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1997-1998

KOREA

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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Publié également en français.

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BASIC STATISTICS OF KOREA

THE LAND

Area (thousand sq. km)	99	Major cities, 1995 (million inhabitants):	
Agricultural area (thousand sq. km)	14	Seoul	10.2
Forests (thousand sq. km)	65	Pusan	3.8
		Taegu	2.5
		Inch'on	2.3

THE PEOPLE

Population, 1997 (million)	46.0	Civilian labour force, 1997 (million)	21.6
Per sq. km, 1997	463	Civilian employment	21.0
Annual rate of change of population, 1997	1.0	Agriculture, forestry, fishing	2.3
		Industry	4.5
		Construction	2.0
		Services	12.2

PRODUCTION

GDP, 1997 (trillion won)	421.0	Origin of GDP, 1997 (per cent of total):	
GDP per head (US$)	6 468	Agriculture, forestry, fishing	5.7
Gross fixed investment, 1997 (trillion won)	147.3	Industry	28.3
Per cent of GDP	35.0	Construction	14.6
Per head (US$)	2 263	Services	51.4

THE GOVERNMENT

Public consumption, 1997 (per cent of GDP)	11.1	Composition of the National Assembly, December 1997 (number of seats):	
General government current revenue, 1997 (per cent of GDP)	26.4	The Grand National Party	165
General government financial balance, 1997 (per cent of GDP)	3.0	The National Congress of New Politics	78
		The United Liberal Democrats	43
		Independants	13
			299

FOREIGN TRADE

Commodity exports, 1997, f.o.b. (per cent of GDP)	45.8	Commodity imports, 1997, c.i.f. (per cent of GDP)	48.6
Main exports (per cent of total exports):		Main imports (per cent of total imports):	
Manufactured foods	30.2	Manufactured goods	21.3
Machinery and transport equipment	50.0	Mineral fuels, lubricants	18.9
Other	19.8	Machinery and transport equipment	33.7
		Other	26.1

THE CURRENCY

Monetary unit: Won		Currency unit per US$, average of daily figures:	
		1995	774.7
		1996	844.7
		1997	1 415.2

Note: An international comparison of certain basic statistics is given in an annex table.

This Survey is based on the Secretariat's study prepared for the annual review of Korea by the Economic and Development Review Committee on 10 July 1998.

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After revisions in the light of discussions during the review, final approval of the Survey for publication was given by the Committee on 28 July 1998.

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The previous Survey of Korea was issued in May 1996.

Assessment and recommendations

Korea's accession to the OECD in 1996 marked 35 years of rapid economic development

This is the first economic survey of Korea since it became the 29th Member country of the OECD on 12 December 1996. Korea's accession to the OECD represented the culmination of 35 years of extraordinary growth that transformed it from one of the poorest nations in the world to the 11th-largest economy and exporting country. Its rapid development was driven by very high rates of saving and investment and a strong emphasis on education, which boosted the share of youth enrolled in universities to among the highest levels in the OECD area. By 1996, per capita income surpassed $10 000 and was relatively equally distributed, while life expectancy reached 72 years, not far short of the OECD average of 76 years.

At the end of 1997, though, Korea was hit by one of the most severe financial crises ever experienced by a Member country...

Less than a year after its accession to the OECD, Korea experienced a severe financial crisis. With its useable foreign exchange reserves nearly exhausted in November 1997, Korea requested emergency assistance from the IMF to avoid a moratorium on its foreign debt. In early December, the IMF announced a record $57 billion stand-by agreement with Korea. The situation continued to deteriorate throughout December, as the exchange rate plummeted from about W 1 150 to the dollar at the beginning of the month to almost W 2 000 at the end of the year, while the three-year corporate bond rate soared from around 14 to almost 30 per cent in the wake of large-scale capital flight. However, foreign exchange reserves began to increase with the emergence of a large current account surplus in December, funds from international financial institutions and renewed capital inflows following the agreement in January 1998 to extend the maturity on short-term foreign bank debt. By March, Korea's depleted foreign exchange reserves had risen to almost $25 billion. Corporate bond rates declined to 19 per cent and some of the overshooting of the won, which had risen to around W 1 400 to the dollar by mid-March, was reversed.

... resulting in a sharp drop of domestic demand and a rapid increase in unemployment in early 1998

The impact of the financial crisis on the real economy became apparent in the first quarter of 1998 as GDP dropped 3.8 per cent year-on-year, reflecting a 29 per cent fall in domestic demand that helped to boost the number of insolvencies to three times the pre-crisis level. Almost 1.2 million jobs had been lost between the summer of 1997 and June 1998, boosting the unemployment rate from 2.2 to 7 per cent despite a sharp decline in participation rates. Nominal wages appear to have fallen dramatically as firms struggled to survive and workers preferred pay cuts to reductions in employment. The sharp rise in import prices due to the depreciation of the won temporarily boosted consumer price inflation to 9.5 per cent year-on-year in February. In the four months to June, however, the price level fell at a 2 per cent annual rate, reflecting weak domestic demand and declining oil prices. With imports plunging and export growth sustained by the large real depreciation of the won, the current account swung to a surplus equivalent to about 14 per cent of GDP in the first quarter of 1998. But falling wages and massive cuts in investment, while essential to restore company balance sheets and Korea's external position, have seriously depressed domestic demand. Against this background, financial markets remained volatile in April and May, reflecting uncertainty over the near-term outlook, aggravated by slow progress in restructuring banks and industrial conglomerates – the *chaebols.* Moreover, there was growing concern about a new wave of layoffs and bankruptcies as corporate bond rates in early June remained at 18 per cent, even though wage costs were falling. Despite high interest rates and a successful flotation of $4 billion of bonds in April, which helped boost foreign reserves to over $37 billion at the end of June, the won remained in the W 1 360 to 1 400 per dollar range.

The origin of the crisis was a number of structural weaknesses, which made Korea vulnerable to external shocks

Given Korea's strong macroeconomic trends until October 1997, the crisis was a surprise to analysts. Long-standing strengths – such as sustained high growth, moderate inflation, high national savings, small external deficits and large government financial surpluses – had lulled foreign investors and regulators into complacency. Moreover, the economy maintained growth of about 6 per cent through most of 1997, despite a severe terms-of-trade shock. These positive factors obscured the dichotomy between a strong real economy on the one hand, and weak profitability, an excessively-indebted corporate sector and a poorly-supervised, shaky financial system on the other. These weaknesses stem from the fact that banks and corporations were linked closely with the government in a web of implicit guarantees which had come to be called ''Korea Inc.''. This close relationship created a moral hazard problem – a ''too big to fail'' mentality resulting in excessive risk-taking, over-investment and insufficient attention to credit and exchange rate risks. These fault lines, which had existed for some time and had not prevented rapid growth, nonetheless left Korea vulnerable to shocks in an increasingly global financial market. As the financial meltdown spread through Asia beginning in mid-1997, these fault lines were transformed into an outright fracture in Korea's fragile financial system.

The highly-indebted corporate sector was hit by rising debt service costs, leading to a surge in insolvencies...

The first structural weakness noted above – an excessively-indebted corporate sector – was a legacy of Korea's strategy of achieving rapid growth by diversifying into capital-intensive industries through debt-financed investment. Although this approach had been successful in the 1970s and 1980s, it proved to be ill-suited for an environment of keen global competition in the 1990s. By the end of 1997, the debt to equity ratio of the corporate sector was around 400 per cent, about 100 percentage points higher than a year earlier. For the thirty-largest conglomerates, the ratio was even higher at about 500 per cent, raising serious questions about corporate governance (see below). Consequently, total corporate debt amounted to 167 per cent of GDP, imposing onerous debt service costs on corporate cash-flow. Indeed, such costs accounted for around 17 per cent of total business costs in 1997, more than three times the level in the United States and Japan. Already by mid-1997, rising financial costs exceeded profits which were subdued by slower growth and the decline in the terms of trade. Later in the year, the depreciation of the won further strained corporate cash-flow, triggering a 50 per cent jump in the number of insolvencies in 1997, including seven of the thirty-largest chaebols.

... further weakening an already shaky financial system...

This surge in corporate insolvencies had a devastating impact on Korea's financial system, which had already been undermined by poor profitability. Non-performing loans (NPLs) of commercial banks rose from 4 per cent of total credit at the end of 1996 to 6 per cent at the end of 1997. The surge in problem loans in 1997 led to a number of credit distortions. Financial institutions, reluctant to see a further rise in NPLs, provided concessionary loans to prop up large firms in difficulty, while restricting credit to small and medium-sized enterprises (SMEs).

... at the same time that financial market turbulence was sweeping through Asia

This alarming run-up in corporate debt and NPLs took place against a backdrop of growing financial turbulence in Southeast Asia. Indeed, external financing difficulties put the exchange rates of Thailand and Indonesia under severe pressure in July and August. This served to increase the awareness of investors to structural fault lines, thereby spreading financial market turbulence, focused on countries with weak financial systems and poor corporate governance practices. This re-evaluation of risk had significant implications for Korea, which had seen its foreign debt almost double from $89 billion in 1994 to $170 billion in September 1997. Moreover, two-thirds of this debt was short-term, reflecting the failure to liberalise long-term capital flows relative to short-term ones (in contrast to the recommendation in the 1996 OECD *Economic Survey of Korea*). Financial contagion from Southeast Asia was compounded by a high-risk decision in the summer of 1997 to prop up the exchange rate, which, in theory, was floating, leading to the loss of between $8 and $10 billion in foreign reserves by the end of November. The government's announcement in August 1997 of the possibility of providing a guarantee, if necessary, on the foreign liabilities of Korean banks merely delayed the foreign exchange crisis. The country's foreign reserves were less than a third of its short-term external debt, and were rapidly depleted once foreign banks began cutting their credit lines, and as foreign investors began pulling out of Asia in large numbers following the sharp stock market correction in Hong Kong, China in October. In retrospect, although it is uncertain what set of policies, if any, could have enabled Korea to avoid a crisis once financial panic started elsewhere in the region, it is likely that floating the currency much earlier would have helped limit the extent of the crisis. Moreover, it is clear that waiting until the country was on the verge of a debt moratorium before turning to the IMF was unwise.

A key element of the policy package was very high interest rates to stabilise the exchange rate...

In the context of the IMF standby agreement, Korea adopted tight macroeconomic policies at the end of 1997 to restore stability and confidence. On the monetary policy side, the key objective was to stabilise the exchange rate at a more normal level. This required very high money-market rates, which jumped from 12 per cent prior to the crisis to 27 per cent at the end of 1997, to stem capital outflows. Moreover, these high interest rates were aimed at preventing a spillover of the currency depreciation onto domestic inflation. Money supply growth (M3) was to be slowed from 16 per cent in 1997 to 13 per cent in 1998. In addition, foreign exchange reserves were targeted to rise to $41 billion (about four months of imports) by the end of 1998. With the tightening of financial market conditions, a new wave of bankruptcies emerged, particularly among highly-indebted companies, thereby boosting banks' problem loans. This increase, combined with the banks' efforts to meet the capital adequacy ratios by the end of June 1998, has reduced banks' capacity to lend. Bank loans in June were actually below their February level, with SMEs particularly hard-hit.

... and a tight fiscal policy stance

A more restrictive monetary policy was accompanied by fiscal restraint to alleviate the burden on monetary policy and to provide for the cost of restructuring the financial sector. Korea has pursued very sound fiscal policies during the past few decades, large general government financial surpluses having made it one of only three OECD countries where the government is a net creditor. On a consolidated central government basis, the budget was in balance in 1996 and 1997 and balance was initially planned to continue in 1998, assuming real output growth of about 6 per cent. The balanced budget objective was maintained, even though the growth rate projected under the initial IMF programme was more than halved. Consequently, the government passed a supplementary budget in March 1998 raising tax rates and cutting other categories of spending by an amount equal to almost 3 per cent of GDP. As a result, the initial stance of fiscal policy in 1998 was markedly contractionary, thus compounding the effect on demand of high interest rates. But as the economy fell into recession, the budget objective was revised in April to a deficit of 1¾ per cent of GDP. However, achieving even this target now appears difficult given the extent of the decline in domestic demand and the need for increased outlays for the unemployed and to rehabilitate the financial system. As the severity of the recession became apparent, the increase in the fiscal deficit target was accompanied by a gradual lowering of interest rates.

The programme also includes a broad range of structural reforms

A unique aspect of the IMF agreement with Korea is the wide range of structural reforms that accompanied the macroeconomic framework. These policies were consistent with the thrust of the recommendations made in the two previous OECD *Economic Surveys of Korea,* as well as with the changes requested during the country's accession process to the Organisation, and are welcome. The structural reform plan is based on two fundamental principles – exposing the economy more fully to competitive forces and introducing more effective governance structures into financial institutions and the corporate sector. Its implementation would replace the dirigiste approach of the past with a market-based paradigm. Establishing such a paradigm requires first and foremost a rehabilitation of the financial sector and its mirror image – the highly-indebted corporate sector. Such policies are being accompanied by reforms in other areas, notably to increase labour market flexibility and to open the capital account. Putting the new paradigm into effect will pose formidable challenges to Korea's policy-making institutions, and in particular to the government's capacity to co-ordinate the different domains of policy.

Rehabilitating the financial system is a priority task, notably with respect to upgrading prudential supervision...

Rehabilitating the financial system is essential. Modern, market-based economies do not function efficiently without vibrant, well-supervised financial institutions, the more so as they play a central role in monitoring and disciplining corporate performance. In particular, well-managed banks are essential to assist in the restructuring of the corporate sector and to achieve an efficient allocation of resources. In the wake of the crisis, the government has made a promising start in addressing the long-standing weaknesses in the financial system. A single, independent regulator, the Financial Supervisory Commission (FSC), has been given the mandate to supervise all financial services. The FSC will progressively apply international prudential standards in loan classification, loss provisioning, as well as in disclosure and accounting. Regulators will take a positive view towards financial innovation, allowing institutions with adequate capitalisation and risk management to expand the range of their activities. They will be aided in this regard by legislation in late 1997 that eliminated rigid functional segmentation between financial institutions. To strengthen governance in banking, prohibitions on ownership concentration have been eased, although the authorities reserve the power to block ownership linkages considered undesirable. Moreover, restrictions on foreign ownership of banks have been lifted. Finally, 14 insolvent merchant banks and several securities and trust companies have been closed.

... while resolving the bad-loan problem...

With a sound legal and regulatory framework in place, the most urgent task is to proceed expeditiously with the rehabilitation of the banking system under the direction of the FSC. The key task is to deal with the problem loans (NPLs plus loans in arrears by 3 to 6 months), which for all financial institutions were estimated in March 1998 at W 118 trillion (about a fourth of GDP), a figure consistent with estimates by independent analysts. In November 1997, the Korean Asset Management Corporation (KAMCO) was given the important mission of resolving problem loans through buying impaired assets from financial institutions. But in February 1998, the government appropriately suspended open-ended purchases and made future purchases conditional on FSC approval of banks' rehabilitation or liquidation plans. As part of the May package (see below), KAMCO received W 25 trillion to purchase about half the NPLs, with the rest to be written off by financial institutions. To use these funds efficiently, KAMCO must acquire impaired assets at realistic prices and later liquidate them efficiently, taking into account market conditions, to maximise revenue. Asset sales have been minimal, to date, and other asset disposal techniques are being introduced.

... and re-capitalising the banks

The authorities re-capitalised the two weakest commercial banks in January 1998, after writing off nearly all of the existing shareholders' capital. Twelve other banks with less than 8 per cent capital adequacy ratios were required to submit plans by mid-April specifying how they will meet these standards within two years. The FSC has demanded fuller disclosure of asset quality, based on audits by internationally-recognised firms. In May, the government announced a comprehensive W 50 trillion (12 per cent of GDP) plan to address financial-sector problems. In addition to the W 25 trillion for KAMCO, W 16 trillion will be used to re-capitalise viable financial institutions, while the remaining W 9 trillion is earmarked to increase depositor protection. Banks should be allowed to resolve their problems independently, to the extent possible, through asset sales, securities issues or strategic partnerships. Under the plan, banks are expected to increase capital by about W 20 trillion through asset revaluation and securities issues. Reaching this figure will depend on convincing investors that the government and banks are implementing effective restructuring plans. In short, the amount of public funds for re-capitalisation should be adequate but held to a minimum, with capital injections targeted to institutions with credible restructuring plans. Moreover, it should be clear that these injections are a one-time event and are subject to strict conditions to avoid moral hazard problems.

Market-driven rehabilitation of the financial system is essential

The FSC announced its assessment of individual banks' rehabilitation plans at the end of June. Of the twelve banks who failed to meet the minimum capital adequacy ratio, the plans of seven were conditionally approved, subject to establishing a tight implementation schedule. The government effectively closed five non-viable banks by merging them with stronger banks, whose interests were protected by prior measures to clean up the balance sheets of problem banks and other guarantees. The FSC's actions demonstrate that the basic rules under which the banking system operates have changed. In particular, it is clear that shareholders and management are bearing responsibility for the performance of banks. However, the planned mergers may strain the management of some banks by burdening them with the task of restructuring financially-troubled banks. Expanded foreign ownership and joint ventures may be a promising means of obtaining the managerial skills as well as capital necessary to bring Korean banks up to international standards. In this regard, the opening of the financial sector to foreign competition and equity participation is particularly welcome. In the future, it is important that the upgraded prudential supervision standards that are currently being introduced be vigorously enforced. Restructuring will also be critical to deal with over-capacity. Even prior to the crisis, the profitability of Korean banks was far below that in OECD countries with strong banking systems. Part of the remedy must be through mergers, rationalisation of branch networks or closures. Although further mergers may be a partial solution, combining weak institutions would merely perpetuate a cycle of mediocrity.

The government has taken a number of measures to improve corporate governance practices...

The second major area for reform – corporate governance – is essential to improve the performance of the economy. The expansion of the chaebols into prestigious, but high-risk industries at the expense of shareholder value played a key role in the crisis. The government has taken a number of steps in this area. *First,* the market for corporate control has been opened up by the liberalisation of capital inflows, both direct and portfolio investment (see below). Moreover, hostile takeovers were allowed as from May 1998. *Second,* transparency will be enhanced by requiring the chaebols to produce combined financial statements beginning in fiscal year 1999. *Third,* the rights of minority shareholders were strengthened, notably by facilitating the filing of suits against directors. *Fourth,* new debt guarantees between firms that belong to the same conglomerate have been prohibited and old ones phased out, in an attempt to facilitate a more efficient re-allocation of their assets. *Fifth,* the insolvency framework was tightened in February 1998.

... but more needs to be done, especially in the area of bankruptcy law

While many positive steps have been taken, further progress is needed. A top priority should be to improve the bankruptcy law, which provides weak incentives for both creditors and debtors to initiate bankruptcy proceedings, thus tending to maintain the *status quo* by keeping weak firms afloat with concessionary loans. When company reorganisation plans are undertaken, the 12 and 18-month deadlines for submission and approval are too long. Moreover, it is important to increase transparency in corporate balance sheets. Steps toward this objective should include the introduction of mark-to-market accounting and the strengthening of audits by improving their fairness and veracity. Another priority should be to better define the corporate governance provisions in the company law and provide effective enforcement and sanctions. The key provisions in this regard include the legal responsibilities of directors towards the company, conflict of interest rules and transparency norms regarding major transactions with shareholders. Finally, all company boards should include outside directors beginning in 1998. It is important to ensure the independence of these directors, and to assign them important tasks, such as heading the auditing and remunerations committees, so that they can effectively influence the way companies are run. Allowing holding companies would also help to promote transparency and restructuring.

Corporate restructuring should be market-driven

An improved governance framework would facilitate a market-driven restructuring of the corporate sector. In particular, rapid restructuring of the chaebols would alleviate banking-sector problems and improve market confidence. The government clearly has an interest in accelerating the restructuring process. However, it should limit its role to providing a broad institutional policy framework and promoting competition, while avoiding actions which may be seen as a return to past dirigiste policies and thereby risk weakening the confidence of international investors and distorting resource allocation.

Increased labour market flexibility is essential to facilitate corporate restructuring...

Improving the performance of the corporate sector also requires measures to increase labour market flexibility. Prior to the February reform, the scope for layoffs was limited by judicial rulings, which tended to be favourable to workers. The revised law allows firms to shed redundant workers for urgent managerial reasons, including mergers and acquisitions. However, new conditions were imposed on companies wishing to resort to layoffs. In particular, firms must have sixty days of discussion with workers' representatives and must notify the Ministry of Labour thirty days in advance in the case of large layoffs. Since the new law was only enacted at the end of February, it is too early to determine whether the notification and consultation requirements will limit the ability of firms to shed workers.

While the sharp rise in unemployment to date is largely due to bankruptcies and new labour market entrants, some large companies are now moving toward implementing layoffs. It is essential that the layoff provision in the new law be implemented in a way that allows firms the flexibility to restructure.

... and should be accompanied by increased social welfare spending to maintain social cohesion in the face of higher unemployment

Increased flexibility is being accompanied by an expansion of the unemployment insurance system, improvements in vocational training and public employment services and reforms of the industrial relations system. As training programmes are expanded, notably through vouchers, it is important that they provide job-relevant skills. Coverage of unemployment insurance has been extended from firms with more than thirty employees to those with more than five. In addition, the minimum contribution period necessary to qualify for benefits was temporarily reduced from 12 to 6 months, while the minimum duration of benefits was doubled from one to two months. These measures should boost the proportion of the unemployed who receive benefits from its current low level. This should be accompanied by an extension of the social welfare system to assist those who do not qualify for unemployment benefits, who are cut off after a short period or who have not received severance pay from bankrupt firms. Such expenditures are critical to maintain social cohesion and limit the increase in poverty. Maintaining social solidarity will be a key element for recovery, in part because it promotes wage flexibility and thus moderates the need for employment cuts. However, any permanent expansion in the social safety net should not be so generous as to undermine the incentives to work and save, which are essential for Korea's medium-term growth prospects. At the same time, the government should continue its progress in bringing the industrial relations system in line with practices prevalent in other OECD countries. In particular, with the planned introduction of multiple unions at the enterprise level by 2002, it is important to design a bargaining framework that would not unduly disrupt labour-management relations.

The opening of the capital account to portfolio and direct investment should more fully expose Korean firms to international competition...

Increased labour market flexibility and the avoidance of social strife are keys to attracting foreign investors to the newly-opened Korean market. As noted above, the barriers to capital inflows have been largely dismantled. In December 1997, the bond market was completely opened to foreign investors, while the ceiling on foreign shareholding in individual companies was abolished in May 1998. In addition, a quarter of the 42 business areas closed to foreign direct investment (FDI) have been opened, including several in the financial sector. The traditionally hostile attitude towards FDI has been reversed as its advantages – improved management and technology and an increase in productive capacity – have finally been acknowledged. The government is establishing a one-stop shop to cut red tape to promote FDI and plans to create a favourable environment based on equal national treatment to encourage foreign capital to stay. The recent liberalisation of capital markets could result in a significant and welcome increase in capital inflows. Although these might be small relative to the size of corporate assets, they would be a critical complement to companies' own restructuring efforts.

... along with reforms to lower trade barriers and to reduce the extent of regulation

The opening of the capital account and the market for corporate control will subject firms and management to greater pressure to enhance shareholder value, as would greater product market competition. An important policy in this regard is reducing formal barriers to imports and more subtle forms of protection through the domestic regulatory regime. The phasing-out of the import diversification programme, which has prohibited imports of certain products from Japan, is being brought forward to June 1999. In addition, the government has promised to streamline regulatory standards that have the effect of restricting imports. Deregulation is another aspect of increasing competition and attracting foreign investment to Korea, which at present has more than 10 000 regulations. Systematic efforts are required to implement effective non-discriminatory treatment through the domestic regulatory regime to reassure foreign investors that the rules-based system works equally for domestic and foreign firms. The new organisation established in 1997 to review existing regulations should focus on removing entry barriers and controls on prices and reducing compliance costs. In addition, the formal requirements for creating new enterprises should be relaxed and the process speeded up.

The implementation of reforms will be difficult in the context of a bleak short-term economic outlook...

Korea has made an impressive start in laying the groundwork for a more market-based paradigm. However, the effective implementation of the reforms outlined above, many of which will take several years to produce positive results, is complicated by the deep recession. The OECD Secretariat projects that output will fall by about 5 per cent in inflation-adjusted terms in 1998, reflecting an almost 25 per cent decline in domestic demand and a large positive contribution from net exports. Firms, faced with high borrowing costs and excess capacity, are expected to slash investment spending and reduce labour costs by cutting both employment and wages. Consequently, the unemployment rate is projected to reach 8 per cent before the end of 1998. Nominal wage cuts, combined with the temporary surge in consumer prices to about 9 per cent due to the one-off effect of the currency depreciation, will lead to a sharp contraction of private consumption. The collapse of imports, accompanied by growing exports sustained by the strong competitive position, could lead to a record current account surplus of about $35 billion (11 per cent of GDP).

... which contains many risks

The path of the economy over the next few years depends on several key factors: *first,* how quickly the corporate sector restructures in the context of still high interest rates, severe credit crunch conditions, big falls in asset prices, and increased competition, while exploiting its extremely favourable international competitive position; *second*, how households respond to increased uncertainty concerning job security and wages; and *third*, how investors respond to the opening of the capital account in Korea. Given the uncertainty in each of these areas, there are significant risks attached to this projection. There could be a further increase in bankruptcies. Moreover, social unrest in the wake of sharply higher unemployment and further turmoil elsewhere in Asia could weaken the confidence of investors.

The priority should be to normalise credit conditions, while letting the exchange rate float...

To minimise these risks, the authorities need to maintain a pragmatic approach to macroeconomic policies. This would also help sustain economic activity to the extent necessary for the successful implementation of the reform programme. Money market rates have declined progressively since the beginning of the year to about 12 per cent at the end of July, with almost half of the decline occurring since the end of May, concomitant with a 10 per cent recovery of the won. Although nominal interest rates are nearly back to pre-crisis levels, further cautious declines would be warranted, given the depth of the recession, so long as domestically-generated inflation remains firmly in check and stable exchange market conditions are maintained. However, lower interest rates alone may not be sufficient to avoid widespread insolvencies of healthy firms in the context of a credit crunch. To prevent such an outcome, the planned capital injections into the banks should be accelerated while hastening bank restructuring. In this context, further measures to enhance credit flows to SMEs and trade credits might also be warranted. Finally, allowing the level of the won to be determined by market forces would limit the required build-up of foreign exchange reserves. While the current emphasis on building up reserves is understandable in the wake of the recent crisis, an accumulation of reserves beyond four to six months of imports would impose high opportunity costs. In particular, it would tend to slow the correction of the exchange rate to more normal levels, thus increasing the pressure on interest rates.

... and adopting less stringent budgetary targets

There is some room for manoeuvre in fiscal policy in the short run, given the very sound overall financial position of the government. The government has submitted a supplementary budget, which is expected to raise the deficit in 1998 to around 4 per cent of GDP. The planned increase in expenditure would help domestic demand to recover while meeting urgent needs for spending and is welcome. In particular, the supplementary budget's emphasis on increasing social welfare spending would alleviate hardship and limit the extent of poverty, which would weaken social cohesion. Given the depth of the recession, the OECD Secretariat estimates that, even if this budget is implemented, the stance of fiscal policy might still be slightly contractionary on a cyclically-adjusted basis. Consequently, some further deterioration in government balances in the short term would be appropriate. Subsequently, as Korea emerges from the sharp recession, a return to conservative fiscal policies would be desirable, for several reasons. *First,* the restructuring of the financial system will impose potentially large costs on public finances. *Second,* in the longer term, the ageing of the population will increase government outlays on social welfare expenditures.

Further progress in implementing structural reforms is essential to reassure financial markets and would expand scope for less restrictive macroeconomic policies

It is crucial that the authorities continue to move ahead quickly in implementing the planned structural reforms. Tangible signs of progress in these areas have already strengthened confidence, which, in turn, has provided greater scope for less restrictive macroeconomic policies. Continuing progress in this regard would include:

– layoffs of redundant workers in large firms without provoking social strife;
– further decisive rationalisation of the banking sector;
– further evidence of better functioning exit mechanisms, such as rapid asset sales, increased merger activity and closure of insolvent firms.

A more balanced mix of macro and microeconomic policies should allow Korea to return eventually to its high-growth path

On the assumption of less restrictive macroeconomic policies and the restoration of corporate balance sheets to healthier positions, the decline in domestic demand should be attenuated in 1999. With a further rise in the external balance projected, assuming an exchange rate of W 1 350 through 1999, output growth of perhaps $2\frac{1}{2}$ per cent would be possible. Moving quickly ahead to establish the new paradigm based on market forces is necessary for sustaining such a recovery in the medium term. The difficulties in realising the transition to a more dynamic, flexible economy should not be underestimated. It will no doubt require courage, skill and perseverance. The potential rewards, though, are large. In the medium term, reforms are likely to boost productivity sufficiently to compensate for a slowdown in the growth of inputs as labour force growth decelerates and the share of national income devoted to investment declines. This would enable Korea to return to a high-growth path, reflecting its fundamental national strengths including a high national saving rate, strong social cohesion and a well-trained labour force.

I. The Korean economy in crisis

This chapter sketches out the origins of the crisis, the policy response and economic prospects over the medium term. It first focuses on the benign developments in demand, output, inflation and external payments prior to October 1997 and the apparent absence of early warning signs of the impending crisis, despite structural weaknesses in the corporate and financial sectors. This is followed by a discussion of salient financial market developments leading up to the crisis at the end of 1997. A third section outlines the policy response largely mandated by the IMF stand-by agreement, while economic prospects in the short and medium term are presented in the final section.

Just how Korea, which had long been the envy of many developing countries, was faced with a threat of a debt moratorium defies imagination. But it would be a mistake to blame this debacle solely on contagion from the financial crisis in Southeast Asia. To be sure, by most criteria, Korea had sound macroeconomic fundamentals. However, owing to an excessively-leveraged corporate sector and a weak financial system, they did not suffice to ride out the financial market crisis sweeping through the rest of Asia. Moreover, the operations of Korea's ''floating'' exchange rate system and monetary policy in practice proved to be inappropriate in a context of greater capital market openness. Indeed, from August 1997 almost to the eve of the crisis, the authorities vainly attempted to prop up the won, while at the same time injecting substantial liquidity into the financial system to check the wave of bankruptcies. In the event, policy inertia, inappropriate exchange rate goals and capital flight quickly exhausted Korea's limited foreign exchange reserves.

The macroeconomy prior to the crisis

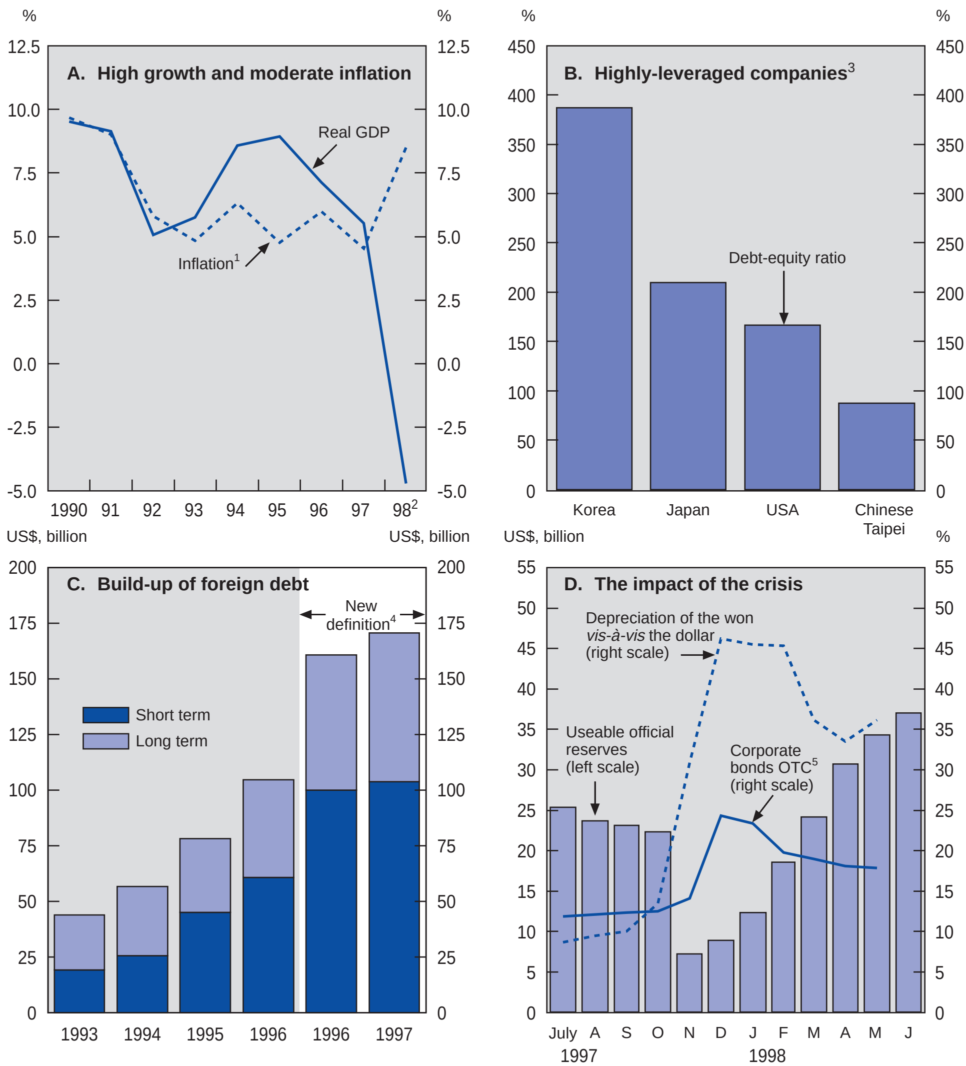
Sustained economic growth and falling inflation in 1996 and 1997

Prior to the late 1997 economic crisis, the Korean economy was marked by a puzzling dichotomy between a benign real economy and growing financial market tensions (Figure 1). Up to late October, the real economy appeared to be adjusting smoothly to the severe 1996 terms-of-trade shock[1] and a cutback in business investment following a boom in the early 1990s (Table 1). These factors had slowed GDP growth from an unsustainably high rate of 9 per cent in 1994-95 to 7 per cent in 1996. The first quarter of 1997, when GDP growth fell to 5.7 per cent, appeared to mark a successful ''soft-landing''. Indeed, notwithstanding sluggish domestic demand, GDP growth during the first three quarters of 1997 still averaged over 6 per cent, while industrial output growth was some 9 per cent reflecting strong net exports. Inflation, measured by the 4.3 per cent rise in the private consumption deflator, was the lowest in a decade (Table 2). Unemployment, albeit edging up to some 2.5 per cent of the labour force, was very low by OECD standards (Table 3). At the same time, the current account deficit, which had soared to $23 billion in 1996 (almost 5 per cent of GDP), had been halved by the third quarter of the year (Table 4); and the capital account, although volatile, was recording small net inflows. As in the past, the economy was firmly underpinned by cautious monetary and fiscal policies (with the budget oriented towards a balanced current position and a small surplus on the social security accounts).

