Development with and beyond the market: in search of economically rational alternatives to neo-liberalism

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Chapter 4 - The NIC Experience

Introduction

Market failure is far more pervasive, and the potential for states to play a more active role in their economies to improve on market outcomes is greater, than economists have generally acknowledged. However, as the neoclassical political economy (NPE) literature has also shown, attempts by states to improve on market outcomes frequently do more harm than good. In relation to developing countries, two main sources of government failure have been identified - the inability of governments to keep in check the rent-seeking propensities of the private sector, and the predatory actions of state officials who use the apparatus of the state to serve their own ends.1 Theoretically, neoclassical political economists could have used such insights as a starting point from which to explore the type of institutional arrangements required to increase the chances of interventionist policies succeeding. As discussed in the previous chapter, the reality has been that they have tended to come down heavily in favour of a relatively minimalist role for the state.

One of the strongest challenges to this ‘minimalist state’ world view has been mounted by analysts whose research efforts have been focussed on identifying what the more successful late-industrialising economies did right; in particular, on the question of why Hong Kong, Singapore, South Korea, and Taiwan - Asia’s four Newly Industrialised Countries (NICs) - have been so successful. At least until recently, these countries managed to combine high rates of economic growth for an extended period with levels of income inequality well

below the developing country average. Political economists such as Robert Wade and Alice Amsden argue that with the exception or partial exception of the more free market-oriented Hong Kong, a major reason for this success has been the willingness of governments to intervene extensively in their economies. For many analysts, this has also been the secret of Japan’s economic success.

**Aims and Structure of this Chapter**

This chapter examines what role the state played in the success of the NICs and what lessons other developing countries can learn from their experience. The main focus will be on South Korea and Taiwan, the two most relevant NICs for comparative purposes. Hong Kong and Singapore are small city-states and are unusual as, among others things, they have effectively acted as metropolitan hubs to larger regions. In fact, as John Quiggan points out, if regression-type analysis was undertaken on the basis of population rather than on the ‘basis of more-or-less arbitrary political boundaries, Hong Kong and Singapore would be no

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more important than rapidly growing European cities like Frankfurt and Milan.\(^5\)

This chapter is structured as follows: Section 1 identifies areas of state intervention in both South Korea and Taiwan, as well as some of the costs of this intervention. Section 2 explores whether the state in these two countries has been as capable, strong and autonomous as the ‘statist’ literature generally suggests. This includes a discussion on the role of broader domestic and international factors in determining why some countries are more successful than others. Following this, sections 3 and 4 then examine two of the main responses to the ‘statist’ challenge by supporters of more conventional economic policies. The first is that contained in a special report on the East Asian economies by the World Bank. The second is the less orthodox response by Paul Krugman and other advocates of what I refer to below as the ‘input driven growth’ thesis.

1. Structural Change in Korea and Taiwan

1.1 The Agricultural Sector

As discussed more extensively in chapter 8, agriculture played a more important role in Taiwan’s early success than it did in Korea’s. In Taiwan, high levels of agricultural output and productivity provided the initial impetus to the growth of the economy as well as played an important role in encouraging a more decentralised and equitable pattern of development in which small and medium enterprises were able to flourish (see section 5.5 of chapter 8).\(^6\)

In 1960, 60 percent of Taiwan’s foreign exchange earnings came from agriculture.\(^7\)

Extensive land reforms, well developed rural infrastructure, and the introduction of new technologies had ensured that the agricultural sector still grew rapidly, despite initially

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being squeezed by the government to support its industrialisation efforts. In the early stages of the post-war development effort, the state extracted a large volume of material resources from agriculture in the form of food, finance, labour, and exports. As Mick Moore and others have documented, 'the main mechanisms used were: obligatory rice deliveries from all paddy farmers at low prices; monopoly control over fertiliser supply, sugar cane processing, and foreign trade in the major agricultural commodities; and a quasi-monopoly of the food grain trade.'

Korea, too, introduced major land reforms. However, during the Rhee years (1948-60) the agricultural sector was neglected, and until the late 1960s, when the United States started to withdraw its concessionary food grain grants, the country supported its industrialisation push with large amounts of overseas food aid. Consequently, agriculture played a lesser role in the development process in Korea than it did in Taiwan, or is required to do in most other developing countries. The performance of the agricultural sector significantly improved from around the start of the 1970s, following the introduction of new High Yielding Varieties (HYVs) of seeds and other 'Green Revolution' technologies. Even by the 1980s, agriculture still accounted for about 30 percent of employment.

The Korean government has, in various periods, resorted to non-textbook strategies to increase production. Included amongst these were 'exhortation, mobilisation of peer group pressure, discretionary bargaining, deception, and outright coercion.' Some analysts have

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8 As discussed in more detail below, from around 1960 onwards the overall rate of agricultural protection shifted from negative to positive. In 1955-59, for example, the weighted average was minus 21 percent while 1980-82 it was plus 55 percent. On this see Chowdhury, A. and Islam, I. 1993. The Newly Industrialising Economies of East Asia. London, Routledge, p. 237.


11 Amsden, Asia's Next Giant, op. cit., pp. 16-17.

suggested that such an approach was needed, as the majority of scientists and farmers in this
country were ambivalent about the rapid replacement of traditional rice varieties with new
varieties. According to Larry Burmeister, once an area was identified for targeting, pressure
was put on farmers to ensure compliance. They were visited frequently by officials (which
in Korean society is an effective bureaucratic tool) and the career prospects of
administrators implementing the new strategy were tied to how successful they were.
Subsidised fertiliser was also offered to encourage farmers to change over. In addition,
extension workers and other officials such as country magistrates, township and village
chiefs and the police were given responsibility for ensuring targets would be met.  

As well as the above, an extra layer of bureaucracy was activated called the Saemaul
Undong (New Village) Community Development Program, whose role was to modernise
villages, transforming villagers' attitudes towards change, and improving village
infrastructure such as sanitation and irrigation. As Wade documents, the interference of the
state in the villagers' lives even went as far as telling them when to replace traditional roofs;
if they did not the roofs were often forcibly removed.  
Burmeister has noted similar
instances of coercion, including the forcible destruction of the seedbeds of farmers who
refused to make the changeover from traditional varieties to new high-yielding varieties.

1.2 Export-Oriented Industrialisation

The 'statist' literature generally acknowledges that the early success of Korea and Taiwan
(and other NICs) in the export of manufactured goods was supported by policies that came
close to the neoclassical ideal. A stable macroeconomic climate was maintained, inflation
was kept low and exchange rates were kept competitive. In addition, wages were set at
levels to clear and inputs needed for export industries were freely available at competitive

13 On this see Burmeister, L. 1990. 'State, Industrialisation and Agricultural Policy in Korea.'
_Development and Change_ 21: 197-223; Burmeister, L. 1987. 'South Korea's Green Revolution:
Induced or Directed Innovation?' _Economic Development and Cultural Change_ 35, pp. 767-790;
Revolution._ Westview Press, Boulder, CO.

14 Wade, South, _op. cit._

15 Burmeister, State, Industrialisation and Agricultural Policy in Korea, _op. cit._
However, in both countries the export push went beyond this and included additional supportive measures to facilitate the rapid development of labour-intensive industries. In Korea during the 1960s and 1970s, these included preferential loans, tax and tariff exemptions and wastage allowances.

In relation to textiles, Amsden argues that subsidies were needed, as otherwise, even with cheaper labour costs, Korean exports could not have hoped to compete with Japanese ones. Despite such incentives, companies still found it more profitable to sell to the domestic market than to export. The Korean government overcame this problem by setting compulsory export targets. The Taiwanese government also resorted to similar strategies to encourage the export of light industrial goods. While it questions whether these strategies are appropriate in the current world economic climate, a 1993 report by the World Bank on the East Asian economies also found that export subsidies and the setting of export targets did have a positive economic impact in these two countries. This report, which covers the NICs, the NIEs and Japan, is entitled 'The East Asian Miracle' and is hereafter referred to as the EAM report. The findings of this report are explored in some detail in section 3.

1.3 Heavy and Chemical Industry Policy in Taiwan and Korea

Both the Korean and Taiwanese governments intervened even more extensively in the development of their heavy and chemical industrial (HCI) sectors. Wade quotes from Taiwanese government reports which suggest that as early as the late 1950s and 1960s the state had started to push resources into this sector of the economy against its supposed

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17 Amsden, op. cit., p. 68.

