performance of Japanese economy challenges the Anglo-American "*laissez-faire*" economies and also challenges socialist economies. This perspective highlights four features of the Japanese developmental state:

(1) The first feature is concerned with an elite state bureaucracy, whose role is to identify and choose the industries to be developed (i.e., targeting industries), as well as the best means of rapidly develop-

ing those chosen industries, and to supervise competition in the designated strategic sectors in order to guarantee their economic activities (Johnson, 1982: 314-315).

(2) The second feature is the creation of a bureaucracy that shows initiative and operates effectively within a government (Johnson, 1999: 38).

(3) The third feature is that the Japanese developmental state has employed "market-conforming" methods of state intervention in the economy,[1] such as the creation of government-controlled financial institutions, which allocate capital, give tax incentives and decide on foreign exchange (ibid.: 39).

(4) The fourth feature is the existence of a pilot agency such as the Ministry of International Trade and Industry (MITI) and later renamed the Ministry of Economy, Trade and Industry of Japan (METI) in 2001, which has been playing a key role in strategic policy formation and implementation (ibid.).

Amsden (1989; 1991) focussed on the late industrialisation of the Korean economy. She elaborated on Gerschenkron's argument about the advantage of late industrialisation (Gerschenkron, 1962). Despite many handicaps of economic backwardness, developing countries are able to use the technological knowledge which developed countries have ac-

[1] Market forces are changed in relative prices, and entrepreneurs react according to their profit-maximising behaviors. Governments can then act to change relative prices and private decisions are still made by entrepreneurs freely in response to market forces - they are not coerced. Government actions that alter market forces are "market-conforming".

cumulated. However, developing countries cannot use the advantage without the technological competence to look for appropriate technologies and to select, adapt and improve the imported technology. From the perspective of Amsden, late industrialisation involves industrialisation on the basis of, not new products and processes, but learning or borrowing technologies. Without the competitive advantage in world markets of having new products and processes, the role of the government becomes more intrusive than in the past (the second industrialisation) in the way of protecting and subsidising infant industries (Amsden, 1991). A policy of stable protection initiated by the Korean government has allowed for the expansion of existing industries and the development of new industries to flourish. Rather than market forces allocating resources and guiding private business, the government chose to retain a deciding hand in decisions over investments. This has led to Korea being highly dependent on state intervention to create a price distortion that directs economic activity towards greater investment. Instead of firms operating in a competitive market structure, they each operated with an extraordinary degree of market control, protected from foreign competition. The government also heavily invested in human capital, this human capital enabled them to upgrade industrial structures and led to high growth (Amsden, 1989).

Northeast Asian states have more prominent features of "developmentalism" than other states (Evans, 1995; Johnson, 1982 and 1987). Well-developed bureaucratic internal organisations, which are often described as a strong state, and public-private relationships, are identified as the key factors in these economies. They control the market by direct or indirect intervention. In regards to financial management, the Northeast Asian governments relied on monetary or financial management in guiding or controlling private activities. Regarding direct financial control, in Japan, the Japanese postal saving system, which could be consid-

ered a public financial institution in the hands of the bureaucracy for public investment, controlled assets about four times as large as the world's biggest commercial bank, the Bank of America, in 1982 (Johnson, 1987: 148). As an example of indirect control, the bank-based financing system has played a significant role as the source of funds for large Japanese corporations. The Ministry of Finance (MOF) created excess demand for credit. Consequently, it was able to use "window guidance" to channel loan funds into targeted industries (and sometimes, even favoured firms). Most of the money was channelled into *keiretsu* banks (called "city banks") which played a role as the financial centre of the Japanese *keiretsu* groups and was distributed into their *keiretsu* group companies. In Korea, the government owned and controlled all commercial banks. Despite this fact, pressures for financial liberalisation made the government privatise commercial banks, although they maintained control over commercial banking (Amsden, 1989: 16). In Taiwan, the government seemed to depend on monetary rather than fiscal policies, tax breaks and high depreciation allowances rather than outright loans to encourage investment in particular sectors. In addition, most loans in Taiwan have been channelled into state owned enterprises rather than into big businesses (Johnson, 1987: 149).

All these matters resulted in a high capacity for state intervention. Johnson referred to Japan as a "soft authoritarian" state, in contrast to Korea and Taiwan as "hard authoritarian" states.[2] Although the degree of strength of their state capacity differs, these three states have a common characteristic, which cannot be identified anywhere else in a relationship between bureaucracy, business and politics.

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[2] In the terms of Jones and Sakong (1980).