But benign macroeconomic conditions masked a host of structural problems

In short, the macroeconomy gave few signs of imminent stress. In the past, high nominal GDP growth had masked many of Korea's financial problems (and perhaps lulled regulators and foreign investors into complacency). However, the crucial pressure point between weak microeconomic structures and slower economic growth proved to be the corporate sector's weak balance sheet and cash-flow positions. Insolvencies (especially among incorporated firms) were on the rise, as increasing gearing resulted in higher business break-even points, while slowing economic growth exacerbated cash-flow problems. Insolvencies soared during the course of 1997 and reached dangerous levels in early 1998 (Figure 2).[2]

Figure 1. **THE PATH TO THE CRISIS**



1. Private consumption deflator.
2. OECD estimates.
3. Top 30 business groups in Korea in 1996. 1994 for other countries.
4. As part of its agreement with the IMF, Korea changed its definition of external liabilities to include: *i)* the foreign borrowings of overseas branches and subsidiaries of Korean financial institutions and *ii)* offshore borrowings of Korean financial institutions.
This boosted total liabilities at the end of 1996 from $104.7 billion to $160.7 billion.
5. Over-the-counter three-year corporate bond rates.

Source: OECD, FTC and Bank of Korea.

Table 1. **Expenditure components of GDP**

Percentage changes from previous year

	1991-95	1996	1997	1997 Q2	1997 Q3	1997 Q4	1998 Q1
Private consumption	7.5	6.8	3.1	4.8	4.8	–1.0	–10.3
Government consumption	4.8	7.8	5.7	6.9	7.2	4.0	–4.3
Gross fixed capital formation	8.2	7.1	–3.5	0.2	–3.7	–9.8	–23.0
of which: Residential construction	4.8	0.4	–4.2	–4.0	–5.8	–0.4	..
Non-residential construction	4.8	–1.4	–1.2	–2.5	1.9	–3.5	..
Equipment	9.6	8.3	–11.3	–1.8	–12.7	–28.2	–40.7
of which: Transport	9.2	4.2	–19.9	–8.1	–12.0	–43.7	..
Machinery	9.8	10.1	–8.1	0.6	–13.0	–20.8	..
Increase in stocks [1]	0.0	1.2	–3.7	–4.4	–7.2	–3.4	–15.2
Total domestic demand	7.6	8.2	–2.8	–1.0	–5.2	–7.1	–29.4
Exports	14.8	13.0	23.6	27.2	33.2	20.8	27.3
Imports	17.8	14.8	3.8	7.3	4.7	–4.0	–25.4
Foreign balance [1]	–0.8	–0.8	8.6	8.5	11.7	11.0	25.4
Gross domestic product	6.8	7.1	5.5	6.6	6.1	3.9	–3.8

1. Contributions to growth.
Source: Bank of Korea.

Highly-leveraged firms with weak balance sheets...

The first critical fault line on the path to crisis was the rapid build-up of short-term domestic and foreign debt to finance the investment boom of the large conglomerates, known as *chaebols,* in the 1990s. By the end of 1997, Korea's thirty-largest chaebols' average debt to equity ratio had soared to over 500 per cent, 100 points higher than in 1996 and the five previous years. Such traditionally high leveraging reflected *inter alia* the chaebols' pursuit of rapid growth on a global scale by diversifying into capital-intensive industries, as part of an ambitious strategy to ''leap frog'' quickly up the value-added chain into higher technology products.[3] This strategy had been successful in the 1970s and 1980s, when Korean companies were small, and achieving scale economies and establishing extensive distribution channels were critical to increasing productivity and shareholder value. But by the late 1980s, global competitive conditions had changed radically – and past strategies of debt-financed growth became increasingly risky in the face of falling profitability.

Table 2. **Prices and wages**

Percentage changes from previous year

	1990-95	1996	1997	1997 Q1	1997 Q2	1997 Q3	1997 Q4
Price deflators							
Private consumption	6.7	5.4	4.4	5.0	3.4	3.7	5.5
Government consumption	9.8	7.4	6.3	6.9	5.9	5.1	7.1
Total investment	6.3	5.5	6.3	4.6	5.4	4.7	10.5
of which: Residential construction	9.3	6.1	5.8	5.9	5.7	5.6	6.0
Non-residential construction	9.3	6.5	5.4	5.9	5.1	5.6	4.9
Machinery and equipment	2.4	0.5	4.4	0.3	3.9	–1.8	14.6
Total domestic demand	7.0	5.5	7.7	6.7	6.7	8.6	8.7
Exports	2.3	–3.8	2.1	–3.3	–2.7	–5.5	20.9
Imports	2.8	2.6	11.3	8.6	7.8	3.7	24.8
Gross domestic product	7.0	3.5	2.3	1.7	1.5	1.7	4.3
Wages							
Manufacturing							
Earnings [1]	13.7	12.2	5.2	..	..	..	..
Real earnings [1, 2]	7.2	6.5	0.7	..	..	..	..
Compensation per employee	10.0	10.3	..	..	..	..	..
Real compensation per employee [2]	3.1	4.7	..	..	..	..	..
Unit labour costs [3]							
In won	1.5	2.2	–0.5	..	..	..	..
In dollars	–0.8	–2.1	–15.8	..	..	..	..
Compensation per employee	16.4	13.4	7.5	..	..	..	..
Real compensation per employee [2]	9.0	7.6	3.0	..	..	..	..
Productivity growth	5.2	4.7	4.1	..	..	..	..

1. Available since 1991.
2. Using the implicit price for private consumption.
3. Bureau of Labor Statistics.

Source: Bank of Korea and Department of Labor (USA).

Chaebols' governance structures were slow to internalise these basic changes in international competitive conditions, and shareholder value was systematically being destroyed from the late 1980s onwards.[4] Indeed, rapid expansion in the late 1980s into a number of ''prestigious'' capital-intensive, high-risk industries where Korean industry had weak technical or management comparative advantage, probably laid the seeds of the corporate sector's current dire situation.[5] Worse, given the simultaneous entry of a number of chaebols into similar industries (*e.g.* semiconductors, steel, consumer durables and especially automobiles), rates of return were quickly depressed by the rapid build-up of capacity and fierce competition. Given the limited size of domestic bond and

Table 3. **Labour market**

Percentage changes from previous year

	1990-95	1996	1997	1997 Q2	1997 Q3	1997 Q4	1998 Q1
Labour force	2.4	1.9	2.0	2.5	1.5	0.6	–1.0
Population 15 years and over	1.7	1.9	1.6	1.6	1.6	1.5	..
Employment	2.5	1.9	1.4	1.8	1.2	0.0	–3.7
Agriculture	–5.0	–5.2	–3.6	–2.9	–3.5	–5.9	..
Construction	8.8	3.8	1.8	3.7	2.4	–1.0	..
Manufacturing	–0.6	–2.0	–4.3	–4.4	–5.3	–4.7	–10.4
Services	5.7	4.9	4.5	5.1	4.5	–2.4	..
Self-employed	2.0	2.4	1.4	3.4	3.1	0.3	..
Employees	3.4	2.4	1.4	2.0	1.0	0.5	..
Unemployment rate	2.4	2.0	2.6	2.5	2.2	2.6	5.9
Participation rate	61.1	62.0	62.2	63.1	62.7	61.9	..

Source: Bank of Korea and National Statistical Office.

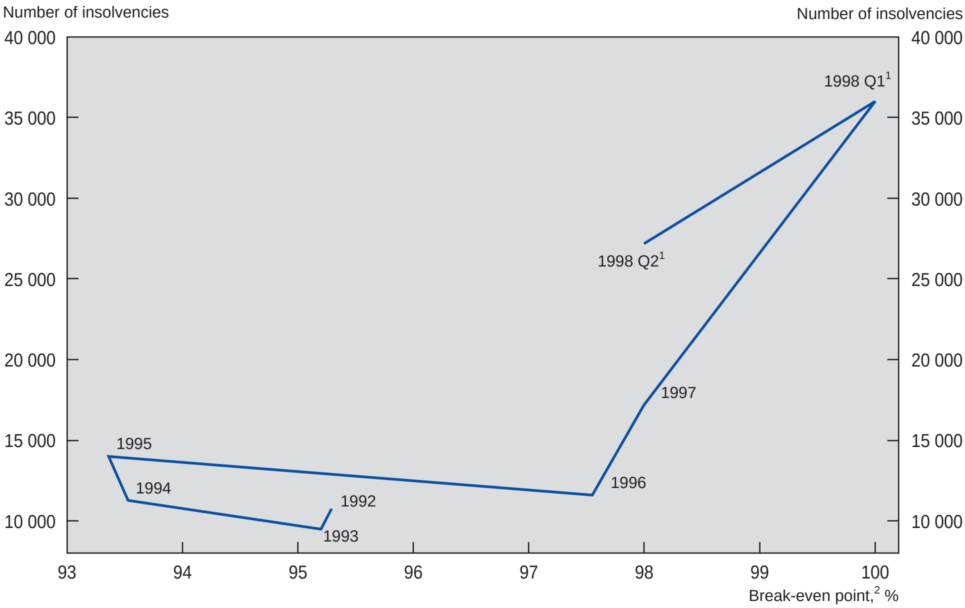
Table 4. **Current account**

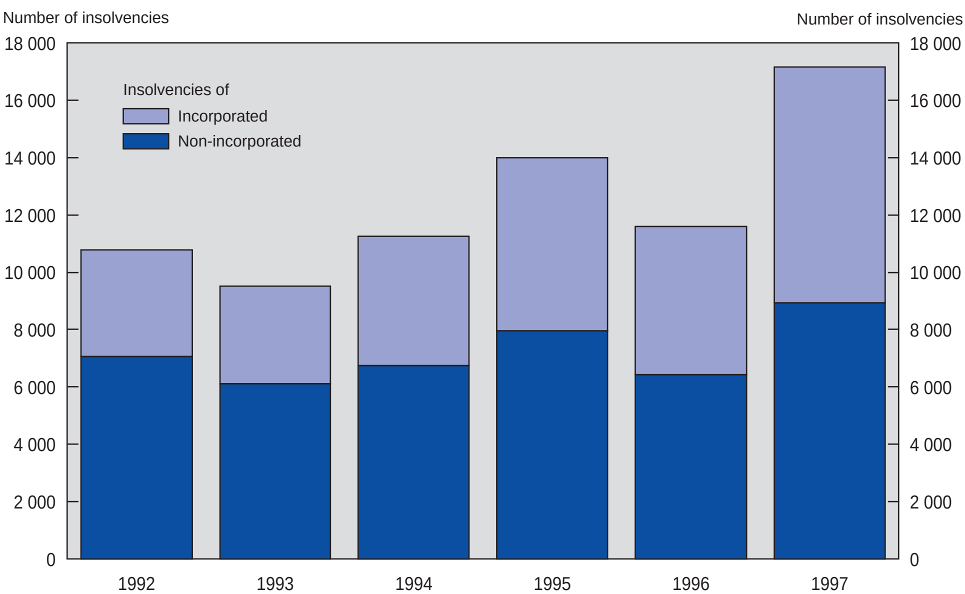
$ billion

	Average 1990-95	1996	1997	1997 Q2	1997 Q3	1997 Q4	1998 Q1
Exports, fob	85.3	130.0	138.6	36.0	34.9	36.7	32.8
Imports, fob	88.0	144.9	141.8	36.8	34.9	33.7	23.2
Trade balance	–2.7	–15.0	–3.2	–0.8	0.0	3.1	9.5
Services, net	–2.6	–8.0	–5.7	–1.9	–1.9	0.0	0.0
Non-factor services, credit	13.8	23.4	26.3	6.5	6.7	7.0	6.4
Transportation	5.6	8.8	11.0	2.7	2.7	2.9	2.4
Travel	3.4	4.9	4.7	1.2	1.2	1.3	1.2
Other	4.9	9.8	10.6	2.6	2.8	2.8	2.8
Non-factor services, debit	15.9	29.6	29.5	7.6	8.1	6.4	5.7
Transportation	6.2	10.2	10.3	2.6	2.6	2.4	2.0
Travel	3.9	7.5	7.0	1.9	2.2	1.1	0.6
Other	5.7	11.9	12.2	3.1	3.2	2.8	3.0
Investment income, credit	2.8	3.7	3.9	0.9	0.9	1.1	0.9
Investment income, debit	3.3	5.5	6.3	1.7	1.5	1.7	1.7
Transfers	1.0	0.0	0.7	0.0	–0.1	0.9	1.2
Private	1.1	0.3	1.0	0.0	0.0	1.0	1.3
Public	–0.1	–0.4	–0.4	–0.1	–0.1	–0.1	–0.1
Current balance	–4.3	–23.0	–8.2	–2.7	–2.1	4.0	10.7

Source: Bank of Korea.

Figure 2. **BREAK-EVEN POINTS AND INSOLVENCIES**





1. At annual rates, OECD estimates for 1998.
2. Per cent of sales necessary to achieve financial equilibrium.

Source: Bank of Korea and OECD.

equity markets and preferential access to credit from a docile banking sector, this strategy left the chaebols with a legacy of excessively-leveraged balance sheets and ill-prepared for the rigours of global competition.

Korea's manufacturing sector as a whole exhibits balance sheet characteristics similar to those of the chaebols, albeit with a debt to equity ratio of just under 400 per cent (including the chaebols). Nonetheless, by the end of 1997 total corporate debt had risen 26.8 per cent to W 810.6 trilllion (around $600 billion) or 167 per cent of GDP. A key feature in 1997 was the marked rise (from 9 to 28 per cent) in financing coming from non-bank financial institutions (especially shaky ''merchant banks''), reflecting weak bond and equity markets, as well as the reluctance of banks to increase their lending activities (Figure 3 and Table 5). These lending patterns raised systemic risk.

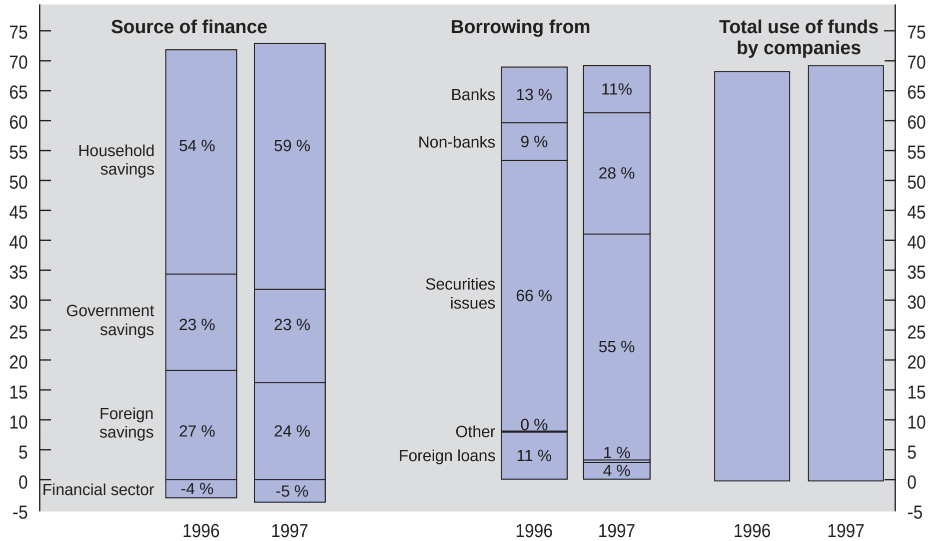
Salient features of Korea's corporate sector (non-financial, non-agricultural corporations) are summarised in Figure 4. These include *inter alia:*

– thin business profit margins (top panel) and poor shareholders' returns (which averaged 6.2 per cent from 1990 to 1996, barely one-half the growth of nominal GDP and a third of that achieved in the United States), notwithstanding an unrivalled record of economic growth since 1963;
– very low stockholders' equity, which dropped by a third in the course of 1997 (middle panel); compared with the United States and Chinese Taipei, Korean corporate debt to equity ratios were two to three times higher and have risen further (*cf.* Figure 1);
– high and rising debt service as a proportion of corporate cash-flow since 1996 and 1997. Indeed, financial costs at 15 per cent of total business costs in 1996 (bottom panel) were three times higher than in the United States, Japan and Chinese Taipei.

... were hit by falling export prices, exacerbating weak balance sheets,...

Heavy debt service is a quintessential feature of fragile firms. Combined with rigid layoff laws, weak cash-flow and cross-debt guarantees, this is a recipe for serial bankruptcies and high systemic risk. Warning signs first appeared in mid-1996, when over-capacity emerged in key export sectors (following an investment boom concentrated in semiconductors, cars, steel and petrochemicals). Export prices softened, with semiconductor prices plummeting some 80 per

Figure 3. **FINANCE OF CORPORATIONS**
Won, trillion



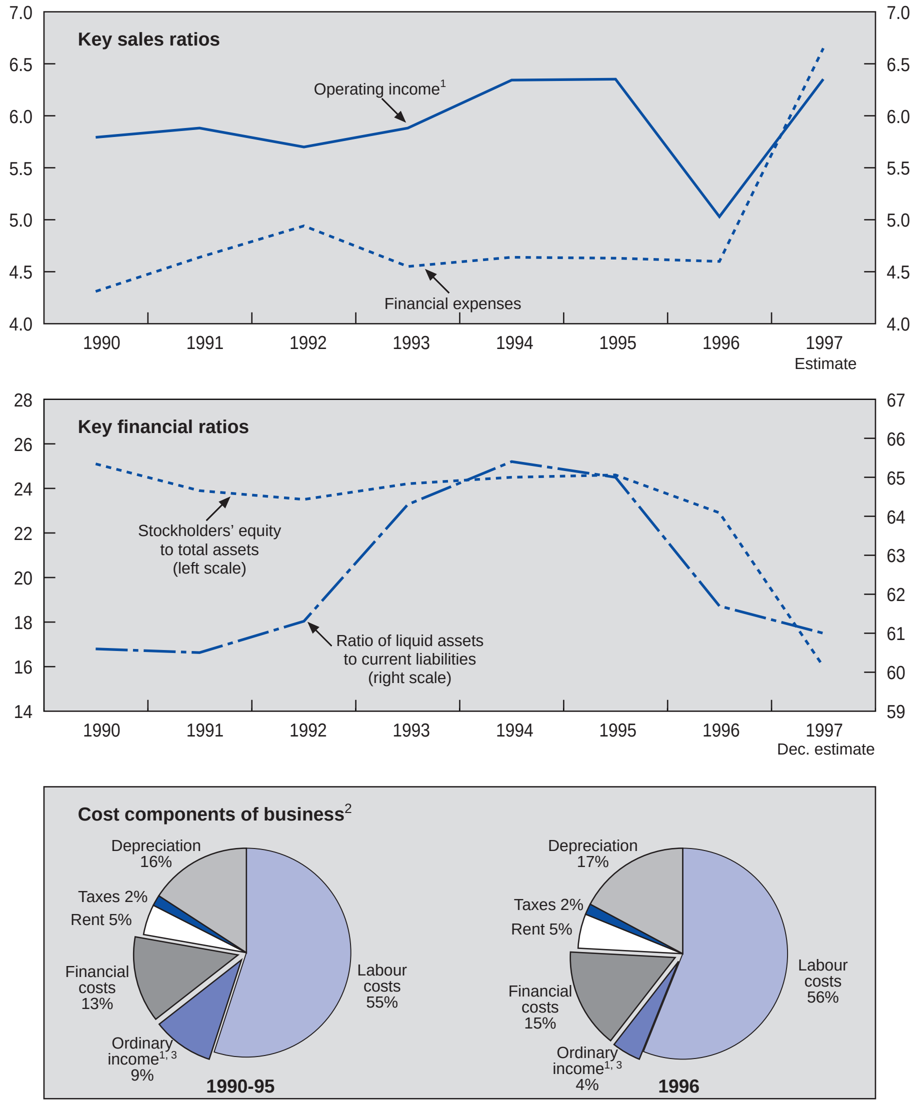
Source: Bank of Korea, *Flows of Funds.*

Table 5. **Corporate profits and financing**

	Average 1989-95	1996	Average 1989-95	1996
	Won billion		As a share of GDP	
Operating surplus	35 124	52 333	14.4	13.4
less: Interest	15 543	28 715	6.4	7.4
Rent	1 249	2 001	0.5	0.5
Current transfers[1]	2 433	3 377	1.0	0.9
Pre-tax profit	15 900	18 240	6.5	4.7
less: Tax and fees	6 031	10 265	2.5	2.6
Post-tax profit	9 869	7 975	4.0	2.0
of which: Dividends and withdrawals	2 670	3 389	1.1	0.9
Retained earnings	7 199	4 586	2.9	1.2
Net investment	42 923	72 425	17.6	18.6
financed by: Savings	7 169	4 508	2.9	1.2
Net borrowing	35 754	67 917	14.6	17.4

1. Not elsewhere classified.
Source: OECD, *National Accounts.*

Figure 4. **KOREA'S CORPORATE SECTOR AT A GLANCE**



1. Operating minus non-operating income (*e.g.* rent and dividends) = ordinary income.
2. Non-farm, non-financial corporations.
3. Excluding financial costs.

Source: Bank of Korea.

cent. With firms unable to layoff redundant workers, net income dropped to 0.5 per cent of manufacturing sales in 1996.[6] Notwithstanding a modest recovery in profit margins, a critical point was reached around mid-1997 when financial costs exceeded profits, and corporate cash-flow was caught in a savage squeeze.

Low levels of corporate liquidity amplified the effects of cash-flow shocks on firms' cash needs. Quick asset ratios, which are typically 100 per cent or higher among prudent Western firms, tend to be barely above 60 per cent in Korea (*cf*. Figure 4, middle panel).[7] Worse, in 1996 some two-thirds of corporate debt were short-term,[8] of which a quarter was foreign, leaving cash-starved firms exposed to tighter short-term credit lines and/or unanticipated declines in the won. Indeed, through 1997, firms faced a relentless squeeze from these factors, and banks faced strong pressure to keep ''solvent'' firms afloat. Even so, extremely-leveraged chaebols were the first to fail.

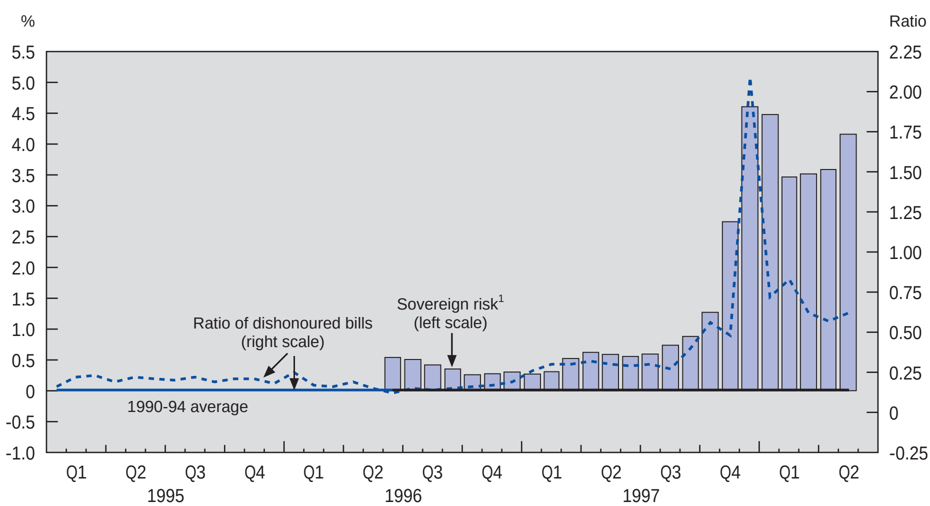
... leading to a wave of insolvencies...

Given the highly-leveraged position of the corporate sector and resulting balance-sheet problems, the slowdown in growth in 1997 triggered a 50 per cent jump in the number of insolvencies. Although large-scale bankruptcies in Korea have been quite rare, seven of the thirty-largest chaebols (representing around 4 per cent of the assets of non-farm, non-financial business) failed in 1997. Financial market confidence was particularly shaken in January 1997 by the first such insolvency, that of Hanbo Steel (Korea's 14th-largest conglomerate). The scale of the ensuing bribes-for-loans scandal was stunning, even for a Korean public long hardened to ''cosy'' arrangements; and foreign investors' confidence appeared to have been irrevocably shaken.[9] This fragile situation calmed in Spring 1997, in part because Korean banks entered into a voluntary ''Standstill Agreement'' in April to avoid driving ''solvent'' firms into receivership (albeit at the cost of weakening their own balance sheets).[10] But this respite proved short-lived.

... hitting a shaky financial system already undermined by poor lending practices and weak prudential supervision

The surge in insolvencies had a devastating impact on the second critical fault line – Korea's weak financial system, with knock-on effects on foreign confidence and Korea's sovereign risk premium (see Figure 5).[11] Corporate problems, albeit severe, might still have been contained if the financial system had been adequately capitalised and well supervised. However, the opposite was true and this further weakened foreign confidence. The chronically poor quality of banks' loan portfolios had been further undermined by the squeeze on profits starting in mid-1996. Non-performing loans were already on the rise, especially among banks with a legacy of government-directed loans and imprudent exposure to large troubled firms and/or cyclically depressed sectors (*e.g.* Korea First Bank and Seoul Bank). Worse, commercial and merchant banks' capital adequacy ratios were in fact barely one-half of officially declared rates, owing to regulatory forbearance concerning past investment losses (see Chapter II). Finally, prompt corrective action could not be expected from a ''lame duck'' government ahead of the December presidential elections. In short, Korea's financial system was probably twice as highly geared as portrayed by official data and its foreign exposure had risen sharply, prior to its worst-ever financial crisis.

Figure 5. **SOVEREIGN RISK AND RATIO OF DISHONOURED BILLS**



1. Difference between yields on Korean Development Bank and US Government ten-year bonds.
Source: Bank of Korea, *Monthly Bulletin.*

The financial crisis

Contagion from Southeast Asia...

The crisis *per se* started in early July 1997 with Thailand's ''surprise'' decision to float its currency. This was followed a few weeks later by Kia Motors' request for a ''debt work-out'' programme with its major creditors (involving some $8 billion) to avoid bankruptcy.[12] These events increased the sensitivity of investors to financial-sector problems. Soon after, major international credit rating agencies, which had failed to foresee the Thai situation, began to reassess countries with similar characteristics. Paradoxically, neither Standard and Poor's nor Moody's significantly changed their sovereign debt ratings for Korea (A1 and AA, respectively) until after the IMF's rescue package, as its sound macroeconomic fundamentals (low inflation, high national savings, a budget surplus, a falling current account deficit and ''relatively'' low levels of external debt) appeared to differentiate it from the ASEAN countries.

In fact, the premium on Korean sovereign debt in secondary markets rose relatively modestly to some 75 basis points after the Thai crisis. However, foreign confidence was further undermined, and there was a sharp reversal in the hitherto strong capital inflows from July onwards (see below). Throughout this turbulent period, the lack of timely, reliable information on the state of banks' non-performing loans, official foreign exchange reserves and foreign debt added to uncertainty. In their absence, wildly exaggerated estimates circulated in the press, no doubt heightening market volatility. Nonetheless, the actual catalyst for the collapse of the won was probably the Hong Kong, China financial market panic on 24 October. This shock had such severe repercussions on investors' confidence that the authorities from this point onwards were faced with capital flight.

... and inappropriate monetary policy...

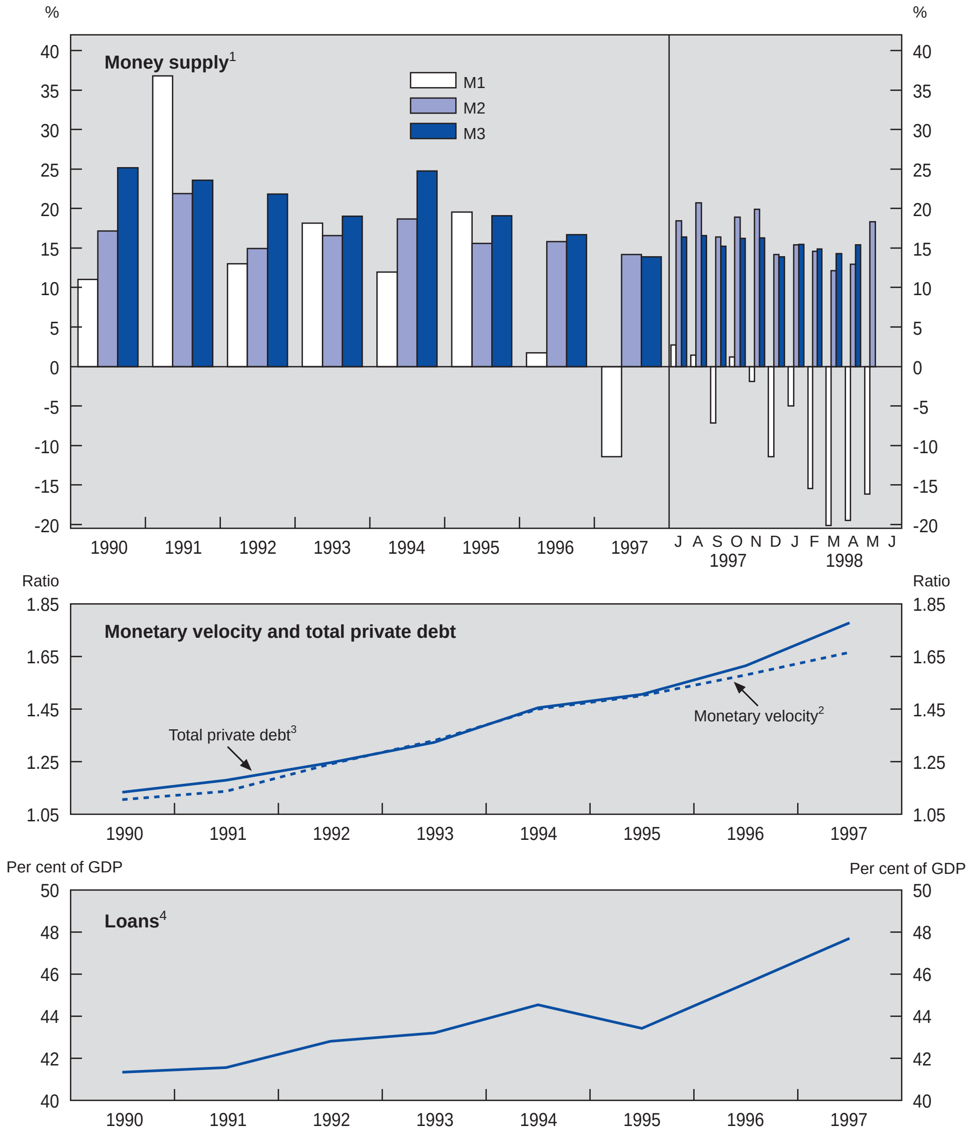
The third critical fault line was inappropriate monetary policy. As is well known, monetary policy has limited independence in globalised financial markets and the authorities must choose to target either domestic monetary conditions (interest rates or money growth) or the exchange rate. Policy can address different goals at any moment in time, but credibility and consistency require concentrating on a single overarching objective, such as low inflation or a fixed exchange rate. This basic principle was ignored in Korea.

Monetary policy in 1997, as in the past, was oriented towards achieving neutral conditions by supplying sufficient monetary growth (M2 and MCT)[13] to underpin output growth at around its potential, while allowing ‘‘unavoidable’’ inflation and trend income velocity (Figure 6, top panel). This proved to be difficult.[14] Although money growth was well sustained through 1997, this was misleading as it masked significant shifts (and distortions) in the allocation of credit. Bank loans to the thirty-largest chaebols actually rose by 43 per cent in the year to December, and indeed some 40 per cent of the growth in bank credit over the second half of 1997 may have been emergency loans to distressed firms (at rates below market).[15] Such non-market lending practices continued into 1998,[16] resulting in an acute liquidity shortage for some healthy small and medium-sized enterprises (SMEs). Against this background, basing monetary policy on quantitative targets was difficult, as this approach risked ratcheting up the level of interest rates (Figure 7) when demand and supply conditions shifted.[17] Notwithstanding these complications, domestic monetary policy *per se* did not trigger the financial crisis.

On 25 August, the government announced the possibility of guaranteeing, if necessary, the foreign liabilities of Korean financial institutions to facilitate their overseas borrowing needs (even though some of these institutions may have been close to insolvency). Despite this announcement, domestic and foreign financial institutions refused to increase their exposure to shaky merchant banks. More importantly, the decision to underwrite the foreign liabilities of the banks meant that the Bank of Korea was trying to play the role of lender of last resort in US dollars (similar in nature to Mexico’s Tesobonos problem).

