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Selective Government Interventions and Economic Growth: A Survey of the Asian Experience and its Applicability to New Zealand

by

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Abstract

Since the mid-1980s, New Zealand has been engaged in a broad-ranging economic reform program--involving liberalization of key sectors of the economy, reduction in trade protection, and trimming of the public sector--in order to restructure its economy and stimulate growth. With growth performance having been rather lackluster in recent years, questions have been raised as to whether a more interventionist approach--such as that followed by some Asian countries--might be warranted in order to place the economy on a higher growth path. A review of the empirical literature dealing with the experience of the dynamic Asian economies does not suggest that their success can be attributed to any significant degree to selective government interventions.

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1/ This survey was prepared for the 1993 Article IV consultation with New Zealand, and was presented at a joint Treasury-Reserve Bank of New Zealand seminar in March. After completion of this paper, the author became aware of the comprehensive World Bank study "The East Asian Miracle" which was published in September 1993. The author would like to thank Steve Dunaway for suggesting the topic, and Eduardo Borensztein, Steve Dunaway, Peter Wickham, and Peter Winglee for helpful comments.

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I. Introduction

Often, the role played by government policies (including trade and industrial policies) is credited as a major factor in the phenomenal growth performance of the dynamic Asian economies (DAEs) and questions are posed as to what lessons can be drawn from their experiences with these sorts of policies. This is an important issue for New Zealand. Since the mid-1980s, the country has taken what could be characterized as a "neoclassical" approach in restructuring its economy to promote growth. Successive governments have been engaged in a broad-ranging economic reform program, involving the liberalization of key sectors of the economy, reduction in trade protection, and trimming of the public sector--yet growth performance has in recent years been rather lackluster. Given this experience, some have argued that a central lesson to be learned from the experience of the DAEs is that the neoclassical approach alone does not work, and that these economies have grown faster precisely because governments have taken an interventionist stand in trade and industrial policy. The implication for New Zealand would be that the government needs to rethink its strategy of economic liberalization, adding to it an element of the type of selective policies that have apparently worked in the DAEs.

A review of the formal economic literature suggests that the success of the DAEs does not appear to be attributable to any significant degree to selective government interventions. Moreover, looking at the experience of other countries, the empirical evidence suggests that *less* intervention in the economic arena (i.e., more liberal trade and industrial policies) is strongly correlated with growth. This would imply that the empirical evidence does not support a rethinking of the policy approach adopted in New Zealand and that the slow response of New Zealand to the pro-growth economic reforms is likely to reflect other factors, including growing entry restrictions to world agricultural markets and escalating agricultural support in most OECD and many developing countries, as well as the magnitude of the initial distortions and rigidities themselves, which probably contributed to a lengthening of the process of adjustment.

This view of the Asian experience would also be supported by an examination of New Zealand's experience from the mid-1970s through the mid-1980s. During this period, New Zealand was one of the most heavily regulated economies in the OECD, with high tariffs, import licensing, quotas, being widely used, and with government policies actively directed at supporting a number of commercial activities, including the government-initiated "think big" projects. With large segments of the economy insulated from foreign competition, New Zealand's relative economic position within the OECD as measured by its per capita income on a PPP basis relative to the OECD average declined from 97 percent to 82 percent. This comparison does not suggest that the highly interventionist policies adopted in New Zealand were particularly successful at promoting growth.

This survey is organized as follows. Section II provides an overview of the experience of the DAEs with selective trade and industrial policies and argues that, based on the available evidence, it is difficult to make the case that such policies have had a prominent role in their impressive economic performance. Section III describes the results of a number of econometric studies of the relationship between growth and government policies, using both multi-country and single-country-multi-industry data sets. Because some aspects of the interaction between selective government intervention and growth cannot easily be quantified, Section IV reviews some of the more qualitative evidence, focusing in particular on the interactions among government interventions, rent-seeking behavior, and economic growth, and on the role of labor-market distortions in the growth process. Implications of the analysis for New Zealand are drawn out in the last section.

