I. INTRODUCTION

The Australia-Korea relationship started in the late 19th Century when Australian missionaries established modern hospitals and missionary schools in Korea. Australian missionaries brought a small number of Koreans to Australia for vocational and religious training. On these foundations the most important catalyst for the acceleration in the Australia-Korea relationship proved to be the Korean War. Following the invasion of South Korea by the communist North Korea, Australia quickly dispatched 17,000 troops to defend South Korea, and more than 300 Australians gave their lives in the conflict. From the Korean War until the 1960s, the bilateral relationship was predominantly based on Australia's asymmetric support for Korean security, and there was little attempt by either country to broaden the relationship. It was during the mid-1970s when both countries recognised each other as an important economic partner, and the bilateral relationship started to grow from a symmetry of interests between the two countries.
Recently, economic relations between Australia and South Korea (simply Korea hereafter) have developed and multiplied most remarkably, and become the focal point of bilateral ties. Two-way trade increased from A$176 million in 1975 to A$9.7 billion in 1996, recording a 55-fold increment over the 21-year period (DFAT 1997a). Australia’s exports to Korea have increased markedly in the recent past, and Korea has been Australia’s second largest export market since 1994.

Two-way investment relations have grown recently, albeit still at a low level. In particular, Korea’s investment in Australia has accumulated steadily to reach US$288 million as of 1996 (Bank of Korea 1997). The number of Korean tourists to Australia has grown at an extraordinary rate in the recent past from a mere 14,000 in 1990 to 227,900 in 1996, a 16-fold increment over the six-year period (TFC 1997). Also the number of fee-paying Korean students in Australia has remarkably increased from 573 in 1987 to 20,274 in 1996, a 35-fold increment during the nine-year period (DEETYA 1997: 56).

Bilateral economic relations between Australia and Korea have developed in line with their strong complementarity. As long as the underlying complementarity between the two economies persists and either of the two economies continues to grow, operation of free market forces will foster the growth of bilateral trade and other economic relations. Therefore, Korea’s economic prosperity has direct and important bearings on Australia’s economic well-being.
Korea's economic success is well-documented. It stands as proof that one country can rise, like a phoenix, from being one of the poorest in the world, and ascend to be one of the richest countries (an OECD member) in just one generation. The Korean economy has become a textbook example of successful economic development, and thus stimulated a broad international discussion on its phenomenal development, the contributing factors to this phenomenon, the sustainability of the development momentum, and the applicability of the Korean model to other developing countries.

The purposes of this paper are therefore first to examine recent developments in Australia-Korea economic relations. Second, it reviews Korean economic development and the major contributing factors over the last three decades. Third, drawing on the review and an assessment of recent internal and external environments for the Korean economy, the paper attempts to shed some light on the prospects of the Korean economy. Finally, the paper draws some implications of the projected Korean economy for Australia.

II. AUSTRALIA-KOREA ECONOMIC RELATIONS
The bilateral economic relations between Australia and Korea have expanded by leaps and bounds over the past two decades. Most important aspects of the economic relations include merchandise trade and foreign direct investment, tourism and education. Over the 1975-96 period, Australia’s trade with Korea increased by 21.0 percent per year, as compared with an 11.3 percent annual
growth in its world trade. As a result, Korea became Australia’s fourth largest trading partner in 1996, accounting for 6.2 percent of Australia’s world trade (DFAT 1997a).

Australia has had a persistent trade surplus with Korea. Australia’s exports to Korea amounted to A$7.3 billion in 1996, accounting for 9.5 percent of Australia’s world exports in total, while Australia’s imports from Korea amounted to only A$2.3 billion, accounting for 3.0 percent of Australian imports from the world. As a result, Australia’s trade surplus amounted to A$5.0 billion in 1996.

The complementarity of the Australian and Korean economies, which is primarily based on the marked differences in resource endowments and in the thrust of economic development policies, accounts for the pattern of bilateral trade. Australia’s principal export items to Korea are mainly resource and agricultural products (non-monetary gold, coal, iron ores, aluminium, wool, wheat, etc). Australia’s principal import items from Korea are mainly manufactured consumer goods (passenger cars, electrical equipment, textiles, telecommunications equipment, office machines, etc). In examining the proportions that major commodities hold in each country’s total trade, it is quite evident that the structure of Australian export specialisation in agricultural and resource products matches the structure of Korea’s import needs. At the same time, Korea’s export specialisation in manufactured consumer goods matches Australia’s import emphasis. In other words, agricultural and resource products, which represent a high proportion of
Australia’s exports, are Korea’s major import items. Manufactured consumer products are Korea’s major exports items, and at the same time they represent an important portion of Australian imports. This suggests that the two economies are complementary, and the bilateral trade is quite consistent with the differences in resource endowment.¹

The complementarity of the two economies has been accentuated by patterns of economic development within each country, thereby accelerating the bilateral trade. In particular, Korea adopted two important economic strategies during the 1970s. One was diversification of resource imports following the 1973 oil crisis, and the other was development of heavy and chemical industries (Kwon 1994: 10-29). Both were facilitated by reliable supplies of industrial raw materials from Australia. Given the complementarity based on resource endowments, Korea’s rapid economic growth, its industrial development strategy of heavy and chemical industries, and its policy of resource diversification have been the key determinants in the recent increase in Australia-Korea bilateral trade.

As compared to the dynamic trade relationship between Australia and Korea, two-way foreign direct investment is still at a very low level. Total Australian stock of foreign direct investment (FDI) in Korea was only US$30 million in 1996, in 35 projects (MFE 1996: 8-9), while Korea’s direct investment has been about 10 times as high as Australia’s. The size of Korea’s

¹ There are different ways of quantitatively measuring the extent of economic complementarity, although they are beyond the scope of this study.
investment projects were typically small. However, there are signs in the recent past that Korean companies have been investigating investment opportunities in Australia - on a much larger scale than previously undertaken.

The purpose of Korean investment in Australia, as reflected in the types of projects, was three-fold. The first was to secure and utilise raw materials. The second was to establish manufacturing bases in Australia as part of its globalisation strategy, and the third was to conduct trade operations in Australia. It should be added that recently Korean companies have been investing in the construction of leisure assets in resort areas. This is explained by recent relaxation of Australian government regulations controlling offshore property acquisitions, and by Koreans’ increasing tendency to enjoy their leisure time in foreign resort areas. There is no doubt that Korea’s investment in Australia is mainly to take advantage of economic complementarity.

Korea has been the fastest growing source of tourists to Australia for the last several years. During the 1990-96 period, the number of Korean tourists coming to Australia recorded the highest increase with a 60.3 percent annual growth rate. This is compared to a 10.2 percent annual increase of visitor arrivals to Australia from the rest the world (TFC 1997). Given the removal of the Korean government restrictions on overseas travel by its citizens in 1989, the recent surge in Korean tourists to Australia is directly related to Korea’s rapid economic growth. The sustained high economic growth has been followed by the emergence of a growing middle class, improved living standards and a desire to travel to foreign countries. These factors have all
influenced Koreans to view foreign travel as an affordable leisure pursuit. Australia’s export value of travel services (mainly tourism services) to Korea increased to a similar extent to the number of Korean tourists to Australia. It rose from A$48 million in 1989-90 to A$421 million in 1994-95, a 54.4 percent annual growth rate over the period. Australia also has a lopsided trade balance of travel services with Korea, amounting to a surplus of A$389 million in 1994-95 (DFAT 1997b).

Korea has also been the fastest growing source of overseas students for Australian educational institutions, and education has become one of the most prominent areas of growth in the bilateral relationship. During the period 1990-96, the number of Korean students in Australia increased by 50.9 percent per year, as compared to a 19.5 percent annual growth of the foreign student population from the rest of the world. The Korean student population of 20,274 in 1996, which accounted for 14.2 percent of all fee-paying overseas students in Australia, is remarkably large when compared to the next highest number of 16,654 from Indonesia (DEETYA 1997: 56).

There exists a tremendous potential in Korea for foreign educational services. In Korea, education is perceived to be directly linked to material success and improved social status. Hence, the Korean people attach enormous importance to education, and investment in education is given the highest priority at both the national and family level. Koreans’ zeal for education and their rising living standards have led to an unprecedented numbers of students seeking access to higher education. As a result, the
demand for a university education far exceeds the supply, and the competition for university entrance is intensive.

Lately, the quality of domestic post-secondary education has become an issue of public concern. The development of science and technology, business and vocational courses are not sufficient to cope with the demands of a rapidly industrialising society. As a result, appreciation and preference of western education have been significantly enhanced, thereby generating an increasing demand for foreign education services. Also, as a means of keeping abreast with globalisation, fluency in English has been heavily stressed by people from all walks of like. Therefore, there has been a steady increase in the number of short-term and study tour program students.

A brief review of the bilateral economic relations clearly indicates that the two economies are highly complementary, and that Korea's economic growth has directly contributed to the enhancement of Australia's economic well-being, as well as Australia-Korea economic relations. In this context, Korean economic developments over the last three decades will be examined with a clear purpose of assessing the prospects of the Korean economy and Australia-Korea economic relations.
III. Recent Developments of the Korean Economy²

Korea’s economic performance has been outstanding despite unfavourable initial conditions for development. With a population of 45 million and a land mass of 99,000 km², Korea has the third highest population density after Taiwan and Bangladesh, not counting city-states like Singapore. Korea is poorly endowed with natural resources and in particular it imports its entire oil requirements.

Over its long history, spanning a period of more than 4000 years, Korea has been a country of a single race, language and culture. For most of its long history, Korea had remained an isolated hermit kingdom and economically backward. Until 1910 when it became a Japanese colony, it remained a unified, independent nation for over twelve centuries. Upon liberation from Japanese rule in 1945, Korea was divided into North and South along the 38th parallel. In 1950 the Korean War erupted and devastated the economy. Therefore, as recently as 1961, Korea suffered from many of the difficulties that less-developed countries face in the late 1990s. In addition to its extreme poverty, the population was growing by about 3 per cent annually; unemployment and under-employment were pervasive. Domestic savings were negligible. Korea had no significant exports and depended on imports of both raw materials and most manufactured goods. The present study starts with a review of salient features of Korea’s rapid economic developments from the early 1960s when

² The following three sections draw, in part, heavily on Kwon (1997), ‘Korean Economic Developments and Prospects’, Asian-Pacific Economic Literature, 11(2), November 1997,
the economy started to surge, and then analyses the important contributing factors to the rapid development.

1. **State intervention and control**

There is a general consensus that the Korean government has actively and extensively intervened in the economy since the beginning of its rapid growth in the early 1960s. It has been the government, not market forces, which controlled the direction and pace of industrialisation until the late 1980s. The consecutive five-year economic plans from 1962 have provided clear and consistent signals to economic players both at home and abroad.

During the 1960s, under the Park regime, Korea sought to achieve maximum growth through export-led industrialisation by developing light, labour-intensive industries. This outward-looking development strategy, as the beginning of Korean's industrial policy, was aimed to overcome the lack of natural resources and a small domestic market.

All possible policy tools (or incentive schemes) were mobilised to support Korea's industrial policy, including tax, trade, credit, foreign exchange allowances, and interest rate policies as well as a plethora of regulations. The most powerful policy tool was the allocation of investment funds, including foreign exchange allowances, among specific industries and projects. Preferential interest rates were provided for priority projects or businesses.

forthcoming.
During the 1970s under the Park regime, Korea turned to a heavy and chemical industry policy to promote the development of key industries. All the policy tools, credit allocation in particular, were shifted toward six targeted industries: steel, petrochemicals, metals, shipbuilding, electronics, and machinery. In the early 1980s the Chun government, admitting failure of the heavy and chemical industry policy, because of over-investment in these industries and under-investment in light industries, adopted structural adjustments and comprehensive stabilisation measures as the main policy direction. The new policies were less industry-specific, and followed an economic liberalisation policy. Interest rate policy changed in such a way that real interest rates became positive even for policy loans (Stern et al 1995:68). At the same time, the government began to reduce the extent of its intervention in the economy. Concurrently, under mounting pressure from more developed trade partners, trade liberalisation was seriously embarked upon during the mid-1980s.