This high-risk strategy was compounded by the decision to prop up the won. From August to the end of November, the Bank of Korea lost at least $8 to $10 billion in foreign reserves through exchange market intervention, even though the won was theoretically floating within a predetermined band.[18] In short, through the latter part of 1997, monetary policy was being run in a fixed exchange rate mode. This approach to policy may have reflected an illusion that the cautious dismantling of capital controls served to protect the economy from sharp swings in capital flows and globalisation. In fact, Korea’s foreign liabilities had doubled since 1994, and its useable foreign reserves were less than a third of

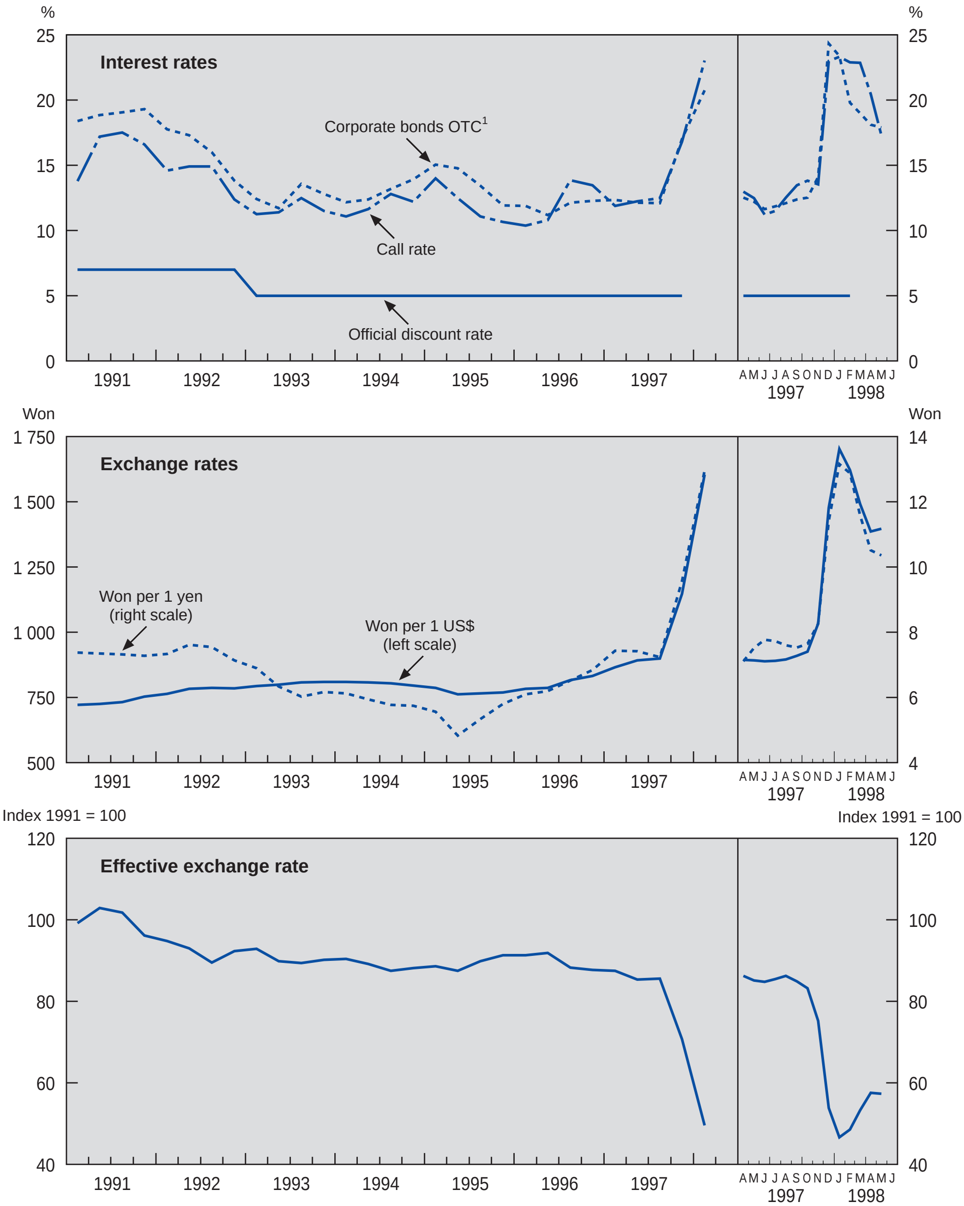
Figure 6. **MONETARY INDICATORS**



1. End of period data; percentage change over same period of previous year.
2. Ratio of M3 to nominal GDP.
3. Ratio of total claims on private sector, including credit card accounts receivable, to nominal GDP.
4. Loans of deposit money banks.

Source: Bank of Korea and OECD.

Figure 7. **INTEREST AND EXCHANGE RATES**



1. Over-the-counter three-year corporate bond rates.
Source: Bank of Korea, *Monthly Bulletin.*

its short-term external liabilities prior to the crisis [though the authorities may have been ignorant of the scale of external debt, owing to a chronic lack of transparency (Figure 1)]. With the benefit of hindsight, the quick adoption of a freely floating exchange rate (even as late as July) might have avoided some of the worst excesses of the crisis. To be sure, a severe financial crisis and a loss of international confidence would still have been inevitable. And though it is impossible to say whether the attack on the won would have been tempered, the Bank of Korea would at least have been able to play the role of lender of last resort in domestic currency.

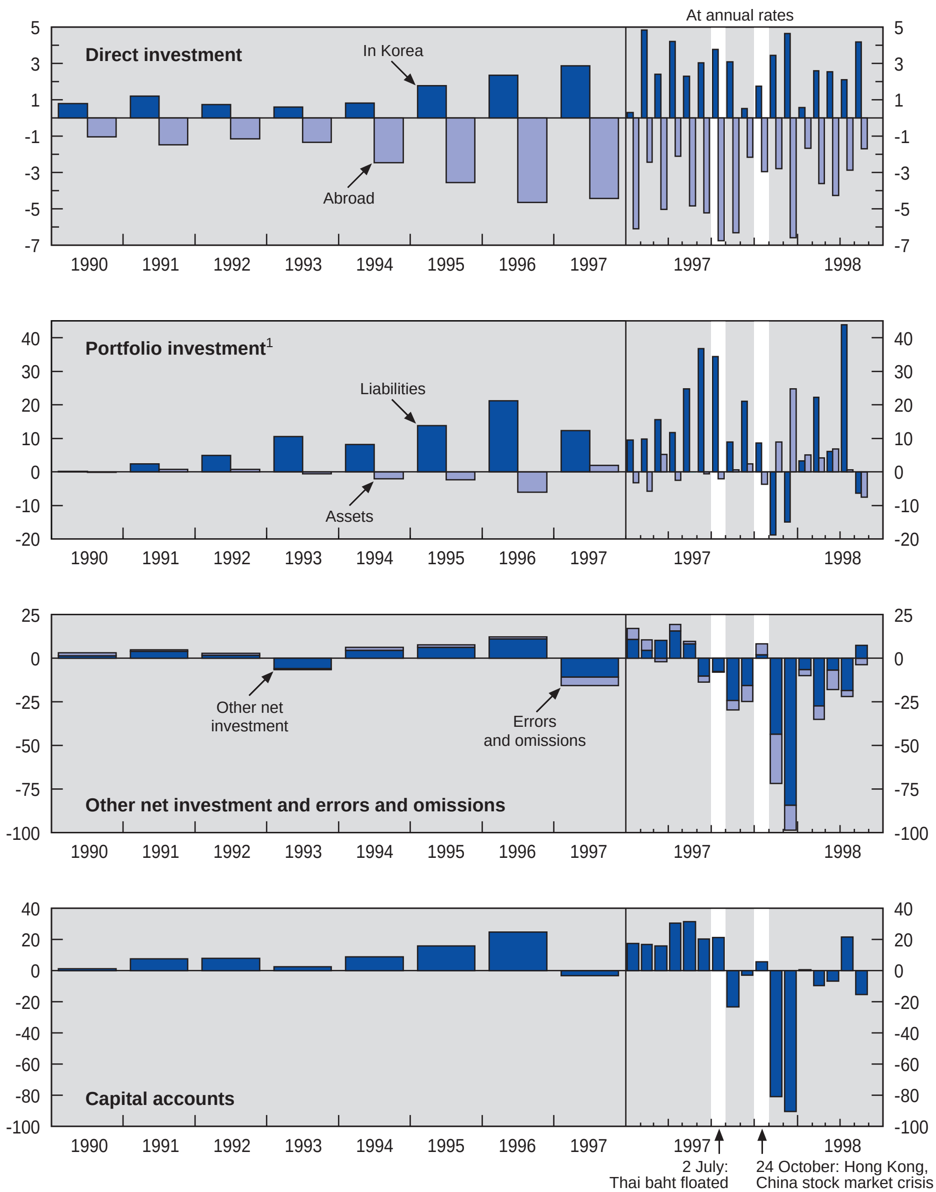
A final action, which added fuel to the flames, was an ill-judged decision to bail out Kia Motors in late October (after repeated public statements that the government would not do so). But by this time, foreign banks had already sharply reduced their credit lines,[19] and investors were quitting Korea in large numbers.

... leading to capital flight and crisis

The central role of capital flight in the crisis is illustrated in Figure 8. Following the liberalisation of capital controls, Korea received total inflows averaging some $20 billion a year from 1995 to 1996, mostly in portfolio and short-term capital. Following the Thai crisis in July, there was a sharp shift in international sentiment with the swing on the capital account being equivalent to some $40 billion at annual rates. Salient features after July 1997 included:

- large-scale short-term capital outflows (including errors and omissions), notwithstanding a temporary calm prior to the October events in Hong Kong, China. Thereafter, short-term capital flight (of almost $100 billion at annual rates) swamped the authorities' futile attempts to shore up the won (third panel);
- portfolio investment added to the financial panic; after the severe Hong Kong, China stock market correction, foreigners were very large net sellers of Korean financial assets, while domestic residents were large purchasers of foreign assets (second panel);
- foreign direct investment (FDI) inflows remained remarkably stable throughout the crisis, albeit scaled back somewhat, while investment outflows were sharply cut in line with corporate liquidity problems (top panel).

Figure 8. **CAPITAL BALANCE**
US$ billion



1. An increase in liabilities = a capital inflow. An increase in foreign assets = a capital outflow.
Source: Bank of Korea.

How different elements of the capital account reacted to the crisis is revealing. The principal elements of capital outflow, in descending order, were the foreign banks' calling in their loans or cutting off their credit lines, followed by large shifts in portfolio investment, leads and lags (*i.e.* shifts in the timing of international payments), and finally calls on the Bank of Korea to cover the open foreign exchange positions of the banking system. In sum, Korea's failure in the mid-1990s to liberalise long-term capital flows relative to portfolio investment and short-term capital flows (owing to the country's historical hostility to FDI) proved to be a major reason for the severity and the speed of the financial crisis.[20]

The policy response

On 17 November, the government abandoned its attempts to support the won and two days later announced an emergency programme to stem the crisis. Even though the programme included concrete initiatives to clean up the bad-loan problem (through reactivating the resolution fund), measures to restructure its financial system, and a widening of the won's daily trading range to 10 per cent, this programme proved too little too late. Two days later the government was obliged to seek emergency support from the IMF to avoid a debt moratorium.

Economic policy under the IMF agreement

A $57 billion IMF stand-by agreement was announced on 3 December. The key objective was to stabilise the exchange rate and to choke off any second-round inflation effects from currency depreciation. This implied very high interest rates as well as added fiscal restraint to limit the deterioration in the fiscal balance resulting from slower growth and outlays to restructure the financial system. An original aspect of this agreement was the detailed specification of microeconomic reforms aimed at opening up the Korean economy to greater domestic and world competition, reforming corporate governance structures and practices as well as improving transparency and reporting procedures. The central focus of these initiatives was to speed the pace of restructuring and reform of the financial system and the chaebols. These initiatives were supported by measures to increase labour market flexibility, to change Korea's outdated bankruptcy procedures and to open up the market for corporate control to foreign capital. Developments in these areas are discussed in the following chapters, while a comprehensive list of reforms is provided in Box 1.

Box 1. **Policy measures since the crisis**

	Measures already implemented	Measures planned to be taken
Exchange rate and reserve management policy	The daily exchange rate band was abolished in December 1997, resulting in a flexible exchange rate policy. This was accompanied by a plan to boost Korea's useable foreign exchange reserves to \$20 billion by the end of March 1998 and to \$30 billion by the end of June 1998.	Useable reserves are currently targeted to increase to \$41 billion by the end of December 1998.
Financial sector restructuring	Measures were taken between November 1997 and January 1998 to promote rapid rehabilitation and re-capitalisation of the financial system, in part through the use of fiscal resources to address the bad loan problem quickly. In particular: – a number of financial institutions failing to meet minimum capital adequacy requirements were closed in January 1998; – the deposit insurance system was significantly expanded in January 1998; – a large resolution fund (the Korea Asset Management Fund) was introduced in November 1997 to alleviate the burden of non-performing loans (NPLs) on financial institutions' balance sheets. The capital of this fund, which has already spent W 7.5 trillion to purchase a face value W 14 trillion of banks' NPLs, and W 3 trillion from the merchant banks, is being raised by W 25 trillion (5 per cent of GDP). The Financial Supervisory Commission (FSC) was created in April 1998 as an independent, unified supervisory body to improve prudential supervision of the financial system and to enhance transparency and accountability. The FSC completed a review at the end of June 1998 of the rehabilitation plans submitted by 12 commercial banks which did not meet the BIS capital adequacy ratio as of the end of 1997. The plans of seven banks were conditionally approved while five others, which were judged to be non-viable, are to be merged with stronger banks.	Korea First Bank and Seoul Bank are to be privatised. The equity sold by these banks will be available to both domestic and foreign investors. Legislation will be introduced to allow the full write-down of existing shareholders equity, eliminating the current minimum bank capital floor for this purpose. Non-performing loans (NPLs) of financial institutions totaling W 100 trillion have been targeted for disposal. The government will mobilise fiscal resources of W 50 trillion, mainly by issuing public bonds, in order to accelerate the restructuring process. These funds will help viable financial institutions dispose of NPLs, re-capitalise banks and provide increased depositor protection.

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	Measures already implemented	Measures planned to be taken
Capital account liberalisation	The capital account was substantially opened to foreign investment in December 1997. This will allow foreign takeovers of domestic firms and free access to Korea's hitherto closed corporate bond market. The ceiling for foreign equity ownership was abolished in May 1998. Money market instruments issued by financial institutions were fully liberalised in May 1998. Eleven of the 42 business areas closed to FDI were opened in May 1998. At present, 13 business areas are toally closed and 18 partially closed.	Short-term foreign borrowing by the corporate sector will be fully liberalised from April 1999.
Corporate governance and restructuring	New measures were introduced in December 1997 to facilitate mergers and acquisitions, thereby encouraging restructuring. Legislation was passed in February 1998 to promote reform of the corporate sector, including a phasing-out of debt guarantees between companies belonging to the same chaebol and ceilings on interest rate deductibility. Hostile foreign takeovers were allowed from 1 July 1998. Regulations that prohibit foreigners from becoming banks managers were abolished in May 1998.	Legislation will be introduced to further lower the ownership thresholds required for a shareholder to initiate legal action against a company or to request a change in auditors and directors. Restrictions on voting rights of institutional investors in listed companies will be removed. Chaebols will be required to produce combined financial statements beginning in fiscal year 1999. Legislation will be introduced to allow the creation of mutual funds and the issuance of asset-backed securities. Further revision of the present bankruptcy laws, which are slow and cumbersome, is planned. Listed companies will be required to publish semiannual financial statements, which will be reviewed by external auditors in accordance with international standards.

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	Measures already implemented	Measures planned to be taken
Labour market reform and social safety net	Legislation passed in February 1998 to allow more flexibility in laying off redundant workers was accompanied by an expansion of the unemployment insurance system in March 1998 to cover workers in all firms with more than five employees and to double the minimum duration of benefits from 30 to 60 days. In addition, training programmes were improved. As part of its contribution to the tripartite agreement in February 1998, the government committed to increase its expenditures on the social safety net, including unemployment insurance, to W 7.9 trillion, about 1.7 per cent of GDP.	Reform of labour law will continue, particularly in the area of freedom of association. Unemployment insurance is to be extended to temporary and part-time workers and to all employees regardless of firm size in 1999.
Others	Legislation was passed to abolish restrictions on foreign ownership of land and real estate by introducing the principle of national treatment.	The government plans to accelerate privatisation, deregulation and phasing out of the import diversification programme so as to enhance competition.

Some analysts have criticised the programme for misplaced emphasis on structural reforms – as the key problem was a temporary, but severe, shortage of foreign exchange – as well as for going beyond the remit of the IMF.[21] Based on analysis in this and previous OECD *Economic Surveys of Korea,* however, these criticisms appear misplaced and/or irrelevant to the current policy debate. Korea's deep-seated structural fault lines left it surprisingly vulnerable to inappropriate monetary policy settings and financial panic (see above). Moreover, the Korean authorities' demand for emergency aid was tardy and made only at the brink of a debt default. Hence, addressing the current crisis as being uniquely related to liquidity restraints appears rather academic, and runs the risk of treating symptoms rather than causes, as well as a repetition of similar problems in the future. Moreover, rehabilitating the financial system and resolving the corporate debt situation are the essential pre-conditions for rapidly restoring financial market confidence and ending the economic crisis. Indeed, failure to address these key structural issues risks prolonged economic stagnation. Finally, the thrust of the structural reforms adopted over the past three months is in the spirit of the recommendations made during Korea's accession to the OECD.

Tight monetary policy

A key feature of the IMF's December stand-by agreement was the inclusion of tight quantitative monetary and fiscal performance criteria consistent with the then prevailing W 1 100 exchange rate and the agreement's projections for GDP, inflation and the current account for 1998.[22] A key element in this programme was very high money market interest rates, which rose from 12 per cent prior to the crisis to 27 per cent at the end of 1997. At the same time, the three-year corporate bond yield (the longest maturity among instruments with market-determined interest rates) jumped from around 12 to 30 per cent in December 1997. Such high interest rates were aimed at attracting sufficient capital to correct earlier exchange market overshooting and to build up the level of useable foreign reserves (see below). In the event, the original criteria were quickly overtaken by events and the IMF has been pragmatic in revising them in subsequent quarterly performance reviews.[23] As regards monetary criteria, the target for 1998 M3 growth has been set at 13 per cent, while the growth of net domestic assets is also being monitored as a complement to the fiscal targets. Financial market conditions were also influenced by the emphasis on meeting minimum BIS capital adequacy ratios, which led to increased caution in bank lending behaviour (see Chapter II).

Notwithstanding a more flexible approach to performance criteria, a key policy issue is the current level of interest rates and the stringent target for M3 growth. By early May, the won had recovered to W 1 350 and useable foreign reserves to over $30 billion, compared with a year-end target of $40 billion. Notwithstanding this progress, the authorities remained wary of undermining confidence through a premature easing in monetary policy, and thus adopted a cautious approach towards allowing interest rates to normalise. Consequently, money market rates remained at 20 per cent in early May even though the price level had begun to fall in March. In the event, the sharp deterioration in economic conditions and a fall in bank loans risked aborting economic restructuring. Bank loans in June 1998 were 1.5 per cent below their level in February, with the brunt of the decline borne by SMEs, as reflected in the high rate of insolvency. Faced with a severe credit crunch, the authorities have brought down interest rates, particularly since the end of May. By the end of July, money market interest rates had fallen to about 12 per cent, while the three-year corporate bond yield was under 13 per cent. Although nominal rates were close to pre-crisis levels, they remained high in the context of falling prices and depressed domestic demand. In addition to the decline in interest rates, the banks agreed at the end of June to delay bankruptcies of troubled companies by up to six months. Unlike the April 1997 agreement, this provision will apply to small as well as large companies. The government has promoted this approach given the difficulty of distinguishing viable companies from bankrupt ones in the current economic environment.

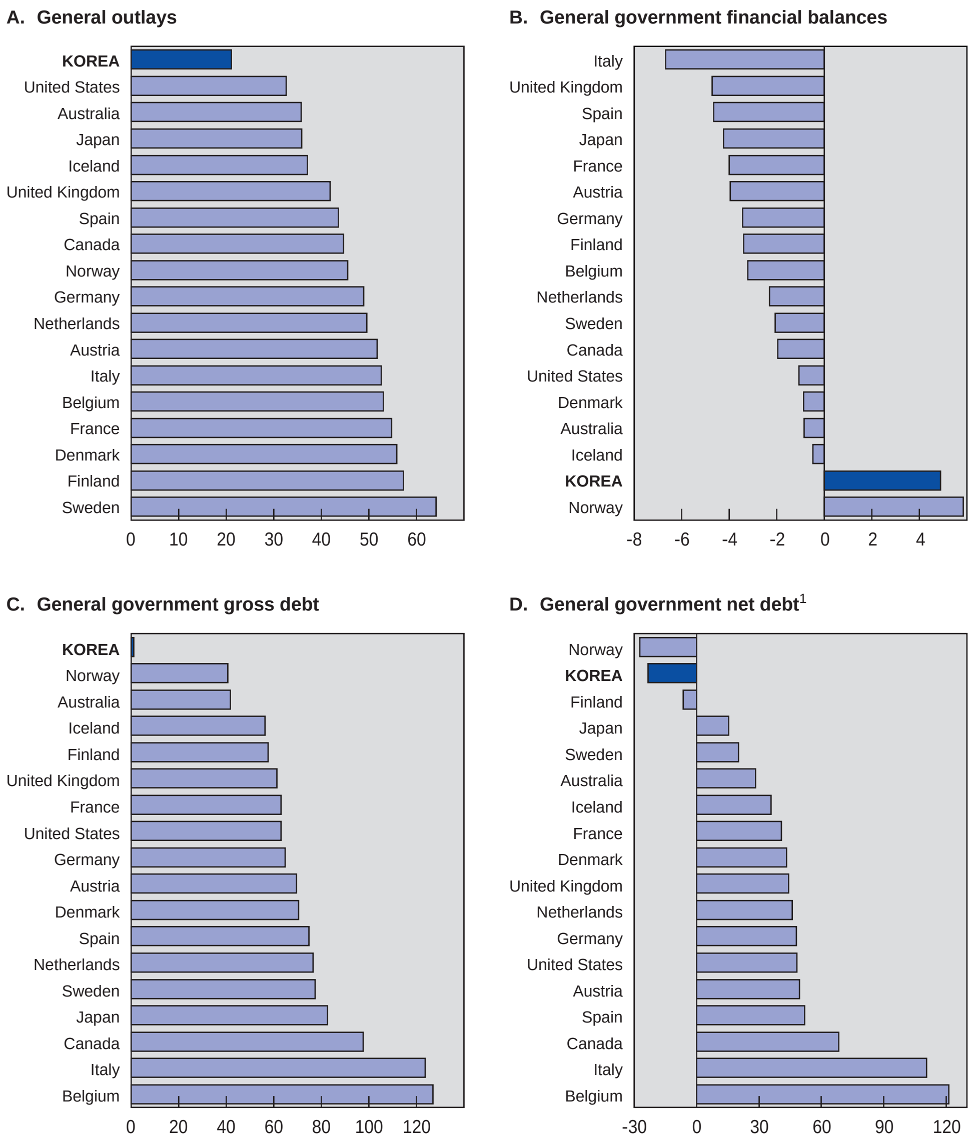
Fiscal restraint

The IMF stand-by agreement also included significant fiscal restraint to limit the prospective deterioration in public finances in 1998. Sound fiscal policy has long been a hallmark of Korea, which has avoided using public finances for macroeconomic management or to attain income distribution objectives. In 1996, government expenditure was equivalent to only a fifth of GDP, about half the average ratio in the OECD area (Figure 9, Panel A).[24] Fiscal policy has given priority to balancing the consolidated central government budget,[25] an objective that has been achieved during most of the past 15 years. On a general government basis, this approach has led to large surpluses, reflecting the build-up of reserves in the still immature national pension system.[26] Using this broader measure, Korea's surplus in 1996 was the second-largest in the OECD at almost 5 per cent of GDP (Panel B). This emphasis on sound public finances has left Korea with the lowest gross government debt to GDP ratio in the OECD (Panel C) and made it one of only three countries where the government is a net creditor (Panel D).

The objective of balancing the consolidated central government budget was realised in both 1996 and 1997 (Table 6) despite the deceleration in economic growth, which slowed the rise in government revenues. In particular, household and corporate income tax revenues were stagnant in 1997, reflecting the slowdown in wages and the collapse of business sector profits, as noted above.[27] To maintain a balanced budget, the increase in government outlays was limited to 8 per cent, half the rate envisaged in the initial budget for 1997.[28] Given the slowdown in government outlays in response to lower-than-expected revenues, fiscal policy had a mildly negative impact in 1997.

Figure 9. **FISCAL INDICATORS**

Per cent of GDP in 1996



1. For the 18 OECD countries for which general government net debt is reported.

Source: OECD, *National Accounts.*

Table 6. **Government budgets**

Per cent of GDP

Consolidated central government budget	1995	1996	1997	Initial budget 1998[1]	Projected 1998[2]	Projected 1999[3]
Expenditures	21.4	22.7	22.7	21.8	24.1	24.7
Revenues	21.9	22.7	22.7	21.8	21.7	21.3
Balance	0.5	0.0	0.0	0.0	–2.4	–3.4
General government budget balance	1995	1996[3]	1997[3]	1998[3]		1999[3]
Central government	2.6	2.2	2.2	0.1		–1.0
Local government	0.7	0.7	0.6	0.4		0.5
Social security	1.4	1.3	1.4	1.3		1.2
General government	4.7	4.2	4.2	1.8		0.6

1. The expenditure and revenue figures are estimated by increasing the consolidated results for 1997 by the 6.4 per cent rise planned in the initial budget (which is not consolidated). The initial budget, presented in October 1997, assumed a 10.8 per cent rise in nominal GDP in 1998.
2. This projection by the Secretariat is based on an estimated W15 trillion (3.5 per cent of GDP) cyclical decline in revenue offset by W 4.3 (1 per cent of GDP) in additional tax revenue. On the expenditure side, it assumes W 9.6 trillion (2.3 per cent of GDP) of additional spending offset by W 8.1 trillion (1.9 per cent of GDP) of spending cuts in the supplementary budget. It assumes a 1 per cent rise in nominal GDP.
3. OECD estimates and projections.

Source: Bank of Korea and OECD.

The initial budget for 1998, based on projected real growth of about 6 per cent, envisaged a zero deficit, but was disrupted by the economic crisis. Payments to the sharply higher number of unemployed persons and the interest costs of measures to restructure the financial sector added W 8.7 trillion (2 per cent of GDP) to spending.[29] The government estimated that the rise in expenditure would be accompanied by a decline in revenues of W 6.8 trillion (1.5 per cent of GDP) from the projected level in 1998. In sum, the impact of the crisis on spending and revenue would have resulted in a consolidated central government budget deficit of about 3½ per cent of GDP.

Despite the economic crisis, the balanced budget objective for 1998 was maintained even though the growth projection under the IMF programme was sharply reduced to about 3 per cent. Maintaining a budget balance was judged to be necessary to alleviate the burden on monetary policy and to provide for the still uncertain budgetary costs of restructuring the financial sector. Consequently, the government introduced a supplementary budget in March 1998 that included W 4.3 trillion (1 per cent of GDP) of additional revenue – from increasing excise tax rates, including those on energy products, reducing exemptions from the income tax and boosting the withholding rate on dividend and interest income – and decreased government spending by W 8.1 (1.9 per cent of GDP) – primarily by cutting public investment and by reducing the salaries of government employees by between 10 and 20 per cent.

As it became apparent that the economy was much weaker than initially projected, the 1998 budget target was revised to a deficit of about 1.7 per cent of GDP. However, even this larger limit may be difficult to achieve. The OECD Secretariat estimates that the fall in tax revenue will be about 3½ per cent of GDP, given the sharp decline in employee compensation and the bleak outlook for corporate profits. Combining this with the additional spending for the unemployed and financial restructuring would result in a consolidated central government deficit of about 5½ per cent of GDP in 1998. The government's package of tax hikes and spending cuts was expected to reduce this to about 2½ per cent of GDP.[30] These policies, therefore, would have made the thrust of fiscal policy quite contractionary; adjusted for cyclical factors, the government balance would tighten by about 3 per cent of GDP in 1998. At the end of July, the government, in consultation with the IMF, revised the 1998 budget deficit target to 4 per cent of GDP, and submitted a second supplementary budget to the National Assembly. The new plan includes increased spending on social welfare and public investment and a reduction in consumption tax rates for consumer durables and automobiles. Based on the OECD Secretariat's growth projections, such a deficit would still imply a slightly restrictive stance of fiscal policy.

No budgetary plans have been announced for 1999. However, the government expects that the interest costs on the bonds issued to rehabilitate the financial sector (see Chapter II) would rise from W 3.6 trillion (0.8 per cent of GDP) to W 8 trillion (1.8 per cent of GDP). Assuming that the increase in other expenditures and revenues is in line with nominal output, the consolidated central goverment deficit would increase from the OECD Secretariat's estimate of 2½ per cent of GDP in 1998 to about 3½ per cent. Nevertheless, the general government balance would on this basis probably remain in small surplus.

The economy after the currency crisis and short-term prospects

Domestic demand collapses under the weight of high interest rates

The won's free fall until late December 1997 and soaring interest rates had devastating effects on credit flows and private sector confidence. Domestic demand fell over 3 per cent (all percentage changes are cited year-on-year) in the last quarter of 1997 (as the economy was gripped in a war-time ''survival mentality''). But with imports collapsing, GDP growth held up at 3.9 per cent.

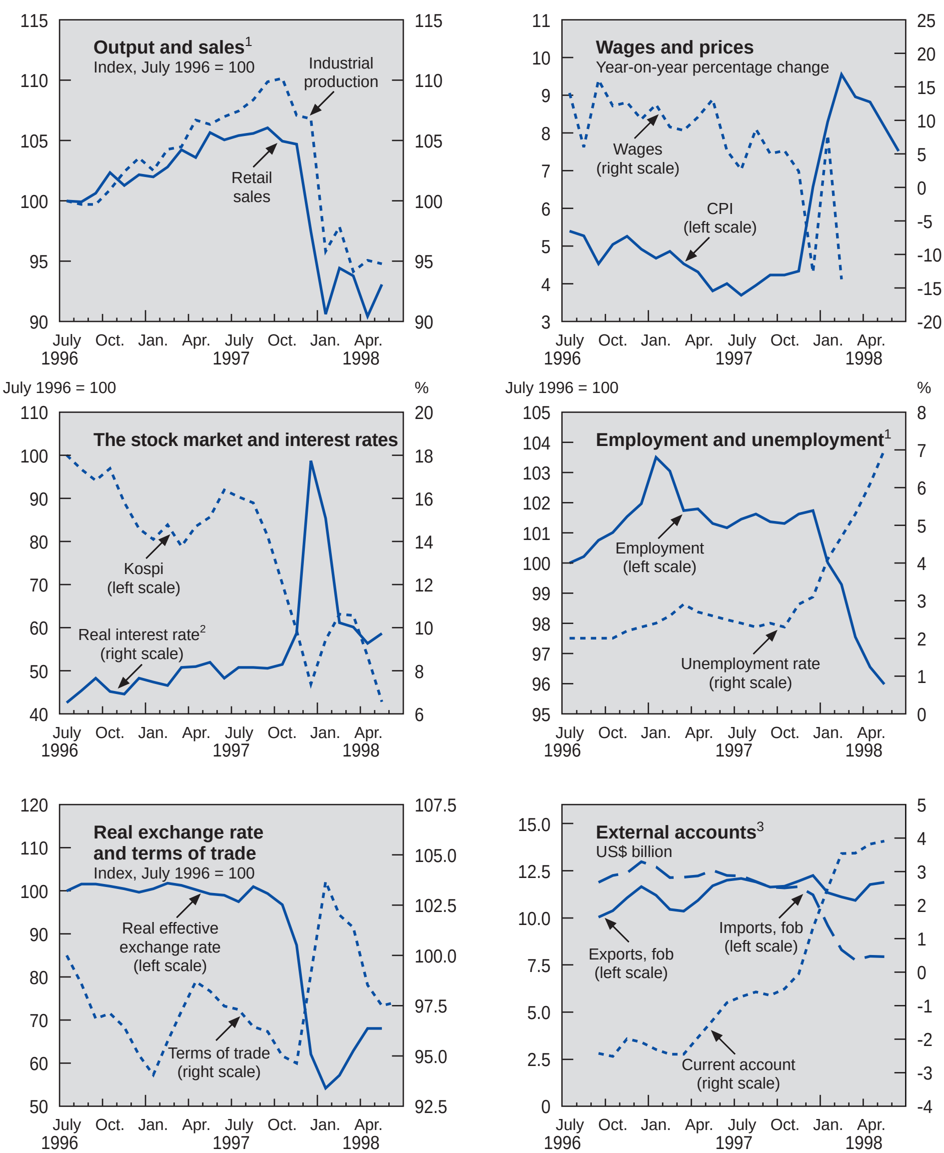
By the first quarter of 1998, the punishing level of interest rates was having big effects on demand, employment, pay and the external accounts (Figure 10). Real GDP fell by 3.8 per cent, recording its first drop since the 1980 recession, reflecting a 14 per cent fall in domestic demand. GNP, which includes the higher servicing costs on Korea's foreign debt, dropped 5.8 per cent. Import prices surged by over 50 per cent. Consumer price inflation shot up to over 9 per cent in the 12 months to March, and subsequently eased to 7.5 per cent in June. With household disposable incomes dropping by 10 to 15 per cent, private consumption plunged 9.5 per cent (notably for durables and other discretionary spending items), with severe knock-on effects for business balance sheets and investment. Industrial output dropped by 12 per cent in the year to March, while business insolvencies soared to almost 3 000 a month, three times the figure in 1996.

The crisis has had a surprisingly quick and severe impact on labour markets, the more so as large-scale restructuring of the chaebols has yet to begin. Total employment plummeted by some 1.2 million from July 1997 to June 1998,[31] while the unemployment rate rocketed from 2.2 to 7 per cent despite a sharp drop in labour force participation (*cf.* Table 3 and Figure 9). The government has introduced pay cuts of 10 to 20 per cent according to grade, and the vast majority of firms have implemented plans to slash their payrolls[32] and investment outlays (see below). Wages and especially overtime and bonuses will thus be under intense pressure to save jobs.[33] However, this assumes that management and labour will share the burden of adjustment, and that sharply rising unemployment will be shouldered by society as a whole through social transfers to the jobless.

Collapse of imports leads to massive current account surplus

With domestic demand imploding, the current account surplus reached $10.6 billion (14 per cent of GDP) in the first quarter of 1998 and rose further in

Figure 10. **RECENT ECONOMIC INDICATORS**



1. Seasonally adjusted.
2. Over-the-counter three-year corporate bond rates deflated by the CPI.
3. Not seasonally adjusted, three-month moving averages.

Source: Bank of Korea; OECD, *Main Economic Indicators.*

April and May. Much of this reflected a precipitous drop in imports of machinery and equipment and consumer durables. To date the rise in export prices has exceeded that of import prices and the usual ''J curve'' effect following devaluation has been absent. This development largely reflects comparatively ''weak'' increases in import prices, owing to depressed world oil and commodity prices. Furthermore, the collapse in imports of investment goods may have induced foreign suppliers to price to market. By contrast, export prices have risen significantly in local currency terms, as exporters boosted their profit margins to compensate for depressed domestic demand. According to customs data, export values increased by 8.6 per cent in dollar terms in the first quarter of the year, though these figures included the one-time effects of the extraordinary nationwide campaign to collect some $1.8 billion in gold to help pay off the nation's foreign debt. Nonetheless, it appears that the lion's share of the swing in the current account to date reflects the depressed state of the economy.[34]

Economic prospects in the short term

Signs of more normal financial market conditions began to appear in late January. As noted above, at the end of July, three-year corporate bond yields had dropped from their peak of almost 30 per cent to about 13 per cent, and the won had stabilised at around W 1 300 to the dollar. Even so, with interest rates still at high levels, the economy was on a razor's edge and pessimism in Korea (and Southeast Asia) persists. Following a cautious resumption of capital inflow and a 50 to 60 per cent recovery in the stock market in the first two months of 1998, equity prices dropped to an 11-year low by the end of May. Near-term economic prospects are thus unusually clouded and will depend crucially on how this ''high interest rate conundrum'' is resolved. Beyond that, the economy's performance will depend on how quickly economic agents adapt to the ''new economic paradigm'' in three areas:

– the corporate sector's adjustment to an era of high interest rates and intense competition;
– how households adapt to uncertainty concerning job security and pay;
– how foreign investors react to investment opportunities following the unprecedented opening up of Korea's capital markets.