II. Government Policies and Growth of the DAEs

When economists look at the factors accounting for growth, they do not usually think of national industrial and trade policies as being of first order importance. In the neoclassical growth literature, an economy's long-run growth rate depends only on the exogenous rate of technical progress. Along the transition to the long-run, the growth rate depends on the initial level of national income relative to the steady-state level, and policies can influence the growth rate temporarily by affecting the steady-state income level. In the more recent endogenous growth literature, policies (including trade and industrial policies, and public investment in infrastructure and education) can theoretically affect the productivity of factors in the steady state, and thereby directly alter the long-run rate of growth of an economy.

A number of common factors help to account for the exceptional performance of the DAEs. 1/ These include high domestic savings and investment rates, an emphasis on educating and upgrading the skills of the labor force, the relative flexibility of domestic labor markets, and historical accidents like the unusual opportunity to import foreign technology and production methods. The case that selective government interventions played a major role in the development of these countries is, however, much more difficult to make, precisely because there were very major differences in the nature and scope of such interventions across countries. Hong Kong, for example, is an obvious example of a laissez-faire economy, whose growth performance ranks on a par with that of the other DAEs over the last thirty years. Other countries, such as Japan or Singapore, are often seen to be much more interventionist, but the extent of intervention does not appear to be correlated with superior performance. 2/

Several studies have recently suggested that the perception that the DAEs have been interventionist is not borne out by the facts. A recent comprehensive study by the Australian Industries Commission of industrial policies in the DAEs concludes that "it is naive to argue that the success of Japan and the dynamic Asian economies can be explained principally by

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1/ For a comprehensive survey of these factors and the role of government policies in the growth process, see World Bank (1993).

2/ The case of New Zealand itself is also relevant in illustrating the point that a high degree of government intervention is not always correlated with superior growth performance. For example, in the period 1975-82, New Zealand was among the most heavily regulated economies in the OECD, and growth performance ranked near the bottom of the OECD.

governments providing industry-specific assistance." 1/ In fact, the report suggests that, where success was observed, any specific support was broadly market conforming, that is nondistortionary, and was normally withdrawn in a relatively short period of time.

It is often alleged that Japan in particular has used public sector resources to favor certain industries, yet the available evidence does not coincide with this perception. For example, effective tax rates on labor and capital in manufacturing have tended to be *less* variable (across industries) in Japan than in either the United States or the United Kingdom. Although in the mid-1970s, Japan's MITI began to encourage certain knowledge-intensive industries, the scale of government involvement was small relative to the United States and Germany. The same goes for government support for private research and development, as compared to the OECD average.

The Korean experience with export-oriented industrialization is more complex. One view, which seems to have gained support recently, is that although the trade regime was far from laissez-faire, the purpose of the interventions was to maintain rough neutrality between the incentives provided to different sectors. Thus, export incentives were used in the early 1960s in order to counteract the effects of import controls, with the sum total of the interventions roughly balancing each other. Thus, the World Bank (1991) described the Korean interventions as "moderate in the sense that ... [they] did not lead to large relative price distortions," and

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1/ Commonwealth of Australia, "Strategic Trade Theory: The East Asian Experience," page 1.

Krueger (1990) wrote that "domestic incentives [in Korea] were reasonably uniform; decisions were taken regarding prospects for exporting, not for particular industries." Interestingly, when intervention became more widespread in the 1970s, the inherent difficulty of "picking winners" became apparent, with for example the drive to promote the heavy and chemical industries now being viewed as a clear failure of Korean industrial policy.