During the 1980s it came to be realised that economic liberalisation based on the free market economy was not compatible with political authoritarianism. Economic liberalisation under the repressive authoritarian Chun regime amplified the economic power of chaebols and worsened economic disparity. The Roh regime, realising that political democracy was indispensable to a workable, free market economy, pursued political democratisation in the late 1980s, ending over four decades of authoritarianism. Some claim that the public confused political democratisation
with economic *laissez-faire* (Y. H. Kim 1994:55) and that, as a result, social discipline and morality slackened and government-led economic management no longer worked as before.

The transition period imposed tremendous economic adjustment costs on the country. Labour disputes, which had been suppressed under the authoritarian regimes for the sake of economic growth and political stability, became rampant and violent, and wages rose far in excess of productivity. Real estate speculation flared up, and economic disparities widened. The Korean economy lost some of its economic growth vitality and international competitiveness during this adjustment period.

Against this political and economic background, the Kim regime, the first civilian regime in three decades, was launched in 1993 with the banner of a “New Korea through change and reform”. It embarked on a ‘Five-Year Plan for the New Economy’ for the period 1993–97 with a focus on globalisation. This indicates further liberalisation of the economy, deregulation of the financial sector, promotion of foreign direct investment through deregulation and streamlining of its procedures, and development of physical and information infrastructure funded not only by the government but also by private capital (J.H.Hong 1995). One result of these efforts was that Korea was admitted to the OECD as its 29th member in 1996.

2. **Rapid growth of the overall economy**

In conjunction with the introduction of the first five-year economic plan in 1962, Korea embarked on an outward-looking, export-oriented strategy. As a
result, the rate of economic growth began to soar. As shown in Table 1, the Korean economy recorded an annual average growth rate of 8.9 per cent, or a 15-fold increment over the period 1963–95.

This sustained high rate of growth transformed the Korean industrial structure (Table 1). Despite substantial growth of agricultural production, the share of agriculture in GNP declined drastically from 43.5 per cent in 1963 to 6.6 per cent in 1995. The primary reason was the rapid growth of the manufacturing and services sectors. During the period 1963–95, the manufacturing sector grew from 11.6 per cent to 27.2 per cent of GNP, and the services sector increased from 44.9 per cent to 66.2 per cent. In terms of shares in employment, the agricultural sector declined from 63.1 per cent to 12.5 per cent, while the manufacturing and services sectors increased,
respectively, from 8.7 per cent to 23.6 per cent and 35.4 per cent to 63.9 per cent over the 33 year period 1963–95.³

3. **Rapid growth of manufactured exports**

The expansion of exports is regarded as the engine of the Korean economy’s impressive growth. As shown in Table 1, commodity exports increased from $90 million in 1963 to $125 billion in 1995, recording a 25.4 per cent annual growth rate over the period. As a result, exports as a percentage of GNP rose from 3.9 per cent in 1963 to 41.5 per cent in 1995. Export growth is attributable mainly to manufactured exports which accounted for 93.8 per cent of total exports in 1995. There was also a shift towards heavy and chemical products (including high-tech industries such as machinery, equipment and electronics) from 35.1 per cent in 1978 to 70.3 per cent of total exports in 1995.⁴ Exports of electronics increased most rapidly over this period from 8.7 per cent of total exports in 1978 to 21.0 per cent in 1995, indicating the future direction of the Korean economy.

Korea relies heavily on imports; particularly raw materials, crude oil, agricultural products, and intermediate capital goods. Imports increased from $500 million in 1963 to $135 billion in 1995, a 19.1 per cent annual growth over that period. Imports as a percentage of GNP increased from 16.1 per cent in 1963 to 42.0 per cent in 1995. As a result of rapid growth in both exports

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³ The manufacturing sector in the above classification includes the mining sector. However, the latter’s share of GNP declined from 2.0 per cent in 1963 to an insignificant level of 0.3 per cent in 1995.

⁴ Unless otherwise specified, statistical information included in this paper comes from Major Statistics of Korean Economy, National Statistical Office, Seoul, published annually.
and imports, Korea has become the world’s 12th largest trading nation. Despite its openness, the Korean economy adjusted relatively smoothly to the international turbulence of the oil shocks in the 1970s and international economic recessions of the early 1980s and 1990s. Korea has recorded substantial trade deficits each year, except during 1986–89 when low oil prices, low international interest rates, and a favourable (low) exchange rate yielded substantial surpluses.

4. **Rapid rises in saving and investment rates**

Another striking feature of Korean economic development has been rapid increases in saving and investment. Investment rose rapidly after 1962, and particularly during the late 1970s. By 1995, the gross domestic investment rate had risen to 37.5 per cent. Throughout the period 1963–95, the share of private investment increased remarkably, and since 1970 it has been steady at about 85 per cent of annual investment. Government investment has been relatively low and constant, but the public investment data may understate the government’s role. The government has greatly influenced private investment by means of subsidised loans to targeted industries and firms as part of its industrial policy.

With high rates of investment, the capital coefficient has increased significantly. The capital–output ratio (net non-residential fixed assets and inventory stocks, excluding land and consumer durables, divided by GNP) had gradually declined up to 1970, and thereafter it had increased up to 1990 (Pyo 1992). As economic development began to take off, income grew faster
than capital, thus reducing the capital–output ratio. However, as labour supply became scarce in the mid-1970s, the capital–output ratio started to increase.

The sustained accumulation of physical capital would not have been possible without a significant increase in domestic saving. The national saving rate (excluding foreign savings) rose, with some fluctuations, from 8.7 per cent in 1963 to 36.2 per cent in 1995 (Table 1). Since the mid-1980s, Korea’s saving rate has been one of the highest in the world, with its major part accounted for by private savings.
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<tr>
<td>Population (million)</td>
<td>27</td>
<td>32</td>
<td>38</td>
<td>43</td>
<td>45</td>
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<td>GNP per capita (US$)</td>
<td>100</td>
<td>252</td>
<td>1,589</td>
<td>5,659</td>
<td>10,076</td>
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<td>GNP (US$bil.)</td>
<td>2.3</td>
<td>8</td>
<td>61</td>
<td>242</td>
<td>452</td>
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<tr>
<td>Gross saving rate (%)</td>
<td>8.7</td>
<td>18.0</td>
<td>23.1</td>
<td>36.0</td>
<td>36.2</td>
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<tr>
<td>Gross investment rate (%)</td>
<td>13.5</td>
<td>24.3</td>
<td>32.0</td>
<td>37.1</td>
<td>37.5</td>
</tr>
<tr>
<td>Share of GNP (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>43.5</td>
<td>26.5</td>
<td>14.9</td>
<td>8.7</td>
<td>6.6</td>
</tr>
<tr>
<td>Manufacturing and mining</td>
<td>11.6</td>
<td>22.4</td>
<td>31.0</td>
<td>29.8</td>
<td>27.2</td>
</tr>
<tr>
<td>Services</td>
<td>44.9</td>
<td>51.1</td>
<td>54.1</td>
<td>61.5</td>
<td>66.2</td>
</tr>
<tr>
<td>Share of Employment (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>63.1</td>
<td>50.4</td>
<td>34.0</td>
<td>17.5</td>
<td>12.5</td>
</tr>
<tr>
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<td>14.3</td>
<td>22.5</td>
<td>27.6</td>
<td>23.6</td>
</tr>
<tr>
<td>Services</td>
<td>35.4</td>
<td>35.3</td>
<td>43.5</td>
<td>54.9</td>
<td>63.9</td>
</tr>
<tr>
<td>Unemployment rate (%)</td>
<td>8.2</td>
<td>4.4</td>
<td>5.2</td>
<td>2.4</td>
<td>2.0</td>
</tr>
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<td>Exchange rate (won/US$)</td>
<td>130</td>
<td>317</td>
<td>660</td>
<td>716</td>
<td>775</td>
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<tr>
<td>Exports (US$bil.)</td>
<td>0.09</td>
<td>0.9</td>
<td>17.2</td>
<td>63.1</td>
<td>125</td>
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<td>Imports (US$bil.)</td>
<td>0.50</td>
<td>1.8</td>
<td>21.6</td>
<td>65.1</td>
<td>135</td>
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<tr>
<td>Trade balance (US$bil)</td>
<td>-0.41</td>
<td>-0.9</td>
<td>-4.3</td>
<td>-2.0</td>
<td>-4.7</td>
</tr>
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<td>Exports/GNP (%)</td>
<td>3.9</td>
<td>14.1</td>
<td>34.0</td>
<td>29.8</td>
<td>41.5</td>
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<td>Imports/GNP (%)</td>
<td>16.1</td>
<td>23.8</td>
<td>41.5</td>
<td>30.3</td>
<td>42.0</td>
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<tr>
<td>Average annual growth (%)@</td>
<td>9.8</td>
<td>9.7</td>
<td>8.3</td>
<td>7.8</td>
<td>8.9</td>
</tr>
<tr>
<td>Gross saving rate (%)</td>
<td>11.7</td>
<td>22.2</td>
<td>30.2</td>
<td>35.6</td>
<td>24.8</td>
</tr>
<tr>
<td>Gross investment rate (%)</td>
<td>18.9</td>
<td>27.9</td>
<td>30.4</td>
<td>37.0</td>
<td>31.4</td>
</tr>
<tr>
<td>Inflation: average annual rate (%)</td>
<td>15.8</td>
<td>15.2</td>
<td>8.4</td>
<td>6.6</td>
<td>11.7</td>
</tr>
<tr>
<td>Real effective exchange rate</td>
<td>78.9</td>
<td>88.9</td>
<td>93.5</td>
<td>104.5**</td>
<td>95.0***</td>
</tr>
<tr>
<td>1985-86 = 100 (average)</td>
<td></td>
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</table>

Average population growth (%) | 2.5      | 1.8      | 1.2      | 0.9      | 1.6      |
Av'ge growth of employment (%) | 3.5      | 3.8      | 2.0      | 2.5      | 3.1      |
Average unemployment rate(%)   | 6.6      | 4.0      | 3.8      | 2.4      | 4.2      |
Average growth of productivity| 7.1*     | 2.6      | 4.2      | 4.3**    | 4.2***   |
Growth of real wage over       | 3.8#     | 2.6      | 4.2      | 3.3**    | 4.0***   |
productivity.                  |          |          |          |          |          |

@ Average annual growth rates are arithmetic averages over the period.
* 1964-69; ** 1990-1994; *** 1964-94; and # 1966-69
5. **High growth of employment, labour productivity and wages**

Demand for labour has grown with Korea’s rapid economic growth, notwithstanding substantial increases in labour productivity. Employment rose from 7.6 million in 1963 to 20.4 million in 1995, a 3.1 per cent annual growth. Table 1 shows that the average growth rate of employment during the 1980s was substantially lower than that of the 1970s. As the focus of industrial policy shifted in the late 1970s toward heavy and chemical industries, the absorption of labour declined because of the high capital and technological intensity of these industries. But the unemployment rate declined from 8.2 per cent in 1963 to 2.0 per cent in 1995 (Table 1).