The corporate sector faces major restructuring to survive

As noted, profitability in Korea's manufacturing sector came under severe strain from mid-1996 onwards, as the ratio of ordinary income to sales dropped to 1 per cent (*cf.* Figure 4). The OECD Secretariat estimates that notwithstanding a recovery in domestic profits in 1997, these gains were more than offset by end-year exchange losses on foreign currency denominated debt. Consequently, for 1997, manufacturing industry and the entire corporate sector probably recorded small losses.[35] The corporate sector thus faced an unprecedented situation in early 1998, with a collapse in domestic demand, higher foreign debt service and extraordinarily high domestic interest rates. This situation was clearly unsustainable, and though interest rates have subsequently eased, they remain at high levels relative to nominal sales growth.

A key feature of the OECD's two-year projections is the important role of social cohesion and nominal wage flexibility in resolving the high interest rate conundrum. Indeed, even on the OECD's central projection that yields on three-year corporate bonds drop quickly to average 15.8 per cent and 10.3 per cent in 1998 and 1999, respectively (implying real interest rates of 7 to 8 per cent in the face of tighter credit standards), and that the growth of industrial production averages 2 and 5 per cent over the same period, corporate cash-flow would still be in an untenable situation, despite a more than 40 per cent cut in investment.

Survival of Korea's industrial base will thus require large-scale restructuring, wage cuts and labour shedding. Assuming that a 15 per cent reduction in the wage bill is realised, a break-even point could be attained by late 1998, even though full year results will probably show a small loss (see Annex I). But by 1999, quite large operating surpluses could be emerging. Even so, the scope for quickly reducing corporate debt to equity ratios under this central scenario is modest. If 1997 figures for new share issues and FDI[36] [mostly in the form of joint ventures and mergers and acquisitions (M&As)] are simply extrapolated, corporate gearing might drop from some 400 to 350 per cent between 1997 and 1999. This figure might drop further to the 300 to 325 per cent range when recent tax changes which encourage land and asset revaluation are included. Nonetheless, these estimates underline the difficulty of quickly bringing down debt to equity ratios to the government's suggested 200 per cent target level. Indeed, reaching this figure would require combined asset sales and FDI inflows of the order of $90 to $100 billion over the next two years. Investment bank reports suggest a surge in foreign interest in buying parts of or entire Korean enterprises. Chaebols have already sold some of their overseas subsidiaries and real estate (for roughly \$2 to \$3 billion), and a few of their domestic operations (for some \$4 to \$5 billion). For some of the five-largest chaebols, attaining the 200 per cent debt to equity target by 1999 might be feasible, though very difficult.

The response of households to the new economic paradigm

The wage cuts and labour shedding that are part of corporate restructuring will have a severe impact on the household sector, the more so as financial and non-financial wealth has been sharply reduced.[37] In 1998, wages are projected to decline by about 10 per cent. Such nominal wage flexibility reflects the social cohesion evident in Korea, where workers are willing to accept lower wages in return for maintenance of employment levels. In addition, the structure of employee compensation facilitates flexibility. As noted in Chapter IV, bonus and overtime payments, which are more sensitive to cyclical conditions, account for a third of employee compensation. Such a decline in the wage bill, though, will not be sufficient for the hard-pressed corporate sector. Consequently, lower wages will be accompanied by a decline in employment, estimated at 5 per cent, in the business sector in 1998. The impact on the unemployment rate, though, will be muted by some increase in self-employment and a decline in the participation rate as discouraged workers withdraw from the labour force. Nevertheless, even assuming a 2 percentage point fall in the participation rate in 1998 and 1999, the OECD Secretariat projects that the unemployment rate will average 8 per cent next year.

Labour market developments are likely to impinge sharply on personal consumption, which accounts for over half of GDP. Compared with other OECD countries, the social welfare system in Korea is underdeveloped and unemployment insurance is relatively limited. Strict eligibility requirements limit benefits to a quarter of the unemployed and the maximum duration is four months (see Chapter IV). The lack of a social welfare net may be a factor boosting the household saving rate, which was the highest in the OECD area at 17 per cent of disposable income in 1996. Faced with a large decline in real disposable income, estimated at 15 per cent in 1998, households are expected to reduce both saving and consumption. Declines in consumption are expected to be concentrated on durable goods (11 per cent of private consumption in 1997) and in areas such as recreation, entertainment, education and cultural activities (12 per cent). Assuming that households cut outlays in these two categories by half – an outcome that would be consistent with the 50 per cent decline in car sales in the first part of 1998 – personal consumption would fall by about 11 per cent in 1998. Such a decline would still imply that the household saving rate falls to below 16 per cent.

Korea courts foreign investment...

Korean capital markets were in effect fully opened to foreign investors in July 1998. The desirability of large-scale foreign investment to help restructure Korean industry, as well as to upgrade managerial skills and technological standards to world-class levels, is now indisputable. Over the period 1985 to 1995, Korea attracted only $8.8 billion in FDI, less than one-tenth the amount received by China. However, Korea's acceptance of the merits of FDI is new and represents a sea change in attitudes.

... but foreign investors may be wary

As a late-comer in a crowded world arena, it will take time and considerable effort for Korea to overcome its negative international image as a destination for foreign capital.[38] Foreign investors will also be wary to see how legislative changes are implemented in practice. Indeed, a recent survey of foreign business leaders in Korea cited the potential for labour-management conflict as the single most important obstacle. All in all, although a significant rise in FDI is possible following capital market liberalisation, the amounts will be minor compared with total corporate assets. As in early 1998, much of these inflows in the beginning is likely to take the form of portfolio investment, M&As and joint ventures. Hence, the catalytic role of FDI needs to be complemented by vigorous domestic corporate restructuring.

Against this background, the degree of importance the government places on attracting FDI, as opposed to portfolio investment, appears somewhat exaggerated. Indeed, top priority should be given to creating an attractive environment for all forms of foreign capital, by guaranteeing equal national treatment in all respects. To be sure, portfolio investment is by its nature more mobile than FDI, and by the end of March already accounted for 19 per cent of the shares of companies listed on the stock exchange. The challenge is to create a general economic environment which will encourage it to stay, as well as fostering other forms of foreign investment.

The economic outlook to 1999

Against this unsettled backdrop, the economy is projected to contract almost 5 per cent in 1998, reflecting an almost 25 per cent decline in domestic demand (Table 7). The business sector is expected to scale back investment spending massively in reaction to unusually high borrowing costs, excess capacity and severe balance-sheet problems. In addition, firms will be obliged to limit labour costs by reducing total wages through labour shedding and big cuts in bonuses

Table 7. **Projections for 1998-99**

Percentage changes, volume (1990 prices)

	1994 Current prices Won trillion	1996	1997	1998	1999
Private consumption	164.4	6.8	3.1	–11.0	–1.5
Government consumption	32.4	7.8	5.7	–8.0	–0.5
Gross fixed capital formation	109.4	7.1	–3.5	–40.4	–12.8
Final domestic demand	306.2	7.0	0.8	–21.3	–4.5
Stockbuilding [1]	0.9 [2]	1.2	–3.7	–1.5	0.0
Total domestic demand	307.1	8.2	–2.8	–23.5	–4.7
Exports of goods and services	92.1	13.0	23.6	20.0	11.5
Imports of goods and services	94.4	14.8	3.8	–16.0	3.5
Net exports [1]	–2.2 [2]	–0.8	8.6	17.3	6.1
GDP at market prices	306.0	7.1	5.5	–4.7	2.5
GDP implicit price deflator	–	3.4	2.3	6.0	2.5
Memorandum items:					
Private consumption deflator	–	6.0	4.5	8.5	3.0
Industrial production	–	8.4	6.7	2.0	5.0
Unemployment rate	–	2.0	2.6	7.0	8.0
Household saving ratio [3]	–	17.2	19.4	15.3	15.8
General government financial balance [4]	–	4.2	4.2	1.8	0.6
Current balance [4]		–4.8	–1.9	11.4	15.0

1. Contributions to changes in real GDP.
2. Actual amount.
3. As a percentage of disposable income.
4. As a percentage of GDP.

Source: OECD.

and overtime. Employment is thus projected to decline sharply, with the unemployment rate rising to over 7 per cent, despite a large fall in labour force participation. Household disposable income will be further eroded by the surge in consumer prices in early 1998 to around 9 per cent, making a sharp contraction in private consumption inevitable despite a big fall in the saving rate. However, the collapse of domestic demand should be largely offset by a massive swing in the foreign balance. A 16 per cent decline in import volumes is projected, while strong cost competitiveness boosts exports, despite the economic crisis in Southeast Asia. Consequently a $35 billion current account surplus (11 per cent of GDP) is projected in 1998.

Economic growth is projected to recover in 1999 to around 2½ per cent. Domestic demand is expected to stabilise in the second half of 1999, although its average level for the year would still be down 4.7 per cent. However, net exports should again increase significantly, assuming the exchange rate remains at its current level of W 1 350 to the dollar, as the lagged effects of competitive gains continue to boost exports. Moreover, inflation is expected to moderate sharply, reflecting slack in the economy and significant cuts in nominal pay. Unemployment is nonetheless projected to rise further, as a result of on-going restructuring by firms, albeit peaking in the course of the year.

In sum, the economy will be driven by two powerful equilibrating forces over the next two years:

– nominal wage cuts will restore corporate profitability and damp job losses;
– a drop in business investment will produce large on-going current account surpluses.

As the size of the exchange rate shock is unprecedented, there are very large risks attached to these projections. On the upside, a recovery in the exchange rate (which was W 1 350 at the time the projections were made) would allow interest rates to fall further and moderate the decline in domestic demand in 1998. Stabilisation of the won would also limit the rise in inflation and the size of the current account surplus, but would depend on rapid restoration of international confidence. Downside risks include a further weakening of confidence in response to a fall in other Asian currencies and turmoil in Southeast Asia, further large-scale bankruptcies, restructuring of the financial system and asset-price deflation. Moreover, the threat of labour strife poses important risks to the forecast, as illustrated by renewed financial market turmoil in mid-May. A principal uncertainty is how international confidence will be restored, as a balance is struck between speeding restructuring by eliminating legal constraints on laying off workers, while at the same time maintaining social cohesion in the face of sharply rising unemployment.

The new policy paradigm and the medium-term outlook

During the first few months of its mandate, the new government has introduced a wide range of policy measures, touching virtually every aspect of the economy, to create a ''new economic paradigm''. The goal of these reforms is to transform fundamentally an economy long based on economic dirigism into a modern, free market-oriented economy. Although many of the details are yet to be spelled out, the core feature of the new paradigm is to create the legal and institutional framework necessary for rational incentive structures to govern economic behaviour. This requires:

- exposing the economy more fully to competition;
- introducing effective governance structures into banks and business.

To be sure, other components of reform, such as measures to enhance labour market flexibility and more effective bankruptcy laws are also critical. But without these core measures, their impact would be significantly less positive.

A medium-term reference scenario to 2003

Although the government has made an impressive start in putting a promising legislative framework in place, the challenge will be to implement these measures and to change the attitudes of economic agents during a period of severe recession. The initial effects of the financial crisis have been a collapse in business investment, industrial restructuring and large-scale labour shedding.

If microeconomic reform is not implemented promptly, the economy risks stagnation with growth in the 3 to 4 per cent range, as Korea's structural weaknesses steadily sap potential output growth, and investors' confidence is undermined. However, the OECD's medium-term baseline (MTB)[39] assumes that reform is carried out quickly and that social cohesion is maintained. Nevertheless, the rate of potential output growth during the period 2000 to 2003 is projected at between 5 and 6 per cent, somewhat below the pre-crisis rate, reflecting three factors. *First,* labour inputs will slow as the expansion of the working-age population decelerates from 2 per cent in the first half of the 1990s to only half a per cent in the first years of the next decade. Even with some recovery in the participation rate, the growth of the labour force is expected to fall to about 1¼ per cent, thereby reducing its contribution to growth to under 1 percentage point. *Second,* the national investment rate may fall as much as 6 percentage points from its average of 35 per cent during the first half of the 1990s as the firms that survive the crisis become more sensitive to profitability in expanding their operations. Consequently, the contribution of capital inputs may be reduced by about half from the 2 percentage point average during the past decade. *Third,* structural reforms are unlikely to have a significant impact on total factor productivity (TFP) growth immediately.[40] Judging by the experience of other OECD countries (such as New Zealand and the United Kingdom), this will take at least five years.

Thus, supply-side factors suggest growth in the range of 5 to 6 per cent, a rate that is assumed to be achieved in the MTB scenario (1998 to 2003) as private consumption and fixed investment recover (Table 8). Inflation is projected to be low and stable during the next five years. By 2003, the unemployment rate might be back to 4 per cent, even though discouraged workers are likely to re-enter the labour market. Nevertheless, unemployment would be higher than in the past, reflecting greater frictional unemployment in a more flexible labour market. The government will face significant spending pressures to finance higher unemployment and (possibly) social welfare benefits and to rehabilitate the financial system, which alone may cost as much as 1 per cent of GDP a year from 1998 to 2003. Nonetheless, the general government financial surplus could be back in the 3 per cent range by 2003, reflecting balance on current operations and a small surplus in the social security accounts. However, this would not be sufficient to deal with the fiscal consequences of a rapidly ageing population.[41] At the same time, a current account surplus of 1 per cent of GDP is projected for 2003 (assuming a W 1 200 exchange rate). This would imply cumulative current account surpluses of over $100 billion from 1998 to 2003 which would allow quick repayment of borrowings of some $35 billion from international agencies, and a build-up of official reserves to $80 to $90 billion (or 6 to 7 months of

Table 8. **Medium-term reference scenario**

Percentage changes

	Average 1989-97	2000	2001	2002	2003
Private consumption	7.3	4.4	5.6	7.0	7.0
Total domestic demand	6.8	5.1	6.6	7.4	7.5
Real foreign balance	0.6	0.2	–0.8	–1.5	–1.6
GDP	7.4	5.3	5.8	5.9	5.9
Labour productivity	5.0	2.6	3.3	3.6	3.8
Labour force	2.3	2.3	1.5	1.3	1.5
Unemployment rate (level)	2.4	7.3	6.4	5.5	4.0
GDP deflator	6.0	3.0	2.8	1.9	1.9
Current balance [1]	–1.3	6.0	5.0	3.0	1.0
Domestic saving [1]	34.7	34.5	34.3	32.9	30.7
Domestic investment [1]	36.0	27.2	28.0	28.8	29.6
Government financial balance [1]	3.3	1.1	1.5	2.0	3.0
Memorandum item:					
Exchange rate (units per dollar)	780	1 200	1 200	1 200	1 200

1. As a share of GDP.
Source: OECD.

imports). The desirability of such a large build-up of foreign reserves is questionable, however, given their high opportunity costs.

Beyond 2003, the productivity gains resulting from the new market-oriented paradigm and more efficient resource allocation might allow Korea to match its pre-crisis potential growth rate of 6 to 7 per cent despite a one-third decline in inputs, as TFP in Korea continues to converge to the level of the OECD leaders. The OECD's medium-term reference scenario illustrates the large potential benefits of rapid economic reform and transforming Korea to a more market-oriented economy. From this perspective, the crisis can be seen as a catalyst to structural reform which might have taken decades to implement under ''business as usual'' circumstances. The challenge to economic policy will be to successfully implement these policies, while surviving the sharp recession during the next few years of transition. This will no doubt require courage, perseverance and skill. It will also require maintaining and perhaps enhancing the economy's fundamental strengths – notably a strong sense of national identity and social cohesion, a high national savings rate, and a well-educated, diligent workforce – to weather the current storm.

II. Rehabilitating the financial system

This chapter deals with reform of the financial system. The first two sections discuss the legacy of a weak credit culture and poor governance structures and their impact on financial institutions' balance sheets. A third section deals with the policy response, focusing on the need to restructure the financial system along market-oriented lines while dealing quickly with the bad-loan problem, upgrading prudential supervision standards, re-capitalising or closing weak institutions and establishing better governance structures. A final section deals with the government's strategy for reform and the use of public money to rehabilitate the financial system.

Underdeveloped governance structures and weak credit cultures

As noted in Chapter I, the present crisis stemmed from certain long-standing characteristics of the country's development policy. Banks played a significant, though passive, role in that policy, by directing resources to firms that pursued investments in line with the government's aims. Although the commercial banks were privatised between 1981 and 1983, government interference remained high. The pattern of privatisation of banks resulted in fragmented ownership structures with no shareholder permitted to own more than 4 per cent of a bank's equity. In view of the ineffective monitoring of corporate sector behaviour by financial markets, this has often meant that the banks' management was accountable to no one, except government, even after privatisation.

Within banks, lending decisions tended to be centralised in senior management and internal risk control structures as well as credit analysis skills and procedures were underdeveloped. Given the high leveraging in the corporate sector and opaque ownership and control linkages, many corporate borrowers were not creditworthy by traditional criteria. As a result, credit decisions tended to rely on collateral and inter-company guarantees rather than projected cash flows. Loan review processes and management information systems were rudimentary. In brief, banks had not developed strong ‘‘credit cultures’’ as has increasingly become the norm in OECD countries. As a practical matter, with the high leveraging and lack of transparency that prevailed in corporate Korea, insistence on rigorous credit standards would have been tantamount to forswearing participation in the expansion of Korean industry over the past three decades.

Prudential supervision was neglected

Korean development policy tended to assign comparatively low priority to the prudential soundness of financial institutions. The tacit principle was that final responsibility lay with the state, rather than private institutions. Until 1997, the authorities had never allowed any financial institution to fail. Banks and industry operated under the implicit assumption that if they faced serious difficulties while pursuing government policy objectives, the government would provide assistance through bailouts, arranged mergers or regulatory forbearance. In fact, the banking system encountered several episodes of credit problems, but the government was always able to orchestrate a rescue. At various times since the 1980s, Korean industry has undergone rationalisation programmes in which troubled companies have been acquired by stronger partners, often under official guidance and with full or partial forgiveness of interest and principal. In effect, those parts of Korean officialdom that might have wished to assign a higher priority to prudential control and financial stability were unable to carry the debate against decision makers who were more concerned with pressing ahead with rapid state-led economic expansion.

Korean banks have been subject to considerable restrictions on product innovation while controls on interest rates have limited price competition. Staffing is agreed to be excessive but labour laws have made it difficult to reduce excess personnel. Branch networks are dense and banks have had little capacity to reduce the size of their networks. With little control over their credit policy or costs, and with relatively little concern about insolvency, the banks were usually more concerned with achieving profits through asset growth than in maintaining asset quality.

Competition from non-bank financial institutions led to diminished profitability

One striking feature of the Korean financial system has been the low and declining role of on-balance-sheet lending by commercial banks in total financial intermediation. As banks were subjected to stringent controls over their activities, and as comparatively low interest rates generated excess demand for external funding, other non-bank financial intermediaries (NBFIs) accounted for increasing shares of total intermediation (Table 9). The major expansion in banks' product lines was to offer trust accounts, which are carried off-balance sheet, and thus indirectly to offer investment management services. These accounts were used to purchase debt (usually corporate bonds) or equity and functioned like a

Table 9. **Korean financial institutions' loan and deposit market shares**

In per cent

	1980	1985	1990	1995
A. Loan market share				
Deposit money banks	63.3	58.4	59.0	61.3
Banking account	63.3	58.4	43.4	33.9
Trust account	0	0	15.6	27.4
Non-bank financial institutions	36.7	41.0	41.0	38.7
Development institutions [1]	14.8	10.8	8.3	8.6
Savings institutions [2]	13	16.3	14.6	16.8
Investment institutions [3]	5.8	7.5	8.1	6.3
Merchant banks	n.a.	n.a.	6.1	4.8
Life insurance institutions	3.1	5.9	10.0	7.0
Total	100.0	100.0	100.0	100.0
B. Deposit market share				
Deposit money banks	68.4	53.5	52.5	44.3
Banking account	68.4	53.5	46.8	35.1
Trust account	0	0	5.7	9.2
Non-bank financial institutions	31.6	46.5	47.5	55.7
Development institutions [1]	3.8	4.1	3.1	4.9
Savings institutions [2]	13.5	15.5	15.8	19.0
Investment institutions [3]	9.5	15.8	16.2	18.3
Merchant banks	n.a.	n.a.	5.1	3.8
Life insurance institutions	4.8	11.1	12.6	13.4
Total	100.0	100.0	100.0	100.0

1. Korea Development Bank, Ex-Im Bank and Korea Long-Term Credit Bank.
2. Excluding commercial banks' trust accounts.
3. Mutual savings and finance companies, credit unions and mutual credits.

Source: Bank of Korea.

collective investment instrument, such as a mutual fund or unit trust. Some trust accounts did not guarantee principal or any rate of return; however, many accounts did, and hence many banks have significant liabilities on their trust accounts.

One important group of NBFIs that deserves special mention are the merchant banks, which are wholesale financial institutions engaging in underwriting primary capital market issues, leasing and short-term unsecured lending. The merchant banks, which were the dominant lenders in the issuance and discounting of commercial paper, fund themselves by issuing bonds and notes, through inter-bank deposits and by borrowing in foreign markets. In 1990, there were only six merchant banks but changes in laws in the early to mid-1990s allowed existing investment finance companies to be converted to merchant banks. At the end of 1996, there were 30 merchant banks operating in Korea.

Although the merchant banks often competed directly with commercial banks, they were subject to less stringent regulatory regimes. Merchant banks were not subject to the same ownership limitations and many are in fact owned by large industrial groups. They were regulated by the Finance Ministry rather than the Bank of Korea. Controls on interest rates have been far fewer and the merchant banks were not obliged to engage in policy lending. Moreover, they had far greater capability to control their own costs and do not maintain large branch networks.

As a group, the merchant banks appeared to be financially sounder and more profitable than the commercial banks through the mid-1990s. They had lower levels of non-performing loans (NPLs), which were defined conservatively, and provisions for NPLs were proportionately higher than those of the commercial banks. However, they also had some distinct vulnerabilities. They were permitted to assume much higher interest rate and currency risk than the commercial banks. Their lending concentration inside affiliated groups is greater. Merchant banks usually lent without collateral and thus have less protection in case of default. With relatively lax controls by the supervisors, the merchant banks became very aggressive lenders, with many relying heavily on foreign currency funding, and hence their currency mismatches were larger than those of the commercial banks. Internationally, the merchant banks also developed considerable loan exposure to Southeast Asia and other emerging markets which were badly affected by the 1997 crisis. Many also had large net equity positions. A distinction can be drawn between the established merchant banks which continued to enjoy high levels of profitability until 1997, and some of the newer banks which had difficulties penetrating the more competitive market and had lower quality asset portfolios even before 1997. The appearance of new entrants in an already ‘‘over-banked’’ market led to erosion of lending margins for existing institutions and a rise in lending to less sound borrowers by the newer players.

The process of liberalisation was not well considered

The pattern of deregulation that was pursued in Korea may well have added to the fragility of the system. In general, the commercial banks continued to face obligations to act in accordance with government policy, and did not develop the autonomy needed in a market economy. Deregulation was not co-ordinated with a concerted attempt to upgrade supervision. There was no consistent policy aimed at transforming institutions, especially banks, into independent profit-seeking entities. Owing to a continuing lack of consensus as to whether deregulation, institutional and regulatory reform, and the opening of the financial system to foreign participation were in the national interest, deregulation was slow and measures were often contradictory. In fact, the peculiar mix of partial deregulation and continued rigidities left Korea rather susceptible to pressures in the 1990s which reached a culmination in 1997.

The situation of banks before and after the financial crisis

The banks are characterised by low profitability and vulnerability

Table 10 shows some key indicators of profitability and financial strength for the Korean commercial banking system through the end of 1997. In general, the banks have low levels of profitability as measured by the return on assets and equity, while interest margins were under pressure, partly reflecting competition from new entrants after 1991. However, the data do not unambiguously show Korean banks to under-perform those of all other countries by wide margins. Rather, there is one group of OECD countries, which includes the United States, the United Kingdom, Canada and the Netherlands, where banks’ returns on equity regularly exceed 15 per cent. Following major restructurings after the collapse of their banking systems, Sweden and Finland have strengthened

Table 10. **Profitability of the banking system**

	Average 1990-93	1994	1995	1996	1997
Return on assets (per cent)					
Nationwide banks	2.0	1.0	0.9	0.2	–0.9
Regional banks	1.4	0.9	1.0	0.5	–1.2
All banks	1.9	1.0	0.9	0.3	–0.9
Return on equity (per cent)					
Five major banks	6.1	6.0	3.4	1.2	–31.6
Nationwide banks	6.3	6.2	3.9	3.5	–14.1
Regional banks	6.7	5.7	5.6	5.4	–14.8
All banks	6.4	6.1	4.2	3.8	–14.2
Net interest margin (basis points)					
Five major banks	2.37	1.87	2.70	..	..
Nationwide banks	2.31	1.83	2.77	..	..
Regional banks	4.37	4.20	4.21	..	..
All banks	2.72	2.30	3.02	..	..
Non-performing loans at commercial banks					
In billion won	2 349	1 925	2 294	2 434	10 085
As per cent of total credit outstanding	1.7	0.9	0.9	0.8	2.7
Non-current loans at commercial banks					
In billion won	9 549	11 722	12 484	11 874	22 643
As per cent of total loans	7.0	5.6	5.2	4.1	6.0
Capital adequacy ratios of banks (per cent)					
Five major banks	8.87	10.46	9.21	8.86	4.46
Nationwide banks	9.38	10.19	8.97	8.97	6.66
Regional banks	13.95	13.11	11.44	10.15	9.60
All banks	10.00	10.62	9.33	9.14	7.04
Employees (1990 = 100)					
Total	104.8	106.1	125.6	..	..

Source: Bank of Korea and Office of Bank Supervision.

balance-sheet quality and internal risk management systems, and their banks have become very profitable in recent years. In these countries, the combined pressure of shareholders, bank supervisors and rating agencies, as well as rising competition in increasingly liberalised financial markets have obliged management to focus on cost control and profitability. Banks have refocused on activities in which they have clear advantages while imposing rigorous internal profitability ‘‘hurdles’’. Balance sheets have tended to grow slowly with an increased share of income resulting from fees. Significant consolidation in the banking industry has also taken place.

In many other OECD countries (mainly in continental Europe and Japan), by contrast, banks as a group remain less profitable. By many measures, Korean banks did not clearly under-perform relative to banks in these countries. One measure by which Korea deviates from most OECD countries is in the growth of employment in banking. Whereas employment in most countries has remained steady or declined, it has increased by 25 per cent in Korea since 1990.

On the eve of the 1997 crisis, most Korean banks appeared to be adequately capitalised, measured by capital/risk weighted assets, at least using Korean standards. Moreover, the share of NPLs in total loans had been declining since the early 1990s, as banks achieved continued asset growth while the number of NPLs rose only modestly. In the 1990s, bank supervisors imposed tighter provisioning requirements and obliged banks to meet BIS capital adequacy requirements. Korea also had a relatively high rate of coverage of loan losses (loan loss reserves/NPLs). In fact, however, the situation was more precarious: *i)* provisions for losses on securities were only 54 per cent, while those for loan losses were 96 per cent of calculated norms; and *ii)* no provisions were required for losses on bank-guaranteed trust accounts, although banks have commitments to compensate for such losses.[42] On balance, the Korean banking system lacked dynamism, showed poor profitability and was plainly vulnerable to a deterioration in credit conditions. However, it did not obviously appear to be on the brink of insolvency.

There were also some favourable aspects of the Korean banking system. First, the government's policy of preventing ownership concentration meant that the tight ownership linkages and conflicts of interest between banking and industry were largely absent. Additionally, banks' direct exposure to the real estate sector, a major element in most banking crises since the 1980s, is largely absent, even though banks have considerable indirect exposure due to the large amount of lending that is collateralised by real estate.

It is also worth stressing that all banks were not the same. Those banks that had avoided loan concentration to the chaebols and had developed skills in credit analysis tended to perform better. For example, the Kookmin Bank has a history of a strong deposit base, as well as specialising in the consumer and medium-sized company market sector. As a result, credit evaluation skills have tended to be better, loan losses lower and margins higher. Owing to its stronger balance sheet and good management, the bank was able to increase its capital through equity issues as late as 1998 and to have a significant foreign institutional ownership, thus strengthening corporate governance. The Housing and Commercial Bank, which specialised in mortgage lending, also had low loan losses and low exposure to the corporate sector. Several other Korean banks that had developed particular skills were also able to avoid excessive losses and/or to increase capital through equity or subordinated debt issues. In sum, the strongest banks are those that deviated from the predominant pattern of links to policy-directed loans and high exposure to the chaebols.

There were numerous points of fragility elsewhere in the financial sector. The main vulnerabilities in the commercial banking sector were the concentration of credit risk to the chaebols; other financial institutions also had considerable exposure to the chaebols, and significant market risk as well. The merchant banks, securities companies, and investment trust companies all had significant exposure in currency, bond and equity markets. In markets where margins were often under pressure, these institutions sought to maintain profitability by accepting increased risk. Many of these institutions used leveraged positions, but most of them lacked risk management capabilities to manage and price market risk, while supervisory authorities were relatively unconcerned about the adequacy of their risk management systems.

As regards the role of trust companies, these had some resemblance to collective investment entities (*i.e.* mutual funds, unit trusts, etc.) in most OECD countries, but with numerous ownership and control linkages to the chaebols. Moreover, these institutions had also been encouraged by government in earlier periods to purchase equity or bonds to support the market. Given this lack of independence, the commitment of these institutions to producing high returns for investors was equivocal. Additionally, these institutions offered some investment facilities which contained guarantees, but risk management systems were inadequate to price these correctly. Securities companies had similar ownership linkages to the industrial sector and also engaged in trading for their own account. Much of their proprietary trading was driven by the need to offset declining margins in traditional commission-based business, to support companies with which they had links or to accommodate government objectives. Another source of vulnerability stemmed from the practices in the bond market where most issuance took place with guarantees by banks, merchant banks, securities dealers or fidelity and surety companies. This off-balance-sheet activity represented another source of risk that was assumed by a variety of institutions. Credit problems in the chaebols, as well as turbulence in currency, equity and bond markets, all combined to produce devastating effects on NBFIs in the course of 1997.

Financing strains in the industrial sector lead to declines in the balance-sheet quality of banks

Pressures over the past year seriously worsened the asset quality of Korean banks. In particular, with high leverage, rising costs and lagging export competitiveness, the financial position of the large conglomerates weakened considerably. After the won came under pressure in October, the situation worsened, as many corporations had taken on debt in foreign currencies to lower borrowing costs. Moreover, much of the debt was short term (see above). By the end of 1997, seven of the thirty-largest chaebols had filed for bankruptcy. Banks' exposure to the seven chaebols amounted to 2.1 per cent of total loans or more than 27.5 per cent of total equity. In the cases of Korea First Bank and Seoul Bank, loan exposure was about 100 per cent of the banks' capital. Owing to the complex corporate structures of the chaebols and extensive cross guarantees, insolvencies mounted rapidly. The sharp drop in the stock market and steep declines in bond prices inflicted additional losses, not only on banks but on NBFIs as well.

By mid-1997, it was clear that the strains on the chaebols would have powerful repercussions on financial intermediaries. At first, the response of the authorities was indecisive and mainly aimed at avoiding a sharp contraction of credit. In April 1997, Korean banks entered into a ''Standstill Agreement'' under which they agreed to refrain for two months from calling in claims on weak firms in danger (*cf.* Chapter I). The two-month period was designed to allow for an assessment of the firms' long-term viability. If the assessment was positive, banks agreed to form consortia to provide emergency support. Several of the chaebols benefited from such arrangements through the end of 1997. Furthermore, the Office of Bank Supervision (OBS) temporarily relaxed loan provisioning standards on securities to prevent the banks from causing a sharper contraction of credit. But by the end of 1997, it was clear that the corporate situation had deteriorated beyond the point where temporary measures could be effective. No new arrangements of this kind were initiated. In August, as the Asian crisis gathered force and investors' concerns about the Korean banking system were on the rise, the government announced its willingness to guarantee external borrowings by Korean banks, if necessary.

The crisis and decline in creditworthiness of the corporate sector were reflected in widespread strains on financial institutions. NPLs of the commercial banks, using standard Korean definitions, rose from 0.8 per cent of all loans at the end of 1996 to 2.7 per cent at the end of 1997, while non-current loans, a broader concept using IMF definitions, rose from 4.1 to 6.0 per cent. Losses on securities portfolios were also significant. Commercial banks reported losses amounting to W 3.9 trillion, or about 20 per cent of total equity. In December 1997, the OBS ordered two major Korean banks, Korea First Bank and Seoul Bank, which were effectively insolvent, to take immediate corrective measures. Twelve other commercial banks fell below the minimum 8 per cent capital adequacy ratio. Outside the commercial banking sector, the strains were even more pronounced. Fourteen merchant banks, two securities houses and one investment trust company were ordered to suspend operations.

Financial system reform

The legal and institutional framework was radically modernised

The crisis in the financial system came at a time when the authorities had been moving, albeit hesitatingly, toward reform of the financial system. In January 1997, a Presidential Commission for Financial Reform was formed. In June 1997, the Commission issued a report calling for a general acceleration in the process of reform and liberalisation that had begun in the early 1990s. While little progress was made in the months immediately following the release of the report, the new administration elected in December 1997 placed itself squarely behind the policy of deregulating and opening up the economy to foreign competition. Moreover, agreements reached with the IMF and World Bank in late 1997 were aimed at quickening the transition toward a market-oriented system that is integrated into the world economy.

Recent legislation to restructure the financial sector has been well-considered and sweeping. In December 1997, 15 major pieces of financial reform legislation were passed which will eventually transform the institutional and regulatory basis of the financial system. The aim has been to move decisively toward an efficient market-based financial services industry, in line with accepted best international practices. The General Banking Law and the Financial Industry Restructuring Act of 1997 were amended to allow for the formation of financial-sector firms offering a wide range of services, thus breaking down many functional and institutional rigidities. These firms will be linked through transparent ownership and control relationships. Moreover, markets which had previously been highly segmented will be open to greater competition. Commercial banks, investment trust companies and merchant banks will be allowed to discount commercial paper, an activity previously reserved for the merchant banks. Prudential regulations applied to merchant banks will be aligned with those applied to commercial banks. In the long run, the difference between commercial banks and merchant banks is expected to narrow.

Governance of banks will be strengthened with increased foreign participation expected

As one means of strengthening governance, rules governing ownership of banks were eased, with both foreign and domestic interests permitted to acquire strategic stakes in Korean institutions. Foreign ownership of up to 100 per cent was allowed as of April 1998. As foreign owners reach the thresholds of 10 per cent, 25 per cent and 33 per cent of total equity, they will be subject to increasingly strong review by the Financial Supervisory Commission (see below). Similar rules were imposed on domestic investors seeking strategic positions in banks, and parallel rules concerning ownership of securities companies were introduced in March 1998. However, the authorities will reserve the right to determine whether prospective acquirers of strategic stakes are ‘‘fit and proper’’, partly to prevent undesirable industry/banking relationships from emerging. Increased foreign participation and the resulting increase in competition are seen as keys to raising managerial skills in Korean institutions while building capital in the system. Foreign banks and securities firms were authorised to establish subsidiaries in March 1998 (previously foreign institutions were restricted to branches).