18 In support of the necessity of this, Amsden (ibid., pp. 69-70.) refers to a study mentioned of the impact of these targets: 37 percent of respondents replied that they had benefited from it, 10 percent said there was no effect, while 53 percent were of the opinion that the effects had been negative.


comparative advantage.\textsuperscript{21} The EAM report cites the autobiography of an unnamed major architect of Taiwan's development strategy that supports this view.\textsuperscript{22}

The Taiwanese government continued to provide general support for industries it considered important, as well as more specific support for particular products. Import controls and tariffs were some of the mechanisms employed, as well as preferential allocation of credit, preferential treatment for foreign investors in strategic industries, local content requirement for investors, the forcing of mergers to acquire economies of scale, extensive support for R and D, and the widespread use of public corporations to create new capacities in upstream activities such as steel, shipbuilding, and heavy industry, where entry barriers were high.\textsuperscript{23} In the 1950s, over 50 percent of manufacturing output was accounted for by state-owned enterprises. This had declined to about 15 percent by the 1980s.\textsuperscript{24}

In Korea, government intervention was even more ubiquitous. In an attempt to deepen the development process, the Korean government applied a far greater amount of overt pressure on the economy, including the use of direct instructions to firms backed by the threat to withhold credit and foreign exchange. To ensure domestic control, the government also restricted and regulated the inflow of foreign direct investment (FDI); industries were encouraged instead to use licensed technology and foreign capital loans. FDI was only permitted in two circumstances - when it resulted in exports or when it provided technology which could not be obtained locally or under license.\textsuperscript{25} The development of the steel industry provides a good illustration of the Korean state's willingness to ignore conventional economic wisdom. When the request for start-up funds was rejected on comparative advantage grounds by international lenders such as the World Bank and USAID, most of the finance needed for its development was subsequently obtained from

\begin{itemize}
\item \textsuperscript{21} Wade, Governing the Market, \textit{op. cit.}, pp. 87-88.
\item \textsuperscript{22} The World Bank, The East Asian Miracle, \textit{op. cit.}, pp. 308-310.
\item \textsuperscript{23} Mathews and Ravenhill, Strategic Trade Policy, \textit{op. cit.}; Wade, Governing the Market, \textit{op. cit.}, pp. 108-12.
\item \textsuperscript{24} Chowdhury and Islam, \textit{op. cit.}, pp. 97-98.
\item \textsuperscript{25} Amsden, \textit{op. cit.}, CHs. 10-12; Mathews and Ravenhill, Strategic Trade Policy, \textit{op. cit.}
\end{itemize}
Japan, predominantly in the form of war reparation funds.26

The most extensive intervention by the Korean State occurred between 1973 and 1979 with the introduction of the 'big push' strategy.27 This was an attempt to rapidly transform the economy by co-ordinating the channelling of public and private investment into capital and knowledge-intensive industries.28 Some of the recent economic literature, with its emphasis on such factors as increasing returns and endogenous technological development, provides theoretical support for such an approach.29 In fact, according to some analysts, not only did the Korean government succeed in generating the type of dynamic flow-on effects discussed in the previous chapter, their policies also ensured that the country's shipbuilding, automobile and semiconductor industries were able to benefit from the deterrent effect their development had on foreign competitors. One example given of such 'strategic trade' dynamics at work is that of price-cutting by Samsung, which supposedly forced Japanese companies out of key areas of the memory chip market.30


30 Mathews and Ravenhill, Strategic Trade Policy, op. cit.
2. The Role of the State

2.1 The Development State

Following the research of Chalmers Johnson on several East Asian economies including Japan, the concept of the 'development state' entered common usage to explain why interventionist policies supposedly succeeded in this region of the world and not elsewhere, and attempts have been made to characterise it. Many analysts believe that a key factor in understanding the 'development state' is the concept of state autonomy.31 This concept has been defined in a variety of ways - a core definition being that 'the state has been able to achieve relative independence (or insulation) from the demanding clamour of special interests, whether class, regional, or sectorial, and that it both can and does override these interests in the pursuit of national interest.'32

The relative autonomy supposedly attained by the Korean and Taiwanese states has been ascribed to a number of factors. These include the extensive land reforms that were undertaken (which weakened the power of the rural elite and lessened the chances of rural revolt), repression of unions, and the opportunity these two governments had to justify their actions by pointing to external and internal security threats. Other components identified as being important in each country were the structure of the political system and the capacity of economic institutions within it to plan for the long term, and the substantial inflow of aid, loans, and state-directed private investment which lessened the dependence of the state on domestic capital. Rapid economic growth also made it difficult for critics of the system to mobilise support.33


32 Leftwich, op. cit.

A second critical characteristic of the 'development state' is a comparative lack of self-enriching or predatory behaviour among officials. In Taiwan and Korea, the relative incorruptibility of their state officials is explained by a number of factors. Poor natural resources and the external threat posed by hostile neighbours are said to have led to a strong perception among politicians and bureaucrats that their success was tied to the success of the state. Other factors identified as playing an important role in the success of Taiwan and Korea were the large pool of technically trained manpower in these countries which exerted a strong discipline over the state, and the culture of social responsibility inculcated by the educational systems, which played the role that in western societies is divided between the school and the church. The fact that the US exerted strong pressure on Taiwan and Korea to implement constructive economic policies so that they would be able to maintain their strategic role as buffers against communism is perceived by many analysts to have also played an important role in shaping state policy.

2.2 The Not so Capable and Autonomous State

In both Korea and Taiwan, it is also possible to identify a number of areas where the actions of the state are at odds with the portrayal of the 'development state' presented in much of the 'statist' literature. One such area is that of agricultural protection. In both countries, especially in Korea, farmers received rapidly increasing protection from the mid-1960s onwards (see figure 4.1). By the start of the 1980s, this had become a costly burden for consumers and taxpayers, who had to endure food prices two to three times higher than on international markets. As Anis Chowdhury and Iyanatul Islam suggest, the most credible


Mathews and Ravenhill, Strategic Trade Policy, op. cit.


On this see Chowdhury and Islam, op. cit., pp. 66-71.
explanation for this situation is that farmers in both countries had a strong incentive to put pressure on the government to subsidise them as the comparative advantage of the Korean and Taiwanese economies began to shift away from agriculture. In contrast, food consumers had less incentive to lobby their respective governments to keep food prices in check, for, while they had been paying well above the world price for food, their incomes also rose rapidly in this period, so that the price of food was not as critical an issue for them.\textsuperscript{38}

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Chowdhury and Islam argue that the apparent failure of policy makers in Korea or Taiwan to keep a protectionist-seeking farming lobby in check and implement policies that are in the societal interest suggests that the state is not as strong, autonomous, or as capable as it is generally made out to be in the ‘statist’ literature. Their conclusion on the failure of these states to implement policies that serve the long-term social good is still valid even if the main purpose for the introduction of protectionistic agricultural policies is food self-reliance or concerns about rural-urban parity. This is because, as they point out, less costly ways can

be found of achieving both these goals. In relation to the former, they suggest that the most efficient way to achieve this is simply to depend on imports. As for rural-urban parity, this can be met more efficiently by adjustment assistance to farm families, including retraining and greater investment in formal schooling in the rural areas. 39

Even in the 1960s and 1970s the influence that non-state actors had on policy in other areas of the Korean economy was (for better or worse) greater than the 'statist' literature has implied. Business groups, for instance, successfully pressurised the government to modify its plans for the automobile and auto-parts industry. 40 Because of the existence of large, state-owned enterprises and a predominance of small firms in the private sector, business interests in Taiwan were initially less influential. In both countries, however, significant changes have occurred in the relationship between business and the state over time, as well as between these actors and other actors. These changes are the result of several factors, including the growing influence of the rapidly expanding business sector, the increasing assertiveness of the middle class, workers and social organisations, and the general push for greater democracy. 41

2.3 Costs and Effectiveness of Industry Policy

Industry policy in both South Korea and Taiwan was often less effective and more costly than implied in the 'statist' literature. In Taiwan, ventures in areas such as steel, shipbuilding, and petrochemicals were also forced to close down when assistance was wound back at the start of the 1980s. 42 Rather than seek to produce fertiliser domestically,


40 Doner, op. cit.


Taiwan would have been better advised to simply import it (see chapter 8). The standard cost of producing fertiliser in Taiwan in the 1960s was, for example, at least 50 percent above the world market price.43

When criticising the positive view of industry policy generally presented in the 'statist' literature, Chowdhury and Islam also cite the experience of the automobile industry, which failed to make inroads into foreign markets despite two decades of extensive state support.44 A more positive view of the consequences of state support in this area is presented by John McKay and Geoff Missen who point to the export success experienced by Taiwan’s engine and other automobile parts suppliers. These suppliers developed in response to state initiatives that encouraged the domestic production of automobiles.45

**South Korea's 'Big Push' Strategy**

South Korea's 'big push' strategy has been especially subject to strong criticism. It is claimed to have resulted in low financial returns (because of the excess capacity generated), as well as have a negative impact on inflation, debt and the current account. The fact that after a period of stagnation the economy grew rapidly following liberalisation and the dismantling of government support for the HCI sector is seen as confirmation of these assertions.46 The costs of the 'big push' strategy have undoubtedly been downplayed in some of the 'statist' literature. According to Amsden:

> A stunning fact about Korean Industrialisation is that at the beginning and end of the period of massive foreign borrowing to finance heavy industry, the debt/GNP ratio remained more or less constant, falling slightly from 34 percent in 1972 to 32 percent in 1979. Evidently the economy was using its credit productivity to generate high levels of output.47

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45 McKay and Missen, *op. cit.*

46 For a review of these criticisms see Auty, *The Macro Impacts of Korea's Heavy Industry Drive Re-Evaluated, op. cit.* See also World Bank, *The East Asian Miracle, op. cit.*, p. 309.