Other major features of Korea’s post-1962 development have been rapid increases in labour productivity and real wages. In 1964–94, productivity of labour (value-added per employed person) rose by 4.2 per cent a year across all industries (Table 1) and by 7.1 per cent a year in manufacturing industries (Nam and Kim 1995:178).

6. **Concentration of economic power**

An important facet of Korean economic development in the post-1962 era was the concentration of economic power to a handful of large, family-based industrial conglomerates (or chaebols in Korean). These chaebols are family controlled and managed, and are characterised by centralised planning and co-ordination, with close links to government. Chaebols have subsidiaries in a
wide variety of unrelated industries and are therefore highly diversified.\(^5\) The concentration of economic power in *chaebols* continued to increase until the mid-1980s and then declined gradually. In 1995, the total sales of the 30 largest *chaebols* were equivalent in value to 90 per cent of Korea’s GDP (DFAT 1996:1). In terms of sales value, the share of the 30 largest *chaebols* in the manufacturing sector (where almost all *chaebols* have their roots) rose from 32.0 per cent in 1977 to a peak of 40.7 per cent in 1982, and declined gradually to 35.0 per cent in 1990 (Lee and Yoo 1995:415). In terms of employment, the share of the top 30 *chaebols* gradually declined from 19.8 per cent in 1981 to 16.0 per cent in 1990. The remarkable difference between their shares of sales value and employment reflected their capital-intensive methods of production.

In a rapidly diversifying Korean economy, *chaebols* expanded the scope of their business. Thus, while in 1970 the 30 largest *chaebols* had on average only 4.2 subsidiaries each, by 1989 the number had increased to 17.1 (Y.U.Lee 1994:473). Most of these subsidiaries are concentrated in the heavy and chemical industries, textiles and apparel, and food and beverages. *Chaebols* compete intensely with each other in these industries both domestically and internationally. Unlike the Japanese *keiretsu* which are centred around their banking institutions, Korean *chaebols* are not allowed to be major owners of any nation-wide commercial banks. These banks are under government

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\(^5\) In legal terms, the Korean Antitrust Act defines a chaebol as any group of companies with combined assets of 400 billion won or more (or about US$ 500 million). There were 43 chaebols which
control. Although the government seeks to disperse ownership, _chaebols_ still maintain a system of closed family-ownership. The main method of ownership control is by means of inter-company cross-ownership among subsidiaries, together with family ownership of their shares.

A number of factors have contributed to the concentration of economic power in the _chaebols_. One of them is related to government policy. The government implemented its industrial and export promotion policy through the _chaebols_, largely by providing a variety of incentives (Jung 1989:11). It exhorted _chaebols_ to take over financially failing firms with rescue loans and other incentives, in order to minimise economic and political repercussions from their collapse.

Economic and managerial forces have also played a part. Entrepreneurship is by nature a scarce factor in any country. Korea's export-led growth maximising strategy led to the allocation of capital and other incentives to this limited number of entrepreneurs. Given the small size of the Korean market, together with government incentives geared to export promotion, _chaebols_ have broadened their business internationally in order to take advantage of economies of scale in production and marketing. Because of similarities to Japan in business culture and competition against Japanese firms in international markets, Korean firms have sought to match the business scale of their Japanese counterparts.

Comprised 672 industrial companies as of 1989 (Song 1994: 114).
Earlier in its economic development, the Korean capital market was under-developed and small, as in any developing economy. Firms had to rely on external financing, domestically or internationally. Chaebols had significant advantages over small and medium companies in securing external financing because the capital of individual subsidiaries was fictitiously increased through their inter-company shareholding practices. Their size and world-wide reputations gave them easier access to the international financial market, as attested by their markedly high debt–equity ratio (World Bank 1993:189).

7. High level of income equality

Until 1962, the chief objective for Koreans was survival. From 1963 inequality in income distribution became a significant issue, but the government opted for a 'growth first, then equity' development strategy. Until the mid-1980s it focused on maximising annual economic growth rates and paid little attention to issues of income distribution and social development (Kim and Kim 1995).

Despite the growth-first strategy, distribution of income in Korea was among the least unequal in the developing world (World Bank 1993:72). Statistical measures show that income distribution did not change significantly over the period 1965–90. For instance, the Gini coefficient started at 0.34 in 1965, one of the lowest among developing countries, rose to 0.39 in 1976, and gradually declined to 0.32 in 1990 (Kim and Kim 1995:98). This pattern of income distribution held true for both urban and rural households.

Various factors contributed to this relatively equitable distribution of income. Korea started with quite a high level of equality, and in 1947 and 1950
reinforced this through land reforms. Because of the destruction of all physical infrastructure and production facilities by the Korean War, Koreans were forced to start from the same level of poverty. The Korean people throughout their history have been homogeneous in terms of race, language and cultural tradition. There were no strong regional or religious differences in Korean society, nor a deeply entrenched class structure. Consequently, the pursuit of economic opportunity is not inhibited by tradition or class, and mobility and adaptation of labour are relatively free of social limitations. Koreans have a keen aspiration for education and generally enjoy equal opportunities for education.

Korea’s strategy of developing its labour-intensive industries in the early stage of development during the 1960s up to the early 1970s contributed to the equitable income distribution by providing employment opportunities for workers with a minimum level of education. As the industrial sector expanded rapidly, income disparity has naturally developed between the rural and urban sectors. The government has introduced a variety of measures to minimise this disparity (Moon and Sul 1995).

The stability of income distribution over the period 1965–90 may cast doubt on whether the government has in fact implemented its ‘growth first, then equity’ policy. The proportion of government expenditure for social development has significantly increased recently. This ratio was about 7–8 per cent during the 1960s and 1970s; it began to rise from the late 1980s and reached 20 per cent in the early 1990s (Kim and Kim 1995:101). This may
indicate that since the mid-1980s the government has paid more serious attention to improvement of income distribution and social development.

IV Contributing Factors to Korea’s Economic Success
So far some important specific features of Korea’s rapid economic development over the period 1963-95 have been reviewed. A question arises naturally as to what has contributed to Korea’s economic success. In strictly economic terms, economic development has traditionally meant the capacity of a national economy to generate and sustain annual increases in national income. In this sense, economic development must be related to the supply-side factor inputs (resources), efficient allocation of increasing resources in a dynamic sense, and with productivity growth (World Bank 1993). Hence, the contributing factors will be sought through increases in factor inputs, their allocation, and productivity growth.

In Korea all of these contributing factors are affected by government policy, and thus economic policy is a critical factor to Korea’s economic development. Management and culture are also important factors. In economics, management is regarded as a black box, and is assumed to be run somehow most efficiently. Reality, however, differs from this presumption. All these economic variables, including government policy and management are undertaken by economic units which are ultimately human beings or controlled by humans. Human behaviour is embedded in culture, and culture is
therefore an important variable affecting directly or indirectly the speed of economic development.

1. **State intervention (economic policy)**

Out of the various factors contributing to Korea's rapid economic development over the last three decades, state intervention (or economic policy) has permeated and affected all other contributing factors, and it is thus a factor of overriding importance. Evidence of intervention in Korea can be found in every field of economic activity. Such state intervention raises a host of thorny questions as to why and how the government has intervened, and whether the intervention has, in effect, contributed to economic development.6

With regard to state intervention in the economy, a controversial debate has arisen in the literature between two extreme positions: the neoclassical economic approach and the statist political economic approach (Islam 1994). Neoclassical economists argue that free markets, based on self-interest maximising behaviour, and price-based resource allocation, provide the basic ingredients for economic growth. They go on to argue that the state has little or no part to play in economic growth, and that its intervention in the economy should be limited to the rectification of market failure. In particular, neoclassical economists argue that government intervention is bound to fail for three principal reasons: (a) the rent-seeking private sector subverting public-

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6 These issues have been discussed extensively in the literature; comprehensive surveys of Korea's state intervention have been undertaken in recent years by Pack and Westphal (1986), Westphal (1990), Chang (1993), Smith (1994), World Bank (1993), Stern et al (1995), Cha and Kim (1995).
interest-driven policy, (b) predatory behaviour of state officials, and (c) incompetence of state officials (Islam 1994:93).

At the other extreme, 'statist' political economists argue that state intervention going beyond rectification of neoclassical market failure is easily justified at the initial stage of economic development. The market is too primitive to function efficiently, and institutions required for information and efficient market operation are not yet developed. Economic growth requires knowledge and technology, for which international markets are imperfect or simply do not exist, with pervasive inequality of bargaining power (Arrow 1969, Pack and Westphal 1986). All these features of under-development, as well as technological externalities and economies of scale, are generally held to require government intervention and promotion.

It appears to be a futile exercise to attempt to draw a definitive conclusion about success or failure of intervention in promoting high economic growth. Given disparate characteristics of developing countries in terms of culture, political, social and economic systems, cross-country empirical tests are not likely to come up with conclusive evidence one way or the other. Even within one country such as Korea, intervention varies over time in nature and scope. It is thus unlikely to develop a counterfactual portrayal of the country's economic development in the absence of intervention or with a different extent of intervention with which to draw some conclusion about the effectiveness.
Attempts will be made in this paper to investigate the issues of why state intervention in general - not specific types of intervention - has been undertaken in Korea, and whether the intervention has been effective. State intervention in the economy takes place as part of the implementation procedure of economic strategy. The justification and effectiveness of the state intervention are thus related to strategic issues of national economic objectives, the internal and external economic environment, and organisational capabilities. Organisational capabilities depend in turn on culture, organisation structure, staffing policies, and information systems. As any of these strategic components change, the strategy ought to change accordingly. Based on these strategic issues, Korean state interventions will be assessed.\textsuperscript{7} Under this strategic approach, the effectiveness of the intervention in the achievement of the national objective of rapid economic development depends on (a) whether the policy makers have proper vision and objectives consistent with national interest, rather than their own predatory goals, as agent theory suggests, and (b) whether capable institutions, including their staff, are in place to carry out the mission.

In Korea nationalism is high. Its turbulent historical and geopolitical background together with the homogeneity of ethnicity, language and culture has bred strong nationalism and patriotism. Nationalism in Korea has been reinforced by anti-Japanese sentiment and a sense of rivalry against Japan and

\textsuperscript{7} This is the basic approach to strategy analysis and evaluation for private business operation.
the North Korean communist regime. It has generated a powerful positive incentive for all citizens to assign high priority to the economic growth of the nation (B.H.Koo 1995: 185). In this context, predatory behaviour of policy makers for their own self interest would not be of serious concern to Korea.

The next question is whether Korea had appropriate institutions so as to maximise organisational capabilities. The government established a number of institutions conducive to economic growth. A powerful Economic Planning Board, established in 1962, was assigned the central economic policy-making role. It also had broad budgetary authority and administrative control over the banking system. Integration of planning and budgeting eliminated possible conflicts of interest among different ministries. The government secured competent economic technocrats through highly competitive civil servant examinations. Almost every ministry of the government established its own research institution staffed by academics mostly with doctorates from abroad.

The profession of government bureaucrats is a prestigious occupation in Korea, highly influenced by the Confucian cultural tradition which has attached prestige to high-ranking civil servants and scholars. Even after passing the civil servant examinations and joining the government, bureaucrats are subject to merit-based screenings for promotion. Successful bureaucrats may be promoted to cabinet or to senior positions in public or private corporations. Bureaucrats enjoy high job security and are compensated comparably to the private sector. All these features of staffing policy have induced competency in the bureaucracy.
It has been suggested that the mechanism of selection and promotion also enhances honesty (World Bank 1993: 179). Competition discourages dishonesty because its discovery will disqualify an applicant. Korea is a status and 'face'-conscious society. Dismissal from high positions inflicts commensurate loss of face, not only on the person dismissed, but on the entire family.