Laws were also enacted to strengthen the powers of boards of directors of banks and to require greater transparency on the part of management in dealings with shareholders and boards. Foreigners were permitted to be directors of banks beginning in May 1998. The government announced a policy of ending direct interference in bank management. The Securities and Exchange Act was amended to facilitate hostile takeovers in the financial sector, while another law was amended to allow the reduction of excess personnel following restructuring.

The deposit insurance system will be reformed

Deposit insurance for commercial banks was only introduced in 1996, although it was always generally assumed that the government would never allow bank depositors to lose money. Concerning NBFIs, various non-bank deposit insurance institutions have provided insurance since 1981, in exchange for fees, on deposits at investment and finance companies, merchant banks and mutual savings banks up to W 20 million per depositor.[43] As a measure to prevent a collapse of confidence and a run on deposits, an *ad hoc* regime under which the government guarantees all deposits made before August 1998 will be maintained until the end of 2000. After that date, the system will return to a partial deposit insurance system.[44] The new consolidated Deposit Insurance Corporation will increase its resources from W 6.5 trillion in May 1998 to W 31.5 trillion, of which W 16 trillion is to re-capitalise the banks. Funding for the agency will be obtained through bond issues.

Financial supervision will be brought into line with international practice

A radically overhauled regime for supervision of financial markets and institutions was initiated in December 1997. The existing agencies to supervise banks, merchant banks, capital market institutions and insurance companies were consolidated into a single agency, the Financial Supervisory Commission (FSC) which began operating under the Prime Minister's office in April 1998. The President will issue a decree on prudential standards that is expected to reaffirm the primary task of supervision and guarantee the independence of supervisors. The success of the new regime will depend on whether the individuals and institutions that are assigned roles in financial supervision acquire the needed technical skills to perform their tasks and whether they have sufficient independence.

The decision to consolidate financial supervision in a single agency follows similar decisions made by other OECD countries. It reflects the reality that differences between financial products have already narrowed and are likely to narrow further with deregulation. Since many multi-purpose financial institutions are likely to be formed, they can be best supervised by a single regulator which will provide comparable regulation for similar products and can assess the risk position of the institution. Efforts will be intensified to assure that no financial institutions, including merchant banks, securities companies and investment companies, are subjected to lax supervisory regimes. Additionally, individuals seeking to lodge complaints can deal with a single regulator. A significant part of the responsibility for the oversight of securities markets will be delegated to self-regulatory organisations. Although there is no consensus on the optimal institutional arrangements for financial supervision, the move by Korea clearly is in keeping with the practice of many OECD countries and represents a step forward from the fragmented and often inconsistent system of the past.

Loan classification, disclosure and provisioning rules will be more rigorous

As regards banking supervision, on 1 April 1998 the Office of Bank Supervision of the Bank of Korea was transformed into the Banking Supervisory Authority (BSA), which will operate under the FSC.[45] The BSA will announce new regulations by 15 August 1998 to bring banking supervision closer to international standards as expressed in the Basle Committee's ''Core Principles for Effective Bank Supervision''. New regulations will encompass: *i)* the deduction from tier 2 capital of provisions for all sub-standard assets; *ii)* the introduction of mark-to-market accounting for all traded securities positions other than those hedging assets valued at historic cost; and *iii)* full disclosure to trust beneficiaries of any agreements by managing banks to offset or guarantee losses to market participants. All trust accounts with guarantees will be considered on-balance sheet and weighted at 50 per cent by January 2000. Rules requiring the segregation of trust accounts will be made more explicit.

Loan classification and provisioning regulations will be toughened. By January 1999, classification standards will be made more rigorous, meaning that decisions will reflect the actual ability of borrowers to repay and not past history. Beginning in July 1998, all loans in arrears by 90 days have been classified as ‘‘substandard’’. Provisioning requirements will be increased from 1 to 2 per cent for precautionary loans.

Disclosure, auditing and accounting practices will be upgraded to assure that published accounts, including off-balance-sheet positions, are reported in line with international standards. Regulations will ensure that accounting standards for financial institutions meet those specified in International Accounting Standard 30 (IAS30), which covers disclosure in the Financial Statements of Banks and Similar Financial Institutions.[46] Groups under the effective control of particular interests will be obliged to file combined statements. Rules covering large exposures for all financial institutions will be made clearer, with the aim of ultimately reducing such limits. As a temporary measure, however, limits on exposures to individual companies were raised from 10 per cent of bank capital to 15 per cent in the expectation that part of the resolution of the credit problems in the corporate sector may involve debt/equity swaps. By 15 August, the FSC will issue minimum supervisory standards for banks’ problem-loan workout units.

Stronger in-house risk management systems will be required

The BSA will seek to move beyond simple inspection of loan portfolios and develop the capability to evaluate the quality of bank management as well as in-house credit evaluation procedures and risk management systems. Additionally, the authorities intend to adopt a regulatory approach under which banks with higher ratios of capitalisation and adequate risk management systems will be permitted to assume increased risk, while banks that cannot meet those standards will be limited in activities and subjected to progressively rigorous procedures to produce corrective action. At very low levels of capitalisation, banks will be obliged to close or merge. Efforts will be made to assure that banks’ risk management systems are robust enough to detect the full range of contingent liabilities, whether the assets appear on the balance sheet of the parent company or of some affiliated entity, including foreign branches and subsidiaries.

By November 1998, regulations governing global spot and forward foreign exchange positions will be implemented. Similar regulations for merchant banks will be phased in by the end of 1999. Banks and merchant banks will be required to demonstrate that they have implemented strong in-house systems to track and manage market risk. Both categories of institutions will be required to disclose publicly their foreign currency positions on a monthly basis. Prudential requirements will be extended to specialised and development banks as well as commercial and merchant banks.

The new agency intends to take a prudent but positive attitude toward product innovation. In order to implement the transformation to a modernised system of financial supervision, Korea will make considerable use of expertise from advanced economies and international organisations to train its personnel in the latest techniques of market oversight.

The central bank will gain enhanced independence and will have responsibility for systemic stability

The role of the central bank in the financial system will change under the new regime. Previously, the Bank of Korea was directly responsible for prudential supervision of the commercial banks as well as monetary policy. Under the new scheme the central bank has relinquished its supervisory role in the banking system. The Bank of Korea will retain joint supervisory responsibility with the FSC for bank inspection and, as lender of last resort, will retain responsibility for systemic stability.

The capital account will be fully liberalised

Measures to liberalise the capital account have been accelerated. The ceiling on aggregate foreign ownership of Korean shares was raised from 50 to 55 per cent as of December 1997 while the maximum share of equity owned by individual non-residents was increased from 7 to 50 per cent. These limits were eliminated in May 1998. Limits on foreign investment in Korean government bonds, specialised bonds and corporate bonds were lifted at the end of 1997. Foreign investment in money market instruments issued by non-financial institutions was fully liberalised in February 1998, and investment in those issued by financial institutions was liberalised in May 1998. A timetable for the eventual liberalisation of remaining restrictions will be set up by the end of 1998.

In brief, the Korean authorities have produced a blueprint to move from a system in which regulatory procedures were fragmented, well below world standards, and frequently subordinated to the interests of economic development policy to a strong independent supervisory agency utilising the latest techniques of advanced prudential oversight.

Bank restructuring

The most immediate challenge facing the authorities is to address the sharp decline in balance-sheet quality of the banking system in 1997 and the likelihood of additional losses in 1998. The authorities have been clear that re-capitalising banks is seen as part of a larger process of moving toward a thorough structural transformation aimed at creating independent, well-managed and prudentially sound banks that play an active role in the allocation of resources. Additionally, changed behaviour of the banks will need to be accompanied by changes in corporate finance, whereby industry reduces its reliance on debt, and the ownership and control and guarantee relationships in the corporate sector are made more transparent.

Losses in 1997 left the banks badly under-capitalised

As noted above, fourteen commercial banks (including Korea First Bank and Seoul Bank) had less than the 8 per cent minimum capital/asset ratio at the end of 1997. Korea First Bank's capital was in fact negative, while Seoul Bank's capital ratio was less than 1 per cent. Meanwhile, the NPLs of merchant banks rose from W 1.3 trillion at the end of 1996 to W 3.9 trillion at the end of September 1997. Thus, the banking system was clearly facing a situation in which the majority of lending institutions were under-capitalised. Furthermore, given the expected difficulties in the corporate sector, the domestic recession and high interest rates, the problem of bank asset quality seemed likely to worsen in 1998.

Table 11 shows estimated balance-sheet positions of Korean commercial banks at the end of March 1998, assuming full provisioning for losses on securities portfolios and including ''non-current'' loans. The category of NPLs is adjusted somewhat from the standard Korean definition which only includes the two lowest categories of loans, *i.e.* doubtful and loss. Total loans in these two categories amounted to W 10 trillion, about 2.7 per cent of total loans at the end of 1997. The NPL ratio reported in the table uses the Korean concept of ''non-current loans'', which includes loans not serviced for more than six months but supported by collateral. Furthermore, 100 per cent of losses on securities trading are included. Using this definition, problem loans were estimated at W 22.6 trillion, or about 6 per cent of total loans, up from W 11.9 trillion a year earlier. By March 1998, problem loans had risen to W 28 trillion, or 7.7 per cent of total

Table 11. **Balance-sheet position of commercial banks**[1]

End of 1997

	Assets	Equity capital	BIS capital ratio[2]	Net income[3]	Non-performing loan ratio[4]	
	Won trillion				End of 1997	March 1998
Nationwide banks	**539.2**	**15.1**	**6.7**	**–3 360**	**5.5**	**7.0**
Those with capital ratios over 8 per cent:						
Housing	47.0	1.3	10.3	108	2.0	2.8
Shinhan	43.5	1.3	10.3	53	4.1	5.6
Kookmin	54.4	1.9	9.8	104	3.2	4.5
Boram	17.9	0.5	9.3	10	3.2	4.0
Hana	22.9	0.7	9.3	44	2.4	3.1
Koram	16.4	0.5	8.6	–37	3.4	4.3
Nationalised banks scheduled for privatisation:						
Seoul	35.8	0.7	1.0	–917	10.3	13.0
Korea First	41.7	0.2	–2.7	–1 615	11.4	13.6
Regional banks	**67.4**	**3.1**	**9.6**	**–560**	**10.1**	**13.4**
Those with capital ratios over 8 per cent:						
Jeonbuk	3.3	0.2	13.3	–58	14.9	16.8
Kyungnam	8.0	0.4	12.3	3	7.3	10.2
Cheju	1.6	0.1	12.1	–33	21.4	23.4
Daegu	13.7	0.7	11.3	15	8.4	12.0
Kwangju	7.7	0.4	10.7	–53	8.1	10.6
Pusan	12.4	0.4	9.7	20	8.4	11.6
Total	**606.6**	**18.1**	**7.0**	**–3 920**	**6.0**	**7.7**

1. Ranked within categories by descending capital ratio.
2. Based on the assumption of full provisioning for loan losses and for unrealised securities losses. At the end of 1997, ten nationwide and four regional banks had capital ratios below 8 per cent.
3. During 1997.
4. As per cent of total loans.

Source: Bank of Korea.

loans. (If the more rigorous international standard of classifying loans in arrears by between 3 and 6 months is used, non-current loans would rise to W 31.7 trillion, or 8.7 per cent of total credits. The practice of classifying loans in arrears by 90 days or more was adopted in July 1998.) In addition to their impaired loans, banks also suffered significant losses on their securities portfolios. At the end of March 1998, estimated losses on banks' securities trading positions totalled W 7.5 trillion.

The Korean Asset Management Corporation has been given responsibility for disposal of impaired assets

In November 1997, the Non-Performing Loans Liquidation Fund was formed to purchase and dispose of the bad loans of commercial and merchant banks. Administration of the Fund was entrusted to the Korean Asset Management Corporation (KAMCO). The objective of KAMCO is to purchase impaired assets and to liquidate them as efficiently as possible. The funds initially available to KAMCO amounted to W 20 trillion, with W 8.5 trillion provided by the Bank of Korea, the Korea Development Bank and other financial institutions, with the remainder to be obtained by bond issuance. For loans with collateral, KAMCO's initial purchase price was generally equal to 75 per cent of book value, while loans without collateral were purchased at very deep discounts. The purchase price can be adjusted at a later time. At first, the authorities adopted a fairly easy stance concerning asset purchases, but later suspended them in February. Through February 1998, KAMCO had bought NPLs amounting to W 13.9 trillion for W 7.6 trillion, an average discount of 45 per cent. About 70 per cent of the payment for bad loans was made in KAMCO-issued bonds with the remainder in cash. In May 1998, the government announced an increase of W 25 trillion in the resources of KAMCO to support the programme of bank restructuring (see below). In the future, asset purchases will only be made as part of rehabilitation or liquidation plans approved by the FSC.

Until now, KAMCO activity has been confined to asset purchases with relatively little progress in disposing of its portfolio of impaired assets. In effecting sales, KAMCO will try to develop methods that facilitate rapid sales that maximise revenue, either through selling collateralised loans or securitised assets. Other countries which have dealt with similar problems have also preferred to move badly-impaired assets into a special institution rather than to leave them with banks for collection. The logic here is that in cases of systemic restructuring, the need to devote resources to collecting impaired loans would divert the attention of management from the urgent task of constructing a viable bank. Moreover, collecting impaired loans requires special techniques which the ordinary management of a bank may not have. Accordingly, KAMCO will probably seek the advice of foreign experts in asset disposal techniques. Methods developed in the United States by the Resolution Trust Company which was charged with the liquidation of failed thrift institutions, may be relevant. Additionally, techniques used in other countries that have encountered systemic solvency problems in the banking sector, such as Sweden, Finland and Mexico, may also be relevant.

In addition to KAMCO operations, loans can be retained in in-house workout units. This would appear to be most relevant in cases where the bank has entered into a restructuring agreement with a company and/or where the expected rate of recovery is greater than the 45 per cent average discount on loans sold to KAMCO. In fact, the bank restructuring measures announced in May assume that half of all problem loans will be retained by banks and the other half purchased by KAMCO. However, prudential requirements will have to assure that any loans held in workout units will receive transparent accounting treatment and cannot be used as a means of concealing the true extent of the bad-loan problem. At present, there are no concrete provision and accounting standards concerning loan sales; hence the options to sell loans to any other entity than KAMCO are limited. The authorities are considering allowing loan sales and/or securitisation with counterparties other than KAMCO.

Tougher policies to deal with unsound banks have emerged

In January, the Monetary Board of the Bank of Korea ordered Korea First Bank and Seoul Bank to reduce their paid-in capital from W 820 billion to W 100 billion. The government then invested W 750 billion in each institution and the Deposit Insurance Corporation (KDIC) also invested the same amount in each bank. This action established the principle that in cases of bank insolvency most of the cost would be borne by shareholders. Legislation will be enacted in 1998 to ensure that shareholders are not protected from loss in cases where banks are re-capitalised. The government and the KDIC now own 94 per cent of the equity in these two institutions. Much of their senior management has been replaced and staff has been reduced considerably. In April 1998, outside experts were appointed to develop a strategy for the privatisation of these two banks. The Morgan Stanley investment bank was chosen to assume control of the sale of these two banks to foreign interests. The authorities have announced that by 15 November 1998 they hope to find foreign strategic partners who will help these banks by providing new capital and management capability.

Rehabilitation plans have been provided

Twelve other banks had capital ratios which fell short of 8 per cent at the end of 1997. These banks were required to prepare a rehabilitation plan by 15 April 1998 under which adequate capitalisation will be achieved within two years. Banks were required to sign contracts with internationally recognised accounting firms to conduct diagnostic reviews and provide an assessment of the re-capitalisation plans, which would be used as part of the FSC's assessment of the bank. These audits are expected to result in increased recognition of problem loans. Plans to rehabilitate a bank can include some combination of: *i)* floatation of new equity or of second-tier capital through public offerings; *ii)* mergers with other domestic institutions; *iii)* a strategic alliance or merger with a foreign partner; *iv)* asset revaluation; and *v)* cost reductions. Any plan for external capitalisation must state the source and amount, with some confirmation from prospective suppliers of capital. In keeping with the principle that re-capitalisation is merely the first step in restructuring the banking system, rehabilitation plans will specify any intended changes in management and ownership, a business plan, a plan to improve risk assessment and pricing and loan recovery, as well as measures to reduce costs and improve governance.

Some of the stronger banks took measures to increase their capitalisation in 1997. Four commercial banks issued new shares amounting to W 532 billion and 17 banks issued subordinated bonds in the amount of W 3 085 billion in the market in order to increase capital. Despite difficult conditions, several banks were able to launch successful equity and bond issues in the first half of 1998. In December 1997, the Public Capital Management Fund bought W 4 trillion of subordinated debt issued by banks. Moreover, it was announced in April 1998 that several commercial banks had scored large gains in operating profit in the first quarter of 1998. These tended to be banks that were seen as having better-than-average financial strength; these institutions may gain an increasing edge in funding costs and in selection of customers in coming months. Meanwhile, other commercial banks, including most regional banks, showed declining profits, with four regional banks actually posting losses. In April, it was also announced that six of the fourteen banks that had inadequate capitalisation had increased their capital ratios to the 8 per cent required level. In the case of the Korea First Bank and Seoul Bank, this resulted mostly from the injection of government funds in

January. Most of the other increases in capitalisation resulted from asset revaluation.

At the end of April, the FSC announced that the review of banks may extend beyond the twelve initially scheduled for review to cover as many as twelve additional banks, or virtually the entire banking system. All banks were required to engage in diagnostic reviews by internationally recognised accounting firms. If the bank's capital adequacy ratio falls below 8 per cent in the future, the bank will be obliged to submit to restructuring procedures now being enforced on the twelve under-capitalised banks. With high interest rates, domestic recession and the likelihood of rising corporate bankruptcies, independent forecasters expect a significant rise in NPLs from an estimated level of W 23 trillion at the end of 1997. Thus some of the twelve banks which were able to meet the BIS capital standards at the end of 1997 may fall below that level in 1998.

The government unveiled its comprehensive plan for financial restructuring in May 1998 (Table 12). This plan projected an increase in core NPLs (*i.e.* loans classified as doubtful and loss as well as those in arrears for more than six months) of all financial institutions from about W 68 trillion at the end of March 1998 to a peak of W 100 trillion (almost a quarter of GDP), a figure consistent with most estimates by independent institutes and private analysts.[47] It was assumed that half the loans would be sold to KAMCO at an average discount of 50 per cent and half would be retained by the banks, which would either improve the rate of recovery or build adequate provisions for the loans. Banks are expected to increase capital by about W 20 trillion through securities issues, strategic investment and asset revaluation. The government will provide the additional funds needed to allow banks to reach the 8 per cent capital adequacy ratio. The initial resources earmarked for financial restructuring were estimated at W 50 trillion (12 per cent of GDP) to be obtained by bond issues in 1998 and 1999. Of this total, W 41 trillion will be allocated for fiscal support of viable financial institutions engaged in the disposal of NPLs (W 25 trillion for KAMCO) and re-capitalisation (W 16 trillion to be injected as fresh capital). The remaining W 9 trillion is earmarked for meeting possible deposit withdrawals in the course of liquidating financial institutions. The government has stressed that fiscal support will only be provided as a supplementary measure to institutions' own restructuring and financing plans.

Table 12. **Government plan to rehabilitate financial institutions**

	Won trillion		
Disposal of NPLs (based upon assumption of peak core NPLs of W 100 trillion)			
Purchase by KAMCO [1]		50	
Retained by institution		50	
Total		100	
Needs of financial institutions			
To cover losses from NPLs		50	
To meet capital adequacy BIS standard		4	
Total		54	
Sources of financing			
Loan loss provisions		15	
Securities issues		20	
Budget [2]		19	
Total		54	
Fiscal support for restructuring			
KAMCO		25	
Re-capitalisation of institutions		16	
Depositor Protection Fund		9	
Total		50	
	NPLs [3]	Precautionary [4]	Total
Memorandum items:			
Problem loans (as of March 1998)			
Banks	40	46	86
Non-bank financial institutions	28	4	32
Total	68	50	118

1. At 50 per cent of book value.
2. Of which W 3 trillion represent support to Seoul Bank and Korea First Bank.
3. NPLs = non-performing loans 6 months or more in arrears.
4. Precautionary loans = loans 3 to 6 months in arrears.

Source: Government of Korea.

At the end of June, the FSC made public its assessment of the proposed rehabilitation plans that had been submitted by the twelve under-capitalised banks on 15 April. These plans were reviewed by a bank appraisal committee consisting of twelve members, including lawyers, accountants, academic consultants and an international expert. The plans of seven banks (Cho Hung Bank, Commercial Bank of Korea, Hanil Bank, Korea Exchange Bank, Peace Bank of Korea, Kangwon Bank and Chungbuk Bank) were judged to be credible and received conditional approval. These banks will sign a contract with the FSC committing them to achieve specified objectives according to an agreed timetable, which was submitted at the end of July 1998. These plans are to include increases in capital in cases where it is deemed necessary by the FSC, owing to recommendations based on the diagnostic reviews or to compensate for any further decline in asset quality. Moreover, the banks are required to take measures to improve management, such as large-scale replacement of managerial personnel and outside recruitment of new managers, including foreign nationals. Progress will be monitored by quarterly management improvement plans submitted by the banks. In addition, these banks are required to present plans to cut costs through branch closures, reduction of personnel and other operational savings. Finally, banks will have to demonstrate that they have taken effective measures to prevent an increase in NPLs.

The plans of the other five banks were rejected on the grounds that they would be unable to achieve adequate capitalisation in the specified time frame. The authorities decided to effectively close these banks by ordering them to be acquired by relatively well-capitalised banks.[48] The acquiring banks were selected according to four criteria: *a)* a BIS ratio of at least 9 per cent as of the end of 1997; *b)* their capability to improve the management of the target bank; *c)* their ability to re-capitalise the acquired bank through securities issues or an alliance with foreign strategic partners; and *d)* some similarities in line of business with the banks whose plans were rejected.

This plan is to be accompanied by measures to protect the interests of the acquiring banks. Prior to the acquisition, the assets and liabilities of the five problem banks will be re-valued in accordance with international standards. The good assets and all liabilities (excluding some pension and severance-related liabilities of the problem banks) will be taken over by the sound banks under a Purchase and Assumption (P&A) agreement. The NPLs of the acquiring banks will be sold to KAMCO. Moreover, KAMCO will purchase any loans from acquired banks that become non-performing during the following six months and any losses incurred by selling these loans to KAMCO will be covered by KDIC. In addition, any deficiency in the net worth of these problem banks will be made good by the KDIC. The government will provide funds, in the form of non-voting preferred shares that are convertible into ordinary common shares, to bring the capital ratios of the acquiring banks up to their levels prior to the P&A agreement with the problem banks. The government will be able to sell these shares on the market, or existing investors may have some rights to repurchase them. The sound banks will have considerable leeway in selling the fixed assets of the problem banks; they will face no obligation to maintain the branch networks or to continue to employ the workers of the acquired banks. Non-bank subsidiaries in difficulty will not be transferred. At the same time, measures will be taken to minimise the impact of the acquisitions on the depositors and borrowers of the acquired banks.

Measures to deal with insolvent merchant banks

In November and December 1997, KAMCO bought some W 3 trillion in impaired loans from the merchant banks and reimbursed depositors for W 5 trillion. In December 1997, the operations of fourteen merchant banks were suspended and all thirty were ordered to submit restructuring plans. These plans had to specify how these banks would reach BIS capitalisation ratios of 4 per cent by March 1998, 6 per cent by June 1998, and 8 per cent by June 1999. Merchant banks will be encouraged to increase their capital adequacy ratios beyond the 8 per cent minimum after June 1999. If the rehabilitation plan was accepted, banks would be obliged to sign a managerial contract with the government, which would include an explicit commitment to meet these deadlines as well as to achieve other performance indicators. The rehabilitation process has been applied in a very stringent way, with the government willing to close insolvent institutions. In the event, fourteen merchant banks were closed when their plans were judged to be unacceptable. If the remaining banks do not meet the performance criteria in their agreements, stronger corrective measures would be applied, including closure of the bank. A bridge merchant bank, which was formed on 3 December 1997, has assumed the responsibility of paying depositors and disposing of the assets of closed institutions. At the end of March 1998, the NPL ratio of the sixteen merchant banks which remained in operation (*i.e.* less the fourteen which had been closed) had risen to 5.9 per cent. More ominously, when provisions for securities trading losses were included, only two had capital adequacy ratios of 8 per cent or more and only three had shown positive net income during the year ending in March 1998. With stricter auditing procedures and more difficult financial conditions, the entire merchant banking sector may move closer to insolvency. In view of the sharp decline in the financial strength of merchant banks through the first quarter of 1998 and the likelihood of further deterioration in 1998, it is likely that some additional merchant banks will have to be closed.

The outlook for reform

The framework for reform is in place

The financial reform legislation passed in late 1997 moves Korea from being a country where progress in financial modernisation was one of the slowest in the OECD area and where resistance to modernisation and liberalisation was entrenched, to one where legislation covering the institutional and regulatory framework embodies many of the best practices of OECD countries. Having enacted most of the necessary laws and with the new administration firmly supporting structural change, these measures must now be implemented.

The most crucial decisions will involve measures to rehabilitate the commercial banking system. The problem of the merchant banks or the investment trust companies may be serious and costly, but at worst, the situation ultimately can be resolved by closing these institutions and settling their liabilities. On the other hand, banks operating on market principles that are capable of participating actively in resource allocation are indispensable to a modern market economy. Banking rehabilitation is best seen as part of a reform process, of which the ultimate goal is the emergence of a number of viable banks that can play an active role in credit allocation and exercise discipline over the corporate sector. To accomplish this, the governance systems of banks must be transformed so that banks are given firm direction to achieve high levels of profitability and to introduce strong risk management systems. Strong governance usually emerges in response to predictable pressures from shareholders, supervisors and rating agencies and from competitive markets.

Financial market supervisors will play an indispensable role in instilling a market-oriented culture on all participants. From the outset, it will be essential for the FSC, which is in charge of bank rehabilitation, to convince the main participants, *i.e.* bank management, corporate borrowers and prospective foreign and domestic investors, that the rules of the game have permanently changed, and that the transition towards a competitive, soundly-regulated banking system is proceeding under a tight schedule. Supervisors will also have to demonstrate that they have the required independence to pursue their task and that they are enforcing transparency. Until now, the programme has maintained broad support because the authorities have communicated their determination to restructure the financial system. It is important that this support be maintained. Half-hearted attempts to rescue banks, tolerance of poor disclosure practices and regulatory forbearance will increase the costs of the eventual rescue and delay the emergence of a well-functioning banking system while undermining the confidence of investors whose support is vital to any rehabilitation plan. Furthermore, if the plan is not pursued with sufficient vigour and credibility, popular support for the reform may wither.

Transparency is one key to success. Transparency must be reflected in the banks' accounting and disclosure policies and must also guide the reports that the supervisors present to the government, investors and the public. From the outset, the supervisors must make it clear that higher standards of disclosure will be strictly enforced. Rehabilitation plans should be structured so as to reward banks that report their financial situation accurately and that take credible action to restore creditworthiness. If banks are convinced that the authorities are tacitly willing to countenance under-reporting in order to buy time and lessen political resistance, they will act accordingly. Most of the actions taken to date have been encouraging in that the authorities are pressing for full disclosure of the impaired loan situation. An additional positive development was the admission at a relatively early date that large amounts of public money will be needed to resolve the problems. It is essential to continue this approach as the restructuring effort progresses.

Rationalisation will play a key role

An overriding goal of the reform is to have a banking system with a viable cost structure. The optimal number of banks is almost certainly smaller than the number currently in existence. Transformation of the banking system will entail contraction in the number of institutions and workers in the sector.

Prospects for resolving the banking crisis through purely domestic consolidation of existing banks are limited. Mergers and acquisitions (M&As) can remedy some problems; where duplication is found in branch networks, back office operations, or staff, cost savings can be made. However, most countries have found that, both in the banking sector and elsewhere, mergers between poorly-managed institutions cannot lead to a permanent improvement in performance. Consolidation cannot improve balance sheets or provide managerial skill.

In most OECD countries, mergers tend to be of two kinds: mergers of equals, which almost always lead to strife between the management and staff of the two institutions, and outright acquisitions which lead to the stronger bank imposing its management culture on the acquired bank. By effectively closing banks with little chance of becoming financially sound, the authorities have demonstrated that poor financial performance will be sanctioned. Moreover, the authorities are committed to providing sufficient funds to assure that the banks are adequately capitalised after the acquisition of the problem banks. Both these decisions suggest that the authorities are committed to a realistic assessment of the position of banks and to taking strong corrective measures. In addition, the strategy of building upon the capacities of Korean banks with strong management indicates that the authorities have clearly delineated what constitutes acceptable performance and are distributing rewards and sanctions accordingly. There is the risk, however, that burdening relatively sound banks with financially-troubled banks might undermine the management of the acquiring bank. In any case, it is doubtful whether Korean banks will be able to solve their problems alone.

A critical source of stronger bank governance and capitalisation will be an increased foreign presence. In addition to injections of capital, foreign banks and investors can provide monitoring and managerial skills, and will apply international profitability standards. In fact, several banks have already announced plans for links with foreign institutions, and a large number of such alliances are under active consideration. The attraction for foreign institutions is that Korea offers the potential gains of a ‘‘turnaround situation’’. Dynamic banks in OECD countries are able to achieve returns on equity in excess of 15 per cent annually by aggressive cost control, strong credit and risk management systems and a commitment to shareholder value. If gains of this kind are achievable in mature markets, then the relatively backward Korean market, on the threshold of major consolidation, should have far greater potential – provided that management serves the interests of investors. At this time, Korean bank shares are selling at very low prices. Traditionally, great opportunities for investors arise when an industry passes through a period of restructuring and consolidation. However, portfolio investors and strategic investors will shun the Korean banking sector until they believe that thorough and credible reform is taking place.

Significant international portfolio ownership of the Korean banking system would also provide an independent source of monitoring, through analysis and comparison of performance to that of banks in other markets. Investors would bid up the share prices of successful banks while driving down prices of poor banks to levels where they become attractive takeover targets. Significant foreign ownership would also force Korean banks to reach international profitability norms. Capital market discipline will be especially important for Korean banks that do not have strategic partners to provide governance.

Re-capitalisation remains an issue

Clearly one important part of the rehabilitation of the banks will be to augment capital through new public securities issues. Several of the sounder banks have already launched public issues of new equity in 1998 with further issues planned. At this time, prospects for resolving the bad-debt problems through public offerings are mixed. On the negative side, the Korean stock market is depressed, and investors are hesitant about banks in particular. With the possibility of an increase in impaired loans, investors fear additional losses, since one of the explicit principles of reform is that shareholders must share losses when banks turn to the government for re-capitalisation. On the other hand, as was the case for strategic investors, banks can offer extremely attractive potential returns to portfolio investors, provided that they are convinced that a credible effort to reform the banking system is under way.

The use of public funds should be limited...

Until recently, the discussion had assumed that use of public money would be minimal. Indeed, one of the guiding principles of the reform should be that, to the degree that banks are solvent and adequately capitalised, they should be allowed to pursue their own restructuring plans, including mergers, securities issues and the formation of strategic partnerships with foreign institutions. However, in May the government, realising that one of the essential elements of a credible rehabilitation effort was the announcement of sufficient funds to accomplish the task, committed relatively large-scale public funds to this end. While the rehabilitation effort will be costly for taxpayers, it also provides the authorities with an additional tool to fashion a market-based system. To the extent that public money is provided, it should be used to guide the restructuring of the banking system. As many countries have learned, funds given unconditionally merely provide banks with incentives to conceal the extent of their losses and to delay reform. In keeping with the principle that the programme must be sufficient to address the long-term problems of the banking sector, the amount of public funds should be kept to a minimum, but must also be adequate to ensure survival of banks that resolve balance-sheet problems and improve their management. However, the presumption should be that the capital injection is the last one and should be accompanied by strict conditions to improve the management, accounting and disclosure practices of the banks. Furthermore, only commercial banks, as well as specialised and development banks that the government is required by law to support, should receive public funds for re-capitalisation. Other institutions without adequate capital should seek capital from strategic investors or securities issues or be forced to close.

... and conditional on performance

Another guiding principle is that public funds should be given in a way that allows the government to capture the ‘‘upside’’ of bank rehabilitation, *i.e.* any improvement in the financial situation of the bank should be shared by its shareholders and the government. The government has decided to re-capitalise banks by issuing convertible non-voting preferred equity, which does, in fact, provide the government with ‘‘upside’’ benefits.

The rehabilitation of banks should be closely co-ordinated with restructuring on the corporate side. Indeed, these two processes are inter-related since the banks are expected to tighten discipline on the corporate sector in order to force restructuring. Thus, going forward, the commercial banks will not be successful unless parallel reform occurs in the patterns of corporate finance and governance. Measures must be simultaneously implemented to encourage corporations to reduce leverage, develop transparent ownership and management structures and subject them to greater financial market discipline (see Chapter III). Banks will have to apply stringent credit criteria to corporate clients, while the supervisors hold the banks to strict reporting, provisioning and restructuring deadlines. In particular, the regulators will have to continue to apply rigorous standards to banks’ reporting of NPLs and to provisioning requirements.

To broaden the range of instruments to deal with restructuring, some legislative and institutional changes might be desirable. Development of laws facilitating securitisation would be helpful as this could assist banks with relatively sound balance sheets, but which are somewhat short of capital to improve capital adequacy ratios through asset sales. In many OECD countries, securitisation of good assets is a regular technique for balance-sheet management and to improve profitability. This technique can be helpful in Korea where banks will be under pressure to use capital efficiently and to develop innovative products to raise profitability. Securitisation can possibly also assist KAMCO or other financial institutions in disposing of non-performing assets. In fact, the RTC in the United States liquidated a diverse panoply of impaired assets of the thrift industry quickly through securitisation. Quick action on asset sales also serves as a powerful instrument to encourage banks and corporations to address their balance-sheet problems promptly. In order for securitisation to be effective, the appropriate legal, tax and regulatory infrastructure must also be in place. The government has promised to introduce needed legislation by August 1998.

KAMCO will play a pivotal role in restructuring both banks and chaebols. It will be important to ensure that it operates under an explicit mandate to resolve impaired assets as quickly as possible, consistent with high rates of asset recovery. To accomplish this, care must be taken to purchase assets at prices that reflect market conditions as closely as possible and that it pays a market rate of interest on funding operations. Disposal techniques can include asset sales, the creation of institutions (such as real estate management companies) or investment instruments, which are marketable to investors or that can be securitised (*i.e.* through issuance of mortgage-backed or asset-backed securities). The management of KAMCO must be given incentives to accomplish the liquidation quickly. Otherwise, there is a serious danger of politicising the corporate restructuring process and creating bureaucratic incentives for perpetual state management of these assets, as has been the experience in many OECD countries in the past.