In using 1979 as a cut-off point, Amsden ignores the economic problems the country experienced between 1979-1981 and the major economic adjustments that were required. In turn, critics of the 'big push' strategy have not only put too much blame on this approach for the economic downturn experienced in this period, they have also ignored its role in the subsequent economic upturn. Richard Auty has pointed out that the HCI strategy was on track until the second oil shock in 1979. Other factors that had an inflationary effect in this period were the breakdown in wages policy that occurred and the large amounts of money that flowed into the country from the 300,000 Korean overseas workers who had gained employment in the Middle East construction boom.

Auty also identifies several flaws in the 'underutilisation of capital' argument, including the fact that some heavy industries did much better than others, while at the same time light industries were also subject to variable performances, with some showing very low rates of capital utilisation. In addition, many of the poorly performing heavy industries rebounded strongly in subsequent years. In fact, the HCI sector grew at a much faster rate than other areas of the economy, and by 1987 their share of manufactured output was 62 percent. While this success has been attributed by many economists to economic liberalisation, it is also the result of the utilisation of spare HCI capacity created during the 'big push' period, as well as an improvement in the international economic environment. Some of this spare capacity was obtained cheaply, as the Korean policy of supporting continued investment in heavy industry enabled firms to buy technology at basement prices when the world economy was depressed. When it rebounded, so did their exports.

Despite these beneficial consequences, South Korea's 'big push' strategy was undoubtedly a high-risk development strategy which required the simultaneous execution of many complex tasks and the commitment of large amounts of capital to projects requiring a long development time and a lengthy payback period. This meant that, even well before the

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48 World Bank, The East Asian Miracle, op. cit. 309.
49 Auty, The Macro Impacts of Korea's Heavy Industry Drive Re-Evaluated, op. cit.
50 Ibid.
current crisis, its economic performance was far more erratic than Taiwan's, with higher levels of inflation and debt.52

2.4 External Influences and the Curse of Abundant Resources

The ‘statist’ literature generally places too little emphasis on the role played by external factors in influencing policy. While, as this literature argues, NIC states were undoubtedly quicker than most to correct policy errors, it does not automatically follow that this can be attributed to their superior capabilities. The pressure exerted by international financial markets also needs to be considered. As Islam suggests, once policy makers opted for an export-oriented growth strategy and tied their own fortunes to its success, the discipline exercised by these markets often protected them from making persistent policy mistakes.53

While they recognise the importance of broader domestic and external factors in determining the type of opportunities open to developing countries, Amsden and other ‘statist’ authors (along with many neoclassical economists) have also fallen into the trap of assuming that the characteristics of the state overwhelmingly determine which countries are able to take the most advantage of existing opportunities. As the discussion in chapter 2 has already shown, this can be a risky assumption to make.

One prominent ‘statist’ author to criticise others for the narrowness of their approach is Wade. He points, among other things, to several factors which came together in the mid-1960s to open up opportunities for developing countries. Amongst these was a world-wide decline in transport costs, falling trade barriers in North America and Europe, and rising skill levels in developed countries which made unskilled labour scarcer and created a demand for labour-intensive, low-skilled imports. He goes on to argue that it is incorrect to assume (as he suggests Amsden, Stephen Haggard and others do) that if only the balance of class forces and politics had been different, Latin American nations would have been chosen as a source of these imports. In fact, the foreign exchange many of these nations


53 Islam, op. cit.
obtained from the exploitation of their abundant natural resources meant that they had less impetus to export manufactured goods in large quantities.\textsuperscript{54}

In general, developing countries which have been richly endowed with resources have not been particularly successful. Resource abundance often encourages excessive optimism about a nation's prospects which, in turn, leads to lax economic policies or makes it difficult for the government to convince others of the need to introduce the tough economic reforms necessary for long-term prosperity. Rising living standards and labour costs generated by the exploitation of resources can also bring about an increase in imports and inflation, as they prevent the development of basic industries based on low-wage manufactured exports.\textsuperscript{55}

As shown in chapter 2, an abundant supply of resources can also spur governments to massively over-invest in their development when commodity prices are high. Apart from the obvious long-term opportunity costs associated with this, additional costs are often generated when the business and labour interests that amass around the development of these resources mobilise to resist any changes in policy. As well, resource booms tend to encourage an unsustainable growth in the public sector, which also resists any changes (e.g. staff cuts). In spite of all this, an abundance of resources is not necessarily a curse, as the economic success of resource-rich Malaysia indicates, or indeed, as the earlier success of the Scandinavian countries shows.\textsuperscript{56}

\textsuperscript{54} Wade, East Asia's Economic Success, op. cit.


\textsuperscript{56} In the Scandinavian countries the early exploitation of agriculture, forestry, mining and cold water ocean resources led eventually to the extensive development of technologically intensive backward and forward industries. In Denmark, for example, sophisticated industries have evolved from basic food processing industries. These include industries producing drugs from animal organs, natural vitamins, enzymes for food processing, beer, refrigeration equipment, and measuring instruments for the food processing industry. In Sweden, initial success in the pulp and paper industry has been followed by success in industries such as prefabricated housing, hardwood flooring, furniture, wood handling machinery, pulp making and paper drying machinery, conveyer systems, sulphur boilers and chemicals used in pulp and paper making. On this see Ellison, C. and Gereffi, G. 1990. 'Explaining Strategies and Patterns of Industrial Development.' In Gereffi, G. and Wyman, D. L. (eds.), \textit{Manufacturing Miracles: Paths of Industrialisation in Latin America and East Asia.} Princeton University Press, Princeton, pp. 368-404; Porter, op. cit., 150 and 602; Pavitt, K. 1993. 'Floor Discussion.' In \textit{Proceedings of the
Wade also makes the point that the manufactured goods that were exported by Latin American countries tended to be more skill-intensive than those exported from the NICs - the result, among other things, of Latin America's highly unequal societies which subsidised tertiary education but neglected more basic education for the masses. From these perspectives, Latin America's notorious inward-looking manufacturing industries are as much a response to the problems they faced as a cause of it.57

2.5 The Recent Economic Crisis

The recent economic crisis in the East Asian region further highlights the importance of external factors in influencing outcomes. According to many commentators, this crisis is primarily the result of economic mismanagement by these states, as well as factors resulting from the too close relationship between governments and big business. These factors include cronyism and corruption, a lack of transparency in financial markets and insufficient competition in many industries.58

While partly valid, this explanation is seriously one-sided and often underpinned by some convenient leaps of logic. As the senior vice-president and chief economist of the World Bank, Joseph Stiglitz suggests, a curious feature of much of the recent commentary on these economies is that many of the factors now identified as being the cause of their economic problems are strikingly similar to those put forward in the past to explain their success:

Addressing information problems in an effective way, including through business-government co-ordination, was considered a hallmark of these economies' success; but this co-ordination is now viewed as political cronyism and lack of transparency is viewed as one of the main failings. Openness to international markets was hailed as one of the grounds of their success, yet insistence on eliminating barriers in capital and trade flows is an important ingredient in many of the reform packages. Macro stability, including low inflation, was agreed to be one of the key ingredients of the East Asian economies' remarkable performance, yet the Korean program


57 Wade, East Asia's Economic Success, op. cit.

58 See, for example, Editorial, Australian Financial Review, 22/10/97; Gittins, R. Whither Asia's Industry Policy, Sydney Morning Herald, 3/11/97, p. 39; Gittins, R. What Japan and Asia have to do, Sydney Morning Herald, 1/12/97, p. 37; Krugman, P. 'Wrong it Never Existed: Recent Crises Prove There's Nothing Superior about Asian Values,' Time Magazine, 24/11/97 (http://patfinder.eom/@@vaemaQAmyrngz/time/magazine/1997/int/970929/).
included a provision requiring the establishment of an independent central bank whose sole focus was price stability. Promoting competition, especially through export-oriented policies, was hailed as one of the central pillars of their stellar performance, yet lack of competition in the business conglomerates is seen as one of the critical failings. Finally,...what were previously viewed as strong financial markets, which were able to mobilise huge flows of savings and allocate them remarkably efficiently, have turned into weak financial markets which are blamed for the current crisis.59