A bureaucracy staffed by talented technocrats has ensured a high degree of autonomy from political interference. Shielded by their powerful, prestigious and highly reputable organisations of economic policy-related ministries and affiliated research institutions, and guarded by the respect of society, the core technocrats have been able to take policy initiatives and pursue them persistently and to answer directly to the top authoritarian leader, maintaining significant independence from the legislature and other sources of political pressure. In this way, technocrats were also insulated from the rent-seeking private sector. They were able to formulate and implement policies in pursuance of national goals with a minimum of lobbying for special favours by private interest groups.

Because of the Confucian tradition and the powerful organisational structure of the government, together with its reputable elite bureaucrats, Korea has developed its own government–business relations, in which the government controls business. The government has utilised a limited number of chaebols and trade associations for control over business and for cooperation and support from business. It has nourished a limited number of chaebols with which to pursue its economic development strategy under its
tight control. But interest groups have developed in the form of trade associations, covering almost every line of business. Although trade associations were encouraged by the government as convenient conduits, through which to implement control, they have in fact come to represent the interests of a particular group, attempting to protect the group’s interests from excessive government control or interference. This paradoxical dual role has helped trade associations to flourish over the years.

In order to maintain close government–business interaction, the government has established a number of deliberation councils under various ministries and for special policy tasks. They are forums for government officials and relevant representatives and experts from the private sector and the academic community to discuss policy issues and to exchange views and information. Through these forums, the government solicited views about the policies from various sectors of society and incorporated them as critical policy information. At the same time the government utilised the councils as a vehicle with which to win the trust, cooperation and support of business and to promote the justification and credibility of its policies to the relevant sectors and society as a whole. Deliberation councils have also facilitated transmission of policy information to the business sector for its action plans. The World Bank (1993:187) further argues that predatory self-interest behaviour has been constrained by the repeated nature of collaboration, and by both the government and business being watched and checked by third parties in the councils.
In sum, the Korean government has obviously attempted to address the concerns of state intervention expressed by neoclassical economists. The organisations related to government intervention and economic strategy were established to maximise organisational capabilities. Strong cultural traditions and nationalism prevailing in society have been conducive to the pursuance of the national goal of economic development. Bureaucracy has been staffed by reputable and competent experts, and has been well protected behind high authoritarian shields, whereby technocrats were persistently able to formulate and implement national policy, maintaining autonomy and insulation from political pressure and business lobbying. The government obtained necessary information through its own institutions such as ministries, specialist research institutes and diplomatic services. The government has further established close government-business interactions through deliberation councils and trade associations through which communication and cooperation were facilitated between the two sectors. It appears reasonable therefore to draw a conclusion that Korean society, policy and its intervention mechanism were all conducive to the efficacy of state intervention.

So far, state intervention in the Korean economy in general has been examined. Specific policy interventions will further be reviewed in conjunction with evaluation of the specific contributing factors in the last three decades.

2. Export-led industrialisation

Export-led industrialisation has been fundamental to Korea's development strategy from the early 1960s, although targeted industries have changed over
time. Expansion of exports has been adopted as the fundamental development strategy, because of the well-established relationship between export expansion and economic growth (Kuznets 1994; Amsden 1989; World Bank 1993). Export expansion increases GNP as its major component. In addition, exports increase national income through a number of indirect effects. These include: earning of foreign exchange with which to repay foreign loans and to import foreign capital goods and technology; economies of scale from expanding production to meet large foreign markets; increased competition because of export markets being usually more competitive than domestic markets, thereby making exporters introduce the best technologies; learning by doing as exporters have to compete in the world markets; and obtaining least-cost production process technology through OEM exports. Lack of natural resources and a small domestic market in Korea reinforced the case for its export-led industrial strategy. There were also clear indications by the early 1960s that US aid which had funded a major portion of Korean reconstruction after the Korean War would be eliminated (Nam and Kim 1995:130). Under these circumstances, Korea had to promote exports in order to earn required foreign exchange.

The Korean government has undertaken active intervention in order to promote exports. During the 1960s, the government promoted exports of labour-intensive manufactured goods for which Korea had a comparative advantage with surplus labour. This was highly successful, but in the 1970s changing conditions compelled a change of strategy. The industrial countries
increased restrictions on trade in labour-intensive products. Reliance on imports of capital goods had to be reduced to improve the chronic trade deficit which further deteriorated alarmingly after the first oil shock in 1973. Domestically, rapid wage increases reduced the comparative advantage of labour-intensive industries. It was also thought necessary to develop Korea’s defence industry in the changing geopolitical context of the 1970s. The result was a modified export strategy: restructuring the composition of exports in favour of more sophisticated, higher value-added products, and diversifying Korea’s trading partners (Kwon 1994). To carry out this shift in strategy, Korea turned to the heavy and chemical industries.

In the 1980s, Korea’s export strategy was once again modified. It became apparent that excess capacity was being generated in heavy and chemical industries, while investment in technological innovation in light industries was being overlooked. Internationally, mounting pressure to further open the Korean economy was exerted, particularly by the USA. Korea responded by substantially opening its economy, as attested by the rising import liberalisation rate from 60 per cent in 1970 to 95.4 per cent in 1988 (Ahn and Kim 1995:341). The nominal protection rate (domestic price to international price ratio for domestic products) declined from 20.5 per cent in 1982 to 13.6 per cent in 1990 (Kim and Kim 1995:72).

In the 1990s, Korea could not help but open its economy further. Domestic wages were rising faster than productivity, making Korea a high-wage country. As a result, labour-intensive industries were transferred to low-
waged countries in East Asia. The transition of industrial structure from labour-intensive to technology-intensive industries was accelerated under a new industrial policy, focusing on high value-added, knowledge and technology intensive industries. This new industrial strategy demanded foreign technology and foreign direct investment. The World Trade Organisation obligations required trade policy to be WTO-consistent, direct export subsidies replaced by indirect ones, and import restrictions further reduced.

Over the last three decades, the policy instruments employed for Korea’s export expansion strategy have changed remarkably. During the initial stage in the 1960s, numerous export related incentives were used, including tax benefits, linkage between foreign exchange earned by exports to lucrative import licensing, and automatically available export-loans at below-market interest rates.

The extent of the subsidy through preferential loans for foreign trade is reflected in interest differences. For the 1970–82 period, the interest rate on loans for foreign trade was on average 8.38 per cent, while the average discount rate on bills by commercial banks was 18.23 per cent, and the inflation rate was 17.67 per cent (Stern et al 1995:68).

In addition to the incentive scheme of the 1960s, which remained essentially unchanged until the early 1980s, the government established a variety of institutions as an integral part of export promotion. In consultation with an export-promotion council made up of cabinet members and business representatives, chaired by the President, the government introduced export
targeting, and an export award system. In order to establish an international network to facilitate transmission of market information, the government established its own agent, the Korea Overseas Trade Promotion Agency (KOTRA), and helped establish the Korea Traders' Association. Finally, in order to take advantage of economies of scale and scope in international trade, the government promoted general trading companies which were the genesis of the development of chaebols.

Korea’s exchange rate policy has also contributed to export expansion. This started with the replacement of a complex system of multiple exchange rates to a single, unified exchange rate in 1965. Exchange rate policy has contributed to export expansion by maintaining stable effective exchange rates over time in the presence of relatively higher inflation rates in Korea and variations of official exchange rates with trading partners. The real effective exchange rate (against the currencies of the USA, Japan, West Germany and Britain) shows remarkable stability over the 1962–94 period, with some policy-related changes over time (Nam and Kim 1995:177). In the 1960s, the real effective exchange rate depreciated in line with the export-expansion strategy. After 1973, it appreciated to facilitate imports of capital goods and the repayment of foreign debt as part of the industrial policy of heavy and chemical industries. In the 1990s, however, the real effective rate depreciated substantially, presumably again in support of export-promotion.

Underlying economic factors such as accumulation of physical and human capital, productivity growth and government incentives contributed to
the expansion of exports, yet the role of entrepreneurs should not be underestimated (Chang and Chang 1994:165; Amsden 1989:79; S. M. Koo 1994). Ultimately, it was Korean entrepreneurs who exploited Korea's comparative advantage. Unlike their counterparts in many other developing countries, Korean entrepreneurs have exploited export markets independently of foreign multinational corporations.

The success of Korea's export promotion strategy is demonstrated by the fact that, over and above the rapid growth of GNP, the export–GNP ratio rose from 3.9 per cent in 1963 to 41.5 per cent in 1995 (Table 1). The market share of Korean exports in the world has increased from 0.04 per cent in 1962 to 2.5 per cent in 1995, making Korea the 12th largest trading country in the world. Exports have increasingly contributed to the growth of industrial production. During the period 1955-63, the growth of industrial production was accounted for by 78.8 percent of domestic demand, 9.2 percent through export expansion, and 15.9 percent by import substitution. However, by 1963-75, the export contribution increased to 32.4 percent, and further increased to 45.0 percent in 1975-85. On the contrary, the contributions through domestic demand expansion and import substitution decreased, respectively, to 49.7 percent and 5.7 percent in 1975-85 (Ahn and Kim 1995:360).

The export-led industrialisation strategy has contributed to deepening of the industrial structure. The share of manufactured exports increased from 27.0 per cent in 1962 to 93.8 per cent in 1995. Of manufactured exports, the
share of heavy and chemical industry products expanded from 10.4 per cent in 1962 to 75.0 per cent in 1995, while the share of light industry products over the same period declined from 89.6 per cent to 25.0 per cent (Ahn and Kim 1995:357). It could be argued that exports have worked as the "tug-boat" of the manufacturing sector. The proportion of manufactured products exported increased from only 4.1 per cent in 1963 to 31.3 per cent in 1985 (Ahn and Kim 1995:361).

In conclusion, the expansion of exports can be regarded as the "engine" for Korea's economic success. The phenomenal expansion of exports has been achieved by integrated forces of government export strategy, other economic factors and entrepreneurs initiatives. In view of Korea's long tradition of isolation and its lack of international business experience, the adoption of export-let industrialisation as the fundamental strategy was remarkable. Not only has the strategy been well suited to Korea's potential in the past, but also it would be regarded as a well-envisaged long-term strategy, even for the future in an era of rising globalisation.

3. **Heavy and chemical industries**

Korea's controversial industrial policy of the 1970s, focusing on the development of capital and technology-intensive heavy and chemical (HC) industries has provoked a large debate in the literature (Smith 1994, 1995; Chang 1993; Stern et al 1995; Westphal 1990).

Since the HC industrial development was to be undertaken by the private sector, the policy task was to induce and mobilise capital, technology, skilled
workers, industrial sites, and entrepreneurs into the HC industries. To achieve this objective, the government took four types of initiatives. First, a generous incentive scheme was introduced, providing policy loans and tax incentives for HC industries. Second, the capacity of technical schools and colleges was expanded in order to supply skilled workers. Third, a number of new research institutes were established in the HC industry area. Finally, a huge HC industrial park was established in Changwon (Kim and Kim 1995:50–51).

The incentives provided through taxes and loans were remarkably large. Qualified firms in HC industries were given tax holidays, special depreciation rates for fixed capital and temporary investment tax credit. The effective tax rate incorporating all these tax incentives was on average 19.4 per cent for HC industries, as compared to 48.4 per cent for other manufacturing industries (Stern et al 1995:64). Trade and tariff policy also supported HC industries. Imports that were thought to compete with the output of HC industries were severely limited, tariff on imports of capital goods for HC industries were waived, and the government did not grant licences of new entry to domestic or foreign competitors.