The experience of a number of countries that have faced the need to restructure their banking systems after a systemic solvency crisis suggest that the problem can be resolved in a reasonable time – at least to the degree that a number of sound banks are operating under market-based principles and without the need for public funds. On the other hand, the experience of virtually all countries is that not addressing the situation with determination and adequate resources inevitably raises the long-term costs of rehabilitation and may lead to a loss of public support.

Deepening capital markets is also essential

Although the reform of the banking system is the most urgent task facing the authorities, there is need for reform in the capital markets as well. Until the recent collapse of equity prices, the stock market was moderately advanced in some respects. The share of market capitalisation in national income was in the middle range of OECD countries and share ownership was fairly diversified among individual and institutional owners. The technical infrastructure of the market, including trading, clearing and settlements systems, was adequate, and a market in equity futures and options had been introduced. Thus, the equity market had no basic technical deficiencies and a solid foundation for future development was present. On the other hand, official market regulation was not unequivocally committed to investor protection and systemic soundness, but continued to support the existing pattern of industrial promotion or to stabilise the market more generally. A major shortcoming is that the market was relatively ineffective in monitoring corporate performance. Securities market regulations as well as the network of formal and informal linkages have effectively isolated corporate management from financial market monitoring and discipline. Independent institutional investors that provide corporate monitoring in many OECD countries were absent. Major domestic institutional investors, such as the investment trust companies, have little inclination to provide monitoring of the corporate sector. Past severe restrictions on participation by foreign investors also deprived Korea of the increasingly effective influence of international institutional investors on corporate performance, while the possibility for M&A activity, including hostile takeovers as a device for sanctioning poor performance and facilitating corporate restructuring, was also limited. Now that many firms are faced with urgent needs to increase their equity base, the equity market will have to assume a more active role in corporate finance and monitoring.

The debt market also had serious shortcomings. Government debt, which is usually the foundation of any fixed income market, lacks depth and maturities tend to be short. A number of government and government-guaranteed issues are traded, but amounts are uneven and hence liquidity is lacking. No instrument has established the status of a ‘‘benchmark’’ bond. However, government bonds issued at market rates have been allowed since last year. No derivatives to hedge interest rate or currency risk existed and foreign participation in the fixed income market was limited. Thus, the fixed income market lacked the vitality that characterises most OECD government debt markets. Current plans seek to rectify many of these shortcomings. The government will encourage the development of well-capitalised primary dealers as well as adequate hedging and liquidity facilities. Mortgage bonds and mortgage-backed securities will be developed. Additionally, stronger disclosure requirements on bond issues and a stronger set of rating agencies would help create a deeper market in non-government paper. Until now, a considerable amount of bonds have carried bank guarantees which have increased the banks' off-balance-sheet risks. Since a period of financial innovation with relatively slow growth of balance sheets and banks seeking to engage in more off-balance sheet activity may well be in prospect, the deepening of a fixed income market should be a high priority. The planned expansion of privatisation and asset disposal and the need to finance budget deficits provide a major opportunity for deepening the capital market by creating a wider range of investment instruments to meet investors' needs.

It is also advisable to reconsider the current structure of institutional investment. At present, Korea does not have a collective investment industry *per se* (mutual funds, unit trusts, etc.). These are becoming increasingly important means of holding wealth in all OECD countries, and major world financial institutions see institutional investment and portfolio management as one of the best potential areas for expansion in coming years. In Korea, investment trust companies have some characteristics of collective investments, but in general the range of investment options offered to the public is narrower. Additionally, these institutions often carry guarantees from investment trust companies which means that additional risks must be borne by these companies, and ultimately by the authorities. Furthermore, these institutions have not been effective as active monitors in debt and equity markets. Until a set of independent collective investment institutions emerges, the asset management industry may not develop in line with world standards. For all these reasons, it might be advisable to introduce a system of collective investments, comparable to those found in most OECD countries. Legislation to permit mutual funds is due to be introduced by the end of August.

III. Corporate governance reforms

As noted in Chapter I, the rapid expansion of debt-financed investment by the large conglomerates, known as *chaebols*, resulted in excess capacity, declining profits and a squeeze on balance-sheet positions. These problems, which are related to weak corporate governance, have placed Korea in its current dire predicament despite its fundamental structural strengths, such as high rates of saving and investment and a well-trained workforce. The difficulties in the corporate sector, in turn, have seriously weakened the banking system. In the wake of the crisis, firms will have to restructure to survive. Establishing more effective corporate governance systems will aid in this restructuring as well as help ensure a more efficient allocation of capital in the longer term in order to avoid similar problems in the future.

This chapter first outlines the ownership and control structure of the chaebols. Given their prevalence, an understanding of their role in the economy is indispensable for any discussion of corporate governance. In manufacturing, for example, 83 of the 100-largest firms belong to the thirty major chaebols.[49] The following sections discuss government policies towards the large business groups prior to the crisis and the existing corporate governance mechanisms. The fourth section reviews actions taken by the corporate sector and reforms introduced by the government to improve governance in the wake of the crisis.

The role of the chaebols

Their structure and importance in the economy

The chaebols are multi-company business groups operating in a wide range of markets under common entrepreneurial and financial control. Although holding companies are prohibited and each company is legally independent, chaebols are, nonetheless, characterised by centralised planning and co-ordination. These business groups have been a driving force behind Korea's successful export-led growth and rapid industrialisation. Given the scarcity of entrepreneurial talent in the early stages of development, economic resources became concentrated around the founders of these groups. The success of the chaebols also reflects their ability to overcome the imperfections of factor markets, such as those for capital, labour and technology, and to benefit from the synergies and economies of scope that are possible in large organisations. Moreover, the groups profited from their close links to the government in a period when a large part of the economy was regulated, a factor that has led many to question the legitimacy of the chaebols' strong position in the economy. In particular, the policies adopted in the 1970s to accelerate the development of heavy and chemical industries encouraged the growth of the chaebols. It should be noted that Chinese Taipei, an economy whose situation was broadly comparable with that of Korea, has achieved similarly rapid growth with small and medium-sized enterprises (SMEs) playing a much larger role.

The Fair Trade Commission is required by law to identify each year the thirty-largest business groups, which are subject to special regulations. In 1996, this group accounted for about two-fifths of the capital stock in the mining and manufacturing sector and almost a fifth of employment. In terms of shipments, the chaebols' share has fluctuated between 35 and 40 per cent since the late 1970s (Table 13). In general, their share declined during periods of rapid expansion, as new firms entered the market, and increased during periods of slower growth. There is a considerable gap, though, between the largest chaebols and the other business groups. In particular, the top five have steadily increased their share of shipments over the past twenty years and, at present, account for about a quarter of the total in the mining and manufacturing sector. The business groups, however, are less important in the service sector. Consequently, the shares of GDP accounted for by the thirty and the five-largest chaebols were estimated at 16 and 9 per cent, respectively, in 1995.

Another measure of economic concentration, the share of manufacturing output by the 100-largest firms, has declined during the past fifteen years (Table 14). From a peak of 46 per cent in 1980, their share of shipments fell to 37 per cent in 1994, while their share of employment also decreased. In an international context, the Korean level of concentration might be expected to be

Table 13. **Share of chaebols in mining and manufacturing**

Per cent

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1997
Top five														
Shipments	22.6	23.0	23.3	22.0	22.0	21.9	21.3	n.a.	23.4	23.8	23.0	24.6	n.a.	15.7
Value added	16.7	18.8	19.2	19.2	19.1	18.7	18.6	n.a.	22.0	21.7	20.3	24.0	n.a.	–
Fixed assets	18.0	19.6	20.8	21.6	21.4	21.0	19.1	n.a.	27.7	25.5	24.9	25.6	n.a.	–
Employment	8.9	9.6	10.1	10.2	9.9	10.4	9.9	n.a.	10.8	10.8	10.4	11.1	n.a.	–
Top thirty														
Shipments	40.4	40.8	40.7	38.2	37.3	36.0	35.4	35.0	38.8	39.7	38.1	39.6	n.a.	34.1
Value added	32.4	34.4	34.0	33.2	32.6	31.0	30.0	30.0	35.4	35.9	33.5	36.9	40.2	–
Fixed assets	37.8	41.1	40.3	39.9	38.6	38.1	35.9	32.2	45.3	44.5	42.1	45.0	44.0	–
Employment	18.6	18.7	18.2	18.5	18.1	17.4	16.8	16.0	17.7	17.5	16.6	17.7	18.0	–

Source: Yoo and Lim (1997) and Fair Trade Commission (1997).

Table 14. **The share of the 100-largest manufacturing firms**

Per cent

	1970	1977	1978	1979	1980	1981	1985	1987	1988	1989	1990	1994
Shipments	28.7	45.0	43.6	43.1	46.3	46.2	43.4	38.5	38.1	37.2	37.7	37.3
Employment	22.8	20.8	20.8	20.6	19.4	19.1	17.5	16.3	16.1	15.5	–	15.7

Source: Yoo and Lim (1997).

higher than in other OECD countries, given the relatively small size of the Korean economy and the economies of scale necessary to achieve international competitiveness in such industries as steel, shipbuilding, cars and semiconductors, all areas where Korea has achieved success. However, the share of the 100-largest firms in Korea is comparable to the 48 per cent in the United States and 40 per cent in Germany, though higher than the 27 per cent in Japan. This reflects the fact that individual Korean companies are not large by international standards. In terms of sales, Hyundai Motors, the biggest Korean car manufacturer, is only about 7 per cent as large as General Motors, while Samsung Electronics is 14 per cent the size of Matsushita in Japan.

The business groups tend to focus on large manufacturing industries that require big investments. In 1996, 26 industries with shipments of more than W 2 trillion accounted for almost half of the manufacturing sector (Table 15). The thirty-largest chaebols participated in all but one of these industries and had a combined market share of 63 per cent. Moreover, the five-largest chaebols

Table 15. **Chaebols' market share by size of industry**

Manufacturing shipments in trillion won

Value of shipments	Number of industries[1]	Share of total shipments	Number of industries with firms from:		Market share of:	
			Top 5	Top 30	Top 5	Top 30
Below 0.1	249	3.0	2	20	0.7	5.4
0.1 to 0.5	227	18.7	22	77	3.6	10.9
0.5 to 1.0	64	15.6	25	45	10.4	21.6
1.0 to 2.0	37	16.5	19	31	15.6	29.0
Above 2.0	26	46.2	23	25	42.7	63.3

1. Five-digit KSIC industries.
Source: Yoo and Lim (1997).

alone, which include such groups as Hyundai, Samsung and Daewoo, had a 43 per cent market share in these large-scale industries, which included fast-growing sectors, such as cars, electronics and machinery. In contrast, the smaller chaebols tend to be more focused on chemicals and metal products. The business groups were under-represented in small-scale industries, some of which are legally reserved for SMEs. For example, the chaebols had only a 5 per cent share in industries with shipments of less than W 100 billion.

The chaebols have diversified into a wide range of industries. The number of affiliates of the thirty-largest business groups increased from an average of four companies in 1970 to 22 companies operating in almost 19 different industries[50] in 1996. The five-largest chaebols were even more diversified, with an average of more than 40 companies competing in almost 30 industries. The large number of affiliates has been criticised as symptomatic of the founders' preoccupation with market share and ''empire-building''. However, several factors suggest that diversification may have been a logical response to changing economic conditions and government controls. *First,* diversification in a well-designed portfolio of business lines helps to reduce risk when firms and/or their shareholders do not have access to efficient capital markets, as was the case, until recently, in Korea. Many of the specialised chaebols of the 1960s and 1970s have disappeared, while today's most successful groups are highly diversified. Moreover, the six major business groups that filed for bankruptcy protection in 1997 were all relatively specialised, with an average of fewer than 16 companies operating in 11 industries.[51] *Second,* in a rapidly-growing economy undergoing substantial structural change, there are many profitable business opportunities, particularly given the protection from foreign competition. *Third,* government intervention to ensure that failing companies were taken over by other firms rather than allowed to go bankrupt also contributed to the diversification of the chaebols, which were the only firms large enough to handle such takeovers. Companies that agreed to acquire failing firms were compensated with debt relief, tax reductions and other benefits.

The ownership and control of chaebols

Chaebols are characterised by a relatively high level of internal ownership – the sum of holdings of the founding family and relatives (*i.e.* individuals) and affiliated firms (non-financial corporations) (Table 16). This reflects the desire of

Table 16. **Internal ownership[1] of chaebols**

Per cent

	1983	1987	1989	1990	1991	1992	1993	1994	1995	1996
Top thirty	57.2	56.2	46.2	45.4	46.9	46.1	43.4	42.7	43.3	44.1
Family	17.2	15.8	14.7	13.7	13.9	12.6	10.3	9.7	10.5	10.3
Subsidiaries	40.0	40.4	32.5	31.7	33.0	33.5	33.1	33.0	32.8	33.8
Top five	–	60.3	49.4	49.6	51.6	51.9	49.0	47.5	–	
Family	–	15.6	13.7	13.3	13.2	13.3	11.8	12.5	–	
Subsidiaries	–	44.7	35.7	36.3	38.4	38.6	37.2	35.0	–	
Hyundai	81.4	79.9	–	60.2	67.8	65.7	57.8	61.3	60.4	
Samsung	59.5	56.5	–	51.4	53.2	58.3	52.9	48.9	49.3	
Daewoo	70.6	56.2	–	49.1	50.4	48.8	46.9	42.4	41.4	
LG	30.2	41.5	–	35.2	38.3	39.7	38.8	37.7	39.7	

1. Internal ownership is a weighted average (where the weight is the size of capital) for each business group of the ownership shares of the founding family and relatives plus those of other companies in the group.

Source: Fair Trade Commission.

owner-managers to maintain control and their reliance on debt finance.[52] Similar ownership patterns are also found in other Asian countries that are still in the first generation of capitalism. Internal ownership in Korea tends to be centralised in one or more of the core companies near the top of the pyramid of ownership. The chairman, often the founder of the chaebol, tightly controls group policy through an informal but powerful centralised management team called the ‘‘planning and co-ordinating office’’,[53] which directs the individual companies in the group. The important role of this office appears to impinge on the authority of the directors of the individual companies, which, in theory, are independent. The rate of internal ownership is highest for the five-largest chaebols.

The concentration of corporate ownership and the strong influence of the founder’s family and the central management team on the affiliated companies in the chaebols are key issues in Korea. In theory, such a structure can have advantages, including reduced agency costs and the ability of companies to react rapidly to changes in the business environment. During the past year, however, business groups with high levels of family ownership have experienced the greatest difficulties. In 1996, there were only three chaebols in which the shares of the founding family and relatives exceeded 20 per cent: Halla, New Core and Hanbo (Table 17). By mid-1997, all three were insolvent. Two of the other

Table 17. **Internal ownership of top thirty chaebols**[1]

Share of founding family plus relatives

Total internal ownership[2]	Less than 5 per cent	5 to 10 per cent	10 to 20 per cent	20 to 30 per cent	30 to 50 per cent	More than 50 per cent
20 to 30 per cent	Lotte (10)	Keukdong (28)	–	–	–	–
30 to 40 per cent	Ssangyong (6) Haitai (25)	LG (3) Hanhwa (9) Daelim (13)	Sammi (26) Hanil (27) Pyoksan (30)	–	–	–
40 to 50 per cent	Samsung (2) Kumho (11)	Daewoo (4) Kohap (24)	Jinro (19) Sunkyung (5) Hanjin (7) Doosan (12) Dongah (15) Hyosung (17) Kolon (29) Dongbu (23)	–	–	–
Over 50 per cent	–	Tonggang (21) Hansol (22)	Hyundai (1) Dongkuk (18)	Halla (16)	New Core (29)	Hanho (14)

1. The numbers in parentheses represent the ranking of the chaebol by size.
2. The sum of the founding family, relatives and other companies in the group.

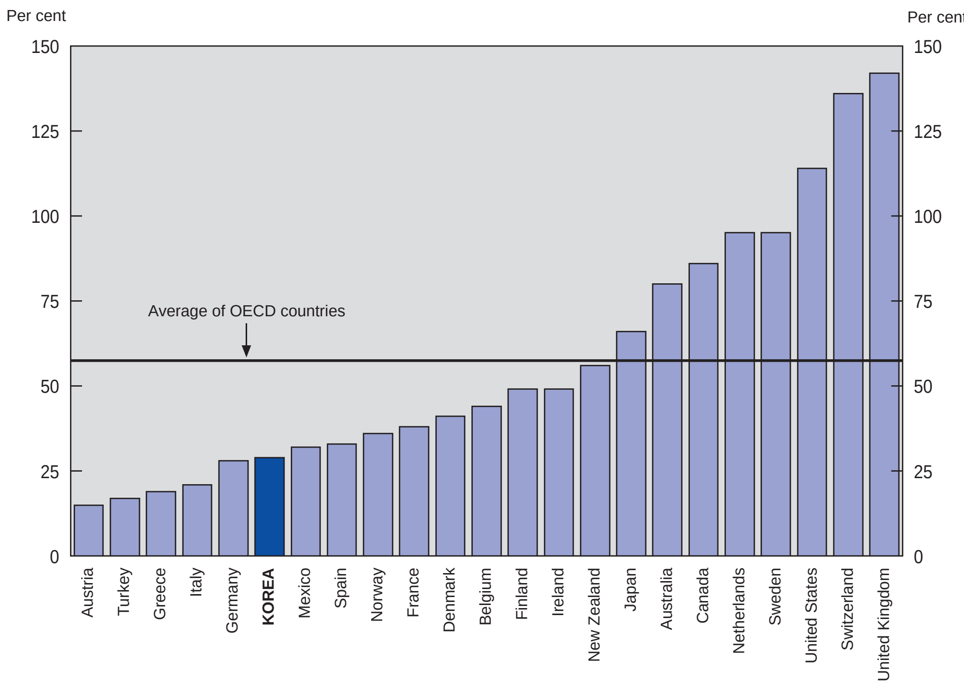
Source: Fair Trade Commission.

chaebols that went bankrupt in 1997, Sammi and Jinro, had family ownership shares well above the average of 9.5 per cent for the top thirty business groups. This suggests that in Korea, where monitoring of management decisions by financial institutions is weak, the advantages of the owner-management model is more than offset by the risk of an abuse of power which often results in unwise business decisions.

The ratio of internal ownership declined from 57 per cent in 1983 to 43 per cent in 1997. The fall in the share held by affiliates reflects the introduction of regulations in 1987 on equity investments by companies in the same business groups. The decline in the family and relatives' share from 17 to 8.5 per cent over the past 15 years is due to the development of capital markets and the chaebols' increased reliance on the stock market to finance their rapid expansion. Still, only about a quarter of the 669 firms affiliated with the top thirty chaebols in 1995 were listed on the stock market. But since larger firms are more likely to be listed, the share of listed equities in the total capitalisation of the thirty-largest chaebols amounted to 62 per cent, up from 57 per cent in 1993. Although chaebol-affiliated firms represented less than a quarter of all listed firms, the increased reliance of the large groups on equity finance has been a factor boosting the importance of the stock market. By 1994, its capitalisation was equivalent to almost 50 per cent of GDP, a figure near the OECD mean. However, the steady decline in stock prices reduced its value to 29 per cent of GDP at the end of 1996, about half of the average of OECD countries (Figure 11). By early 1998, the capitalisation of the stock market was equivalent to only 16 per cent of GDP.

Given the controls on loans to the business groups, the thirty-largest chaebols accounted for only 14 per cent of total commercial bank loans at the end of 1995, while their share of credit from non-bank financial institutions was significantly higher at 36 per cent. Consequently, the chaebols accounted for about a fifth of all loans. In 1997, concessionary loans to large firms in distress boosted the chaebols' share to a fourth. However, the significance of loans to chaebols is greater than this figure implies. Given the cross-debt guarantees between companies in the same group, a practice imposed by banks, the bankruptcy of a single firm could lead to a chain reaction, resulting in a collapse of a business group or requiring large bailout loans from financial institutions. Credit financing has been supplemented by bond issuance: the Korean bond market has grown steadily since the deregulation of issue rates in the early 1980s. In 1997,

Figure 11. **STOCK MARKET CAPITALISATION**
As per cent of GDP at the end of 1996



Source: OECD, *Financial Markets Indicators,* February 1998.

corporate bonds were equivalent to more than 20 per cent of GDP, although maturities are typically limited to three years.

Despite the limits on bank loans and the development of capital markets, debt-equity ratios are exceptionally high in Korea.[54] The high level of debt is due, in part, to the reluctance of the founders of chaebols to rely on equity finance, which would reduce their control. Moreover, the willingness to accept such high leveraging may also reflect the legacy of government-business relations, which is sometimes described as ‘‘Korea, Inc.’’. The government's role as insurer or underwriter of large investment projects created a moral hazard, which encouraged the chaebols to expand their businesses faster and in a riskier manner than otherwise.[55] Given their important role in the economy, the government was reluctant to allow large business groups to go bankrupt. This ‘‘too-big-to-fail’’ argument led it to continue its implicit insurance role and provide bailout loans on an *ad hoc* basis to chaebols on the brink of bankruptcy. From the perspective of the corporate sector, the tight control of the government made it essential to be large enough to exercise influence and exert pressure on bureaucrats and politicians. Sheer size has thus tended to become an objective in itself.

Onerous debt burdens, combined with the financial crisis, have led to widespread insolvency in the corporate sector. By early 1998, nine of the top thirty business groups were insolvent, while almost 30 per cent of the listed companies on the stock exchange were reported to be close to insolvency. The failure of large chaebols is producing a ripple effect on smaller enterprises. The conglomerates are already generally slow in settling their accounts with their suppliers, taking up to six months. This loose payments discipline might deteriorate significantly due to the financial crisis. Unless strict insolvency rules are introduced, a generalised payments crisis might follow on the heels of the credit crunch, with devastating effects on otherwise healthy smaller firms.

Government policies towards the chaebols prior to the crisis

Reducing the concentration of economic power has been a major government objective since the mid-1980s. In particular, the chaebols have been accused of ‘‘reckless diversification’’ and over-investment, which has reduced their economic efficiency. This goal of reducing the role of the business groups has influenced a wide range of policies, including the privatisation of state-owned enterprises, measures to induce private investment in social infrastructure and the deregulation of entry and ownership of certain industries. However, these regulations also tend to protect incumbent firms from new competitors. For example, entry regulations intended to prohibit ‘‘excessive competition’’ and ‘‘duplicative investments’’ in some industries may reduce diversification by chaebols but also limit competition. In addition, restricting certain industries to SMEs may be inefficient.

Four specific policies to limit the influence of the chaebols can be identified. *First,* there have been controls on the quantity of bank lending to the business groups since 1984. *Second,* the Monopoly Regulation and Fair Trade Act was revised in 1987 to prohibit direct cross-shareholdings between any two companies within a chaebol. Total equity investments in other companies (both within the same conglomerate or outside) were limited to 40 per cent of net assets[56] of the investing company. In 1995, this ceiling was lowered to 25 per cent. *Third,* trade between affiliates is regulated to prevent chaebols from assisting weak companies in the group, thereby injuring independent firms competing in the same market. *Fourth,* mutual loan guarantees between companies in the same group were limited to a maximum of 200 per cent of the equity capital of a firm in 1993 and lowered to 100 per cent in 1997.

The government introduced a ‘‘specialisation policy’’ in 1991 to limit the diversification of the chaebols by inducing them to concentrate on core activities. The conglomerates were encouraged to pick core businesses – three in the case of the five-largest chaebols and two for the smaller groups. In these areas, the chaebols were exempted from regulations, such as credit controls and limits on investment. This policy, though, was generally ignored by the groups, who viewed it as interference in their activities and continued to increase the number of their affiliated firms.

The government has also attempted to accelerate the dispersion of ownership of the business groups by promoting the development of capital markets and by using inheritance and gift taxes to prevent wealth from remaining in the families of the founders of the chaebols. Such policies, though, are likely to be effective only in the long run. To accelerate the dispersion of ownership, the Fair Trade Commission has exempted the chaebols judged to have made rapid progress in reducing internal ownership from the restrictions on capital investment and ownership in other firms.

As noted above, the government has intervened frequently in the past on an *ad hoc* basis to provide assistance to chaebols on the verge of bankruptcy. The lack of a well-functioning exit market has created a serious moral hazard problem. To correct this problem, the government adopted a policy of not interfering in the series of bankruptcies of chaebols in the first half of 1997. This new approach, however, was undermined by the government’s decision to assume temporary control of Kia Motors in October, three months after it applied for protection from its creditors.

In retrospect, the regulations imposed on chaebols to limit their size in order to improve their efficiency had unintended negative effects. *First,* chaebols had to design their corporate development, finance and structure as a reaction to government policies. Consequently, they were responding to bureaucratic, as well as market, incentives. *Second*, these regulations were ineffective in limiting the number of companies in the business groups while, at the same time, impinging on the functioning of the market. By restricting competition, such controls probably have had an important effect on the determination of winners and losers. Such interference seems to have strengthened the links between politics and business, thus widening the scope for corruption.

Corporate governance practices in Korea

The role of financial institutions

Financial institutions, especially banks, can be powerful corporate governance agents in their shareholder capacity and/or as debt providers. In Korea, though, the stock market is still dominated by individuals and non-financial entities, while the role of financial institutions is rather modest from an international perspective. Together, financial institutions held about a fifth of the shares on the Korea Stock Exchange in 1997 (Table 18). Commercial banks are the most important institutions, accounting for almost 10 per cent. This percentage, however, is low compared to countries with bank-based corporate financing, such as Japan and Germany, where their share is 25 and 15 per cent, respectively. Insurance companies own 6 per cent of listed companies, with investment in equities accounting for only 10 per cent of their total assets, well below the 30 per cent allowed by law. Share ownership by other institutions is small and, until this year, collective investment institutions such as mutual funds were not allowed. In addition to holding a relatively small share, the role of financial institutions is further weakened by two factors. *First,* actual control rights attached to a large portion of shares of the conglomerates are exercised by securities houses and merchant banks that are affiliated with the chaebol. *Second,* shareholder control has been severely limited due to regulations mandating ‘‘shadow voting’’, *i.e.* an obligation for financial intermediaries to vote in line with other shareholders, except on important issues, such as mergers and acquisitions (M&As).

Table 18. **Share ownership by type of investor**

Per cent of total shares

	1996	1997
Individuals	34.3	39.8
Non-financial institutions	20.6	22.8
Financial institutions	26.1	21.6
Commercial banks	10.5	9.4
Insurance companies	6.5	6.3
Investment trust funds	5.8	2.7
Securities firms	2.2	2.1
Merchant banks	1.0	1.0
Other financial institutions	0.1	0.1
Foreigners	11.6	9.1
Government and other public bodies	7.4	6.6
Total	100.0	100.0

Source: Ministry of Finance and Economics.

The failure of the banking system as a whole to monitor carefully the corporate sector can be seen in Table 19, which compares the financial flows to the Korean corporate sector in the first half of 1996 to those in the first half of 1997. With direct company financing (*i.e.* bonds and equity) drying up and foreign lenders refusing to roll over credit lines, commercial banks and merchant banks almost doubled their rate of exposure to companies, exacerbating their non-performing loan (NPL) problem and helping to precipitate the financial crisis. In particular, merchant banks increased their exposure to companies by eight times during this period. These practices have continued with commercial banks and other financial institutions lending at relatively low rates to the chaebols, despite being fully aware of their financial situation.

The governance of private commercial banks, most of which are former state-owned institutions, is ineffective (see Chapter II). Their ownership is very diffuse and shareholders are generally small. Government regulations have restricted the entry of the business groups into the commercial banking industry; a chaebol's ownership of a bank has been limited to 5 per cent while other individual investors have been allowed to own up to 4 per cent. Due in part to ownership restrictions, commercial banks are weak institutions, subject to almost

Table 19. **Financing of corporations**

Per cent of total

	First half of 1996	First half of 1997
Indirect financing	26.5	47.9
Deposit banks	12.3	23.6
Non-bank financial institutions	14.1	23.6
Merchant banks	0.6	7.0
Insurance companies	1.1	2.1
Trust accounts of banks	4.3	1.8
Other	8.1	12.7
Direct financing	51.3	30.9
Corporate bonds	17.4	14.7
Commercial paper	20.7	8.5
Stock issues	7.9	5.8
Government bonds	1.9	0.7
Foreign borrowing	15.5	9.2
Other [1]	6.8	12.0
Total	100.0	100.0

1. Includes company credit, borrowings from government, accounts payable, allowance for severance pay, etc.

Source: Bank of Korea.

no shareholder discipline. The government, operating primarily through indirect channels, is the only powerful governance agent. Consequently, banks still suffer from the legacy of state ownership 15 years after their privatisation.[57] Moreover, their weakness renders them more vulnerable to capture by powerful debtors. However, commercial banks are now playing a major role in restructuring the industrial sector as well as themselves.

On the other hand, the chaebols are permitted to have large equity stakes in non-bank financial institutions. In 1995, the thirty-largest groups had an average of two financial affiliates, concentrated in securities companies and non-life insurance firms (Table 20). The top five have a large presence in financial markets, with an average of five affiliates. The close links between non-bank finance and industry create scope for conflicts of interest. In fact, it appears that the chaebols have been using their affiliated merchant banks, especially their overseas branches, and to a lesser extent their insurance companies, to finance the activities of other firms within their groups. The rules on intra-group exposure of

Table 20. **Share of non-bank financial institutions owned by chaebols**

Per cent, 1990

Type of company	Top 5	Top 10	Top 30
Life insurance	36.5	36.5	38.4
Marine and casualty insurance	28.0	41.4	44.5
Securities	26.3	36.5	63.1
Merchant banking	12.8	23.3	23.3
Short-term finance	7.2	10.1	29.9
Mutual credit and savings	1.2	1.6	4.7

Source: Yoo and Lim (1997).

the merchant banks appear to be quite lax: credit and guarantees of up to 50 per cent of capital are permitted.[58] Such financing, which enables the chaebols to circumvent the controls on lending by commercial banks, appears to violate the spirit of the law, if not the letter, but has been tolerated and/or ignored by regulatory authorities.

Financial institutions should play a more active monitoring role commensurate with their weight in corporate finance. The past negligence on their part reflects the legacy of state ownership and control, the weakness of competitive pressures and the absence of corporate governance mechanisms to monitor their own performance. Competition, though, will become more intense. Beginning in 1998, foreign banks and securities companies will be able to establish subsidiaries in Korea and to purchase domestic institutions, including banks, albeit still subject to a cumbersome approval procedure and an important discretionary element in allowing foreign takeovers. The Korean government is still considering whether to allow domestic non-financial institutions to participate in the consolidation drive of the banking sector. Increased foreign and domestic competition should improve the governance of financial institutions, while putting pressure on firms to adopt more effective corporate governance practices. Deregulation of financial markets, as noted in Chapter II, should be accompanied by a substantial upgrading of prudential regulation. In particular, given the central role of the chaebol-affiliated merchant banks in the recent financial crisis, it is essential to monitor closely the relationship between financial institutions and the large business groups. Indeed, past abuse of these relations justifies a more stringent restriction on related lending.

The role of other governance agents

In addition to financial institutions, other potential governance agents include individuals, foreigners and the government. The role of these agents, though, is limited by the relatively small amount of shares that are freely circulating. To be listed on the Korean Stock Exchange, a company must float at least 30 per cent of its common stock. In 1997, 61 per cent of the equity of the 776 listed companies was circulating, while the remainder was closely held by the founders, the government, employee stock ownership plans and other corporations, usually affiliates.

As noted above, individuals are the single most important group of investors, with 40 per cent of shares in 1997. The turnover on these shares is very high – almost 80 per cent every year – suggesting that they are not interested in long-term investments in individual companies. However, active trading, reflecting evolving perceptions of the worth of a company, can be an effective form of governance.

The role of foreign investors in corporate governance has until very recently been extremely limited by restrictions on both portfolio investment and foreign direct investment (FDI) in Korea, as well as by a hostile corporate culture. In such an environment, they have not been able to function as potential entrants or raiders, nor as active shareholders in publicly-held corporations. Moreover, there was a massive exodus of foreign investors from Korea in 1997 as they re-evaluated the risk of investing in Asia. With the substantial lifting of barriers on foreign investment in the wake of the crisis (see Chapter II), net foreign investment in Korea resumed cautiously in early 1998. By the end of March, portfolio investment by foreigners accounted for 19 per cent of the shares of companies listed on the stock exchange. In terms of aggregate market value, their share is considerably larger, suggesting a focus on value shares in the face of quantitative restrictions on their holdings in the past. Given restrictions on FDI, portfolio investment, which has a more short-term speculative nature, has been five times larger than FDI in the past. However, direct investment, which usually demonstrates a longer-term confidence in the economic environment and prospects, has picked up recently.

Finally, the state remains a powerful corporate governance agent for public enterprises. Although its role in controlling and rationing investment and credit has diminished, it still owns a non-negligible part of the Korean economy, concentrated in the financial sector, utilities, transportation and communications. In the 1990s, public enterprises have accounted for 9 to 10 per cent of sales and 2 to 3 per cent of employment.[59] Political interference is not unusual in Korean public enterprises, as in most other countries.[60] The government is planning a privatisation programme to follow up on earlier efforts that began in 1987 with the sale of minority stakes in Pohang Iron and Steel Company (POSCO) and the Korea Electric Power Corporation (KEPCO). In November 1996, the government revised the 1993 privatisation plan, which had faltered due to the weakness of the stock market and the low profitability of some of the companies scheduled to be sold.[61] Moreover, it has passed a new law to ‘‘depoliticise’’ public enterprises in order to improve the behaviour of the state as owner. Open competition will be used to appoint CEOs, whose performance will be monitored by non-executive directors. Performance-related pay and independent auditing are also part of the new package. While these are steps in the right direction, any gains from their implementation might be easily lost in the absence of a clear separation between the government’s commercial and regulatory functions, of strong regulatory institutions and of a credible time frame for the privatisation of the enterprises concerned.

The response to the economic crisis

The reforms introduced by the government

The government took steps in 1996 to address some of the weaknesses in corporate governance practices. In the wake of the crisis, corporate reform has become one of its top priorities, leading to a wide range of new initiatives in late 1997 and early 1998. Reforms are focusing on five areas:

- strengthening the rights of shareholders, particularly those with minority holdings in a company;
- abolishing ‘‘incestuous’’ relationships between chaebol affiliates and encouraging independent behaviour;
- promoting transparency through enhanced disclosure rules;

– improving exit mechanisms through a more open market for corporate control and better insolvency and asset disposal procedures.