In Hong Kong, as previously mentioned, the degree of government selective intervention in industry was virtually nonexistent. The government's role was confined essentially to the provision of social infrastructure. The case of Taiwan lies somewhere in between those of Hong Kong and Korea; while export incentives have been used, they have generally been fairly neutral among the various sectors. Finally, a recent comparison of the Singapore and Hong Kong economies by Young (1992) reveals that the "Singaporean government ... pursued an active policy of industrial targeting ... [in order to bring about] a rapid structural transformation [of the economy]" as well as a policy of "accumulation of physical capital via forced national saving." Although such policies have indeed been successful in raising Singapore's investment ratio and in allowing the economy to surpass Hong Kong's initial lead in manufacturing, they have also resulted in a situation in which the contribution to growth of total factor productivity is very small. According to Young, this implies that the ability of Singapore to sustain growth in the future by further increasing the investment ratio may be limited.

III. Econometric Evidence on Government Policies and Growth

The previous section was at least suggestive in showing that government interventions were not strongly correlated with the superior performance of the DAEs. This evidence is not conclusive, however, because it does not control for the other factors that are known to be correlated with growth, such as investments in physical and human capital. This section presents econometric evidence from a variety of sources on how, controlling for other factors, government interventions affect growth. Unambiguously, the econometric evidence suggests that this contribution is *negative*, i.e., once one controls for other factors, the partial effect of government-induced distortions is to reduce growth.

1. Multi-country studies

Thomas and Wang (1992) have attempted a systematic analysis of the relationship between growth and government policies in 10 East Asian economies. 1/ The growth performance of these countries was outstanding in comparison with the average for the developing countries as a whole. They argue that this group of countries also had a superior policy framework, in the sense that government-induced price distortions were lower than elsewhere in the developing world. In order to measure the impact of government-induced distortions, they created an index that aggregates information on trade policies, inflation, agricultural protection, and other

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1/ China, Hong Kong, Taiwan, Indonesia, Japan, Korea, Malaysia, the Philippines, Singapore, and Thailand.

distortions. 1/ They then use this index in a cross-country regression which controls for traditional growth determinants. They found a robustly negative association between the distortions index and economic growth, with growth performance being attributed, to a significant degree, to a lower value of the distortions index. Moreover, the effect was large, with two-fifths of the variation in income growth per capita and one fifth of the variation in total factor productivity growth among the countries in the sample being accounted for by variations in the distortions index.

In addition to their cross-country comparisons, Thomas and Wang also undertook an examination of growth performance in a time-series context. They showed that, while growth was impressive in the 1960s and 1970s when relatively more interventionist policies were adopted, there was even faster growth once market reforms swept the region in the 1980s. The gap between average income growth in the Asian countries and other developing regions roughly tripled in size in the period after 1982 compared to the period before.

The Thomas-Wang study, moreover, is not unique in arriving at these conclusions. Knight, Loayza, and Villanueva (1993) present results from panel data (including New Zealand in the sample) that show that more openness (defined as lower tariffs on imports of intermediate and capital goods) stimulates productivity growth. They argue that, because the tradables sector in many countries serves as a vehicle for technology

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1/ The index was constructed using the Borda technique from public choice theory, which allows policy indicators to be aggregated even though they were originally measured in different units, and for different countries and time periods.

transfer through the importation of capital goods, this result is not surprising. 1/ Their regression analysis also shows that the productivity of physical investments increases with the degree of openness.

Lee (1993a) and Edwards (1992) present results similar to those of Knight, Loayza and Villanueva. Lee finds that trade distortions tend to lower growth directly, and indirectly by reducing investments in physical capital. Edwards, using the trade distortions index constructed by Leamer (1988) finds that the coefficient on the degree of openness is invariably positive and statistically significant. 2/ Thus, both studies conclude that countries with less distortive trade and industrial policies have tended to grow faster.

The above evidence suggests that, controlling for other factors, the growth performance of the DAEs is strongly correlated with the fact that governments in these countries ensured that relative price distortions induced by trade and industrial policies were kept low in comparison with other countries, both developed and developing. Thus, far from attributing the Asian success to such government interventions, the evidence from cross-country regression analysis points to a more liberal environment as being responsible for improved growth performance.