3. Should Southeast Asian States be Regarded as Developmental States?

A number of differences can be identified between the Northeast Asian developmental states and Southeast Asian states, in terms of explaining the developmental state model. This section identifies the differences between Northeast Asian and Southeast Asian states, and the arguments as to whether Southeast Asian nation-states are developmental states or not.

First of all, with regards to economic growth, there has been a significant gap between the two. Currently Korea's income per capita is approximately three times higher than that of Thailand. But this was not always the case. In 1961, in current dollars, it was somewhat lower. While Malaysia's per capita income was approximately three times that of Korea and twice that of Taiwan in 1961, and higher than that of Korea until 1981, it became less than half that of Korea, and nearly one third that of Taiwan in 1993 (Akyuz *et al.*, 1998: 18).

The second significant difference involves resource endowment. Unlike Northeast Asian states, Southeast Asian states have abundant natural resources. The resources have not only played an important role in overall economic and export growth, but have also played a crucial role in the fiscal viability of the Southeast Asian states, as well as providing the basis for further capital accumulation. The legitimacy (or redistribution) and capacity (or bureaucracy, public enterprises and security services) of the regimes have been enhanced by the ability to finance crucial infrastructure for social services, such as education, training and health, through the collection of resource rents (Jomo, 2001a: 4). Furthermore, these natural resources allowed Southeast Asian countries to pursue a long period of import-substitution industrialisation in the 1970s and the early 1980s (Akyuz *et al.*, 1998). Although lacking natural resources,

Northeast Asian states have intelligently moved their attention towards implementing policies which provide high levels of training, educational programmes and high expenditure, resulting in a wealth of human resources. Thus, they were able to quickly shift their industrial policy to manufacture exports.

The third difference relates to the breakdown of human resources. In Northeast Asian states, the share of engineers and R&D scientists and technicians rose quickly with the strong incentives offered. In contrast, Southeast Asian states lack such human resource support to facilitate a rapid transition to higher-technology manufacturing (Rasiah, 2001: 101).

The fourth difference is in the role of foreign capital and technology in economic development. Southeast Asian industrialisation has been strongly shaped by foreign capital. As a consequence, there is an absence of local entrepreneurial skills and technological capacity. In contrast, Japan, Korea and Taiwan were not totally dependent on foreign companies like Southeast Asian countries are. Even though those countries imported machinery, unlike Southeast Asia, they did not rely on foreign companies for the layout of their factories or installation of machines (Yoshihara, 1988: 112). Yoshihara referred to Southeast Asian economic development as "*ersatz* capitalism", which is pursuing "technologyless industrialisation". The development of Southeast Asia was brought about by foreign capital and technology and the dominance of rent seeking business by overseas Chinese, in particular the exploitation of political connections to establish huge conglomerates. To quicken the absorption and development of local technological capabilities, Northeast Asian states established institutions to assist in the process. Local licensees were able to strike more favourable bargains with Multinational Corporations (MNCs) through the institutions, within which they had more sway. Absorption was aided by rigorous monitoring and appraisal. In contrast, Southeast Asian states lack such governing mechanisms (Rasiah, 2001:

101).

The fifth difference is associated with industrial policy. In comparison with Northeast Asian states, Southeast Asian states have implemented less elaborate, less efficient and less effective industrial policies due to the fact that state intervention in Southeast Asian states has been far more abused and hence often seriously compromised, by political and influential business interests (Jomo, 2001b: 9). For instance, Booth claimed that Northeast Asian states have used state intervention for not just removing policy-induced distortions, but also for co-ordinating and subsidising private investment. In contrast, Southeast Asian states have commonly used subsidies for either political cronyism or to achieve non-economic goals, such as the promotion of indigenous (e.g. non-Chinese) business (Booth, 1999: 313). From the perspective of the game-theory, these issues can be explained by the "co-ordination failure" (see Appendix).

Due to the above mentioned reasons, the economic development of Southeast Asian states appears to differ from that of Northeast Asian developmental states. For instance, Pasuk (1996: 373-381) points out that it is difficult to fit Thailand into the developmental state model, with its notoriously weak development planning, yet it is also wrong to assume that the government did nothing to facilitate industrial expansion. Nevertheless, the economy seemed to expand without the need for the "prodding" of a strong "developmental state". Therefore, it cannot be described as wholly state interventionist, nor *laissez-faire*. In comparison with Northeast Asia, Southeast Asian states seemed to adopt relatively less state interventionist policies because they have not established the political and administrative conditions of a strong state. Nonetheless, their willingness to pursue state-led economic development continues. Kim and Lee (2000: 89) noted reasons why. One of the reasons is that Southeast Asian states were not able to reduce the role of the state in their economy. State intervention has been an effective and necessary way of escaping

from the dependent peripheral economy. Their motivation for economic liberalisation and participation in globalisation is based not in the creation of a purely *laissez-faire* market, but in a bid for more foreign investment in their countries. Therefore, Southeast Asian nation-states have been seeking local benefits from foreign investment by implementing a model of *supplier-oriented industrial upgrading*, which asserts that penetration of MNCs in an economy will be accompanied by opportunities for encouraging technology transfers, improving productivity and the upgrading of local industries. At the same time, MNCs in Southeast Asia have employed the establishment of *global production networks* (GPNs), which are ensembles of economic activity formed through co-operative interactions between and within firms at an international level in recent years (Prichard and Natsuda, 2005).