An important element of the new government's policy is its declared intention to establish a new policy paradigm in addressing corporate issues based on enhancing competition and establishing rational incentive structures. Rather than imposing changes on the business sector by direct or indirect fiat, it will put in place a framework to facilitate change, including an orderly exit procedure for those failing to adapt. The direction and sequencing of change will be left to the companies themselves. Notwithstanding the government's good intentions, it is not yet clear whether this new paradigm has filtered down to the civil servants actually implementing policies on a day-to-day basis. Indeed, it might take some time for lower level officials as well as company managers to realise that the government's ''priorities'' are no longer binding orders and that if their strategies fail, they will be taken over or forced out of business.

Enhancing shareholder protection

Korean law provides protection for shareholders.[62] They are given adequate rights of pre-emption when new stock is issued and of appraisal when their situation fundamentally worsens. Listed companies cannot restrict the mobility of shares through their articles of association and the system of ''one share, one vote'' guarantees a level playing field among common stock holders. In addition, the so-called ''shadow voting'' regulation – the obligation for financial intermediaries to vote with other shareholders, except on important issues like M&As – is to be abolished. However, the voting rules for listed companies should be further upgraded. Proxy mechanisms are expensive and, therefore, rarely used. A postal ballot mechanism should be introduced in order to allow the exercise of minority voice and to make proxy contests cheaper. Insider trading rules are inadequate and rarely applied, leading to widespread equity market manipulation by insiders, including major shareholders and affiliates. These rules must be strengthened along with their enforcement, which is now the responsibility of the unified Financial Supervisory Commission (FSC)[63] that was created in April 1998.

Changes in the Securities and Exchange Act in 1997 and early 1998 have simplified access to redress mechanisms by minority shareholders in listed companies. In particular, derivative suits[64] in the most important cases now only require 0.01 per cent of common stock. The current six-month deadline for derivative suits is adequate, provided that the time limit is measured from the point when the relevant facts have been disclosed to shareholders. Joint shareholders' suits against the company, however, are still not possible in Korea. Allowing such suits could further lower the cost of judicial protection for small shareholders.

The responsibility of company directors is one of the weak points of the Korean corporate governance system. The company law does not adequately reflect the fact that the main decisions in chaebol-affiliated companies are taken by the planning and co-ordinating office directed by the founder or major owner of the chaebol. The authority of directors of such companies is fictitious and proper accountability is thus absent. Fiduciary duties, especially the duty of loyalty to the company, have until now been fairly vague. They need to be defined more clearly in the law and more vigorously enforced. The existing criminal law provisions regarding the willful breach of fiduciary duty to the company by directors have rarely been enforced by prosecutors. In addition, there is no limitation on the number of board seats that one person might hold. Interlocking directorates appear to be another element of chaebol management which deprives minority shareholders of their rights. A rule limiting interlocking directorates, as is the case in France and Italy, would be beneficial.

Another area of major concern is the provisions in the company law related to conflicts of interest between a company and its directors and management that arise from the major transactions of the company, especially those with important shareholders. Most of these transactions, including the disposal of major assets, loans, collateral and other guarantees, are under the responsibility of the board of directors, with minimum information to shareholders. Transparency should be considerably increased by requiring specific prior disclosure of such transactions, in addition to reporting them in company accounts. Shareholders, as well as creditors in certain cases, should be given the power, within reasonable time limits, to stop these transactions before they become irreversible.

One of the most important changes announced in the wake of the crisis is the requirement that the boards of listed companies include at least one outside director as of fiscal year 1998. Beginning in 1999, at least a fourth of the members of the board of a listed company must be outside, independent directors.[65] In contrast to ''normal'' directors, outside directors cannot sit on more than three corporate boards. However, there is no special procedure for nominating or appointing outside directors. Furthermore, these directors have not been assigned special tasks, such as heading the remuneration and audit committees or ensuring an arm's length relationship between the corporation and its management. Such functions should be assigned to outside directors to allow them to influence effectively the way companies are run. Moreover, outside directors have very little independence in practice unless their power base lies with outside shareholders. If they have to rely on the nomination and/or vote of the ''inside'' group, they will hardly ever be independent. Introducing a cumulative voting system, which stipulates that a minority of directors can be elected by a minority of shareholders, would help ensure the presence of such directors and their real independence.

Executive remuneration is not transparent in Korea. Increased transparency in this area would improve managerial accountability and enhance shareholder value. As regards incentives, stock options became available in 1997 but are still not very popular. More widespread and transparent use of this and other incentive-based compensation schemes might enhance corporate profitability. In any event, both the amount and the structure of executive compensation, as well as major changes affecting it, should be visible to investors in listed companies.

Promoting the restructuring of business groups

One of the most radical steps taken by the government in the wake of the crisis was the prohibition of new intra-group debt guarantees and the obligation to eliminate existing guarantees by the end of March 2003.[66] These guarantees had a domino effect, leading to a string of chaebol bankruptcies in unrelated sectors in 1996 and 1997. The outright prohibition of cross-debt guarantees will require a fundamental shift in the operation of banks, which have relied on these rather than developing the necessary credit risk skills. Such a change in bank behaviour will not be easy and may lead to a further weakening in the quality of loan portfolios in the short term. Moreover, it may create difficulties for the chaebols in ensuring adequate financing as banks apply stricter credit standards. In the medium term, though, the efficiency gains from this reform should far outweigh these adjustment costs.[67] Once greater transparency is established, such guarantees could be allowed as in other OECD countries.

In the process of restructuring, it might be helpful to allow legal consolidation between companies belonging to the same chaebol by permitting ‘‘going private’’ transactions. It is now possible for chaebol-affiliated companies to acquire other firms at a level superior to the 25 per cent of their net assets previously allowed. Many of the business groups argue that another positive reform in this regard would be to allow a holding company structure. The government has recently announced that holding companies will, in fact, be allowed but only under very restrictive conditions which will in practice rule out this option for virtually all chaebols in the short run. Moreover, the ownership structure of the chaebols is so complicated that a rapid transformation into holding companies does not look feasible in the short term. Consequently, increasing transparency and strengthening the concepts of a director’s duty to the corporation are still the most effective tools to encourage restructuring. Even so, these are not reasons for maintaining the currently very restrictive conditions on the formation of holding companies.

Finally, stronger tools may be necessary when the central management of a chaebol flagrantly disregards the interests of individual companies and its shareholders in the name of the group. Some cases may require going beyond the limited liability principle in joint stock corporations. In Korea, such an approach, sometimes referred to as ‘‘piercing the corporate veil’’ is not an accepted legislative or judicial tool, unlike in other OECD countries such as the United States, Germany and France.

Increasing the transparency of corporate accounts

Increased transparency is the most important tool for reform and restructuring in the corporate sector. Although Korean ‘‘Generally-Accepted Accounting Practices’’ (GAAP) are generally consistent with international accounting standards, important loopholes remain in the accuracy, timeliness, depth and veracity of reported information. A number of improvements were introduced in the second half of 1997, including:

- business-line accounting (segmented reporting) in the annual and semi-annual reports;
- a requirement that these reports comment on financial results and operations, give more detail on internal audit and control systems, and

provide forward-looking information on operational plans and capital expenditures;
– a strengthening of reporting of off-balance-sheet transactions, such as derivatives, intangible assets and debt guarantees.

The most important accounting reform is the requirement for the chaebols to produce combined financial statements (CFSs) beginning in fiscal year 1999.[68] In the absence of CFSs, the extremely complicated web of intra-group loans, guarantees and other transactions has remained opaque to most investors.[69] The new system is based on a broad definition of what constitutes an affiliated company, which will in principle make the statements very comprehensive. They will include the combined balance sheet, income and cash-flow statements, as well as footnotes reporting intra-group loans, loan guarantees and other major transactions. It is important that information related to these transactions be complete, adequately explained and put in a proper historical context for investors to evaluate.

Another area where standards need to be tightened is accounting of asset values, especially securities in financial industries. Although the Korean GAAP requires mark-to-market accounting for marketable securities, financial institutions were allowed to recognise only partial unrealised holding gains and losses from these securities. Since book values are often unrealistic, using mark-to-market accounting is important to allow investors to assess the market value of a company's assets.

The government has also moved to enhance the independence of external auditors responsible for verifying company accounts. Three changes have been introduced since the end of 1996. *First,* the minimum contract for auditors was extended to three years. *Second,* shareholders with more than 3 per cent of common stock were restricted from executing their voting power above that level in the appointment of auditors. *Third,* legislation was passed in 1998 requiring the creation of auditor selection committees in listed companies and chaebol-affiliated firms that must prepare CFSs.[70] This is an important step in the right direction. Finally, further reform is needed in the regulation of the accounting/audit profession in order to guarantee the fairness and veracity of accounts. Although sanctions of auditors who fail to adequately perform their duties were increased in February 1998, institutions in this area still need to be strengthened.

Improving exit mechanisms

- The market for corporate control

In a broader sense, a market for corporate takeovers is the most powerful mechanism by which inefficient management can be disciplined. In Korea, hostile M&As were not allowed and even friendly M&As were limited to cases where the total assets of the companies involved did not exceed W 2 trillion. However, by May 1998, all forms of M&As, including hostile takeovers, were fully liberalised.

One of the main ways to activate a market for corporate takeovers and to promote widespread corporate restructuring is to allow foreign investment – either portfolio or, more importantly, direct – in Korean enterprises. The government has recently opened several industries, including building, leasing, securities, future brokerages and golf courses, to FDI. However, FDI in 31 business lines remains prohibited. In addition, the ceiling on total foreign shareholdings in individual companies was abolished in May 1998. Moreover, the market for corporate control was fully opened up to foreigners by revoking the rule which had limited holdings acquired without the approval of the board of directors to only 10 per cent. As a result, foreign investors can now acquire 100 per cent of a company without approval by the board. Finally, the government is planning to set up a genuine ‘‘one-stop shop’’ for foreign investors, who are currently bogged down by excessive red tape, by re-inventing the Korea Trade and Investment Promotion Agency (KOTRA).

Tax and labour legislation has also been streamlined in recent months to facilitate mergers, although more remains to be done in the area of taxes. Another important measure to be implemented this year will allow corporate spin-offs, which will make it easier for companies to break themselves up and thus become more digestible by prospective buyers.

However, in its desire to open the market for corporate control, the government recently abolished two important stock market rules. *First,* it abolished the rule requiring statutory tender offers in the case of a purchase of 25 per cent or more. *Second,* disclosure of incremental acquisitions of stakes larger than 5 per cent is no longer required. Although this may facilitate takeovers in the short run, in the longer term, the market may become less transparent and lose depth, as portfolio investors, especially foreigners who face higher information costs, might decide to stay away from Korean equities. Many OECD countries, such as the United Kingdom, France, Italy and Germany, still consider such restrictions to be useful.

- Insolvency

The legal framework and procedures that deal with insolvency are inadequate. While more than 17 000 cases of insolvency were reported in 1997 by the Bank of Korea, only 490 were filed before the court (Box 2). Nation-wide, only 41 judges handle bankruptcy cases and, with the exception of Seoul, they are not specialists in commercial law. Lengthy proceedings, often lasting several years, invite strategic and opportunistic behaviour by the debtor, thus making insolvency an unattractive course of action to creditors.

The government took a first step in addressing these issues by amending the bankruptcy law in February 1998. From a procedural point of view, the legal changes make it easier for a court to accept and to hear cases, even when the file is not complete, and it facilitates the consolidation of related cases under the same court, such as when a case concerns different companies belonging to the same chaebol. In addition, it shortened the deadlines for the approval and submission of re-organisation plans to between 12 and 18 months. Another welcome change concerns the possibility of switching from the composition or re-organisation options (see Box 2) to bankruptcy proceedings.

Much, however, remains to be done if Korea is to have a modern insolvency framework on which domestic and foreign investors can rely with sufficient confidence. *First*, the time limits should be further shortened. *Second*, the replacement of the three options presently available by a unitary procedure[71] might alleviate a lot of the remaining procedural hurdles and further streamline the process to a considerable extent. *Third*, the trigger mechanism for requiring insolvency proceedings to begin should be addressed. Although the 1998 amendment has made it easier to file a petition for voluntary composition or re-organisation when insolvency is imminent, debtors are not required to file, under civil and/or penal sanctions, until cash-flow insolvency reaches certain thresholds. Requiring debtors to initiate composition or re-organisation proceedings before reaching insolvency might be helpful in imposing tighter financial discipline and in encouraging debtors to restructure rapidly.

Box 2. The Korean framework for insolvency

- Bankruptcy, a procedure involving straightforward liquidation of the debtor's assets by an independent court-appointed liquidator. Only 38 bankruptcy petitions were filed in 1997.
- Composition, a settlement procedure between the debtor and creditors in which the court plays a rather minor role, while the debtor stays in possession of its estate. This is the most popular method, with 322 cases in 1997. It is, however, available only to enterprises that owe less than W 250 billion. This option is limited to smaller enterprises on the grounds that it offers very few guarantees to the creditors.
- Corporate re-organisation, a procedure close to Chapter 11 of the US Bankruptcy Code, in which the court directs the creditors to make a deal with the debtor. Under this debt work-out procedure, the debtor's estate is administered by an external administrator, who, however, is usually under the influence of the debtor. Two-thirds of the creditors have to approve the re-organisation plan, whose implementation period can last up to 10 years.

The creditors and the debtor may initiate any of the procedures provided there is evidence of cash flow insolvency, *i.e.* when debts are not paid as they become due. The debtor, though, is under no obligation to file. In all three procedures, the court can (and usually does) order a moratorium on individual claim satisfaction outside the insolvency framework, which, as noted, may last for a long period of time. Setting off claims against the debtor is possible, unless there was bad faith involved.

Overall, the current system gives weak incentives to both debtors and creditors to initiate insolvency proceedings. In the re-organisation procedure, it gives the courts the possibility to choose an independent administrator or the debtor's management or both.[72] This makes it less attractive for large debtors, who cannot file for composition, to file for protection since they run the risk of losing control. As for creditors, they are never happy to open bankruptcy proceedings, which trigger a moratorium on their claims and, in the case of banks, increase their provision requirements by imposing re-classification of the loans.[73] For these reasons, it might be worth allowing a straightforward debtor-in-possession system in re-organisation proceedings in conjunction with a mandatory trigger for the debtor. This should be accompanied by a substantial shortening of deadlines and a streamlining of procedures, unless the creditors are strongly opposed.

- Asset disposal

Unsatisfied claims, including those that are non-performing, might not result in insolvency but lead instead to individual collection proceedings, including foreclosure and sale of collateral. In Korea, this is a streamlined process involving the courts, which takes place within reasonable time limits. If the auction fails to raise the amount of the claim, the title to the underlying security is transferred to the creditor. Collection of NPLs in the financial sector is managed by a statutory monopoly, the Korean Asset Management Corporation (KAMCO). In the past, KAMCO operated on a commission basis. However, in November 1997, KAMCO was entrusted with a fundamental role in financial sector restructuring – the management of the bailout fund and the purchase of non-performing assets from the banks at an unprecedented scale, scope and speed (see Chapter II).

Restructuring in the corporate sector

Given the far-reaching reforms introduced in the wake of the crisis, the chaebols have to adapt rapidly. In particular, they need to restructure their operations, focus on core competencies and shed a large number of their assets. Moreover, it is important to shift radically their capital structures towards more equity. This implies a need to become transparent in their management style and corporate structure, to focus on shareholder value and to yield a commensurate degree of corporate control to outsiders.

Two of the largest chaebols, Samsung and LG,[74] have announced important changes in their management structures. Such reforms may eventually transform chaebols into a cluster of independent subsidiaries, sharing some intangible assets, mainly a brand name, and a common philosophy. In the past, the centralised structure of the chaebols did not always correspond to the needs of its constituent companies. In the future, the chaebol-affiliated companies may be viewed increasingly as autonomous entities. LG and Samsung, for example, have adopted plans for restructuring internal cross-holdings along industry lines so that the organisational structure corresponds to the different areas of economic activity of the group. Most importantly, both groups have abolished the office of the president, the real centre of power within the chaebol. The founder, his family and relatives will now have to be members of the boards of the constituent companies in order to exercise their rights. Co-ordination within the chaebol will be conducted through weekly meetings of company presidents. Both of these chaebols have professed a change of philosophy towards increasing shareholder value.

Following discussions with the government and unions, the large chaebols have announced that their business strategies will focus on three to six sectors. Nearly all of the conglomerates are actively looking for foreign partners for fresh equity injections and assistance in shoring up their market shares in an increasingly competitive market environment. It seems, however, that ‘‘cultural’’ issues might stand in the way of otherwise efficiency-enhancing deals. With the first generation of founders still controlling some chaebols, asking prices sometimes reflect emotional attachments – and possibly ‘‘hidden’’ benefits – rather than market-based assessments of the net present value of companies. Some major deals, such as between Daewoo and General Motors in the automotive sector, have already been announced. Many other deals seem to be under consideration, but it may take some time before foreign partners become acceptable to chaebol founders and managers.

Chaebol management is not the only party whose behaviour is changing. Outside shareholders are becoming heard in annual general meetings. Anecdotal evidence suggests that management is now under pressure to discuss more thoroughly their past and present policies. A couple of proxy fights, previously unknown in the Korean corporate world, have occurred. In addition, at least one major transaction between two subsidiaries within a chaebol was stopped by minority shareholders in recent months. These trends will undoubtedly intensify with the suppression of ‘‘shadow voting’’ and with freer entry by foreign institutions.[75]

It is clear that a fundamental improvement in corporate governance requires, above all else, a change in the attitudes of the different players. Management should concentrate on serving the company as a whole and on increasing all shareholders’ value. Minority shareholders must also learn to exercise their rights and to actively monitor the way management runs corporations. If the current major shareholders are genuinely interested in letting the first change take place, it is possible that the chaebol will evolve over a relatively short period of time from inefficient corporate monoliths to individual entrepreneurial companies. The existence of powerful vested interests in the current arrangements may, however, raise considerable obstacles.

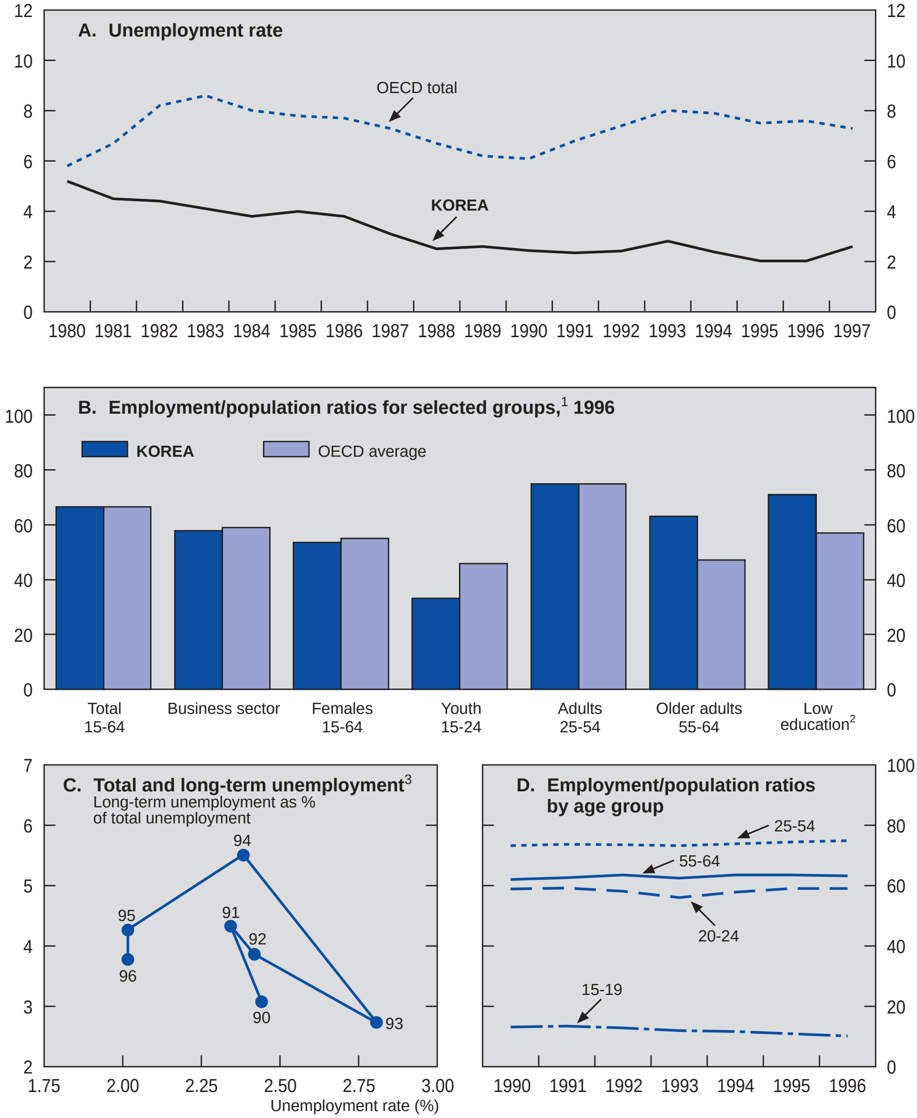
IV. Implementing the OECD Jobs Strategy

Until last year's economic crisis, Korea's labour market had been characterised by rapid employment growth, rising participation rates and low unemployment. In 1996, the employment to population ratio matched the OECD average while the unemployment rate was the lowest at 2 per cent (Figure 12). This outstanding performance, though, has deteriorated markedly since the economic crisis at the end of 1997, as unemployment increased sharply in the face of a large number of bankruptcies and declining domestic demand. Consequently, some labour market policies and practices that were beneficial during a period of 8 per cent average annual economic growth may be inappropriate in the current context. In particular, employment protection laws, which had virtually prohibited layoffs, made restructuring in the business sector more difficult and costly. Moreover, the very limited coverage of the social safety net and unemployment insurance increased the social costs associated with the rising number of jobless persons. In this new environment, the government needs to adapt its policies quickly to deal with the impact of the economic crisis on the labour market, while retaining those elements, such as strong work incentives and high levels of education, that were responsible for its excellent performance during the past twenty years. In a longer-term perspective, it is important to adopt policies that promote economic growth and job creation.

The immense challenge represented by high and persistent unemployment in most OECD countries was recognised in the OECD *Jobs Study,* which set out a broad programme of action to tackle it. This programme is increasingly relevant to Korea given recent developments in its labour market. Consequently, this chapter, one in a series published in OECD *Economic Surveys,* follows up the OECD *Jobs Study* with specific recommendations for Korea. The first section provides an overview of Korean labour market performance. In the following section, policies in the areas identified in the *Jobs Study* as key to labour market

Figure 12. **KEY DEVELOPMENTS IN THE LABOUR MARKET**

Per cent



1. Defined as the percentage of each working-age population group.
2. Completed less than upper secondary education, 1995.
3. Long-term unemployment is defined as individuals looking for work for one year or more.

Source: Ministry of Labour; OECD.

performance are discussed. Some of these policy areas, such as employment flexibility and the tax and transfer system, have become key issues in the wake of the crisis. This section also discusses other issues that are less closely linked to labour market issues. Nonetheless, policies in these areas – such as technology and innovation and product market competition – will have a major impact on the performance of the Korean economy and its labour market over the longer term. The final sections address recent policy initiatives and the scope for further action.

Labour market and employment performance

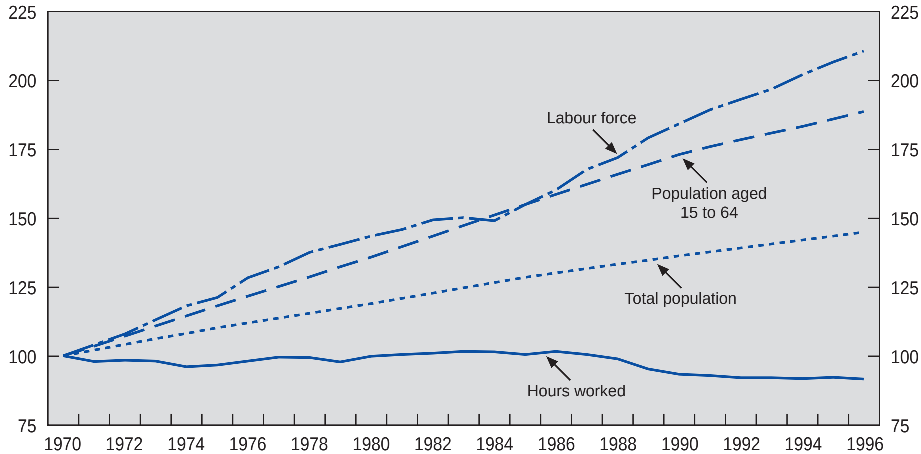
The expansion of the labour force...

The rapid growth of Korea's labour force was a key factor in its high-growth performance. The size of the labour force more than doubled between 1970 and 1996, reflecting a 2.5 per cent average annual increase in the number of working-age persons (15 to 65) (Figure 13). Population growth was augmented by the upward trend of the labour force participation rate (Figure 14). Nevertheless, Korea's overall participation rate remains below the OECD average for two reasons. *First,* the rate for women remains relatively low, particularly among married women and those with high levels of education. Among those who do enter the labour force, careers are often interrupted, voluntarily or involuntarily, for marriage or childbirth, resulting in a M-shaped pattern of the participation rate across age groups (Figure 15). *Second,* the participation rate of young adults in Korea is relatively low due to high enrolment rates in tertiary education. In 1996, only about a third of the population between the ages of 15 and 24 were in the labour force, compared to the OECD average of slightly more than half (Figure 14, Panel B). The low participation rate of young adults, though, is partly offset by relatively high rates for older workers. The economic crisis at the end of 1997 has reversed the upward trend in the participation rate. By April 1998, the rate was 2 percentage points below its year-earlier level.

Some of the increase in the labour force, though, has been offset by a 10 per cent decline in average working hours per person during the past decade, reflecting the reduction in the standard work week from 48 to 46 hours in 1989 and to 44 hours in 1992. Nevertheless, annual working hours in 1996 were about 50 per

Figure 13. **GROWTH OF POPULATION, LABOUR FORCE AND WORKING HOURS**

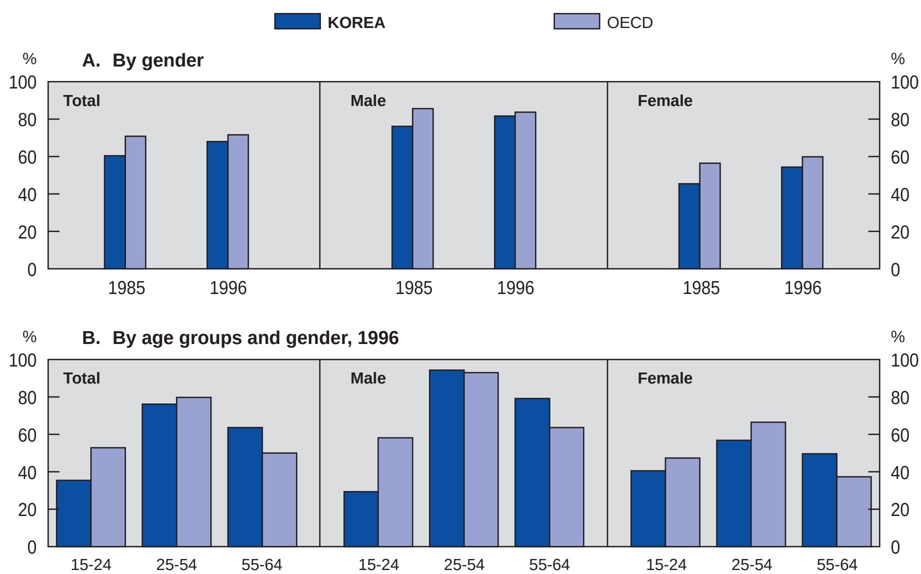
1970 = 100



Source: Ministry of Labour.

Figure 14. **LABOUR FORCE PARTICIPATION RATES**

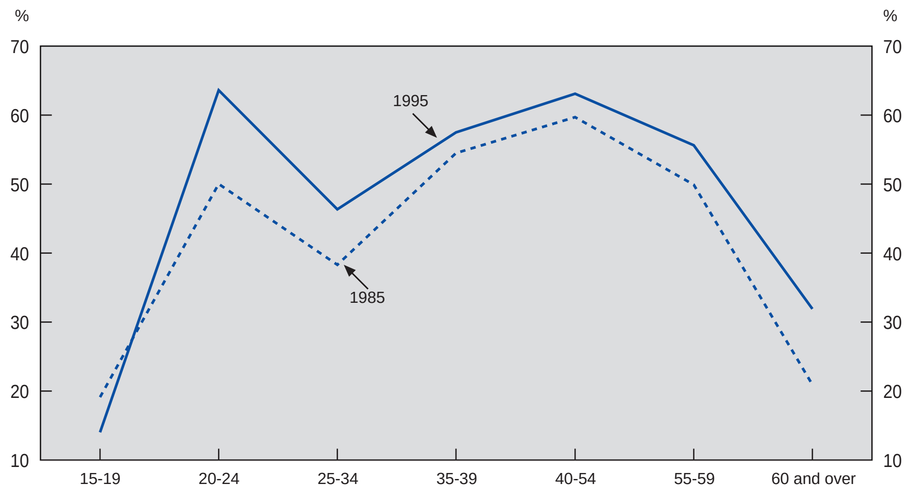
Economically-active persons as percentage of 15 to 64 age group



Source: Ministry of Labour and OECD, *Employment Outlook.*

Figure 15. **THE FEMALE LABOUR FORCE PARTICIPATION RATE**

Per cent



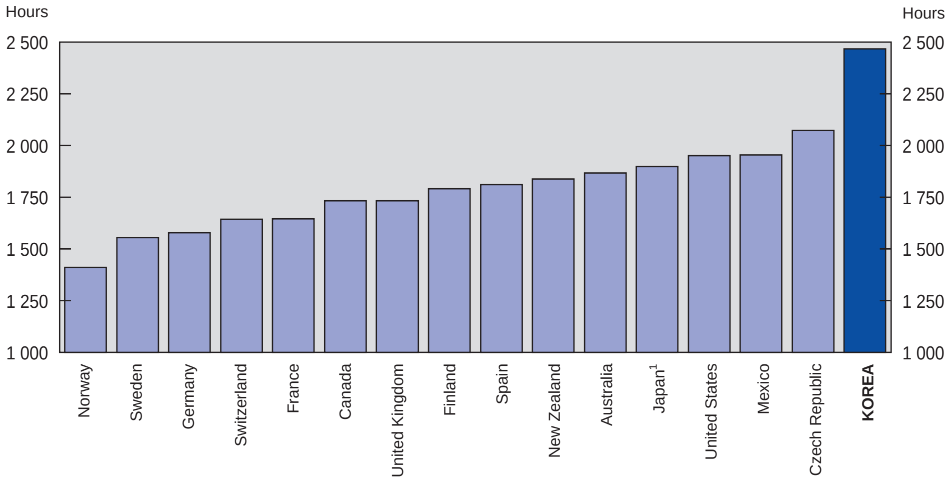
Source: Ministry of Labour.

cent greater than in France and Germany and more than 25 per cent above the United States and Japan[76] (Figure 16). In addition to the 5½ day work week, Korean workers receive less vacation.[77]

The increase in the size of the labour force has been accompanied by an exceptional improvement in its quality. The proportion of the population with only a primary school education or less declined from three-fourths in 1970 to a third in 1990 (Figure 17). Participation in lower secondary school became universal by 1985 (Figure 18), while enrolment rates for upper secondary school and tertiary education have surpassed OECD norms. The expansion of tertiary education in 1981 doubled the number of university entrants and, by 1995, enrolment in higher education was slightly above half of the relevant age group. This boosted the share of the adult population (25 to 64) with a university education to 18 per cent, the third-highest ratio after the United States and the Netherlands and well above the OECD mean of 13 per cent. In one generation, the level of

Figure 16. **ANNUAL WORKING HOURS**

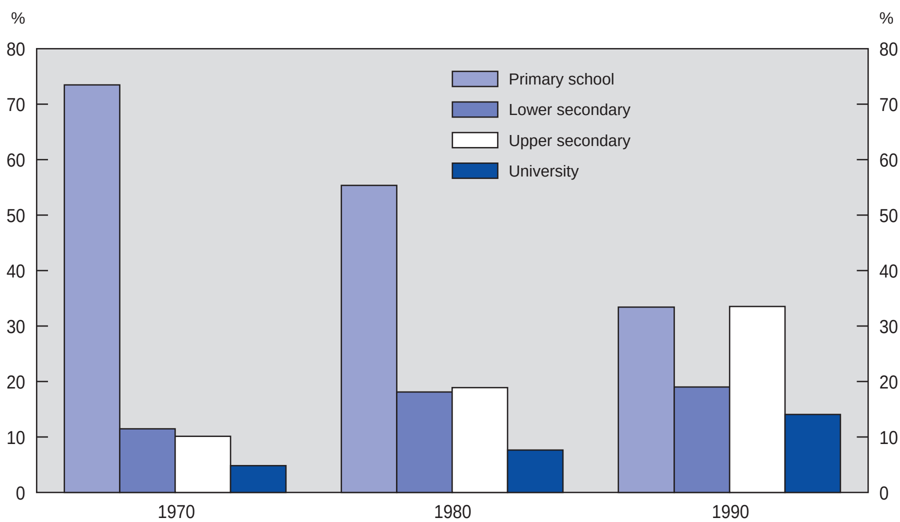
Hours actually worked per person in employment in 1996



1. 1994.

Source: OECD, *Employment Outlook,* and Ministry of Labour.

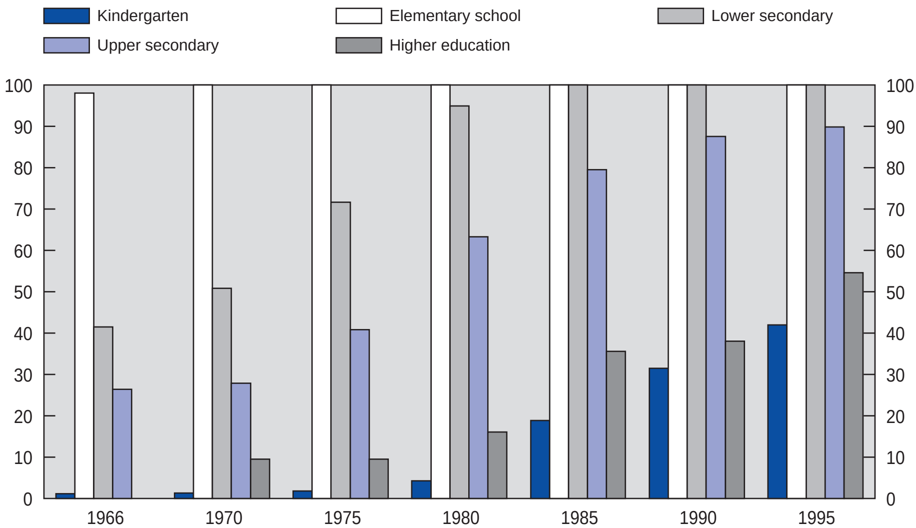
Figure 17. **EDUCATIONAL ATTAINMENT OF THE POPULATION**



Source: Korea Labour Institute (1995).