Stiglitz and others such as Jeffrey Sachs point out that such arguments ignore the difficulties created for countries by world financial market instability. These markets are increasingly being flooded by large volumes of ‘hot money’ with short maturates.60 In 1996, for example, capital inflows into South Korea, Malaysia, Indonesia, Thailand and the Philippines was almost $US100 billion, a fivefold increase on those countries’ average inflows for the four year period prior to 1993. In contrast, a capital outflow of $US12 billion occurred in 1997.61 Prior to 1997, inflows were increasingly driven by the lenders rather than by the borrowers and were well in excess of what countries actually needed to finance their current account deficits. Of this investment only 6 percent was foreign direct investment, which is the type of long-term investment that results in the transfer of technology and know-how.62

According to Stiglitz, such large volume flows of capital, combined with a general lessening of controls by governments over their economies, has resulted in a situation where even the most well-managed, open economies are vulnerable to periodic economic crises:

Because expectations are volatile, even a well-managed economy can sometimes be overcome by changes in sentiment. Small open economies are like rowboats on a wild open sea. Although we may not be able to predict when the boat will be capsized, the chances of eventually being broadsided by a large wave are significant no matter how well the boat is steered. Though to be sure, bad steering probably


62 Ibid.
increases the chances of a disaster, and a leaky boat makes it inevitable.63

In the East Asian region, the policy failings of governments, and cronyism and corruption undoubtedly resulted in an economic crisis that was more profound than it otherwise would have been. However, external agencies such as the IMF and the United States government also deserve much of the blame for what occurred. When putting strong pressure on these countries to open up their financial systems, they failed to advise them on the importance of putting in place the necessary safeguard mechanisms required to stop the private sector getting too deeply involved in speculative real estate ventures and risky forms of financing. Stiglitz claims that this failure has a lot to do with the tendency to treat economic liberalisation as an end in itself, rather than a means of achieving certain ends.64

As Stiglitz also notes, many of those who focus on domestic factors ignore another obvious fact, which is that for every bad loan there exists a lender as well as a borrower. In the East Asian economies, financial institutions well aware of their high levels of indebtedness should have exercised far more caution.65 The fact that the Taiwanese economy has remained strong and other non-Asian economies have run into economic difficulties also highlights the dangers of putting too much blame on interventionist-minded East Asian governments.

The Response of the IMF to the Crisis

According to analysts such as Sachs, the IMF's response to the recent economic turmoil experienced in East Asia and in other countries such as Brazil also exacerbated the problems being experienced by individual countries, created unnecessary hardship for many millions of people, and greatly increased the risk of the economic contagion spreading. In Sachs' opinion, policy formation in the IMF has been, among other things, far too strongly influenced by institutional investors with strong interests in emerging markets.66 The main

63 Stiglitz, Sound Finance and Sustainable Development in Asia, op. cit.
64 Ibid.
65 Ibid.
66 Sachs, Going for Broke, op. cit.
concern of short-term investors such as banks is for a country to maintain its currency rate until they have been repaid:

After that – who cares! Thus, you pressure the IMF and the US Treasury to urge Brazil, or Russia, or any other unfortunate IMF-loan recipient, to defend its currency at all costs. This gives the foreign investor time to get his money out of the country unscathed by a change in currency values.67

On Brazil, Sachs argues that the pressure applied to it to maintain its currency had several damaging long-term consequences. Because the currency had been overvalued for several years, financial markets expected a devaluation to reverse the negative export trend and reduce import growth. This expectation meant that, to defend its currency, Brazil was forced to maintain economically damaging interest rates to encourage both domestic and foreign investors to invest, which drove the economy into recession. The buying of domestic currency by the government to defend the exchange rate also caused foreign exchange reserves to fall to such low levels that there was a risk of a financial panic. To avoid this, the IMF lent Brazil US$41 billion dollars in short-term loans which would have to be paid for in new taxes and cuts to services. Sachs suggests that this strategy appears to have failed, as the currency collapsed anyway, the economy was in crisis, and only a small percentage of investors were able to get out in time.68

One problem with Sachs' analysis, and indeed with much of the criticism of IMF policies, is that the role played by institutional self-preservation in influencing policy formation often does not receive sufficient attention. Given the limited resources at its disposal, a major priority of the IMF when formulating policies is to get its money back so that it can continue to lend to other countries.69 A second problem with his analysis is that the alternative to raising interest rates - that of allowing the exchange rate to simply depreciate - is fraught with problems. In theory, a large decrease in the relative value of the local currency should assist exporters, reduce imports and eventually restore faith in the economy. However, when a situation exists where governments, businesses and banks have borrowed large sums from abroad, the consequence of such depreciation in the exchange

67 Ibid.

68 Ibid.

rate can often be disastrous. The massive losses which would be incurred by these borrowers have the potential to set in motion a chain of bankruptcies which could eventually result in an economic meltdown of a magnitude far worse than anything recently which has been experienced.70

2.6 How Strong and Capable Does the State Really Need to be?

Apart from the issue of whether the South Korean and Taiwanese states (and also those of Singapore and Japan) were as strong, capable, and insulated from distributional pressures as the ‘statist’ literature suggests, there is also the question of whether other states need to possess these characteristics to be successful. As noted above, several East Asian economies pursued a development strategy based on financial repression (the selective allocation of credit, etc.). Unlike less successful developing countries employing similar strategies, they also introduced other initiatives which greatly increased the chances of such policies succeeding. These included the introduction of strict performance criteria for anyone wishing to receive subsidised credit. With some justification, ‘statist’ writers such as Wade and Amsden contrast the outcome of such policies favourably with those obtained by countries which followed the advice of neoclassical economists and international institutions such as the IMF, and deregulated their financial systems.

As economists such as Islam and Chowdhury now concede, much of this advice was inappropriate, as it was based on the naive assumption that simply removing policy-induced distortions would automatically result in beneficial consequences (e.g. an increase in national savings and improvement in the efficiency with which investment is utilised).71 In the ‘real world’ factors such as the exercise of monopoly power by dominant banks,72 imperfect information, incomplete risk markets, and transaction costs73 often prevent such

70 Ibid.


72 On this see Ibid., p. 68.

73 Ibid., pp. 68-70.
beneficial outcomes from occurring.

One way to ensure a more productive allocation of resources is to pursue the type of financial repression strategies employed in countries such as South Korea and Taiwan. While they suggest that the evidence is far from clear-cut, Islam and Chowdhury concede that this strategy might well have been beneficial. However, as they also point out, a less risky option for other developing countries at the present time would be to opt for the more subtle prudential and other regulatory policies being advocated in the less doctrinaire sections of the neoclassical economic literature (see table 4.1). This includes controls intended to limit the opportunity for abuse of monopoly power by dominant firms.74

| Table 4.1 Types of financial regulation – objectives and policy instruments |

| Please see print copy for image |


74 Ibid., pp. 70-81.
Malaysia, Thailand, and Indonesia

According to some Southeast Asian scholars, the development experience of Malaysia, Thailand, and Indonesia (the NIEs) also raises some questions about the wisdom of other developing countries seeking to follow too closely in the highly interventionist footsteps of the NICs. At least prior to the current crisis, these three countries also managed to grow rapidly for an extended period, despite being less interventionist, autonomous and insulated from distributional pressures than their NIC counterparts. When they did intervene they did so less successfully and in ways that have often led to extensive rent-seeking. This not only raises doubts about the ability of governments in other developing countries to follow in the NICs' footsteps, it also suggests that it might not be necessary for them to do so, as the NIEs grew rapidly despite being less interventionist.

One flaw with this line of reasoning is that in many areas the NIEs are significantly less technologically advanced than the NICs were at a comparative state of development. It is also true, nevertheless, that many analysts overstate the extent of the development gap between the NICs and the NIEs simply because they rely too heavily on traditional GNP per capita income statistics. These statistics are expressed in US dollars, and reflect how many US dollars an average income earner can purchase. As a general rule, GNP per capita incomes as measured in PPP (purchasing power parity) dollars provide a more precise (if

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76 See the discussion on this in MacIntyre, Business, Government and Development, op. cit.

77 In Thailand, for example, a study by Wesphal and Associates found that the country's progress in acquiring technological capabilities lagged significantly behind that of Korea, Taiwan and Singapore at a similar stage of development, and that much of the growth that occurred was the result of static comparative advantage in basic, labour-intensive technologies. See Wesphal, L. E. et al. 1990. 'The Development of Technological Capability in Manufacturing: A Macroscopic Approach to Policy Research.' In Evenson, R. E. and Ranis, G. (eds). Science and Technology: Lessons for Development Policy, IT Publications, London.
still flawed\textsuperscript{78}) indicator of the respective performances of countries. They more accurately reflect the amount of goods and services that the average income earner can purchase domestically. As figure 4.2 indicates, when comparisons are made between the NIEs and Korea on this basis, the relative position of all the NIEs greatly improves.