Similar to Northeast Asia, Southeast Asian economic development is not based on the Anglo-American *laissez-faire* market economy. Southeast Asian states have never relied on the liberalisation regime. The governments in Northeast Asia and Southeast Asia have played an active role in industrialisation and economic development. To this extent, Southeast Asian states could be regarded as a "quasi-developmental state". How closely they conform to Johnson's developmental state is another matter.

4. Industrial Policy: Japan's Challenge to the World Bank

The concept of the "developmental state" has become one of the most controversial issues in the theory of economic development since the late 1980s. The Japanese government, with an emphasis on the role of the state, approached the World Bank to conduct special research on East Asia, which has achieved significant economic development in the post Second World War period. This research was published as *The East*

Asian Miracle: Economic Growth and Public Policy by the World Bank in 1993.

Toshihiko Kinoshita, head of the research institute of the Export -Import Bank of Japan (JEXIM bank) explained Japan's post-war economic development, in particular that an industrial policy came naturally to a ravaged society desperately short of resources. He stated that: "if government had not done anything, Japan would not have had coal, steel, electricity or shipping. Our ideas did not come from economic textbooks. They came from people's sentiments that we should have big industries, industries that would make Japan grow strong" (Terry, 2000: 76).

The Japanese perspective of economic development is associated with their industrial policy, which targeted prospective growth industries (Nester, 1991). In other words, one of the most important roles of the Japanese government was to pick and back winners in the economy. Therefore, Japan's challenge was to promote a notion of "industrial policy" against the neoclassical view of economic development, which limited the role of the government to the correction of market failure[3].

In the late 1980s, the Japanese government began promoting the developmental state concept actively throughout East Asia. In 1989, a dispute occurred between the World Bank and Japan's Overseas Economic Co-operation Fund (OECF)[4] over the credit policy of the Philippines. The World Bank criticised OECF's subsidised targeted loans, called "two-step loans"[5], which it believed might jeopardise the IMF's Extended Facility and the Bank's Financial Sector Adjustment Loan

[3] According to "fundamental theorems of welfare economics" or the condition of "universality of market", the exisitence of technological externality justifies this role of the government (Scitovsky, 1954).

[4] The OECF and JEXIM bank merged to form the Japan Bank for International Co -operation (JBIC) under the MOF jurisdiction in October 1999.

(Wade, 1996). The OECF unwillingly compromised by adjusting the interest rate, increasing it to the minimum market rate of the time (Eming, 1999: 62). Masaki Shiratori, who had become executive director for Japan at the World Bank in 1989, and Isao Kubota, seconded from the Ministry of Finance of Japan (MOF) as managing director of OECF's co-ordination Department, lobbied the MOF to supply funding for a series of studies to be conducted by the Bank's research department to analyse East Asian economic development. Lewis Preston, who had just been appointed president of the World Bank in 1989, accepted Japan's offer[6] (Terry, 2000).

There were perhaps two reasons for Japan's pressure on the World Bank: the first was ideological. Japan's subsidised, targeted loans in Southeast Asia, which were criticised by the World Bank, were seen by Japan as its greatest post war achievement. The Japanese government, in particular the MOF, wanted to demonstrate the effectiveness of the loans. Moreover, Japanese officials believed that state intervention can be more effective than the World Bank's *laissez-faire* approach (Wade, 1996: 13). Seiichi Otsuka, director of the evaluation division of the Economic Co-operation Bureau at the Ministry of Foreign Affairs of Japan (MOFA), told a closed meeting of U. S. and Japan academic and aid officials in 1995, that "selective government intervention" is "the paradigm for development in East Asian countries". He claimed that Japanese aid complements, practically and philosophically, the developmental needs of

[5] The Two-step loan is a Japanese-English term for lending operations in which OECF/JEXIM made a loan to a developing country government or government agency, which then lends the funds on to private entities in a targeted sector of the developing economy. The loans, offered at a below-market interest rate, were commonly channelled through national development banks to agriculture and small and medium-size enterprises (Eming, 1999: 60-61).