1/ Openness would also enhance growth if greater access to foreign markets permitted domestic firms to take more advantage of economies of scale.

2/ This index computes the difference between actual trade flows and optimal trade flows predicted by the neoclassical trade model as a measure of the degree of trade distortion in an economy. It therefore takes into account *all* distortions that affect trade flows, including those which might escape direct measurement.

2. Country-specific studies

Two country-specific studies also tend to reinforce the conclusions from the multi-country analyses described above. Lee (1993b) examines in depth the relationship between selective government interventions and sectoral factor productivity growth in a large cross-section of Korean (two-digit) industries. He finds that government interventions, such as tariffs, import restrictions, and subsidized credits, *decreased* both labor productivity and total factor productivity in the favored sectors. From the economy's point of view, Lee's findings show that growth and technical progress would have been higher had the government reduced the amount of selective interventions.

Lee's evidence, in particular, illustrates the intrinsic difficulty of "picking winners." While it is theoretically possible to raise productivity growth by protecting a few well-chosen industries, Lee's findings illustrate the "impossibility for a government to identify *ex ante* the industries that are likely to become successful exporters" (Krueger, 1985). In addition to the mistakes that governments are prone to make when they attempt to pick winners, the granting of selective incentives is also likely to make firms operating in the protected sectors less efficient, by decreasing competition--both domestic and international. Lee's findings reinforce the results of surveys, which show that Korean import-competing manufacturing firms strengthened their efforts to improve quality and productivity after the government liberalized imports of the same products (see Young (1986)).

Lee's findings are also consistent with the argument made by Grossman and Helpman (1990) that protection tends to decrease the beneficial knowledge spillovers that arise from international trade in product markets, which would imply *ceteris paribus* lower total factor productivity growth in protected sectors. Finally, Lee's results may be related to the arguments of Young (1992), who in comparing the growth performance of Singapore and Hong Kong, suggests that the relatively low growth rate of total factor productivity in Singapore is due to its industrial policies which targeted "premature" industries, defined as industries that were too high up the technology ladder given the level of technical sophistication of Singapore's industrial sector. In Korea, while industrial policy may have been successful in transforming the structure of the economy, it may also have tended to reduce productivity in the favored sectors for similar reasons.

The second country-specific study referred to above relates to France's growth performance (Coe and Moghadam, 1993). They show that potential output in France depends both on its traditional determinants (labor input and business sector capital input), and on a variable that proxies for the increased trade of France within the European Community. The increase in inter-EC trade is found to have spurred efficiency and productivity in the French economy. 1/ In fact, the empirical analysis shows that trade has been a major engine of growth in France during the last two decades. A clear message of the paper is that further trade liberalization may be required if France's growth performance is to be maintained.

1/ There is also evidence that trade liberalization within the EC has had beneficial effects for other European countries--notably Germany--which arise from heightened competition, increased specialization, and economies of scale through increased trade within the EC (see Coe and Krueger, 1990).

3. <u>Public investment and growth</u>

Another channel through which government policies can affect the growth process relates to the provision of public infrastructural investments and public provision of research and development. Theoretically, public investment in infrastructure and human capital formation may increase the productivity of private capital and be beneficial for growth. It can also, however, crowd out private investment by using scarce resources and thus have an adverse effect on growth. In their recent study, Khan and Kumar (1992) show that while public investment has a positive effect on per capita growth, it is markedly smaller than that of private investment. Furthermore there appears to be evidence of crowding out of private by public investment, although the extent of such crowding out seems to vary from country to country. Examples of public investment projects gone awry are not difficult to find, including in the case of New Zealand, as well as several Latin American countries in the late 1970s, and in some Asian countries such as the Philippines.