The most powerful tool for HC industry policy was the allocation of funds at preferential interest rates. During the period 1973–81, the government allocated 56.4 per cent of all investment funds available to policy loans, of which the majority was allocated to HC industries. The interest rate on these policy loans was an average annual rate of 13.90 per cent, compared
to 17.73 charged by commercial banks on commercial bills and 17.69 per cent inflation (Stern et al 1995:66).

As a result of its industrial policy, the HC industry sector expanded remarkably. During the period 1970–78, the annual growth rate of value-added was estimated to be 30.0 percent a year in the HC industry sector, in comparison with 18.5 per cent in the total manufacturing sector. Employment in the HC industry sector grew at an annual rate of 15.4 per cent, compared with 10.6 per cent per year in the total manufacturing sector. Export composition also changed. The share of total manufactured exports taken by HC industries rose from 25.3 per cent in 1972 to 52.8 per cent in 1982, then further to 75.0 per cent in 1995, while the share of light industries declined from 74.5 per cent in 1972 to 25.0 per cent in 1995 (Ahn and Kim 1995:375).

Was the HC industry policy successful? The Korean government admitted in the early 1980s that excess capacity had been generated in HC industries and investment in technological innovation in light industries had been overlooked, causing them to lose international competitiveness. The second oil shock in 1979 and ensuing inflation and increasing trade deficit induced the government to modify its HC industrial strategy. It intervened actively to redress under-utilisation of capacity in HC industries, partly by amalgamations of firms and transfers of management (Chang 1993).

The World Bank (1993:314) has claimed that evidence based on its estimated shares of value-added between HC and light industries during 1973–80 suggests that structural change in Korea did not occur in line with its HC
industrial policy. Against this, it can be argued that, given the long gestation period of investment in HC industries and the well-known under-utilisation of capacity during the period, the amount of value-added would not be a proper measurement of structural change.

The World Bank (1993:315) has also argued that, although overall productivity growth was high in Korean industries, the evidence on productivity growth in HC industries is not conclusive. The productivity estimates are based on the increase in value-added over the period 1966–85. Allowing for likely spill-over effects into light industries arising from the development of HC industries, part of productivity growth in the former would be attributable to the latter.

Stern et al (1995) argue that the HC industrial policy distorted resource allocation as evidenced by the differences in estimated capital efficiency between light industries and HC industries. Capital efficiency of HC industries, they point out, was consistently lower than that of light industries during the 1970s, indicating an inefficient allocation of capital between the two sectors. But their comparative static approach, comparing value-added to capital stock on an annual basis during the 1970s, fails to take into account the excess capacity that prevailed. They also argue that the rapid growth of exports of HC products during the 1980s was attributable in part to US restrictions on imports from Japan. However, Korea’s ability to replace Japanese goods in the United States could be substantially attributed to the development of HC industries by the industrial policy. Stern et al (1995) also point to the fact that
Taiwan's exports grew more rapidly than Korea's, without any comparable industrial policy in Taiwan. All one can say is that each country developed their own unique specialisation without which neither would be able to expand their exports to the same export market. Korea's HC industrial policy created its unique comparative advantage.

In conclusion, this debate must remain unresolved. The bulk of neoclassical literature disputes the success of Korea's HC industrial policy either because state intervention has not demonstrated the absence of 'government failure' or because there is no convincing statistical evidence for success (Smith 1995; Stern et al 1995; World Bank 1993; Islam 1994). But neoclassical writers have hardly provided enough counterfactual evidence against state intervention. The broad literature in the Korean language argues that, even though HC industrial policy was regarded as a failure at the beginning of the 1980s, it surely laid the ground for the strong economic performance of the 1980s and thereafter (Kim and Kim 1995; Ahn and Kim 1995).

These Korean writers point out, however, that HC industrial policy, although successful in promoting export expansion and economic growth, has created different problems: the concentration of economic power to chaebols which has raised a serious equity problem and slowed down the development of small and medium industries, and an underdeveloped financial sector because it was under government control for so long as part of the HC industrial policy. The Korean economic power concentration may not be
compatible with the liberalisation of the economy which Korea has to adopt in this era of globalisation. Increasing international competition will force chaebols to choose an efficient pattern of specialisation. The underdeveloped financial sector could be Korea’s most serious comparative disadvantage in the future.

4. High productivity growth

Another important contributing factor to Korea’ economic success is high productivity growth. As shown in Table 1, labour productivity increased at a remarkable annual rate of 4.2 percent over the 1964-94 period. Productivity growth directly raises economic growth. At the same time, it has been suggested that high economic growth generates high productivity growth particularly in late-industrialising countries like Korea. (Amsden 1989:110-113, Pack and Westphal 1986, and L. Kim 1995). This is because increases in productivity of developing countries come mainly from imports of foreign knowledge and technology, and the capability of importing foreign technology and the efficiency with which to assimilate and adopt imported foreign technology improve with economic growth.

As its economy develops and catches up to advanced countries, a country has to improve not only the capability of importing foreign technology and the efficient assimilation and adaptation thereof, but also the capability of developing its own new technology. As the acquisition of this technological capability is cumulative, the existing knowledge or capability has an important bearing on importing, assimilating, and adopting foreign technology, which in
turn strengthens the technological capability. Hence, as the economy grows, its technological capability accumulates, which in turn raises productivity, as Amsden (1989) suggests.

How has Korea developed and accumulated technology as well as its capability? Koreans possess socio-cultural traits under Confucian influences which are conducive to the accumulation of technological capability. They include competitive dedication to improve the relative position of self and family, zeal for education, diligence and self-discipline, secularism, loyalty and respect for authority, and strong nationalism (K.C. Lee 1995). L. Kim (1995) argues that unlike Japan, a high mobility of experienced technical and managerial personnel across Korean companies has contributed to the rapid diffusion of absorptive capability from existing organisations to new entrants.

The Korean business sector has played a critical role in the development of Korea’s technological capability. Entrepreneurial initiatives to undertake risky investment in technology and the hierarchical and centrally controlled organisational structure and management style have been favourable to technology acquisition. Unlike Western companies, Korean firms are not under constant pressure to distribute profits to the shareholders, and tend to reinvest their earnings. They tend to regard the establishment of a large market share for a product as more important than profits. In particular, the role of chaebols should not be under-emphasised in the process of developing technological capability. They have been in the best position to develop quality human resources, to identify, negotiate and finance foreign technology
transfer, to secure a captive market of their new products within the groups, and to undertake risky ventures in new business with a cushion provided by existing businesses, along with the entrepreneurial vision, spirit and drive of their owners.

Government policy toward technology has passed through various phases. In 1966 the government formally launched its technology policy with the establishment of the Korea Institute of Science and Technology (KIST) and the Ministry of Science and Technology in 1967. In 1973 the National Science and Technology Advisory Council was established, comprising ministers and representatives from the private sector, business and academia, to provide advice on long-term technological development strategy, budgetary allocation, and human resource development (Kim and Sung 1995:431).

During the 1960s and 1970s, Korea relied mainly on imported technology for its economic development. But, concerned about the royalty cost of foreign technology and technological dependence on foreign multinationals, the government applied a quite restrictive policy on technology licensing and incoming foreign direct investment. Instead, it promoted technology transfer through purchase of foreign capital equipment and reverse engineering. As a result, payments for royalty and technological consultation fees, together with foreign direct investment, amounted to only 6.3 per cent of the import value of capital equipment (Kim and Sung 1995: 433). But domestic expenditure on R&D, although gradually increasing, remained insignificant by
international standards, amounting to only 0.77 per cent of GNP by 1980, and R&D activities were undertaken largely by the government.

The internal and external economic environments changed significantly during the 1980s. Rising domestic real wages put pressure on Korea's international competitiveness. Other developing countries with much lower wage rates were rapidly catching up with Korea in labour-intensive industries. In order to move towards technology-intensive industry, new technology had to be acquired. But some industrial countries, particularly Japan, became reluctant to provide technology to Korea. This unfavourable environment made it imperative for Korea to develop its own technology. The government therefore launched national R&D projects. In 1991 the government announced its intention to improve Korea's technology capability to the level of G-7 countries within ten years (1992–2001) (Kim and Sung 1995). The prime objective of this plan was to develop 919 specific technologies in Korea that more advanced countries are reluctant to transfer. Besides promoting its own R&D activities, the government began to offer various tax and financial incentives for private R&D.

As a result, R&D expenditures increased from 0.77 per cent of GNP in 1980 to 2.33 per cent in 1993. From the beginning of the 1980s, the private sector expanded its R&D activities. The manufacturing sector increased its R&D expenditures 15-fold in real terms over the period 1980–93. Another indication of extensive R&D activities by the private sector was the increase in
the number of private research centres from 54 in 1980 to 2000 in 1995 (Kim and Sung 1995).

Another integral part of the government policy on technology is its human resource development strategy. In order to meet the rising demand for highly trained human resources, the government expanded the number of universities from 69 in 1966 to 138 in 1993. The number of tertiary graduates increased from 19,000 in 1965 to 312,000 in 1994. Science and engineering at universities increased, often at the expense of other areas, and education overseas has been encouraged. In 1975 the government established its own Korea Advanced Institute of Science and Technology (KAIST) to provide graduate school education in science and technology. As a result of these concerted efforts by the government and the private sector, the number of researchers increased from 18,000 in 1980 to 99,000 in 1993 (Kim and Sung 1995:452). Over half of these research workers are employed in the private sector and this percentage has been growing.

In conclusion, Korea has successfully increased productivity over the last three decades as a result of its own socio-cultural traits, management system, and unique advantages of chaebols as well as government policy. Korea, however, faces enormous challenges in developing and acquiring technological capability in line with its goal of sustaining its international competitiveness. Although R&D expenditures have increased rapidly, the ratio of R&D expenditures to GNP is far less than in developed economies, and the ratio of R&D expenditures to sales in the manufacturing sector in Korea is less than
half the levels in the United States and Japan. Similarly, the number of patents
granted to Korean firms in the United States, although rising rapidly, remains
far behind other developed countries (Kim and Sung 1995:455). Technological
development has been undertaken largely by chaebols. Small and medium
companies must now expand their role in the development of technology.
Korea still has to rely on foreign sources for generic technologies. This calls
for strategic alliances and R&D networks with other advanced countries.

As indicated earlier, the number of universities and students has
increased rapidly, but the environment of quality education and research has
not improved. For example, the student–professor ratio increased from 22.6 in
out, science and technology facilities at universities are dated and inadequate.
Government failure to develop highly trained human resources is now a major
bottleneck in taking on the challenge of high technology industry in the 1990s.

5. High investment and saving rates

The relationship between high rates of investment and high rates of economic
growth is well established in economic theory (Kuznets 1994). It is not
surprising that the gross investment rate in Korea increased rapidly from 13.5
per cent in 1963 to just above 30 per cent by the late 1970s, and further to
37.5 per cent in 1995 (Table 1).

What led Korean investors to expand their investment, and how was the
rapidly growing investment financed? In order to answer the first question, it
is necessary to disaggregate gross investment. The major portion of national
investment is undertaken by the private sector. Investment by the public sector was relatively high during the 1960s, reflecting heavy public investment in infrastructure during the formative period, but from the early 1970s on, the proportion of investment by the public sector declined to just below 15 per cent and has remained steady. Private investment now accounts for the major portion of overall investment.