[6] Japan provided US$2. 2 million for the East Asian Miracle studies, which cost almost the same as the World Development Report (Wade, 1996: 18).

Asian countries (Terry, 2000: 78). Behind this view lay solid commercial aims. The establishment of Japan's powerful market presence across East Asia was a high priority of the Japanese government.

The second reason was, then, that the government viewed Japan's foreign aid programmes in East Asia as a key strategy for bailing out Japanese industry from the effect of the appreciation of the yen since the mid-1980s (ibid.: 82). In order to create a system that would leave Japan as the brain behind the world's most dynamic economic consortium, the Japanese government had to convince East Asian nations of the need for a region-wide intervention at industry level. This policy is implemented in harmony with Japanese production relocation in the region. This in turn would make production more systematic, rather than merely a convenience for any one single company's investment (ibid.: 94). For instance, the Malaysian government was persuaded to provide special support to the Malaysian joint-venture partner of a Japanese firm and to the Japanese firm directly through targeted loans and protection (Wade, 1996: 13).

In response to Japan's challenge, the World Bank could not accept the concept of state interventionist economic policies because of the following aspects. Firstly, Japan's idea of the role of the state would reduce the role of the World Bank. For instance, Japan's concession loans made the bank's credit less attractive for East Asian nations. Secondly, the World Bank is used as an instrument of the United States as a source of external infrastructural power and Japanese ideas would work against the strategic and diplomatic power of the United States (ibid.: 15).

The semi-annual consultation meeting between Japan and the World Bank in May 1991 allowed both sides to air their differences and find broad areas of mutual agreement. Shortly after the meeting, the World Bank introduced the idea of a "market-friendly" approach to development, in which the government and market work together (Eming, 1999:

74-75). It was accepted that when markets fail, it is possible that government intervention can be justified, though the report further stated that "to justify intervention it is not enough to know that the market is failing; it is also necessary to be confident that the government can do better" (World Bank, 1991: 131). Notwithstanding that the World Bank's concept of the role of the state moved slightly closer towards the Japanese view of government-market relations, they continued that when the government has no choice but to intervene, it should do so reluctantly, openly, and with clear checks and balances (ibid.: 5). Furthermore to enhance government-market "complementarity", reformers must strengthen institutions, invest in people, open economies to international trade and investment, and get macroeconomic policy right (ibid.: 10-11).

In January 1992, the World Bank, headed by John Page, commenced an eighteen-month study of high-performing Asian economies (HPAEs) that was to be completed in time for the September 1993 annual meeting. Eventually World Bank (1993) acknowledged the success of Japanese policy management, with particular focus on the positive role of the government in economic development. However, the report did not reflect Japan's hope that it would endorse the concept of industrial policy. It struck a middle line that defended the neoclassical position of *laissez-faire* and East Asia's state intervention as a "market-friendly" complement in its portrayal of East Asian development (Wade, 1996; Eming, 1999). From the Japanese perspective, directed credit and targeting particular sectors are the most effective tools of economic development. However, the report partly denied that industrial and promotional policies were a factor in East Asian productivity growth and partly acknowledged it. In other words, the report did not entirely accept Japan's concept of industrial policy

For instance, the report partially took the view that selective industrial promotion cannot raise national welfare, and so mentioned that it did not

do so in East Asia (Wade, 1996: 27). The World Bank stated that:

> "Industrial policy narrowly defined - that is, attempts to achieve more rapid productivity growth by altering industrial structure - was generally not successful. In Japan, Korea, Singapore, and Taiwan, China, promotion of specific industries had little apparent impact. Industrial growth tended to be market-conforming, and productivity change was not significantly higher in promoted sectors. Although governments in these four economies were undoubtedly trying to alter industrial structure to achieve more rapid productivity growth, with the exception of Singapore their industrial structures evolved largely in a manner consistent with market forces and factor-intensity-based comparative advantage" (World Bank, 1993: 354-355).

In direct contradiction to this, the report also partly acknowledged industrial policy in East Asia, stating that:

> "...very rapid growth of the type experienced by Japan, the Four Tigers, and more recently the East Asian NIEs has at times benefited from careful policy interventions. All interventions carry costs, either in the direct fiscal costs of subsidies or forgone revenues, or the implicitest rate controls. Unlike many other governments that attempted such interventions, HAPE governments generally held costs within well-defined limits. Thus price distortions were mild, interest rate controls used international interest rates as a benchmark, and explicit subsidies were kept within fiscally manageable bounds" (ibid.: 24).