2.7 \textit{Summary}

This section identified some areas where the actions of the Korean and Taiwanese states appeared to be at odds with the portrayal of the ‘development state’ presented in much of the ‘statist’ literature. This literature was found to have overstated both the capabilities of the respective states as well as their ability to rise above competing interests and introduce policies that served the long term social good. As the discussion on Korea’s ‘big push’ strategy illustrated, analysts on both sides of the debate have often been highly selective in the type of evidence they consider when evaluating the consequences of interventionist

\textsuperscript{78} For a discussion on the limitations of these statistics see Rigg, J. 1997. \textit{Southeast Asia: The Human Landscape of Modernisation and Development}. Routledge, London, pp. 74-80.
policies. Both the 'statist' and neoclassical bodies of literature have also generally placed too much importance on the policies of the state, at the expense of wider domestic and international factors, when seeking to determine why some developing countries are more successful than others.

3. The World Bank's Response to the 'Statist' Challenge

To provide further insight into the role of the state in East Asia, this and the following section explores two detailed sets of responses by supporters of more orthodox economic policies to the 'statist' challenge. The first of these is contained in a specially commissioned World Bank report on the East Asian economies. This report, covering the NICs, the NIEs and Japan, is entitled 'The East Asian Miracle' and is referred to in this thesis as the EAM report.79

3.1 The Findings of the EAM Report

Agreeing with neoclassical economists, the EAM report found that NICs and NIEs adhered to the 'economic fundamentals' - inflation, for example, was kept low and exchange rates were kept competitive. Unlike in Latin America and Africa, education was made a priority, and unlike countries such as India, most of the resources allocated went into subsidising primary and secondary education rather than tertiary education.80 A less orthodox finding of the EAM report was that distorting the economy to favour exports was beneficial - for example, through such processes as setting export targets, subsidising export credits, and ensuring that the inputs needed for export goods were subject to low or no duty. However, it questioned whether such overt export promotion policies are viable in today's more open international economic climate, as countries which introduced them would face retaliation from trading partners. As an alternative, more subtle intervention such as the provision of finance and support services to small and medium exporters were favoured.81 The report

80 Ibid., pp. 1-26 (Overview).
also conceded that several Asian governments did intervene extensively and selectively in their more advanced heavy and chemical industrial (HCl) sectors in an attempt to accelerate the development process. With the possible exception of Japan, this was found to have brought no net economic benefit.82

While some analysts have claimed that rapid, labour-intensive economic growth was by far the most important reason why income distribution was relatively equitable in the HPAEs (High Performing Asian Economies),83 the EAM report found that redistribution measures also played an important role. As well as the provision of subsidised education, these measures included extensive land reform in Korea, Taiwan, and Japan; the use of oil money to support agriculture in Indonesia; affirmative action for Malays (the poorest racial group) in Malaysia; and strong support for public housing and health programs in Singapore and Hong Kong.84

Especially noteworthy was the role played by public policy in Hong Kong in keeping income inequality in check. This country is often cited as an example of the virtues of laissez-faire capitalism. As T. B. Lin and Y. P. Ho have documented, the reality is that the government spent approximately one quarter of the national income on providing various sorts of physical infrastructure...compulsory primary education, extensive medical and health services, subventions for numerous social welfare agencies, and public low-cost housing for well over 40 percent of the population.85

The need for governments to play an active role in redistributing the benefits of growth is also likely to be greater in the future. Initially, in all four NICs, the trend was towards greater equality. However, especially during the 1980s, this trend reversed markedly in Singapore, Hong Kong and South Korea. In contrast, Taiwan experienced a sharp decline in inequality prior to the early 1970s which, at least until 1990, was followed by a period of

82 Ibid., p. 316.

83 On this see Chowdhury and Islam, op. cit., pp. 235-44.


relative stability. The reasons why Taiwan’s performance in distributing the benefits of growth was so impressive are explored further in chapter 8. They include the extensive land reforms that were introduced at the start of its development push, well developed rural infrastructure and well managed irrigation systems. These factors not only benefited agriculture but created the conditions for a virtuous cycle of decentralised growth to occur.

In all four countries, these changing income distribution trends were the result of economic restructuring in response to rising labour costs which had undermined the competitiveness of their labour-intensive industries. Because, as Islam and Chowdhury point out, "the impact of restructuring on income distribution works primarily via income adjustments in the labour market...incentives to guide resources in capital and skill-intensive sectors tend to increase the demand for skilled and professional workers at the expense of the semi-skilled and unskilled workers." While government initiatives can increase the skill supply through education and training, reversing this trend and catching up to changes in labour demand patterns takes time.

3.2 Industry Policy

Apart from simply reiterating standard neoclassical arguments against intervention and pointing to specific instances where intervention by the state imposed a high cost on the economy or failed to deliver the outcomes intended, the authors of the EAM report justified their conclusion on the ineffectiveness of industry policy by pointing to the findings of two main exercises it carried out. The first addressed the question of whether the sectorial composition of industries departed from what could be expected if they had followed free market policies. Utilising comparative advantage theory (that is, examining factor intensities and changing relative factor prices) the report predicted what the makeup of the manufacturing sectors of a number of countries would be if governments had allowed market forces to dominate. The predicted findings (see Table 4.2) were then compared with the actual figures.

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86 Islam and Chowdhury, op. cit., pp. 114-123.
87 Ibid., p. 118.
88 Ibid.
The report also claims that the findings of this exercise suggest that over time no
relationship exists between interventionist policies and the development of particular
sectors. In 1968, for example, the share of the MPM sector in the Korean economy was
significantly larger than predicted. Despite extensive government intervention in the
ensuing period, this had only increased slightly by 1986. The World Bank study cites
similar disappointing results for the chemical sector which also, despite being subject to
extensive intervention by the state, did not exceed international norms in the 1966-88
period. By contrast, the higher than predicted performance achieved in textiles and clothing
in 1966 had become even greater by 1986.89

Table 4.2: Actual Share of GNP Originating in Selected Manufacturing Sectors
(as represented as a multiplication of predicted share)

<table>
<thead>
<tr>
<th>ECONOMY</th>
<th>TEXTILES &amp; CLOTHING</th>
<th>CHEMICALS &amp; RUBBER</th>
<th>METAL PRODUCTS &amp; MACHINERY</th>
<th>TOTAL MANUFACTURING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hong Kong</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1973</td>
<td>10.31</td>
<td>0.78</td>
<td>2.86</td>
<td>1.25</td>
</tr>
<tr>
<td>1978</td>
<td>118.95</td>
<td>0.67</td>
<td>1.96</td>
<td>1.26</td>
</tr>
<tr>
<td>Indonesia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1973</td>
<td>0.75</td>
<td>0.40</td>
<td>0.44</td>
<td>0.62</td>
</tr>
<tr>
<td>1986</td>
<td>0.25</td>
<td>0.54</td>
<td>0.11</td>
<td>0.57</td>
</tr>
<tr>
<td>Japan</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1963</td>
<td>2.98</td>
<td>0.73</td>
<td>2.41</td>
<td>1.23</td>
</tr>
<tr>
<td>1989</td>
<td>13.92</td>
<td>0.69</td>
<td>1.69</td>
<td>0.97</td>
</tr>
<tr>
<td>Korea</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1968</td>
<td>1.75</td>
<td>0.94</td>
<td>2.07</td>
<td>1.04</td>
</tr>
<tr>
<td>1988</td>
<td>2.74</td>
<td>0.99</td>
<td>2.76</td>
<td>1.26</td>
</tr>
<tr>
<td>Malaysia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1969</td>
<td>0.25</td>
<td>0.80</td>
<td>1.03</td>
<td>0.64</td>
</tr>
<tr>
<td>1981</td>
<td>0.68</td>
<td>0.89</td>
<td>2.44</td>
<td>0.97</td>
</tr>
<tr>
<td>Singapore</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1973</td>
<td>2.14</td>
<td>2.09</td>
<td>12.56</td>
<td>1.41</td>
</tr>
<tr>
<td>1989</td>
<td>11.32</td>
<td>1.72</td>
<td>5.10</td>
<td>1.38</td>
</tr>
<tr>
<td>Thailand</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1968</td>
<td>1.21</td>
<td>0.36</td>
<td>3.16</td>
<td>0.95</td>
</tr>
<tr>
<td>1986</td>
<td>3.33</td>
<td>0.35</td>
<td>1.82</td>
<td>1.68</td>
</tr>
</tbody>
</table>


One reason for questioning the validity of this exercise is the basic fact that the gaps

89 Ibid., pp. 304-314.
between the predicted outcomes and the actual outcomes are often extremely large. Another is that no figures are provided for Taiwan. More fundamentally, economists' evaluation of where the comparative advantage of a country lies relies heavily on their interpretation of past experiences, particularly those of the developed countries. Yet, most countries which have achieved some degree of success in deepening their economies have, especially in the early stages of development, intervened significantly in this process. Consequently it is not always clear whether the success achieved is the result of a greater commitment to the economic fundamentals than in less successful countries, or simply a more rational approach to intervention, or a mixture of both. Even in cases where intervention by governments appears to have resulted in only a particular industry achieving its predicted share of the economy (based on international norms), intervention might still have been important to get it to this stage. This could be particularly important where developing countries are concerned, as governments may need to intervene extensively to generate the capabilities needed to take advantage of technologies developed elsewhere and to compensate for any 'first mover' advantages enjoyed by developed countries.