The chief determinant of private investment is expected profitability, which depends in turn on expected rates of return on capital. Kwack (1994) has estimated the rates of return on capital after taxes in all industries in Korea to be on average 34.3 per cent and 20.0 per cent, respectively, in 1972–79 and 1980–90. They are remarkably higher than the 9.9 per cent and 9.6 per cent rates in those two periods in the United States, and 13.9 per cent and 10.0 per cent in Japan (Kwack 1994). Pyo (1996) has reported similar estimates for the years 1962–87. Over the whole period 1962–87, Pyo’s estimated rates of return were 13.4 per cent, 6.1 per cent and 9.0 per cent, respectively, in Korea, the United States and Japan. Although the estimates by Kwack (1994) and Pyo (1996) cannot be strictly compared, their indications are consistent. The rate of return on capital in Korea has been remarkably high, compared to those in the United States and Japan, but shows a downward trend toward the level of industrialised economies.

The rates of return on capital have been high in Korea because of various factors such as the low relative prices of investment goods and relatively low interest rates on loans. Investment goods have been treated
favourably by tax and tariff systems. The value-added tax which was introduced in 1977, and investment tax credit have treated investment goods in a relatively favourable manner. They have also been basically exempt from tariffs.

Financial repression has had some positive effects on the level of investment in Korea, as argued by Kuznets (1994) and World Bank (1993). Loans at below-market interest rates generated huge subsidies to borrowers. Benefits from the subsidised loans amounted to $5.2 billion up to 1980 (Jung 1989), equivalent to half of the net value of fifty largest chaebols who were the main beneficiaries. Hong (1981, cited in Kuznets 1994:51), has estimated the ratio of the interest subsidy to the total (net) capital stock in manufacturing to be on average 6 per cent in 1962–66, and to have increased to over 25 per cent in 1972–75. This would have contributed to the economic power of chaebols.

The main sources of private business risk are related to basic business questions of what, when, how much to produce (Amsden 1989), and how to finance it. These questions were addressed to a large extent by government industrial policy. On numerous occasions the government has led or coerced a certain number of companies to invest in priority projects with provision of subsidised or guaranteed loans (Stern et al 1995). The government also bailed out a number of troubled priority projects, reducing actual and perceived risk involved in investment. As a result, chaebols have diversified their business, thereby further reducing the risk associated with their investment undertaking.
Macroeconomic stability has reduced uncertainty involved in investment. Although the average annual inflation rate was quite high (11.7 per cent) over the period 1963–95, the high rate was due mainly to the two oil shocks in 1973 and 1979. Otherwise, Korea has maintained “moderately low” inflation rates. Low inflation was in a large part attributable to the “sound fiscal basis” which has been a stated target of fiscal policy from the beginning of the government as an independent nation in 1948 (Kim and Hwang, 1995: 307). In addition, Korea has also managed to maintain quite stable real effective exchange rates over time, although the nominal exchange rate has depreciated substantially over the same period. (Table 1).

The sustained accumulation of physical capital in Korea would not have been possible without significant increases in domestic savings. Foreign savings funded a substantial portion of gross domestic investment in Korea, particularly at the initial stage of development, but the importance of foreign savings declined rapidly from 44.0 per cent of gross domestic investment in the 1960s to about 10.9 per cent in 1980s (Song 1994:156). Hence, the sustained high domestic investment from the early 1980s had to be funded mainly by national savings. Since the mid-1980s the Korean national saving rate has been one of the highest in the world.

The major portion of national savings in Korea is private savings, on average 78.6 per cent of national saving over the 1963–95 period. Korean government saving, although at a low level, remained quite stable over time, and thus the variation of national savings came primarily from private savings.
Over the period 1963–91, business saving accounted on average for 57.1 per cent of total private saving, although the proportion varied quite widely over time (Song 1994:156).

Studies by Collins (1994) and Kuznets (1994) suggest that Korean households do not adjust consumption expenditures to reflect either a life-cycle model or permanent income hypothesis. Collins (1994:254) suggests that Korean household consumption decisions are based on relatively stable patterns which are closely related to current—not expected lifetime nor permanent—income. Collins (1994:254) also suggests that Koreans appear to save a high proportion of income beyond a certain level because of their cultural trait of frugality under Confucian influence.

Nam and Kim (1995) argue that a rapid increase in the real interest rates during the 1960s increased the national saving rate significantly. The real interest rate on commercial bank deposits increased from -14.6 per cent in 1964 to +12.9 per cent in 1965, and remained at 13.8 per cent on average until the end of 1969 (Nam and Kim 1995:175). From the 1970s the real interest rate on bank deposits ranged from 1.3 per cent to 2.8 per cent, which would hardly have contributed to the high saving rates.

A large proportion of wages and salaries in Korea, as in Japan, are paid in the form of bonuses which are transitory in nature and the marginal propensity to save out of bonuses is high (Song 1994:159). Song (1994:162) suggests that the informal (kerb) financial market would have contributed to the high national saving rates. Financial repression generated kerb financial
markets with high real interest rates which could have raised saving rates. But it could be argued that savings have been deflected to kerb markets, thereby reducing recorded national saving rates.

Another important reason for the high national saving rate in Korea may be that the family retains its importance as the basic economic, social, educational, and welfare unit. Korea has not yet developed a comprehensive social security system including old age security, unemployment insurance, and health care systems. Because of the general weakness of governmental social security programs, security for an individual in Korea is generally a private or family concern.

High business savings are directly related to business investment. Since Korean firms are less concerned with short-term profit, and their main objective is, in general, to expand market shares for their products, they would retain a high proportion of their profits. Business savings may be negatively related to interest rates as private companies would be motivated to save more because their profit prospects would improve with low interest rates. The Korean government’s policy has also contributed to the high national saving rate by maintaining macroeconomic stability and stable financial institutions, and by exempting interest income from saving deposits in commercial banks from taxation.

Throughout the period 1964–95, the Korean government was consistently a net-saver in the sense that total revenues exceeded the government current (non-investment) expenditures. To maintain stable
government savings, the Korean government has restrained expenditures particularly for social development such as health and social welfare. Despite exceptionally heavy military expenditure, Korea’s public sector was relatively small at 23.1 per cent of GNP in 1988, as compared to over 40 per cent in many western industrial countries (C.K. Park 1994: 209). In the same year, expenditure for social development accounted for 17.2 per cent of total expenditures, as compared to about 50 per cent in other western industrial countries.

On the revenue side, the tax system has been overhauled many times in order to keep it consistent with the rapidly changing economic structure. In 1966, the Office of National Tax Administration was created to improve tax collection. As a result, the tax burden (the ratio of gross taxes to GNP) increased from 8.6 per cent in 1963 to 20.0 per cent in 1995, but even at this rate it was substantially lower than in western industrialised countries in 1990 (Byun 1994:351). Kuznets (1994:120) shows that Korea’s tax effort has been below its potential tax capacity, indicating that there is unused tax capacity available to finance additional expenditure if policy shifts towards more emphasis on social development.

Over the period 1963–95, investment exceeded domestic saving except in the four-year period 1986–89, when the latter exceeded the former. The excess of investment over domestic saving was financed by foreign savings, net transfers and net borrowing from the rest of the world. Foreign savings were particularly important during the 1960s and 1970s, funding on average 44.0
per cent and 24.3 per cent, respectively, of gross domestic investment. Most foreign savings were in the form of commercial loans which were cheaper than domestic funds, and which were attracted to Korea by government guarantees. Foreign direct investment amounted on average to only about 0.42 per cent of GNP over the period 1965–95, just over one per cent of gross domestic investment. The small role of foreign direct investment in Korea has resulted from government restrictions designed to limit foreign control of the economy and to discourage domestic consumption of international brand-name consumer goods. L. Kim (1995) argues that compared to other developing countries, Korea has relied least on foreign direct investment and even licensing, but most on imports of capital goods and informal transfers as a way of acquiring foreign advanced technologies.

In conclusion, it appears that the major underlying factors behind the rapid growth of the national saving rate are associated with socio-cultural trait of frugality, a family security system entrenched in culture and the government social security system. As frugality declines, and the family system changes over time in such a way that the burden of family security shifts to the government, the national saving rate will be negatively affected. However, culture and culture-related systems would change at a slow pace. Hence, the national saving rate appears to remain high for the foreseeable future, as evidenced in Japan.
6. **Rapid growth of human capital**

It has been argued quite often that the most important factor to Korea's economic growth has been the abundance of diligent and well-educated human capital. At the same time, one of the most remarkable features of Korean economic development over the last three decades has been the ability to develop and utilise the nation's abundant human resources. Starting with a surplus of labour in the early 1960s with widespread open and disguised unemployment, Korea was able to change a labour surplus to a labour shortage in just one decade.

Demand for labour increased rapidly, particularly during the 1960s as a result of the labour-intensive industrialisation strategy. This raised wage rates. The real wage rate in the manufacturing sector increased at an annual rate of 9.1 per cent over the 1964–94 period (Nam and Kim 1995:178), as compared to an annual growth of 7.1 per cent in labour productivity. Thus, real unit labour cost increased by 2.0 per cent per year over the 1964–94 period. After the transition to democracy in 1987, in particular, real wages increased at an annual rate of 10.8 per cent in manufacturing industries, while labour productivity increased at only 6.2 per cent a year. Clearly, wage rates have been market-driven, with troublesome implications for Korea’s international competitiveness.

It is interesting to note that the average growth rate of labour productivity in the manufacturing sector was almost twice as high as that in all industries. Thus, it would be expected that wages in manufacturing would
increase more rapidly than those in all industries. This was not the case in Korea; the annual average growth rate of real wages in manufacturing industries was only slightly higher than that in all industries (Nam and Kim 1995:178). S.Kim(1994) argues that this is due to a higher proportion of female and young workers in the manufacturing sector, whose wages typically have not kept up with wages in other industries.

In contrast to increases in real wage rates ahead of productivity, real interest rates on loans and particularly on policy loans remained repressed at an extremely low level until the early 1980s. The resulting increases in the wage–rental ratio have led companies to substitute capital for labour (Kuznets 1994:68). The ratio increased further after 1987, suggesting a further substitution of capital for labour.

The supply of human resources increased rapidly through population growth, mobilisation of underemployed farm labour, rising labour force participation, and advancing education. The population grew at a rate of 2.5 per cent annually during the 1960s; population growth rate then gradually declined to 1.8 per cent in the 1970s, and further to less than one per cent in 1995 (Table 1). During the 1950s, foreign aid allowed a swift fall in the mortality rates; as a result, a significant number of young people entered their most productive years during the 1970s and 1980s, thus giving a boost to the rising economy. The labour force participation rate also grew gradually from 54.5 per cent in 1963 to 62.0 per cent in 1995, but remained unchanged during the 1970s and 1980s, slightly above the level of the 1960s. Over the period
1963–95, the labour force increased at a rate of 2.9 per cent per year. Labour inputs have changed also because of changes in average working hours from 47.2 hours per week in 1963–65 to a peak of 56 hours in 1988 (Kuznets 1994:69). Although this average has been declining slowly in the recent past, Korean workers worked 49.2 hours per week in 1996 as compared to the Asian average of 44.8 hours (Korean Herald 1997a).

Kim and Lee (1995) and Kuznets (1994:4) argue that Korea's flexible and efficient labour market is one of the key elements in the rapid growth of employment and the economy. Without such a market, Korea could not have achieved an annual average growth rate in employment of 3.1 per cent over the last three decades. Demand for labour expanded faster than labour supply particularly at the initial stage of Korea's industrialisation during the 1960s and the early 1970s. As a result, by 1977 or 1978 all readily available labour was absorbed. This is reflected in the unemployment rate of 3.2 per cent in 1978, a frictional unemployment rate. Mobility and adaptability of labour in Korea are relatively free of social constraints such as social class structure, regional and religious differences. In contrast to Japan, the labour turnover rate has been relatively high, at about 4 to 5 per cent (Kim and Kim 1995:59), indicating a competitive labour market. Kim and Lee (1995) argue that, as a result of its efficient labour market, wage differentials by education and gender have declined over time.