In response to the World Bank's report, Shiratori accused the World Bank of having an unwillingness to accept Japan's notion of industrial

policy entirely, stating that:

> "Japan's industrial structure did not 'evolve largely in a manner consistent with market forces and factor intensity based on comparative advantage' as the report claims... Rather, the government actively intervened to develop specific industries with high growth potential. We picked winners such as steel, shipbuilding, synthetic fibres, petrochemicals, automobiles, machinery and parts, electric appliances and electronics, and so forth, most of which were infant industries in Japan at that time. I totally disagree with the report's statement that 'many infant industries have never grown up'" (Terry, 2000: 87).

As Shiratori explained, state intervention has been effectively employed for the industrial development of East Asian economies. The governments of East Asia have strategically intervened in the market through targeting particular industries. This feature can be identified not only in Japan, but also in Korea and Taiwan. In Taiwan, the government has played an important role in the development of the petrochemical, steel and shipbuilding industries through state-owned corporations, such as the Chinese Petroleum Corporation and the Taiwan Shipbuilding Corporation. Industrialisation of East Asia has been facilitated by the direct intervention of the state.

Japan's challenge to the World Bank was both a failure and a success. As a failure, the Japanese government could not entirely convince the World Bank to admit that industrial policy is important. However, the World Bank recognised that some state intervention policies can lead to rapid growth. As a success, Japan's strategy to study East Asia was a foreign policy success for Japan. As a result, the concept of "state intervention" or "industrial policy" was paid more attention. Shiratori com-

mented that "the World Bank is still dominated by the neoclassicists. But I see a very tiny change. When I was at the Bank board, and when young Japanese economists tried to talk about subjects such as directed credit or industrial policy, they were put down. Now they can openly talk about the replication or application of these policies" (Terry, 2000: 88).

5. The Rise of the Free Trade Regime and Industrial Policy

After the Asian Crisis in 1997, the neoclassical Washington Consensus agenda (e.g. maximum integration into the world economy and domestic reforms to stabilise integration and make domestic markets more efficient) has become significant in the world economy (Wade, 2004). In addition, the World Trade Organisation's (WTO), Agreement on Trade-related Investment Measures (TRIMS) and Agreement on Trade-related Aspect of Intellectual Property Rights (TRIPS) have become the force to support the agenda. Some scholars have argued that the Crisis attacked a number of East Asian countries, which had adopted variants of the Japanese model of development, and this would therefore lead to the end of industrial policy (Cumings, 1999). Obviously "development space" in East Asian nations has been shrinking since the Crisis, due to East Asian developmental states being forced to reduce the direct intervention role of the state, replaced by the wave of globalisation in comparison with previous decades.

Under the rise of free trade regime, East Asian developmental states, in particularly Southeast Asian states, have faced some difficulties in upgrading their economy, because nation-states cannot adopt traditional interventionist policies, such as export incentives and infant industry protection. Therefore, economic liberalisation has left these economies with little other option than to depend on industrial upgrading as a strategy to leverage national benefits from FDI (Prichard and Natsuda,

2005). Nonetheless, industrial policies still remain in East Asia. Elements of the policies have shifted from traditional interventionist policies (or direct state intervention) to more market-conforming industrial policies (or indirect state intervention) to enhance the competitiveness of the nations.

In the late 1990s, the Ministry of International Trade and Industry (MITI) / the Ministry of Economy, Trade and Industry (METI) of Japan implemented three policies in order to facilitate the nation's competitiveness. The first type of policy was associated with economic-wide reforms, involving e-commerce standards and regulation, revision of the Commercial Code, facilitation of corporate reorganisation, reform of the tax structure, pensions and labour standards, promotion of research and development and improved access to financing for new business. The second policy type was associated with the promotion of new industry and firms. In contrast to traditional policies, such as infant industry protection, allocation of capital, entry licensing, restriction of competition and export incentives (which became unfeasible under the free trade regime), new policies were based upon market-conforming, such as developing technology, improving human resources, increasing information and reducing transaction costs. For instance, MITI/METI suggests that smaller companies can commercialise new technology rapidly through access to venture capital, experienced management, contract manufacturing, promoting start-ups and new venture business through finance and credit guarantees. MITI/METI's affiliate, the Small and Medium Enterprise Agency, has a large budget for loans and various subsidies to small business. The third policy type was associated with the enhancement of the international competitiveness of industries. Through the distribution system, many industries, including the manufacturers of basic goods such as steel, chemicals and paper, enjoyed a certain amount of privatised protection, which in turn created very little incentive to change lax

antimonopoly laws (Elder, 2000: 8-10).