There are many channels through which the financing of public investment can affect growth. For example, if such investments are financed by increasing taxes, they can lead to a deepening of relative price distortions in the economy. If instead public investment is financed by borrowing, this can reduce the availability of credit to the private sector and increase the domestic cost of capital. With monetization of fiscal deficits, the effects would be on private investment via an increase in the level and variability of inflation.

Cross-country growth regressions tend to show a much more powerful effect of private investment (compared to public investment). In the Asian region specifically, public investment was found to have a statistically insignificant effect on growth, with the point estimate being roughly one half that on private investment. As far as the crowding out hypothesis is concerned, Khan and Kumar's analysis suggests that for the developing countries as a group, a one percentage point increase in the public investment ratio was associated with a decline in the private investment ratio of about one third of a percentage point.

In summary, therefore, the evidence seems to suggest that private investment has been much more productive--particularly in Asia and Latin America, and that crowding out of private by public investment is quantitatively significant. Policies that promote private investment (including the policies of outward orientation referred to previously), increasing competition and exposure to foreign technologies, reducing controls on inward foreign direct investments, should be effective in enhancing an economy's long-term growth potential. Finally, as regards R&D investment, Griliches (1988) presents empirical evidence that public expenditures on R&D in the United States have had a much smaller effect on productivity growth than privately financed expenditures.

IV. Growth and Distortions: Some Qualitative Evidence

Although the econometric evidence is perhaps the most convincing type of evidence that can be used to shed light on the question of how selective government interventions affect growth performance, a number of "real-world" distortions are much more difficult to measure, and have therefore tended to be ignored by the quantitative studies surveyed in the previous section. The first factor to be discussed in this context--and one that may have particular relevance to the growth performance and future potential of New Zealand--relates to distortions in the labor market. A second relates to the interactions among policy-induced distortions, rent-seeking behavior, and economic growth.

As far as labor market distortions are concerned, a recent study by Crafts (1992) argues that the power of unions in Great Britain in the post-War pre-Thatcher era was an important factor accounting for the relatively low level of United Kingdom productivity growth. The sharp reduction in trade union power in the 1980s had a sizable effect on productivity performance in Britain, with the gap between real output per hour in German manufacturing and real output per hour in United Kingdom manufacturing falling from 62 percent in 1979 to 37 percent in 1988. More generally, the reorientation of structural and labor market policies in Great Britain has been an important factor in the improved productivity performance of British manufacturing over the last decade. Crafts concludes that in the British case, "inefficiencies of factor use ... [arising from the state of the British labor market prior to 1980 should be given] something close to equal weight with factor accumulation in accounting for the slower United Kingdom growth rate."

A similar point is made by the Australian Industries Commission with regard to the DAEs. The impressive growth of these economies is observed to be associated with the flexibility of their labor markets. More specifically, the study emphasizes "greater effectiveness of workers while on the job, less industrial unrest, and an increased willingness to retrain, undertake new tasks, and accept labour-saving technology ... [and more generally] to have employment conditions that are responsive to changes in economic circumstances" as being among the most important factors underlying superior growth performance in these countries relative to Australia, and this analysis would to a large extent equally apply to New Zealand prior to enactment of the Employment Contracts Act. The experience of other countries would suggest that over time, as institutional arrangements evolve reflecting the impact of the act, New Zealand's economy is likely to be lifted to a higher sustainable growth path.

Krueger (1974) has put forward the hypothesis that the existence of policy-induced distortions may encourage productive resources to be switched into competition for economic rents, particularly if policy is implemented in a discretionary fashion. Estimates of the cost of such rent-seeking activity vary from country to country, but can be extremely high. For example in the case of India, Mohammad and Whalley (1984) obtain estimates in the range of 35-40 percent of GNP on an annual basis, and Hamilton et al (1988) estimate that total factor productivity growth was reduced by 2 percentage points per year from 1950 to 1980 on account of rent-seeking behavior.