Although attracting little attention in the literature, the labour market would be the one area where the Korean government most extensively
intervened until the late 1980s. The focus of government labour market policy was placed on the maximum generation of employment in consistency with the maximum growth policy until the late 1980s. As part of this manpower planning, the government promoted the rights of management at the expense of labour. It suppressed union activities and intervened in labour disputes. The government has also frequently imposed wage guidelines. Management, taking advantage of government policy and intervention, has applied an authoritarian management of labour. Whenever labour disputes occurred, management often resorted to the government to resolve the disputes, instead of learning and practising adequate labour management skill. Therefore, although Kuznets (1994) argues that the Korean labour market has been competitive and efficient, it has been under such strict government intervention; it did not progress toward a labour market as seen in advanced countries.

Since the late 1980s, the Korean labour market has changed markedly. With political democratisation in 1987 came labour market democratisation; government power and influence in the management of labour ebbed drastically. This, together with the shortage of labour experienced in the late 1980s, led to numerous labour disputes over the 1987–89 period. Past practices of the labour management relationship will no longer work in Korea, not only because of Korea’s democratisation but also because of international pressure under WTO rules. The modernisation and development of harmonious labour–management relations, together with new labour-related laws and regulations, are one of the most arduous challenges confronting Korea.
7. **High zeal for education**

The view of humans as an economic resource has two dimensions: quantitative and qualitative. The qualitative aspects of human contribution to economic development would largely depend on education and culture or work ethic. As mentioned earlier, because of Confucian influence, Korean workers are hardworking, industrious, disciplined, well-educated, easily trainable, highly motivated, dedicated to their work, and loyal to their companies. At the same time, the educational level of the Korean labour force has increased remarkably over the last three decades. Historically, education has always been highly valued under Confucianism. Koreans now perceive education to be directly linked not only to improved social status but also to material success. Because of a closely knit family-oriented society, concerns and wishes for economic success and improved social status are regarded in terms of the family unit, rather than the individual. Thus, parents willingly devote large portions of their income to the education of their sons and daughters, and even siblings financially support each other’s education.

The educational zeal of Koreans was suppressed during Japanese colonial rule, and as a result Korea had an illiteracy rate of 78 per cent in 1945. However, after the Korean War, the rate declined rapidly, and by the mid-1970s it had become so insignificant that it is no longer published by the National Statistical Office. Korean workers are educated well beyond literacy. The *Economist* (1990:199) reported that, by 1983, high school attendance rate was 89 per cent in Korea, as compared to 85 per cent in other wealthy
countries. This rate gradually increased to 98.7 per cent in 1995. The World Bank (1993:46) has found that Korea’s enrolment rate in high schools was markedly higher than those of other industrialising countries. Almost all young people entering the work force today have been educated for at least 12 years.

As the economy has developed, education has further expanded into tertiary education. The number of students enrolled at tertiary educational institutions increased from 123,000 in 1965 to 1,889,000 in 1995, or a 9.5 per cent annual growth over this period. University education enhances social status and employment prospects. Both the government and most of the large corporations rely on open nation-wide examinations in recruiting their high-ranked officers and staff. To contain the heavy social demand for higher education, the government enforces a strict enrolment quota system, inevitably leading to fierce competition for university entrance. Primary and secondary school children, all geared toward university entrance examinations, work extremely hard.

The zeal for education is reflected in heavy spending on education. Government educational expenditures accounted for 18.8 per cent of the budget in 1995 but for only about one-third of the total national spending on education, the remainder coming from the private sector (Kim and Sung 1995:438). In 1995 household education expenditure reached 10.0 per cent of their overall expenditure. Real expenditure per pupil at the primary level increased by 355 per cent between 1970 and 1989, compared to a 64 per cent increase in Mexico during the same period (World Bank 1993: 45). In tests of

There is no doubt that rapid economic growth in Korea owes a great deal to improvement in the general level of education. But the Korean education system and policy has faced a number of serious challenges. The quality of tertiary education has been an issue of public concern. The development of science and technology, business and vocational courses is not sufficient to cope with the demands of a rapidly industrialising society (L.Kim 1995). Because of the paramount importance of examinations for university entrance and employment, the education system tends to encourage rote learning of factual information rather than developing scientific inquiry and critical thinking. The adequacy of the role of the government in education has been questioned. It is widely suggested that the government has not provided adequate resources for education. The ratio of government educational expenditures to GNP rose from 1.8 per cent in 1970 to 3.1 per cent in 1990 but declined gradually to 2.8 in 1995 (L.Kim 1995).

8. The cultural factor

The neoclassical approach to economic development suggests that under the free market system, the contributing factors to economic development are increases in factor inputs, efficient allocation thereof, and productivity growth. It leaves little room for the government in rectifying market failure (World Bank 1993). The political economic (or statist) approach broadens the scope
of the analysis based on the premise that the free market system alone is inefficient in function and incomplete in the institutional sense for developing countries. It then suggests state intervention for solutions to economic development challenges.

A third approach appears to have developed to be more comprehensive including socio-cultural aspects. Neither of the traditional approaches (neoclassical and political economic) is sufficiently comprehensive in explaining economic development, in that both approaches are based on the premise that individual human beings, the ultimate economic units, are all homogeneous. It can be readily observed that people's predilections are all different, or in other words, their cultures in the sense of beliefs, values and behavioural norms are all different. Why do a certain group of people work harder, save more, take more risk, behave more harmoniously toward others, or are more loyal to authority than others? These differences occur among different groups of people within one country as well as among different countries. Traditional approaches leave these begging questions unaddressed.

The third approach does not say that economic and institutional factors are not important determinants in the process of economic development. Rather it attempts to address this fundamental question: why do economic and institutional factors function better in some societies than in others to support sustained economic growth? This indicates, as Lipsey (1991) argues, that not only factor endowments but also socio-cultural characteristics confer comparative advantages on nations. Lipsey (1991) points out that as countries
move toward knowledge- and technology-intensive economies (which depend more on human capital and less on natural resources), cultural-based comparative advantage increases in importance, while resource-based comparative advantage declines. As culture changes over time, cultural comparative advantage will change accordingly. However, as a survey study by Child (1981) shows culture in general, changes at a glacial pace, and the spiritual cultures (not institutional culture) of different countries remain divergent over a long period of time. Hence, cultural comparative advantage of nations would be sustainable in nature.

It was Max Weber (1930), a sociologist, who has first put forward the concept of cultural comparative advantage in a systematic way, although he did not refer to it as cultural comparative advantage. Weber argued that ascetic Protestantism was a major impetus for the development of rational capitalism in the West, and the absence of dominant religious values caused the failure of capitalism in China which was penetrated by Confucianism. The spirit of Protestantism that Weber identified includes individualism, rational control of the world, thereby fostering right-consciousness, competitiveness, development and modernisation. Confucian culture is based on collectivism and rational adjustment to the given world - not transformation of it, thereby fostering relation-consciousness, duty-consciousness, traditionalistic attitude and slowing down modernisation (K.C.Lee 1995 and Y.H.Kim 1994).

There is much recent literature on the relationship between Confucian traditionalist culture and economic development (K.C.Lee 1995). As
Confucianism emphasises harmonious yet hierarchical human relations and education, a Confucian citizen will be hardworking, well-educated, disciplined, frugal, responsible, co-operative toward social solidarity and loyal to authority, thereby contributing to economic development (Morishima 1982 and Cho 1994). Hence, whereas western individualism was appropriate for the pioneering period of industrialisation and mass production technology, Confucian culture has advantages for the present lean, flexible production methods which require efficient communal co-operation among firms, their labour forces, their suppliers and their customers (Lipsey 1991:18).

In the case of Korea, numerous scholars, and particularly Korean scholars, argue that the value system of the traditional Confucian culture has become supportive of economic growth (Jones and Sakong 1982; 1994). An intriguing question arises naturally as to why these positive elements failed to work throughout Korea's long history. In this respect, S.S.Park (1995) argues that culture serves as a trigger for economic development, but in order for the trigger of Confucian culture to ignite, certain political and economic preconditions must be met, including a free enterprise system, competition, international trade, proper institutions, and a stable and growing middle class. Cho (1994) adds that a misguided policy focus has bred the major negative Confucian influence - distinct social stratification and antipathy to manual labour and business. But this negative Confucian influence will wither away as the economy develops with the growing middle class. In other words, culture
alone will not generate economic growth; the requisite economic and institutional factors must be in place.

V. Prospects of the Korean Economy

The Korean economy has achieved unprecedented growth in the last three decades. The Korean economy now faces, however, numerous challenges in a rapidly changing internal and external - political and economic - environment. The world economy is more closely integrated and countries face increasingly global competition. As New Rounds of the WTO make progress in the areas of labour, competition, environmental and R&D policies, the world economy will witness deeper integration through standardisation of domestic policies. As Cha (1996) points out, in such a deeply integrated global economy, productive factors and firms move across national boundaries with fewer restrictions, though there are also factors with limited cross-border mobility such as socio-political systems and institutions, public services, social infrastructure and labour. A critical challenge is therefore how to attract the high-quality mobile factors into the economy and to improve all those less mobile factors to the international level.

Regionalism is an important influence. Regionalism is in essence the clustering together of contiguous economies based on cultural affinities, geographic proximity and common economic interests. Regionalism can stimulate economic forces which then strengthen growth and the region’s competitive dynamism in the global market. Another critical challenge for the
Korean economy is therefore how to take advantage of East Asian economic dynamism, while at the same time keeping in step with the integration process of the world economy.

Newly industrialising Asian economies such as Thailand, Malaysia, Indonesia and China are exerting competitive pressure on Korea’s traditional exports to global markets. These newcomers have cheaper labour, are endowed with rich resources, and are following export-oriented growth strategies similar to those of Korea. These newly industrialising countries have attracted foreign capital, direct investment, and technology. As a result, they appear to be more competitive than Korea in low-technology and labour-intensive industries.

An issue with tremendous bearing on the prospects of the Korean economy is the eventual re-unification of North and South Korea. The magnitude of the impact of re-unification will vary with the way and time of unification. Three scenarios are often envisaged (K.H.Kim 1997). One involves an outbreak of war beginning with an invasion of South Korea by North Korean armed forces. The second one, like the German re-unification, could occur after the sudden collapse of North Korea due to a variety of economic and political difficulties. The third is peaceful co-existence, eventually leading to re-unification.

The proposition of war is basically twofold. First, since it came into existence, the North Korean regime has claimed to be the only lawful government on the Peninsula, and considered unification on its own terms, by
employing force if necessary. Second, out of desperation from the rapidly deteriorating economic situation, North Korea may be tempted to launch a war against the South. However, North Korea also knows that its capacity to sustain a war over a long period of time is limited, and that the formidable combined military strength of South Korea and the United States will eventually annihilate North Korea. It is thus unlikely that this scenario will materialise.

K.H.Kim (1997) speculates that the second one seems most likely as of 1997, but it would cause immense social and financial burdens. It could also have serious diplomatic ramifications. China is not yet ready to tolerate a unified Korea with a capitalist economy and with a close tie with the United States, and Japan is nervous about the possibility of boat people arriving should North Korea collapse. Gradual union through a peaceful co-existence period is thus most desirable, and this approach is the one officially endorsed by South Korea (Cha 1996).