Since the late 1990s, MITI/METI's new industrial policies, to some degree, have been associated with the framework of Michael Porter's diamond model (Porter, 1990). MITI/METI has been trying to enhance four elements: (1) factor conditions, (2) demand conditions, (3) related and supporting industries and (4) firm strategy, structure and rivalry are required to improve.[7] Porter's concept of competitive advantage shows a more in-depth analysis of the creation of industrial development than the World Bank's "market-friendly" approach.

Despite MITI/METI's effort to change industrial policy in response to world business environment changes, one element has never changed -

[7] Factor conditions involve: human resources, physical resources, knowledge resources, capital resources, and infrastructure. Demand conditions involve a product at home (the quality and quantity of home demand). The presence in the nation of supplier industries or related industries enhances potential advantages in firms using their products as inputs. Firms' strategies, structure and rivalry vary widely among nations. National advantage results from the combination between these choices and the sources of competitive advantage of a particular industry. Domestic rivalry creates pressure to innovate and it enables a nation's firms to upgrade their joint competitive advantage. Porter suggests that competitive advantage of a nation results from the inter-linkage between four determinants: no one can be viewed in isolation (Porter, 1990).

[8] These industries include new manufacturing technology for the integration of IT, which includes new chemical processes, micromachines, robots, lasers, new materials, air and space industries for next-generation supersonic planes, avionics and global positioning system (GPS). New energy and energy conservation industries for refuse-derived fuel, clean-energy vehicles, solar power, an urban environment industry for new environmentally friendly materials for urban construction, building ventilation systems, new transportation, environment and safety systems. A biotechnology industry, for use of genetic technology, for medicine, agriculture, chemical and energy.
http//: www.kantei.go.jp/jp/kaikaku/pamphlet/p23.html [Accessed 13th June 2005]

namely, MITI/METI's universal industrial policy, targeting industries. The Cabinet's *Action Plan for the Reform and Creation of Economic Structure* identified 15 industries for target promotion.[8] MITI/METI has shifted their industrial policies from a more traditional to a market-conforming model. However it has never given up targeting industries. These selected industries are expected to have potential high growth and the creation of employment in the future.

Taiwan took a similar approach, and targeted the biotechnology industry as their future growth strategy in response to the words of President Chen, "the most important industry to Taiwan's future economic development" (Wade, 2004: xxxix). In the industry, there are no state-owned enterprises. However, through an array of incentives for new companies, patents, new products, R&D and drug testing, private firms are steered in line with a coherent national strategy. This strategy also includes state-run banks, offering preferential, low-interest loans for bio-tech start-up, subsidies for infrastructure to encourage the development of biotech clusters and using existing programmes, such as the "diaspora", to link Taiwan bio-scientists abroad with Taiwanese public agencies and firms (ibid.: xl).

The policy markers in East Asia believe indirect intervention is the only effective method of state intervention in the era of the free trade regime. Hence, in East Asian developmental states, the market-conforming methods of state intervention have been playing an important role in industrial development in recent years.

6. Concluding Remarks

This paper has examined issues concerning industrial policy in East Asian developmental states. To summarise, Southeast Asian states are slightly different from Northeast Asian developmental states in regards to eco-

nomic growth, resource development, the breakdown of human resources, the role of foreign capital and technology, and industrial policies. However, as in the case of Northeast Asia, Southeast Asian economic development is not based on the Anglo-American *laissez-faire* market economy. In other words, the governments in Northeast Asia and Southeast Asia have played an active role in industrialisation and economic development. Given this context, Southeast Asian states could be regarded as "quasi-developmental states" in that the nation-states of Southeast Asia have strongly influenced the pattern of industrialisation and development but in a less coherent and consistent manner than those of Northeast Asia.

Secondly, since the late 1980s, the Japanese nation-state has strategically tried to persuade the World Bank to view its "industrial policy" favourably, in particular its strategy of targeting specific industries for development. In September 1993, *The East Asian Miracle: Economic Growth and Public Policy*, a report by the World Bank, acknowledged the success of Japanese policy management, with particular focus on the positive role of the government in economic development. However, the report did not reflect Japan's hope that the World Bank would endorse the concept of industrial policy. It struck a middle line that defended the neoclassical position of *laissez-faire* and East Asia's state intervention as a "market-friendly" complement in its portrayal of East Asian development. The World Bank recognised that some state intervention policies can lead to efficient growth. On a positive note, the Japanese intellectual attempt to study East Asia was a foreign policy success for Japan.

Thirdly, due to the result of the Asian Crisis and the rise of the Washington Consensus agenda, East Asian developmental states have been required to redesign their industrial policies since the late 1990s. The East Asian developmental states have shifted from traditional methods of state intervention based on subsidy and protection, to employing a more market-conforming industrial policy including developing technology,

improving human resources and increasing information, which is consistent with Porter's notion of "competitive advantage". Despite this change, the essence of industrial policy in East Asian states is still targeting industry, which is based on the developmental state model.