In a second exercise, the EAM report set out to determine whether the efficiency gains achieved in some East Asian economies have been more impressive in selected industries than in non-selected ones. Detailed sectorial estimates of TFP were only available for Korea, Taiwan, and Japan. The report found that these estimates suggest that in general, productivity levels were not higher in promoted sectors than in non-promoted sectors (the possible exception being Japan).

One problem with this exercise is that it fails to account for the fact that the process of acquiring the capabilities required to fully take advantage of new technologies is a far more complex one than neoclassical theory acknowledges (see section 4 and chapter 3). This is especially so when it comes to acquiring capabilities required by the more complex capital and knowledge-intensive sectors of the economy (which received the most promotion in

90 For example, the share of the textile and clothing sector in the Hong Kong manufacturing industry went from 10.31 times its predicted share in 1973 to 118.95 times its predicted share in 1988! See Ibid., p. 306.

91 The World Bank, The East Asian Miracle, op. cit., p. 312.

92 Ibid., p. 315.
Korea and Taiwan). This exercise also does not acknowledge the role played by the more advanced capital and knowledge-intensive sectors of the economy in diffusing skills and knowledge throughout the economy. In fact, the EAM report claims (citing only one paper in support) that the spillover effect from these industries is generally narrow, and that the benefits tend to be restricted to closely related sectors. The discussion in the previous chapter suggests that the spillover effects from capital and knowledge-intensive industries might often be more extensive than this.

3.3 Summary

By highlighting, among other things, the important role that orthodox economic policies played in the success of the East Asian economies, and identifying areas where the interventionist policies of the state imposed a high cost, the World Bank’s EAM report provides further support for the view that the ‘statist’ literature has overstated its case. The report’s findings on the positive impact of state export promotion initiatives also present a strong challenge to the version of events offered in much of the neoclassical literature. This is also true of its findings on the important role that redistributive policies played in sharing out the benefits of growth. Less supportively, several reasons are identified why the report’s conclusions on the ineffectiveness of some states’ attempts to accelerate development by tilting the incentive structures of their economies in favour of their HCI sectors is questionable.

4. The 'Input Driven Growth Thesis'

This section examines the response of Krugman and other advocates of the ‘input driven growth’ thesis to the ‘statist’ challenge.

4.1 Input Growth and Allocative Gains

Despite the tendency of many commentators to refer to the NICs as economic miracles (and, in some cases, herald the birth of a new economic paradigm which the West should

seek to emulate if it does not wish to be surpassed\(^94\)), a large proportion of the growth that took place in these economies was the result of relatively mundane factors. In all the NICs a rapid post-war decline in the birth rate occurred, which changed the dependency ratio, and there was a strong rise in the female participation rate, which increased the number of workers in the economy. The rapid improvement in educational standards also had a beneficial effect on economic growth. In just a quarter of a century the proportion of the working population with a secondary education more than doubled in Hong Kong (1966-91) and Taiwan (1966-90), tripled in Korea (1966-90), and quadrupled in Singapore (1966-90).\(^95\)

Also significant is the fact that the working week was extremely long, even by developing country standards. In the early 1980s, for example, the average working week of South Korean workers was 54 hours.\(^96\) As for the contribution made by savings and investment to economic growth, the ratio of investment to GNP remained roughly constant in Hong Kong. However, in South Korea it rose from 5 percent in the 1950s to almost 40 percent in 1991, and in Singapore it went from 11 percent in 1960 to 47 percent by 1984.\(^97\)

In Taiwan and Korea at least, one-off allocative gains are also likely to have made an important contribution to economic growth. Conventional growth-accounting procedures are based on the neoclassical assumption of an equilibrium setting in which structural shifts do not independently contribute to growth. However, as structuralists such as Raúl Prebisch and Hans Singer argue, the dualistic nature of developing economies ensures that a reallocation of resources from areas of low marginal productivity (e.g. agriculture and the informal sector) to areas of high productivity (e.g. manufacturing industries) generates

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96 Chowdhury and Islam, op. cit., p. 237.

97 Young, op. cit.
additional 'static' gains which are not captured by neoclassical models.98

Some neoclassical economists such as Howard Pack and John Page concede this point, the latter noting that the lack of attention to this issue is an 'astonishing omission in the recent empirical and theoretical literature.'99 However, Pack and Page's analysis differs from that of Prebish and Singer in that they argue that the NICs' export-oriented policies enabled them to capture more allocative gains than if they had pursued a more inward-looking strategy where resources would have gone to areas with a lower marginal return than could be obtained on the world market.100

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100 The team which produced the EAM report (op. cit. p. 69), which was headed by Page, dealt with this issue by subtracting from their estimated average TFP growth rates for individual developing countries the average TFP growth rates for developed economies. The reasoning behind this is that the latter are the most allocative efficient.

One of the studies mentioned in the discussion in the following section has also attempted to take allocative gains into account. The approach of Young (op. cit.) is to eliminate from his estimates for Taiwan and Korea the contribution that agriculture made to the economy. This ignores the gains obtained when resources are reallocated from the informal sector to more modern manufacturing sector activities. In this regard, a study of the Korean economy by Dollar and Sokoloff covering the 1963-69 period shows that the average size of labour-intensive industries grew rapidly. Areas such as footwear production moved rapidly away from more traditional forms of production into modern factories. See Dollar, D and Sokoloff, K. 1990. 'Patterns of Productivity Growth in South Korean Manufacturing Industries, 1963-79.' Journal of Development Economics 33: 309-327.
4.2 Accounting for Growth

Several recent studies have attempted to determine what role such factors played in the development process in East Asia, relative to increases in productivity. The EAM report found that the investment-driven economies of Indonesia, Malaysia and Singapore conformed to developing country norms in that total factor productivity (TFP) made only a small contribution to economic growth, which was largely driven by rapid input growth. In contrast, TFP was found to account for 33 to 40 percent of the growth that took place in Korea, Hong Kong, Taiwan, Thailand and Japan.\(^{101}\)

Other recent studies, however, have reached far more negative conclusions about the role played by productivity growth in these economies. In one study, Alwyn Young compared the performance of Hong Kong (see Table 4.3) with that of the more interventionist Singapore. He found that while efficiency gains played a significant role in the former, growth in the latter was completely or almost completely the result of rapid input growth. That is, the result of an increase in the participation rate in the workforce, a rise in education levels, and above all a massive accumulation of capital.\(^{102}\)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>10</td>
<td>35</td>
<td>-8</td>
</tr>
<tr>
<td>20</td>
<td>38</td>
<td>-1</td>
</tr>
<tr>
<td>30</td>
<td>39</td>
<td>4</td>
</tr>
</tbody>
</table>


In a later paper, Young provided estimates of average annual TFP rates for all four NICs.


(see Table 4.4), compared them with estimates for other countries, found them unremarkable and concluded that the real reason these economies grew rapidly was that they accumulated inputs rapidly.