Under the peaceful coexistence approach, unification would be achieved in three consecutive steps: mutual trust and co-operation; a period of peaceful co-existence; and a final union in the form of a North and South Korea Confederation - separate political systems but a united economic system. Given the enormous disparities that have developed between the present North and South economic, social and political systems, and the delicate diplomatic relations among neighbouring countries, this gradual approach would be realistic, but it could take decades to finalise.
In order to prevent a sudden collapse of the North, with its dire consequences, and at the same time to build up mutual trust, South Korea must provide economic aid to the North, starting immediately with substantial food aid. Once mutual trust starts to build, an agenda of economic co-operation would include construction of industrial complexes and social infrastructures, collaboration in overseas markets and joint participation in multilateral co-operation. The South Korean economy would benefit from such economic co-operation with the North, by making the most of its economic complementarity with the North and diverting military expenses to more constructive uses. With a population of about 80 million, Korea’s economic growth would be stimulated and economic status in North-East Asia would be enhanced.

Domestically, under the democratic regime, government control over the private sector has become less effective, and the objectives of economic policy are inevitably more complex. As the Korean economy develops further and people’s income rises, society will become less tolerant of the government-led growth-first strategy. Korean people will demand improvement in the quality of life and economic justice. Democratisation of the labour market has made labour management and labour relations more difficult. As the Korean economy attempts to develop knowledge and technology-intensive industrialisation in an increasingly competitive world, cooperative labour-management will prove even more critical than in the past.

Korea’s knowledge and technology-intensive industrialisation will face steep competition from advanced countries, which may become increasingly
reluctant to transfer technology to Korea. Korea therefore must develop indigenous technologies which in turn require entrepreneurial initiative, venturesome investment, new marketing skills and human resource development. It must also develop small and medium-sized firms to create the required flexibility, while at the same time continuing to support chaebols in such a way that they can provide muscle in international competition.

All these developments—domestic and international—pose the question whether the Korean economy can sustain the performance of the last three decades. As Cha (1996) points out, faced with the rising integration of the world economy, Korea must undertake institutional reforms aimed at improving economic and institutional efficiency and equity. The government-led development strategy under an authoritarian political regime, which worked well in the past, will no longer work as well. A change in the basic philosophy from a government-led to a private-initiative approach appears to be appropriate. This requires co-operation and co-ordination among the government, business, labour union, and academia.

Can Korea do it? The Kim government has been undertaking a series of economic reform measures focusing on the financial sector and on excessive government regulations. The centrepiece of financial reforms is the implementation of the real name financial transaction system. Further financial reforms are necessary to bolster the competitiveness of domestic financial institutions in preparation for the external opening of the domestic financial market. Jwa (1996) argues that the central banks’ autonomy must be
enhanced to safeguard its operation of monetary policy from political influences which are bound to arise with political democratisation. The government has pledged to undertake the required financial reforms, but it has failed, so far, to live up to expectation. Similarly, though a large number of regulatory provisions have been relaxed or eased, deregulation has so far not lived up to expectation. It should be noted, however, that President Kim has urged the completion of legislation aimed at reforming the financial system and enhancing the central bank’s independence, and that he has also called on government officials to ease or abolish 12,000 regulations by the end of 1997 (Korea Herald 1997b). Hahn (1997) argues that the Kim government has not achieved many of the reform goals, but that a foundation has been laid on which future reformers can build.

Strong nationalism remains prevalent in Korea as evidenced by a recent mobilisation of the public against purchases of imported goods. The national goal of economic prosperity is constantly reinforced by perennial ambition to catch up with Japan and the anxiety of being overtaken by the “tigers” of South-East Asia (Economist 1995:17). In addition, the group of selected core technocrats, who have run the economy successfully in the past, maintain their motivation and commitment to the national prosperity goal unabated.

Socio-cultural traits of Koreans which have contributed to the past economic success have not changed to a discernible extent by the very nature of culture. Well-trained, highly motivated, industrious workers are still abundantly available, and there is no significant indication of the work force
becoming complacent, as evidenced by Koreans continuing to work the longest
hours among Asian countries. The zeal for learning and education continues
to run high. There is no sign which show their thriftiness and entrepreneurial
initiatives are abating, as evidenced by the high national saving and investment
rates. There also remains an enviable practice of government-business
economic cooperation.

Korea appears to be advancing steadily to become one of the leaders in
high-tech development. The government has been exerting concerted efforts to
promote R&D activities. Numerous indicators of science and technology
development such as the ratio of R&D expenditure to GNP, the number of
patents, the number of articles published in science journals, and the number of
science and technology students are all indicating that Korea is still behind
advanced industrial countries, but is surely progressing much faster than those
advanced countries. Above all, chaebols are in a strong position to lead the
development of the high technology sector of the Korean economy. This is
because (a) they are highly diversified yet vertically integrated, thereby
supporting decision making that is flexible, adaptable, and well coordinated,
(b) they have better access to domestic and international credit, (c) they are
tied into the global networks for information and human resources, and (d)
they have high stability in management and long-term views.

The deepening integration of the global economy represents both a
challenge and an opportunity. As long as Korean industries remain
competitive, they will reach overseas markets with fewer restrictions. This will
be particularly significant when China joins the WTO. Korea has already expanded trade with China, making China its third largest trading partner in 1996. Markets of South-East Asian countries, Russia and Eastern European countries are the most promising in terms of future growth. Together with accelerated efforts for structural adjustment toward higher value-added and technology-intensive products, Korean industries will be able to capitalise on the rising opportunities in these new markets. This will help Korea greatly in its efforts to diversify exports.

In conclusion, in view of the past realisation of ambitious economic targets, recent developments in economic adjustments during the transition period, and Koreans’ determination to succeed, Korea appears to be capable of maintaining its high economic growth well into the twenty-first century.

VI. Implications for Australia
Economic relations between Australia and Korea have expanded rapidly, mainly in line with their economic complementarity. In so far as the structures of the two economies remain unchanged and the underlying complementarity remains unabated in the future, the expected high growth of the Korean economy and a moderate growth of the Australian economy will foster the growth of bilateral economic relations. Korea’s sustained economic growth will increase its demands for Australian resources and agricultural and food products. It will also expand its investment in Australia, and generate potentials for Korean tourists and students to come to Australia.
There are some issues and challenges looming in the distant horizon of the bilateral economic relationship. As shown earlier, Korea is seeking knowledge- and technology-based industrialisation, thereby changing its economic structure. As the economy matures toward high technology, its consumption of industrial raw materials is bound to slacken. Another important development in the Korean market is the emergence of China and Russia as important suppliers of minerals since their diplomatic normalisation with Korea in the early 1990s (Kwon 1994). Their geographical proximity and the relative price competitiveness of their mineral products are distinct advantages. In addition, both China and Russia are blessed with a geological endowment of a large variety of minerals. Korea's overseas mineral development investment would also divert to these countries, probably at the expense of Australia. China and Russia are regarded as more economical than Australia for Korea's future overseas development investment for some non-ferrous metals (Kwon 1994).

The traditional pattern of the bilateral trade between Australia and Korea, based on their current characteristics of comparative advantage, could pose serious problems for both countries over time. Both of the economies seek to advance their industrial structures. This will change the comparative advantage which each country currently possesses and accordingly the complementarity could be diluted. Furthermore, Australia seeks to broaden the base of the economic relationship, thereby increasing its exports of not only traditional resource and agricultural products but also sophisticated
manufactured goods. Korea wants to see the persistent trade deficit with Australia redressed and its exports of high-technology products expand.

In order to address these issues, it is imperative for both countries to realise that economic interdependence should develop in such a way as to upgrade the industrial structures of both economies. This could be done through more efficient intra-industry specialisation in high-technology areas. To this end, an understanding of the dynamics of each economy and bilateral cooperation in the fields of science and technology are of critical importance.

There is an urgent need for the flagging performance of investment between the two countries to be addressed. In view of well-documented trends that exports tend to follow direct investment (Daniel and Radebaugh 1995: 291), Australia and Korea have to recognise the necessity to expand bilateral investment relations, particularly in high-technology areas, in order to achieve the targets of advancing their industrial structures and exporting high-technology products. The expansion of bilateral investment relations also requires cooperation between the two countries to better understand the dynamics of each other's economy and investment opportunities.

The prospects of the Australia-Korea tourism and educational relationship are bright, if not one-sided. Enormous potential exists in Korea for tourism and educational services, yet the Korean market is highly competitive. In order to capitalise on the rising potential markets in Korea, it is imperative for Australia to set up a proper marketing strategy for both
tourism and education. This also requires a proper understanding and perception of Australia by Koreans.

Over the last few decades, the Australia-Korea relationship has developed deeply and broadly with economic relations at the core. The prospects for economic relations are reasonably bright, although there are some challenges to overcome for both countries in enhancing the relations. Underlying all of these challenges is the difference between Australians’ and Koreans’ perceptions of each other, and the reality. Such a gap arises due to the lack of mutual understanding, on a person-to-person level. Given the competitive Australian and Korean markets, both countries should generate a relational comparative advantage over other countries in order to realise the full potential of this bilateral economic relationship. It is therefore imperative for citizens of both countries to understand each other’s politics, social beliefs and norms, arts and culture, as well as economic and business systems. In spite of the considerable amount of work that has already been undertaken, mutual understanding between the two countries is still at an early stage of development. Furthermore, there still exists a substantial degree of misperception of each other (Trotman 1995 and ACKS 1997).

In order to redress the lack of awareness and basic knowledge of each other at the societal and individual level, which in turn breeds their misperception of each other, action programs should be further embarked upon. To this end, the building of more people-to-people exchanges is fundamental. The governments of both countries should therefore place a
special priority on such exchange programs. Education is one of the most
effective and efficient mediums with which to promote mutual understanding
and to redress the misperception of each other. In this regard, Australian
studies in Korea and Korean studies in Australia, and two-way exchanges of
academic staff as well as students should be promoted by the governments and
educational institutions.
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Professor O. Yul Kwon was born and raised in Korea. He graduated from Seoul National University in 1962 with a Bachelor of Commerce. In 1964 he moved to Canada, where he undertook his Masters and PhD in Economics.

In December 1995, Professor Kwon joined Griffith University as the Korea Foundation Chair in Korean Studies. In order to promote the development of Australia-Korea relations and Korean studies in Australia, Professor Kwon played an instrumental role in establishing the Australian Centre for Korean Studies in February 1996. The Centre held its Inaugural Conference “Australia-Korea Economic Relations in the 21st Century” on the 20 September 1996, with the participation of a large number of eminent scholars, policy makers and business people from both countries.

Prior to joining Griffith University, Dr Kwon was Professor of Administration at the University of Regina, Canada, and the foundation Director of the Institute for North-East Asian Studies of the University of Regina. In addition, he taught at Seoul National University and the Banff School of Advanced Management as a visiting Professor. Professor Kwon has also been teaching regularly at Queen’s University, Canada and the University of Waikato, New Zealand as a visiting Professor.

Professor Kwon has published two books and edited another. He has published 36 articles in refereed journals and as chapters of books, as well as numerous articles in business magazines and special columns in newspapers. He has presented more than 60 papers at academic and professional conferences in six continents.

Professor Kwon worked for the Bank of Korea for three years, and the Department of Finance (as a senior tax policy officer) of the Canadian Federal Government for four years. He has served as a Commissioner for the Saskatchewan Securities Commission, Canada, a Board Member of the Korean Exchange Bank of Canada, and as a Director of the Saskatchewan Chamber of Commerce and Industry for about two years each. Professor Kwon has also served as Vice President of Net Five Telecom Corporation in Canada for three years. Recently he has been providing workshops on doing business in Korea and East Asia for various organisations.