On the theory of trade agreements, an alternative political economy framework might be more appropriate for issues of policy-making as in Maggi and Rodriguez-Clare (1988). This framework would have governments maxmize welfare at the stage of institution design, but anticipate that ex post they will be subject to political pressure. It should be noted that our research has not taken into account political considerations such as commitement in relation to domestic agents. This task is left for future work.

Appendix

Development as a "Co-ordination Game"

There are situations where co-operation within a particular industry can increase the potential for growth and profitability among participating corporations; much more so than is possible on an individual basis. The potential of this industry co-operation highlights the need for further co-ordination among industries of developing nations, and as such becomes the "co-ordination problem" (e.g. see Schmid, 2004). On this note, we shall interpret the lower levels of "developmentalism" as a co-ordination failure. Thus, quasi-developmental states, such as Southeast Asian countries, have a higher number of co-ordination failures than do their Northeast Asian counterparts, and as such, the latter can be seen to co-ordinate the market more effectively.

The figure below represents two producers ("1" and "2") in a particular industry, who must independently decide whether or not to manufacture a product: it is a critical assumption that these binary decisions are made independently. "1" and "2" producers incur no costs and obtain no benefits or revenues should they choose not to initiate production, and therefore, their profits are equal to zero. On the other hand, if "1" producer, for instance, choose to manufacture, they incur a certain cost, $c>0$, and manufactures one unit of a product. This product has no benefit to "1"

producer that manufactured it, but it has a benefit $b>c$ to "2" producer. If both producers choose to manufacture one unit of a product, exchange is possible, otherwise it is not. Therefore, the net benefits of a producer who manufactures are equal to $v=b-c$ if the other producer manufactures and $-c$ if the other producer does not.

		2	
		P	NP
1	P	v,v	$-c,0$
	NP	$0,-c$	0,0

Figure: A co-ordination game

This situation is described by the "normal-form game" described above (for a co-ordination game, e.g. see Cooper, 1999; Osborne and Rubinstein, 1994). Producer "1"s strategies are shown along the side of the matrix: it either produces (P) or does not to produce (NP). Producer "2"s strategies are the same, and they are shown along the top of the matrix. Each pair in the matrix corresponds to a particular strategy for "1" and "2", respectively. Under the combinations of strategies, the first and second numbers in each pair are "1" and "2"s profits, respectively.

Among four pairs of strategies, in two of these pairs, (P, P) (NP, NP) and, are Nash equilibria (because if neither "1" and "2" can increase its own profits by unilaterally co-ordinating its own strategy, then the combined strategy is Nash equilibrium in this normal-form game). There exists two equilibria, one in which each producer does not manufacture because the other producer does not, and one in which each producer manufactures because the other does.

We can interpret the former as being a lower level "developmental" state or so-called "quasi-developmental state" in our context and the latter as being a "developmental" state. The government in developmental states can co-ordinate the market effectively by employing market-conforming industrial policies. In contrast, the government in the quasi-developmental states often co-ordinates the market ineffectively, for instance employing subsidies for political cronyism or non-economic goals.

The producers in a particular industry would rather be in a developmental state,

but if they are in lower level developmental state, neither producer has any incentive to change its behaviour. The lower level developmental state is not Pareto optimal, because, in equilibrium, both producers are better off at the developmental state level. Therefore, a co-ordination of their manufacturing is needed.

References

Akyuz, Y, Chang H.J. and Richard K. W. (1998) "New Perspectives on East Asian Development", *Journal of Development Studies*, vol.34, no.6, pp.4-36.

Amsden, A. (1989) *Asia's Next Giants: South Korea and Late Industrialization*, New York, Oxford University Press.

Amsden, A. (1991) "Diffusion of Development: The Late-Industrializing Model and Greater East Asia", *The American Economic Review*, vol.81, No.2, pp.282-286.

Booth, A. (1999) "Initial Conditions and Miraculous Growth: Why is South East Asia Different from Taiwan and South Korea?", *World Development*, vol.27, no. 2, pp.301-321.

Cooper, R. W. (1999) *Coordination Game: Complementarities and Macroeconomics* Cambridge, Cambridge University Press.

Cumings, B. (1999) "The Asian Crisis, Democracy, and the End of 'Late' Development" in Pempel T.J. (ed.) *The Politics of the Asian Economics Crisis, Ithaca*, Cornell University Press.

Elder, M. (2000) "Chapter 7 METI and Industrial Policy in Japan: Change and Continuity", *The Japanese Economy*, vol.28, no.6, pp.3-34.