Table 4.4: TFP Growth Rates for NICs and Selected Countries (% per annum)

<table>
<thead>
<tr>
<th>Country</th>
<th>Period</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hong Kong</td>
<td>1966-1991</td>
<td>2.3</td>
</tr>
<tr>
<td>Singapore</td>
<td>1966-1990</td>
<td>-0.3</td>
</tr>
<tr>
<td>South Korea*</td>
<td>1966-1990</td>
<td>1.6</td>
</tr>
<tr>
<td>Taiwan*</td>
<td>1966-1990</td>
<td>1.9</td>
</tr>
<tr>
<td>France</td>
<td>1950-1973</td>
<td>3.0</td>
</tr>
<tr>
<td>Germany</td>
<td>1950-1973</td>
<td>3.7</td>
</tr>
<tr>
<td>Japan</td>
<td>1952-1973</td>
<td>4.1</td>
</tr>
<tr>
<td>UK</td>
<td>1955-1973</td>
<td>1.9</td>
</tr>
<tr>
<td>United States</td>
<td>1947-1973</td>
<td>1.4</td>
</tr>
<tr>
<td>Argentina</td>
<td>1940-1980</td>
<td>1.0</td>
</tr>
<tr>
<td>Brazil</td>
<td>1950-1980</td>
<td>2.0</td>
</tr>
<tr>
<td>Chile</td>
<td>1940-1980</td>
<td>1.2</td>
</tr>
<tr>
<td>Colombia</td>
<td>1940-1980</td>
<td>0.9</td>
</tr>
<tr>
<td>Mexico</td>
<td>1940-1980</td>
<td>1.7</td>
</tr>
</tbody>
</table>

Notes (*) Excluding Agriculture


One reason why Young's estimates are doubtful is that they are derived from a conventional neoclassical growth-accounting framework in which technological progress is assumed to be neutral and independent of the growth in inputs of capital and labour. In the real world, however, these factors are often complementary. As shown in the previous chapter, technology is often capital augmenting, and the economic payoffs to technological innovation are, in turn, enhanced by high rates of both physical and human capital formation.103 Studies which do not take these factors into account will often greatly underestimate the role of technological change in economic development relative to labour or capital. The economic benefits of capital-augmenting technological change will be assumed to be either the result of an accumulation of capital or of other inputs.

One study which has attempted to factor in the complementary nature of capital accumulation and technological progress is that by Michael Boskin and Lawrence Lau (see Table 4.5). Approximately 75 percent of the growth achieved in France, West Germany, Japan and the UK between 1964-1985 was found to be the result of technological progress. The lower figure for the United States is a consequence of its higher immigration levels, which meant that a larger proportion of economic growth was the result of the growth in labour supply.

Table 4.5: Relative Contributions of the Sources of Growth

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Jong-II Kim and Lau have applied the approach developed by Boskin and Lau to a study of the four NICs, and have derived three sets of estimates of the sources of growth for these economies and for the G5 economies. The first (table 4.6), which is based on a</td>
</tr>
</tbody>
</table>

conventional growth-accounting framework, is for comparison purposes and reaches similar conclusions to that of Young.

**Table 4.6: Sources of Growth via Conventional Assumptions**

Please see print copy for image


Utilising Boskin and Lau's framework, Kim and Lau then derived two sets of non-conventional growth-accounting estimates. Their first set (table 4.7) suggests that while technological progress was by far the most important variable in France, Germany, the United Kingdom and the United States, and almost as important as capital accumulation in Japan, it played no role in the four NICs. To derive their second set of non-conventional estimates (table 4.8) Kim and Lau lifted one of the restrictions initially employed, which was the hypothesis of zero levels of capital augmentation for the NICs. In other words, the difference between their first non-conventional estimate, and their second is that the former attempted to identify the various components of growth by setting out to test the hypothesis of zero capital augmentation, while the latter did not start with this hypothesis. Kim and Lau consider that this second approach is the more conservative, and gives the benefit of the doubt to the NICs, if anything overstating the role of technical progress. This estimate suggests that technical progress did play a moderate role in the NICs, although (with the exception of Hong Kong) still far less than capital accumulation and much less than it did in the G5 countries.106

106 Kim and Lau, *op. cit.*
4.3 Krugman’s Input into the Debate

The most well known economist to draw strong conclusions from these studies is Krugman, who argues that NIC growth was solely or almost solely the result of the massive mobilisation of resources that took place, and little evidence exists of increasing efficiency with the use of resources. He goes on to state that 'if there is a secret of Asian growth, it is simply deferred gratification, the willingness to sacrifice current satisfactions for future
gain.\(^{106}\) If, in fact, this is as Krugman maintains, it would mean that the findings of these studies also show that the literature heralding the birth of a new economic paradigm and warning the West of the dangers of being overtaken, is widely off the mark.

In support of his argument, Krugman compares the predictions made about the continuing of East Asian dynamism with those made in the 1950s about the future of the Eastern European economies, which were then growing quickly because of the rapid input growth taking place. He suggests that the East Asian economies are essentially simply more efficient versions of the latter, and like these economies, will also find that an input-driven growth strategy has its limits, as the rate of return on capital will eventually decrease and the employment participation rate cannot continue to expand indefinitely. Also, average educational standards cannot continue to increase at the rate they did when levels were low.\(^{107}\)

### 4.4 Why Krugman Overstates His Case

Krugman's analysis provides an important corrective to the tendency in much of the literature about the East Asia economies (by both supporters of neo-liberal and interventionist policies) to over-emphasise their uniqueness. However, he overstates his case when he argues that the secret to their success is simply deferred gratification and the willingness to sacrifice current consumption for future gain. This statement ignores, among other things, the role played by the state in providing the policy and institutional environment needed to both attract investment from local or foreign sources and ensure that investment is not wasted. Many developing countries have found it difficult to attract investment, and others (e.g. India and Argentina in the 1960s and 1970s) grew slowly despite the channelling of substantial domestic savings into physical capital accumulation.\(^{108}\) In fact, as the chief economist of the World Bank, Joseph Stiglitz

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107 Ibid.

suggests, economists generally greatly underestimate the difficulties involved in ensuring that capital is allocated to productive use:

Greater capital, all else being equal, will shift an economy along its production function, increasing output, albeit with diminishing returns. In reality, however, all is not equal. In a world of perfect information, additional financing will go to the projects with the highest rates of return. In a world of imperfect information, incomplete risk markets, and transaction costs, the translation of savings into the best investment prospect is not automatic. The process of investing a large proportion of GDP can result in large costs of adjustment and misallocated investment. Indeed, we have seen many examples of countries that have had high rates of investment and negative total factor productivity growth.109

The findings of studies based on the econometric manipulation of aggregate data can also vary greatly, depending on the assumptions made and the quality of the data available (which is notably poor in developing countries). This is especially true when a country is accumulating capital rapidly, as small changes to the estimate of share accounted for by the growth of capital can have a large impact on estimates of the role played by total factor productivity.110 For example, Steve Dowrick has found that Krugman's conclusions about East Asian growth being solely or almost solely input driven are largely valid for Thailand, Indonesia, Malaysia and Singapore. However, for Korea, Taiwan and Hong Kong, he also found that about 2 percentage points of growth a year could not be accounted for in this way. To keep this in perspective, he notes that this was also the experience of other countries such as Italy, Greece, Spain, and Turkey at a similar stage of development.111 As noted, the EAM report reaches even more positive conclusions about the role played by productivity growth in the NICs.

Estimates showing low levels of productivity for Singapore and Hong Kong are also dubious because much of these countries' investment over the last three decades or so has been in housing and social infrastructure (see section 3), the outputs of which are difficult to

109 Stiglitz, Sound Finance and Sustainable Development in Asia, op. cit.

110 Ibid.

measure. Michael Sarel suggests that a more general problem is that estimation usually involves heroic assumptions about the depreciation of capital stock and the investment that flows in during the period preceding the period studied:

For example, what are the depreciation rates of the different types of capital? Are they equal across countries and across industries, or are they higher in the case of the faster-growing economies? What method of extrapolation is being used to estimate the investment flows in the past? And what is the period that is used as reference for this extrapolation? Additional significant problems are estimating the income share of capital and the amount of labour per person. For example, should capital be allowed to differ across countries and across industries? Should the official statistics regarding the labour participation be trusted? Is the amount of effective work proportional to the number of hours that people work, or does working extra hours lead to diminishing returns? And should the different types of labour be summed together? Most importantly, how should human capital be treated?

Kim and Lau's two sets of non-conventional estimates for the NICs provide another example of how productivity estimates can vary, depending on the assumptions made. By lifting one of the restrictions initially employed, which was the hypothesis of zero levels of capital augmentation, they obtained a significantly different outcome. Kim and Lau assert that this second non-conventional estimate is likely to overstate the role of technological change. However, given that their first estimate is the one that is most closely tied to a particular outcome by virtue of the hypothesis tested, why this should be the case is not clear.

As far as Young's conclusions are concerned, they are based on a conventional growth-accounting framework in which capital accumulation and technological progress are treated as being independent of each other. In reality, however, capital accumulation and technological progress appear to be strongly complementary (see chapter 3) and the growth of one input augments the marginal contribution of the other. If this is the case, it is inevitable that the findings of conventional growth-accounting studies will be flawed.

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112 World Bank, East Asian Miracle, op. cit., p. 77.


114 Kim and Lau, op. cit.

115 For a discussion on this see Kim and Lau, op. cit. and Lall, S. 1990. Building Industrial Competitiveness in Developing Countries. Development Centre of the Organisation for Economic
More specifically, these studies assume that factor markets function efficiently, that technology diffuses instantly and effortlessly, and that countries or firms have perfect knowledge about the range of technological options that exist. This ignores information problems and only takes into account the formal innovation process (i.e. formal R and D spending), neglecting other issues such as reverse engineering, learning by doing, and other factors driving incremental change. Given that developing countries are generally behind the technology frontier, and much of their development effort goes into acquiring, copying and modifying technologies developed elsewhere, these are serious omissions.