Vulnerability to rent seeking is likely to depend on many factors including the international trade regime in place. The pursuit of (credible) trade liberalization policies gives governments a way to precommit *not* to exercise discretion in favor of domestic interest groups.

The case has been made that the rapid growth of the European economies following the second World War may have been facilitated by a commitment to relatively open trading arrangements, as embodied for example in the GATT. 1/ More recently, European integration may have helped governments withstand pressures to subsidize declining industries and contain the proliferation of selective industrial policies, particularly when viewed against the background of the rise of such subsidies during the 1970s and early 1980s.

As for the Asian economies, Krueger (1990) writes that "one of the reasons for the success of the countries adopting outward-oriented trade strategies is that an export orientation imposes a discipline and set of constraints on all economic policies that prevents the adoption of very many measures severely antithetical to growth," measures which presumably would in less open economies be sought after by the rent-seekers. More generally, the report of the Australian Industries Commission suggests that in the DAEs, the policymaking process was fairly well insulated from competing political pressures, enabling market-oriented reforms to stay on course. Thus, part of the Asian success may be due to the fact that these countries have had relatively little rent-seeking behavior, which in turn may reflect not only their political systems, but their relatively open and liberal economic systems as well.

1/ See, for example, Crafts (1992). The results by Coe and Moghadam (1993) referred to previously would also be consistent with this view.

V. Conclusions

Since the nature and scope of interventions has varied widely among the DAEs, it can be argued that this factor alone is unlikely to have been of primary importance in accounting for their growth performance. In order to control for the other determinants of growth, a detailed review of the empirical literature--based on multi-country and single-country-multi-industry data sets--was undertaken. Almost uniformly, the conclusion from these econometric analyses were that countries with relatively high growth also had superior policy frameworks and lower distortions. Moreover, even within the DAEs, attempts by governments to pick winners by selectively targeting particular industries was shown to have lowered the aggregate growth rate. These findings illustrated the practical difficulties involved in identifying those industries that are likely to be successful in the long run. Furthermore, rent-seeking behavior seems to be minimized when governments adhere to relatively open and nondiscretionary policy regimes, reinforcing the positive direct effects of such policies on growth performance. This may offer a partial explanation of why the DAEs--with their relatively low level of policy-induced distortions--have had relatively less resources wasted by rent-seeking behavior.

The analysis suggests that the reorientation of macroeconomic policy and structural reforms pursued by the New Zealand authorities since the mid-1980s are precisely those which, in due course, are most likely to improve the economy's growth prospects. It needs also to be borne in mind that long lags are to be expected in response to the far-reaching reforms that have already been undertaken, particularly when one considers that credibility of policy changes is not achieved immediately, and that there are large costs associated with the resource shifts to be elicited from the reforms. In particular, the last crucial piece in reforming the labor market is really quite recent, and the experience of other countries suggests that the improvement in economic performance that should result from these reforms does not occur overnight.

Future growth performance will also be influenced to an important degree by increasing investments in human and physical capital in order to achieve higher total factor productivity growth. Indeed, if one looks to history, New Zealand's relatively poor growth performance has not been due to a failure to increase the quantity of its productive factors (labor and capital), but rather to a failure to effectively increase the efficiency of their use. In the past, most of the blame could be attributed to high levels of protection, factor and product market rigidities, highly distortionary tax systems, and high and variable inflation rates. In this sort of environment, investment was often undertaken in the "wrong" sectors, that is those sectors that were artificially favored by the distortions in the economy.

The previous system of labor relations and wage-setting mechanism served to compress relative wages across levels of skill, discouraging human capital development and leaving a relatively high proportion of workers with no formal qualifications. New labor arrangements emerging in the wake of reforms have increased the rewards for skills and will encourage investment in human capital. Again, however, time will be needed to redress the skill deficiencies of New Zealand's labor force. To facilitate this adjustment process, the Government has moved to make the education system and worker training programs more responsive, effective, and relevant.

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