Eming, A. (1999) "Japan's Challenge to the World Bank: An Attempt at Intellectual Contribution", *The Japanese Economy*, vol.27, no.1, pp.46-96.

Evans, P. (1995) *Embedded Autonomy: States and Industrial Transformation*, Princeton, Princeton University Press.

Gerschenkron, A. (1962) *Economic Backwardness in Historical Perspective*, Cambridge, Harvard University Press.

Johnson, C. (1982) *MITI and the Japanese Miracle*, Stanford, Stanford University Press.

Johnson, C. (1987) "Political Institutions and Economic Performance: The Government-Business Relationship in Japan, South Korea and Taiwan" in Deyo, F (ed.) *The Political Economy of the New Asian Industrialism*, Ithaca, Cornell University Press.

Johnson, C. (1999) "The Developmental States: Odyssey of a Concept", in Woo

-Cuming, M (ed.) *The Developmental State*, Ithaca, Cornell University Press.

Jomo K. S. (2001a) *Southeast Asia's Industrialization: Industrial Policy, Capabilities and Sustainability*, New York, Palgrave.

Jomo K. S. (2001b) "Growth After the Asian Crisis: What Remains of the East Asian Model?", *G-24 Discussion Paper*, no.10, New York and Geneva, United Nations.

Jones, L. and SaKong Il (1980) *Government, Business, and Entrepreneurship in Economic Development: The Korean Case*, Cambridge, Harvard University Press.

Maggi, G. and Rodriguez-Clare, A. (1998) "The value of Trade Agreements in the Presence of Political Pressures", *Journal of Political Economy*, vol.16, no.3, pp.574-601.

Nester, W. (1991) *Japanese Industrial Targeting: The Neomercantilist Path to Economic Superpower*, London, MACMILLAN Press.

Kim W. and Lee Y. (2000) "Prospects for East Asian Economic Regionalism in the 21st Century", *Global Economic Review*, vol.29, no.2, pp.83-102.

Osborne, M.J. and Rubinstein, A. (1994) *A Course in Game theory*, Cambridge, Mass, The MIT Press.

Pasuk, P. (1996) "The Thai Economy in the Mid-1990s", in Institute of Southeast Asian Studies (ed.) *Southeast Asian Affairs 1996*, Singapore, Institute of Southeast Asian Studies.

Pempel, T. J. (1999) "The Developmental Regime in a Changing World Economy", in Woo-Cuming, M (ed.) *The Developmental State*, Ithaca, Cornell University Press.

Porter, M. (1990) *The Competitive Advantage of Nations*, New York, The Free Press.

Prichard, B. and Natsuda K. (2005) "Leveraging the Economic Benefits of Foreign Direct Investment in Southeast Asia", in *Building Institutional Capacity in Asia 2004-2005: Regulating Foreign Direct Investment Southeast Asia at Crossroads*, Sydney, Research Institute for Asia and the Pacific, University of Sydney in association with Ministry of Finance, Japan.

Rasiah, R. (2001) "Southeast Asia's Ersatz Miracle: The Dubious Sustainability of Its Growth and Industrialization" in Jomo K. S. (ed.) *Southeast Asia's Industrialization: Industrial Policy, Capabilities and Sustainability*, New York, Palgrave.

Schmid, A.A. (2004) *Conflict and Cooperation: Institutional and behavioral Economics*, Malden, MA, Blackwell Publishers.

Scitovsky, T. (1954) "Two Concepts of External Economies", *Journal of Political*

Economy, vol.62, pp.143-151,

Terry, E. (2000) "How Asia Got Rich: World Bank vs. Japanese Industrial Policy", *The Japanese Economy*, vol.28, no.2, pp.76-96.

Wade, R. (1990a) "Industrial Policy in East Asia: Does it Lead or Follow the Market?" in Gereffi, G. and Wyman, D. (eds.), *Manufacturing Miracles*, Princeton, Princeton University Press.

Wade, R. (1990b) *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization*, Princeton, Princeton University Press.

Wade, R. (1996) "Japan, the World Bank, and the Art of Paradigm Maintenance: The East Asian Miracle in Political Perspective", *New Left Review*, 217, pp.3-36.

Wade, R. (2004) *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization* (with new introduction), Princeton, Princeton University Press.

Weiss, L. (1995) "Governed Interdependence: Rethinking the Government-Business Relationship in East Asia", *The Pacific Review*, vol.8, no.4, 1995, pp.589-616.

World Bank (1991) *World Development Report 1991*, New York, Oxford University Press.

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

Yoshihara K. (1988) *The Rise of Ersatz Capitalism in Southeast Asia*, Singapore, Oxford University Press.