This view is supported in a study by Bradford De Long and Lawrence Summers on the spillover benefits of private investment (see chapter 3). One conclusion that can be drawn from its findings is that the benefits are greatest for those countries that lie immediately behind the technological frontier. De Long and Summers are reluctant to draw this conclusion, as while it would appear to hold for their sample of 25 of the more advanced economies, it is not supported by data from a larger sample of 63 countries. However, as Dowrick observes, this finding is consistent with the view that poorer economies lack the capabilities and infrastructure needed to exploit technologies developed elsewhere.

The high levels of human capital that existed at the start of their development push, and the considerable physical and human capital they subsequently accumulated, ensured that the NICs were in a position to obtain such benefits.

The recognition that the acquisition of technological capabilities is a far more complex and creative process than generally assumed would appear to offer one credible explanation for

Co-operation and Development, OECD, pp. 36-41.

116 Apart from the discussion on this in chapter 3 see also Lall, Building Industrial Competitiveness in Developing Countries, op. cit.


118 Dowrick, Australia's Long-Run Macroeconomic Performance, op. cit. For a more extensive discussion on the importance of high levels of human capital development to the success of these economies see Lall, Building Industrial Competitiveness in Developing Countries, op. cit.; Lall, Explaining Industrial Success in the Developing World, op. cit.; World Bank, East Asian Miracle, op. cit., pp. 43-46 & 192-202.
this. While the approach taken by Boskin and Lau and Kim and Lau is an advance on conventional approaches (in that technological progress is not treated as independent of capital accumulation), it does not address all of these issues. In fact, the assumption made is that all actors have equal access to technology.\textsuperscript{119}

5. Conclusion

Some of the attempts made by NIC states to improve on market outcomes undoubtedly had positive consequences. These included initiatives that facilitated the growth of exports such as the provision of export subsidies and the setting of export targets. More extensive interventions by East Asian states also appear to have been beneficial. In Taiwan, these included the forcing of mergers to achieve the necessary economies of scale and the widespread use of public corporations to create new capacities in heavy industrial sectors where entry barriers are high. As pointed out above, in the 1950s over 50 percent of manufacturing output in Taiwan was accounted for by state-owned enterprises.

Despite such factors, the discussion in this chapter only partly supports the 'statist' explanation for why the NICs have been so successful. As regards South Korea and Taiwan, policy-makers in both countries, especially in the former, were influenced more by external domestic pressures than the 'statist' literature has generally acknowledged. The discussion on agricultural protection has illustrated that this often resulted in policies being introduced that were inferior to the alternatives available. Whatever the overall consequences, state industry support often proved to be more costly than the 'statist' literature admits.

In general, both the 'statist' and neoclassical bodies of literature tended to be highly selective in the type of evidence they considered when examining the consequences of interventionist industry policies. This was illustrated, among other things, by the discussion on the impact of South Korea's big push strategy. Both bodies of literature also generally placed too much emphasis on the characteristics of the state, at the expense of broader domestic and international influences, when seeking to explain why some countries were more successful than others. This included the failure to adequately reflect on the political economy of resource abundance. In their eagerness to link certain positive outcomes with

\textsuperscript{119} Kim and Lau, op. cit.
certain state characteristics, many 'statist' authors also failed to adequately reflect on the role played by international markets in pressurising governments to rectify policy errors.

More recently, many supporters of free market policies were also shown to have been far too eager to blame interventionist-minded governments for the economic crisis currently affecting the East Asian region. Economic mismanagement and other domestic factors such as cronism and corruption undoubtedly played an important role in this crisis. However, governments in developed countries and international institutions such as the IMF also deserved much of the blame for what occurred for failing, among other things, to take action to bring greater stability to a highly unstable international financial system. When putting strong pressure on these countries to open up their financial systems, these actors also failed to advise them on the importance of putting in place the necessary safeguard mechanisms required to keep in check the excesses of the private sector. As suggested, this failure has a lot to do with the tendency of many actors to treat economic liberalisation as an end in itself rather than a means of achieving certain ends.

**Responses to the 'Statist' Challenge**

In the second part of this chapter, two of the main responses to the challenge presented to neo-liberalism in the 'statist' literature were examined in some detail. The first is that contained in a specially commissioned World Bank report. This report examined the experience of eight High Performing East Asian economies (HPEAEs). While making some concessions to critics of neo-liberalism, the report argued that by far the main reason why the HPEAEs have been so successful has been their relatively strict adherence to the economic fundamentals, combined with appropriate levels of investment in infrastructure and human capital development. The report also identified a number of reasons why the costs of state intervention in the East Asian region is likely to be greater and the benefits less than the 'statist' literature implies.

To test the overall impact of interventionist industry policies, two main exercises were carried out. The first examined whether the sectorial composition of industries in several East Asian states differed from what would be expected if they had followed free market policies. The second examined whether the productivity gains obtained in promoted
industries in South Korea, Taiwan, and Japan were more impressive than those obtained in non-promoted ones. Based on the findings of these exercises, the report concluded that, with the possible exception of Japan, state attempts to accelerate the process of development by tilting the incentive structures of their economies in favour of so-called strategic sectors was unlikely to have had a positive impact on the overall rate of economic growth. Several reasons were identified as to why these two exercises were an inappropriate means of determining the outcome of such intervention.

Krugman's Input into the Debate

A less orthodox response to the 'statist' interpretation of events examined in this chapter is that by Krugman. According to Krugman, East Asian economic growth has largely been input driven. Where the NICs are concerned, Krugman argues that input growth was responsible for all, or most, of the economic growth that occurred. Because a development strategy which relies too heavily on input growth must eventually run out of steam, this would mean that the literature warning the West about the dangers of being economically overtaken if it does not learn from the experience of the East Asian economies has got it badly wrong.

Many 'statist' authors, though by no means all, failed to give due weight in their deliberations to the role of input growth. However, as also pointed out, Krugman's strong conclusion that productivity growth played essentially no role in the NICs' development is dependent on the findings of studies by only two sets of authors. Several reasons were identified why the findings of the studies are disputable. These include the orthodox or, at least, relatively orthodox assumptions made by both Young and Boskin and Lau about technological change and about how late-industrialising countries go about acquiring the capabilities required to take advantage of technologies developed elsewhere.

In concluding that the only secret to East Asian economic success is perspiration and deferred gratification, Krugman also ignores the contribution made by the state in providing the policy and institutional environment needed to both attract investment from local or

120 Wade (East Asia's Economic Success, op. cit.), especially, has been critical of other 'statist' authors such as Amsden for paying too little attention to the role played by input growth in the success of these economies.
foreign sources and ensure that this investment is not wasted. Like many economists, he simply assumes that capital will automatically flow to those areas where it can be put to the most productive use. As noted, the reality is that factors such as imperfect information, incomplete risk markets, and high transaction costs often prevent this from occurring.

**Lessons for Other Developing Countries**

Important lessons other developing countries can learn from the development experience of the NICs include the benefits of an export-oriented growth strategy, high levels of investment in the development of human and physical capital, and pragmatic intervention by the state. States in most other developing countries are, however, unlikely to possess the characteristics required to intervene as extensively in their economies. Nor do they need to do so. For, as noted, less risky and subtler options are open to governments seeking to exercise more control over their economies. The development experience of Malaysia, Thailand, and Indonesia also raises questions about the wisdom of governments intervening so extensively in their economies. These countries managed to grow rapidly for an extended period despite possessing governments which were less interventionist, less capable and less insulated from distributional pressures than their NIC counterparts.

Other developing countries would also be wise to place more emphasis on using resources more efficiently by, for example, allocating fewer resources to sectorial-specific industry support and more to areas such as education and infrastructure. Too much reliance on raw input growth to drive economic growth imposes high social costs on the population. They are forced to work longer hours and invest a higher proportion of the fruits of their labour than they would otherwise if their economy had been run more efficiently. Another reason why more emphasis needs to be placed on productivity growth is that there is currently much greater competition for foreign investment as increasing numbers of countries, including ones with large populations such India and China, liberalise their economies.

The benefits of utilising resources more efficiently is highlighted by Summers' calculation that a two-tenths of one percent increase in total factor productivity would do more for living standards in developing countries than US$100 billion invested at historical rates of
return.\textsuperscript{121} In theory, increasing productivity should also be environmentally beneficial. This is because more output is achieved with less input (fewer factories need to be built, etc.) and also because increasing efficiency ensures that more resources are freed for use in other areas such as environmental initiatives.