Figure 18. **SCHOOL ENROLMENT RATES**

Per cent



Source: Ministry of Education.

educational attainment in Korea has surpassed that in the most advanced countries.

... has allowed a sharp expansion of employment...

Employment increased at a 3 per cent annual rate between 1970 and 1995, boosting the employment to population ratio to the OECD average of 67 per cent in 1996 (Figure 12, Panel B). Korea, though, is different from OECD averages in several respects. *First,* the employment to population ratio in 1996 was lower for young adults and higher for older persons. *Second,* a high proportion of persons with low levels of educational attainment were employed in Korea; more than 70 per cent of those who failed to complete upper secondary school had jobs compared with an average of less than 60 per cent in the OECD area. Consequently, this group accounted for only a fifth of unemployment in Korea.

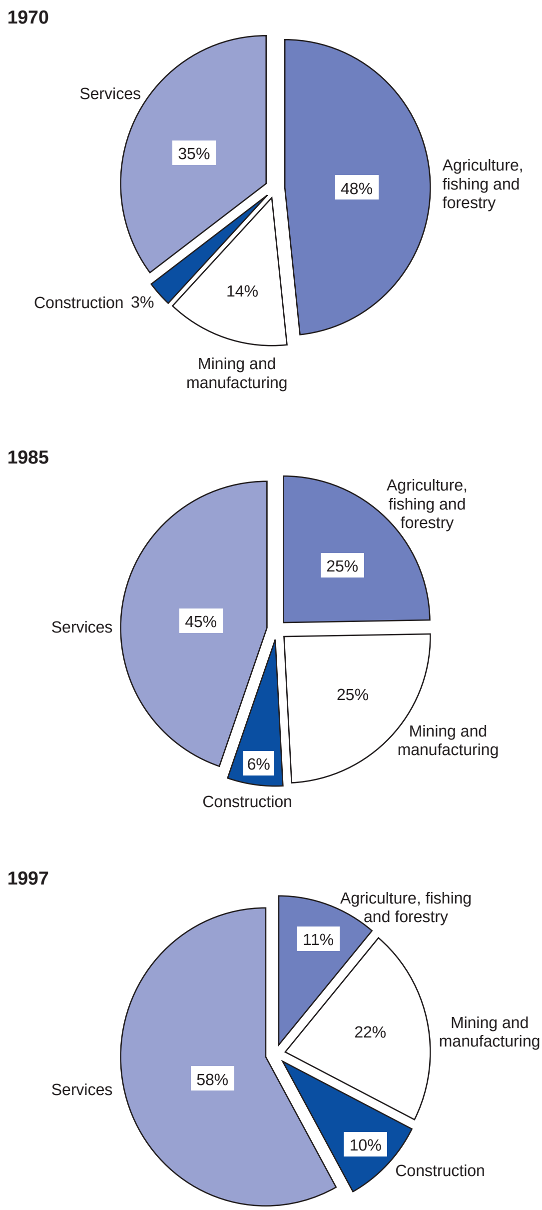
The Korean labour market has effectively mobilised the rural population for jobs in the rapidly-growing manufacturing and service sectors. Consequently, the share of employment in agriculture, forestry and fishing declined from almost half in 1970 to 11 per cent in 1997 (Figure 19). The shift of surplus labour out of farming is almost complete; the rural share of the 20 to 24 age group has fallen to 6 per cent, down from 27 per cent in 1980.[78] While the manufacturing sector's share of employment has fallen from its peak in 1988, the service sector continued to expand rapidly. Finally, the construction industry has accounted for a relatively large and growing share of employment.

As in other OECD countries, small firms account for a large share of employment. In 1995, 40 per cent of employees worked at companies with fewer than 10 workers, while another 22 per cent worked at enterprises with between 10 and 49 employees. But compared to the most advanced OECD countries, Korea has a high number of self-employed and family workers. Excluding agriculture, these two categories accounted for almost 30 per cent of the labour force[79] in 1995, double the share in Japan and four times as high as in the United States, France and Germany (Figure 20). After declining between 1970 and 1990, the share of such workers has risen modestly in the 1990s due to the fast growth of retail and wholesale trade. Their share increased further in early 1998 as the decline in dependent employment was divided between a rise in the number of self-employed and a fall in the participation rate.

Part-time work is relatively unimportant in Korea, accounting for only 5 per cent of total employment compared with the OECD average of 15 per cent in 1996 (Table 21).[80] Moreover, part-time employment, which is concentrated in the agricultural and service sectors, has remained stable since 1990 in contrast to the increasing trend in other OECD countries. While the part-time workforce tends to be predominately female in most OECD countries, only 61 per cent of such workers in Korea are women. Daily workers, defined as those with contracts of less than one month, are more important in Korea, accounting for almost 14 per cent of employees in 1996.

Foreign workers, including illegal residents, accounted for about 1 per cent of the labour force in 1997 according to official estimates. Given shortages of labour,[81] particularly in so-called ''3-D jobs'' (dirty, difficult and dangerous), Korea has allowed foreign ''trainees'' to work at small manufacturing firms since the early 1990s. In addition, Korean firms operating overseas are permitted to

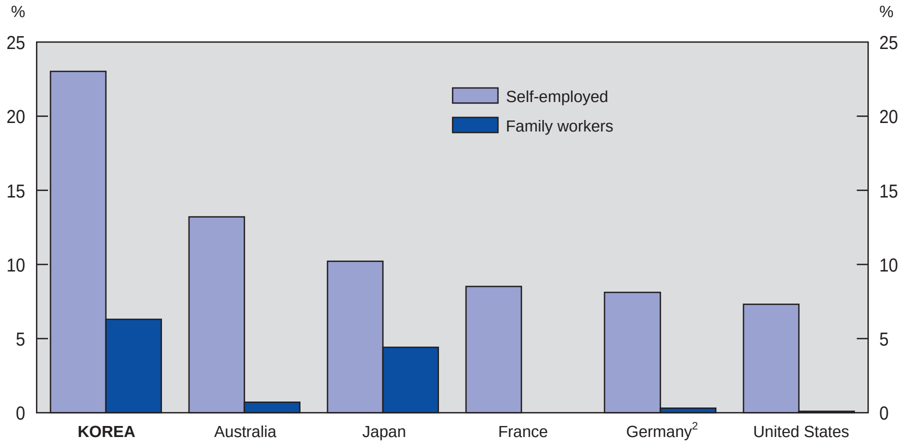
Figure 19. **SECTORAL COMPOSITION OF EMPLOYMENT**



Source: National Statistical Office.

Figure 20. **SELF-EMPLOYED AND FAMILY WORKERS**[1]

In 1994, per cent of labour force, excluding agriculture



1. Aged 15 and above (16 and above for the United States).
2. 1993.

Source: Korea Labour Institute (1996).

send employees to Korea for training. In July 1997, there were about 60 000 trainees working legally in Korea, plus about 15 000 foreign specialists and professionals. Another 24 000 trainees had left their assigned work sites while some 130 000 persons had stayed beyond the expiration of their visa. The vast majority of this group is believed to be working. In the wake of the economic crisis, however, there appears to be a net outflow of foreign workers.

... keeping the unemployment rate low

Unemployment had been on a declining trend, falling from an average of 4 per cent in the 1970s to 3.5 per cent in the 1980s and to 2.3 per cent between 1991 and 1997.[82] Adjusted for the impact of cyclical fluctuations, the rate is estimated to have fallen from 4 per cent in the early 1980s to about 2¾ per cent in the mid-1990s, reflecting the smaller share of young adults, who tend to have higher unemployment rates, in the labour force.[83] Thus, the structural rate in Korea had been on a par with that in Japan and Switzerland and substantially below that in other OECD countries, where it ranges from 4 to 20 per cent.

Table 21. **Part-time employment**[1]

1996

	Proportion of total employment	Women's share of part-time employment
Hungary	3.1	69.6
Czech Republic	3.3	67.4
Korea	**5.1**	**61.0**
Turkey	5.8	63.7
Spain	7.5	75.1
Greece	8.0	62.5
Finland	8.3	65.1
Portugal	9.2	72.9
Luxembourg	10.4	87.3
Italy	10.5	71.5
Austria	10.9	86.4
France	12.5	78.7
Ireland	13.2	73.2
United States	13.2	69.8
Germany[2]	14.2	86.3
Belgium	14.6	82.4
Sweden	14.8	76.5
Mexico	14.9	62.4
Denmark	16.5	65.9
Canada	18.9	n.a.
United Kingdom	20.3	85.7
New Zealand	22.5	74.0
Japan	23.0	66.3
Switzerland	25.0	80.6
Iceland	25.4	84.4
Norway	27.9	76.0
Netherland	29.3	77.2
Australia	31.8	62.6
Unweighted average	15.0	73.5

1. Employees who work less than 30 hours a week.
2. 1995.

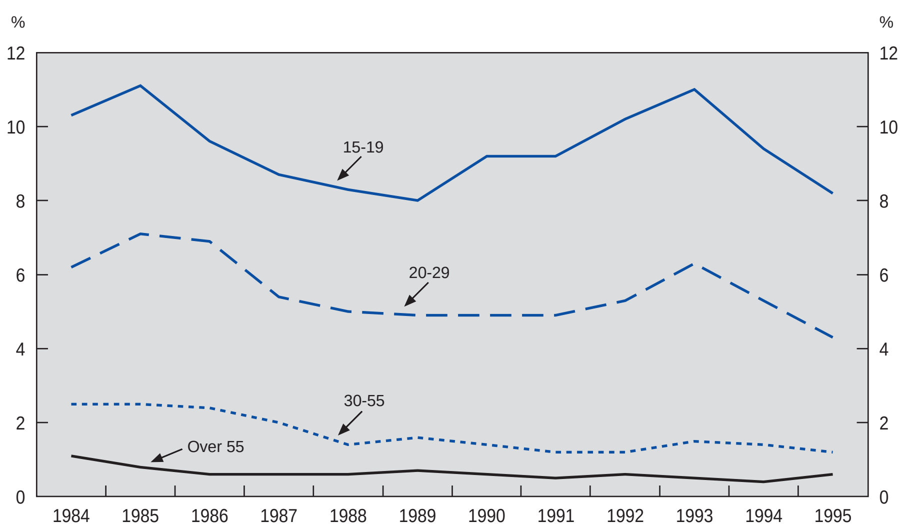
Source: OECD, *Employment Outlook*.

Moreover, the rate in many European countries has increased significantly in recent years. In contrast to the ''hysteresis'' observed elsewhere, unemployment has quickly returned to its natural rate following past cyclical downturns in Korea.

Unemployment has been concentrated among young workers; the 20 to 29 age group accounts for slightly over half of total unemployment, reflecting active job-hopping among recent school-leavers. Consequently, the unemployment rate of this age group in 1995 was almost four times the rate of the 30 to 55 age group (Figure 21). More than a third of the unemployed persons in the 20 to 29 age group in 1995 had attended university. This has helped boost the unemployment rate for those with a university education to a level more than four times above that for persons who only attended primary school (Figure 22). In contrast, unemployment in all other OECD countries (except Greece) is highest among those with the least education. By gender, unemployment rates remain significantly lower for women, reflecting their weaker attachment to the labour force.

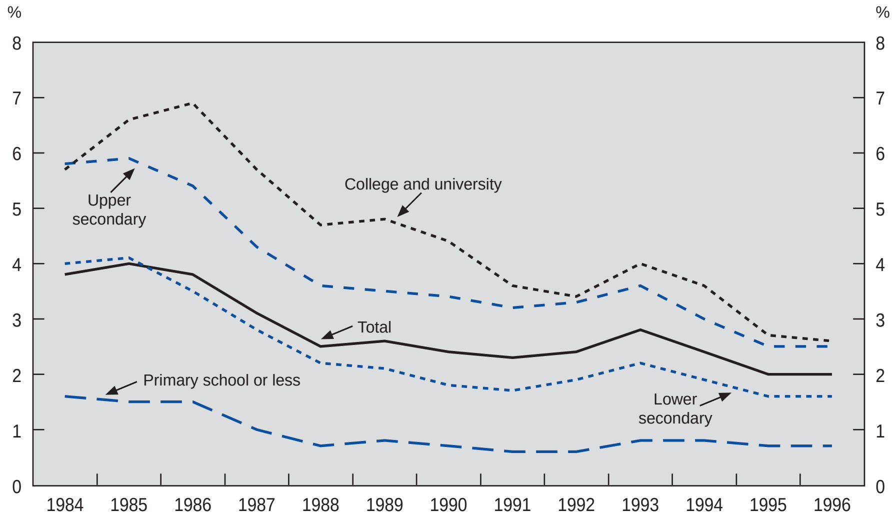
The average duration of unemployment appears to have been relatively short compared to other OECD countries. In 1996, 16 per cent of unemployed persons had been out of work for more than six months and only 4 per cent more than one year, the second-lowest ratio in the OECD area and far below the average of

Figure 21. **UNEMPLOYMENT RATE BY AGE GROUP**



Source: Ministry of Labour.

Figure 22. **UNEMPLOYMENT RATE BY LEVEL OF EDUCATION**



Source: Ministry of Labour.

33 per cent (Table 22). With the sharp fall in employment in early 1998, the average duration of unemployment appears to be increasing.

Labour union issues

Although labour unions have been allowed since 1953, the authoritarian governments in the 1970s and 1980s severely restricted their right to engage in collective bargaining and to take industrial action. The democratisation of the country in June 1987 liberalised controls on the creation of labour unions and their activities, leading to a rise in union membership from 17 per cent of employees in 1986 to 20 per cent in 1989 (Figure 23). Increased union activity was accompanied by a surge in the number of labour disputes; during the two months after June 1987, there were more strikes than during the preceding 25 years. As in many other OECD countries, union membership has declined in Korea, reaching 13 per cent in 1996, while the number of workdays lost to strikes has also fallen significantly, to a level close to the OECD average.

Table 22. **Long-term unemployment**

As per cent of total unemployment, 1996

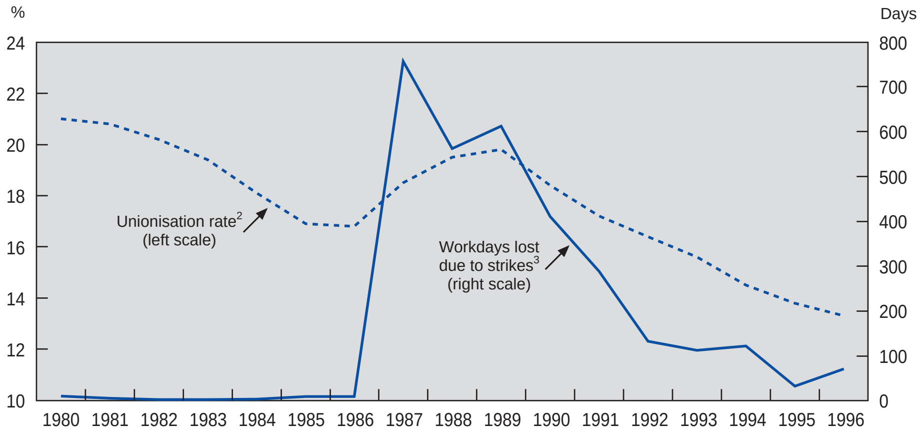
	6 months and over	12 months and over
Mexico	9.8	2.2
Korea	**16.0**	**4.2**
United States	17.4	9.5
Canada	27.7	13.9
Norway	29.9	14.0
Iceland	30.8	19.2
New Zealand	31.9	16.9
Sweden	38.4	17.1
Japan	40.7	19.9
Austria	42.5	25.6
Australia	48.7	28.4
Denmark	44.4	26.5
Luxembourg	44.6	27.6
Czech Republic	52.4	31.6
Switzerland	52.5	25.9
Finland	55.3	35.9
United Kingdom	58.1	39.8
France	61.5	39.5
Poland	62.9	39.1
Germany[1]	65.4	48.3
Portugal	66.7	33.1
Turkey	69.5	43.5
Spain	72.2	55.7
Greece[1]	72.4	51.2
Hungary	75.2	54.4
Ireland	75.7	59.5
Belgium	77.3	61.3
Italy	80.8	65.6
Netherlands	81.4	49.0
Unweighted average	51.8	33.0

1. 1995.

Source: OECD, *Employment Outlook.*

The reforms introduced in 1987 did not remove all contentious labour union issues. *First*, only one union is permitted at each place of work, a rule designed to prevent internal labour disputes.[84] At the national level, only one organisation, the Federation of Korean Trade Unions (FKTU), which was formed in 1963, has been officially recognised.[85] *Second*, ‘‘third-party intervention’’ (*i.e.* other than

Figure 23. **UNIONISATION AND LABOUR DISPUTES**[1]



1. Year-end figure beginning in 1987.
2. The number of union members divided by full-time and daily workers minus civil servants and private-school teachers.
3. Per 1 000 employees.

Source: Korean Labour Institute.

management or workers) in collective bargaining and labour disputes continued to be prohibited in an effort to stabilise industrial relations. *Third,* public servants (excluding some blue-collar workers) and teachers have been denied the right to organise unions, while the definition of ‘‘essential services’’, in which strikes are forbidden, is relatively broad. *Fourth,* unions have been prohibited from engaging in political activities. Some aspects of Korean industrial relations practices have been inconsistent with the conventions of the International Labour Organisation (ILO), which Korea joined in 1991. There have also been complaints from employers about labour laws, particularly the restriction on laying off workers for managerial reasons (see below). Other issues include the common practices of unions requiring management to pay the wages of full-time union officers and of striking workers demanding payment of lost wages as a condition for returning to work. All of these issues were considered by a presidential commission in 1995 and 1996, culminating in the passage of a labour law reform bill in December 1996. The controversial elements of the new legislation, though, resulted in a nationwide strike in January 1997. Subsequent reforms, including those taken in February 1998 in the wake of the financial crisis, are discussed below.

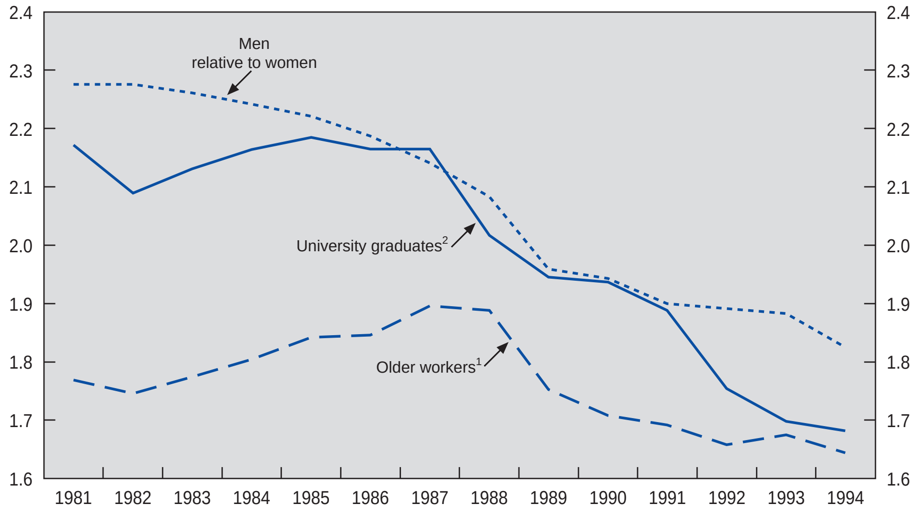
Income and wage equality

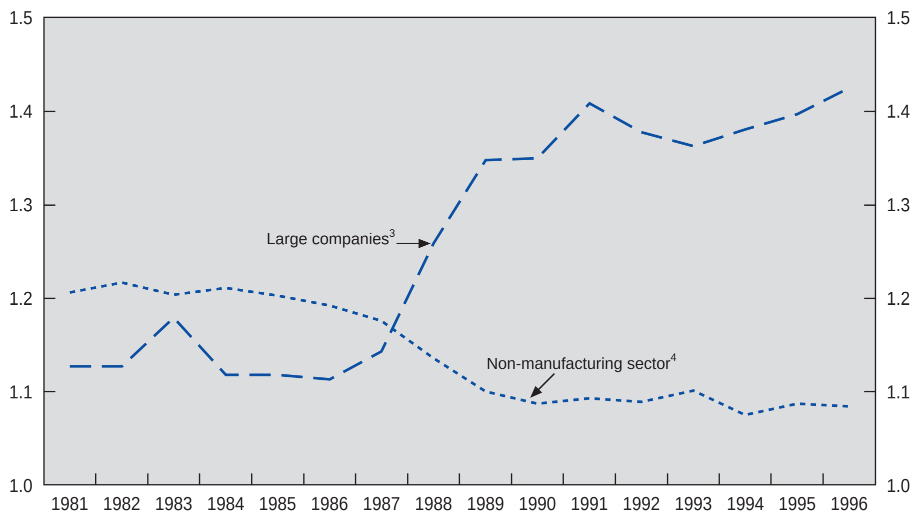
Korea, along with some other East Asian economies, was able to combine rapid economic growth with a relatively equal income distribution. Although Korea had pursued a ''growth-first strategy'', the ratio of the income shares of the richest fifth and poorest fifth of the population averaged around 7 between 1965 and 1989, a ratio that was below other East Asian economies, such as Singapore, Thailand, Malaysia and Hong Kong, China (World Bank, 1993).[86] More recent data on income distribution are not available. However, a narrowing of wage differentials since 1988 has been accompanied by some indicators suggesting that inequality has decreased (Figure 24).[87] Supply and demand factors, the practice of granting larger increases to lower-paid workers (*ha-hu-sang-bak*) and the increased power of unions following the democratisation of Korea in 1987 have reduced wage differentials over the past decade. *First,* the very large gender gap has been reduced. The decline in the premium for male workers from 108 per cent in 1988 to 83 per cent in 1994 may reflect greater demand for female employees in the expanding service sector as well as the passage of the Equal Employment Act in 1988, which mandates equal treatment of men and women. *Second,* the differential between the wages of university and upper secondary school graduates has fallen significantly over the same period as a result of the rising number of young people finishing tertiary education. Increased union power may have also narrowed the premium for education since less-educated workers are more likely to be unionised. The extent of the narrowing of the differentials, though, appears to have been limited by changes in technology, which increased the demand for educated workers (Choi, 1996). *Third,* the premium for workers over the age of 35 has also declined in recent years as population ageing has reduced the proportion of young adults in the labour force. *Fourth,* the impact of stronger unions also appears to have decreased the wage gap between sectors (Figure 24, Panel B). In particular, manufacturing, a relatively low-wage sector due to its young workforce, has benefited as it is more highly organised.

One exception, however, to the trend toward greater equality in wages has been the widening gap between small and large firms (Figure 24, Panel B).

Figure 24. **WAGE DIFFERENTIALS**

Ratio





1. The average wage of males over age 35 to those under 35.
2. The average wage of male university graduates to upper secondary school graduates.
3. Average wage in firms with more than 500 workers to those with 10 to 29 employees.
4. Average wage in all industries (excluding manufacturing and agriculture) to manufacturing.

Source: Ministry of Labour.

In 1988, workers in firms with more than 500 employees earned 26 per cent more than workers at companies with only 10 to 29 employees. By 1996, the gap had increased to 43 per cent. The widening differential reflects, in part, the impact of unions on wages; 38 per cent of workers in firms with more than 500 employees were unionised in 1993, compared with less than 1 per cent in firms with 10 to 29 employees.

The relatively equal income distribution and the apparent trend toward greater equality is somewhat at odds with the common perception in Korea. Indeed, official statistics may overstate the degree of equality for two reasons. *First*, they do not include wage data from firms with fewer than ten employees. *Second*, there is no information on income from wealth, which is much less equitably distributed than income. In 1995, the Gini coefficient on asset holdings was estimated at 0.76, with land possession the most skewed at 0.90. The top 1 per cent of landowners owned more than a fourth of the land, based on assessed land values in 1993, and the top 5 per cent owned more than half (Choi and Kwon, 1997). Given the threefold rise in land prices in real terms between 1975 and 1988, the concentration of land ownership has become a key focus of concern about inequality in Korea.

Policy requirements

This section reviews Korea's policies in the areas identified in the OECD *Jobs Study* as essential to enhance the ability to adjust and adapt and to increase the knowledge base, efficiency and innovative capacity. The outstanding performance described above came to an abrupt halt with the economic crisis at the end of 1997. In the first quarter of 1998, employment was 3.7 per cent below its year-earlier level. The crisis is likely to have major long-run implications for the labour market. In particular, changes in corporate governance practices and the financial system will oblige firms to place more emphasis on shareholders and less on other stakeholders, notably employees and supplier firms (see Chapter III). The recent liberalisation of employment protection legislation will facilitate this shift in priorities. As a result, labour turnover and frictional unemployment are likely to be higher in the future. The impact on unemployment will be most severe during the next few years as the heavily-indebted corporate sector restructures to survive. In this context, it is essential that there be sufficient flexibility in wages, layoffs and working conditions to facilitate the needed restructuring. In addition, there is a need for more effective active labour market policies, particularly in the area of training, to promote the redeployment of workers between firms and industries. Finally, policies to mitigate the social costs of sharply higher unemployment are important. Such measures should aim at alleviating hardship during the next few years of intense restructuring and preventing a backlash against the implementation of a more flexible labour market. The government should avoid, however, burdening the economy with expensive social welfare policies that will adversely affect work incentives in the longer term. The specific recommendations which emerge from the discussion below are summarised in Box 3.

Enhancing the ability to adjust and adapt

Flexibility of employment and working time

The average tenure of workers in Korea in 1995 was 5.2 years, well below the OECD average of 9.6 years.[88] This reflects, in part, the fact that Korea's population is relatively young, with an average age of 30.7 years, the third-lowest in the OECD after Mexico and Turkey and well below the 35 to 40 year average in other OECD countries. As the average age in Korea increased between 1980 and 1995, the average tenure more than doubled (Table 23).[89] Moreover, given Korea's youthful population, young workers account for a relatively large share of the workforce, thereby boosting the labour turnover rate. Separation rates are 5 per cent and above for workers under the age of 25, before falling to 2 per cent and below for men in their prime working years (Figure 25). This suggests a pattern of job-hopping by young workers, followed by an extended commitment to an enterprise. The relatively short tenure in Korea may also reflect its exceptionally rapid structural change,[90] resulting in a high rate of bankruptcy in declining industries offset by the creation of new firms in emerging areas. In addition, the important role of daily workers, who accounted for 14 per cent of employees in 1995, has reduced the average tenure. Finally, firms frequently hired talented employees away from their competitors and, indeed, employed scouts for this purpose.[91]

Box 3. **The OECD Jobs Strategy: synopsis of recommendations for Korea**

The OECD *Jobs Study* sets out a strategy based on nine recommendations for improving the ability of OECD economies to cope with structural change, through enhancing the ability to adjust and adapt, and increasing the capacity to innovate and to be creative. The nine distinct policy areas covered include the macroeconomic policy framework and the creation and diffusion of technological know-how. With respect to labour and product market flexibility, it identified the need for initiatives in the following areas: working-time flexibility, the entrepreneurial climate, wage and labour cost flexibility, employment security provisions, active labour market policies, labour force skills and competencies, and unemployment and related benefit systems.

Korea is in the process of implementing reforms in most of these areas. The detailed review of Korea's labour market and employment performance suggests the following priorities for policy action:

Increase the flexibility of employment

- *Effectively implement the layoff provisions* in the new labour law to allow firms the flexibility to shed redundant workers. Such flexibility is essential as the corporate sector restructures in the wake of the economic crisis.
- *Allow temporary worker agencies to play a large role.* This would help the labour market to cope with a greater variety of employment patterns.

Taxes and transfers

- *Expand the social safety net* for those who do not qualify for unemployment benefits or who are cut off after a short period. Increased spending in this area to mitigate the hardships imposed by the crisis is essential to maintain social cohesion during a period when far-reaching structural reforms are being implemented. In expanding the social welfare system to deal with the current crisis, the authorities should be careful not to undermine the incentives to work and to save.

Active labour market policies

- *Remove the remaining restrictions on private-sector job placement agencies* to cope with increased labour turnover in the context of a more flexible labour market.
- *Improve the public employment service* to help the unemployed find new jobs.
- *Expand vocational training programmes,* giving priority to those most likely to benefit from such training. Given capacity constraints, the pilot programme of granting training vouchers to the unemployed should be carefully evaluated before being made available on a nationwide basis.

(continued on next page)

(continued)

Enhance product market competition

- *Accelerate deregulation,* focusing on entry barriers and regulations that limit price competition. Eliminating red tape, which delays the creation of new enterprises, is also essential.
- *Quickly remove remaining trade barriers,* notably the various regulatory standards that act as barriers to imports.

Increase labour force skills and competencies

- *Reform the educational system* along the lines proposed by the presidential commission. Increased emphasis on lifelong learning opportunities and a revision in school curricula to focus more on creativity and less on university entrance exams would be beneficial.

Technology and innovation

- *Improve the efficiency of public spending on technology.* Increasing the research role of universities and avoiding a tendency to ''pick winners'' in the area of technology would help promote effective R&D activities. Measures to attract more foreign direct investment should also be pursued as a way to upgrade technology.

Tenure, though, varies significantly between firms and types of employees. *First,* tenures are relatively long in larger firms, which offer the highest wages and benefits (Table 23, Panel A). *Second,* more highly-educated workers tend to remain longer with the same firm (Panel B). More than 60 per cent of workers with some university education had spent at least ten years at the same firm compared to only 26 per cent of upper secondary school dropouts. Consequently, the average tenure of the former group was five years longer. *Third*, male workers have lower turnover rates, boosting their average tenure to 73 per cent above female workers. These characteristics suggest a dual system, with longer tenures for more educated, male workers at large firms co-existing with a much higher level of turnover elsewhere in the economy.

Under the Labour Standards Act, which applies to firms with more than five employees, management is allowed to dismiss workers if there are ''justifiable reasons'', after giving one month's notice or thirty days of wages. It was left to the courts to decide, based on rulings in previous cases, whether a firm was

Table 23. **Tenure by firm size and educational attainment**

A. By firm size

Length of tenure in years

	Firm size (number of employees)					Average tenure
	10-29	30-99	100-299	300-499	More than 500	
1980	2.5	2.6	2.6	2.9	3.2	2.9
1985	3.4	3.3	3.4	3.7	4.0	3.8
1990	3.2	3.7	4.2	5.2	5.4	4.9
1995	4.5	4.7	5.9	6.5	7.2	6.6

B. By length of tenure and by level of education

	Length of tenure (years)						Average tenure[2]
	Less than 1	1-2	3-4	5-9	10-19	More than 20	
	As share of the total in each education level						Years
Level of education[1]							
Upper secondary dropouts	12.1	19.2	20.3	22.1	20.9	5.3	7.0
Upper secondary graduates	6.8	13.2	16.9	20.6	32.6	10.0	9.6
Some university or more	3.5	8.7	12.0	14.7	46.3	14.8	12.2

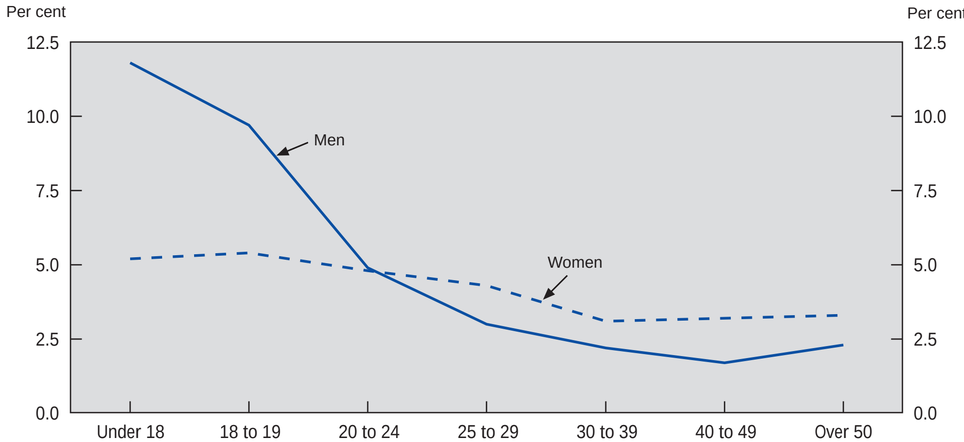
1. The sample is limited to male wage/salary workers between the ages of 40 and 49.
2. Calculated by using the mid-point of each tenure category and assuming 25 years for the over 20 category.

Source: Ministry of Labour, *Basic Survey of Wage Structure.*

justified in laying off its employees. Court decisions have tended to be favourable to workers in this regard.[92] In practice, this has limited mass layoffs of workers, including part-time employees. Firms and managers that violate the Labour Standards Act were subject to fines and imprisonment.[93] In addition to the legal constraints, about a third of collective bargaining agreements required companies to gain the consent of the union before laying off workers. Finally, employers were required to provide severance pay equal to one month of salary for each year of employment. In the context of rising unemployment and fewer voluntary departures by employees at the end of 1997, the employment protection provisions became more binding. Recent legal changes in this area are discussed below.

The high degree of employment security has hindered firms from adjusting to structural changes. With constraints on layoffs, structural adjustment has

Figure 25. **LABOUR TURNOVER RATES BY AGE AND GENDER**[1]
Manufacturing firms with 30 or more employees, 1995



1. Defined as the number of transferring workers during a month divided by the total number of workers at the end of the previous month.

Source: Ministry of Labour and OECD.

tended to be realised through the bankruptcy of existing firms and the creation of new enterprises, a more costly form of adjustment when shocks are only temporary. Moreover, the impact of these constraints on emerging firms has increased as labour supply has become less elastic. Given the deceleration of population growth and the decrease in the percentage of young people in rural areas, sectoral adjustment has come to rely increasingly on the labour mobility of those already employed rather than on the supply of new workers.

In contrast to the constraints on layoffs, there is considerable flexibility in working hours. As noted above, the standard work week is relatively long at 44 hours. In addition, overtime work is allowed up to a maximum of 12 hours a week for males over the age of 18 and 6 hours for females and male employees under the age of 18. A 50 per cent premium over regular wages is paid for overtime work. Moreover, under the Flexible Work Hour System introduced in March 1997, working time during a certain day or week can exceed the statutory limit, provided that the average during a two-week period (or a month in some cases) does not exceed the limit. Temporary work agencies, though, have not been allowed in Korea.

The wage formation system

As in other Asian countries, age is a major factor in determining wages and promotions, reflecting a view that the supervision of employees tends to be more effective when the hierarchy is based on age rather than on individual ability. Statistical analyses[94] and firm surveys point to age as the key factor in determining the wages of individual workers. In 1996, 37 per cent of employers cited age as the sole criterion in setting wages compared with only 6 per cent who mentioned the performance of individual workers (Table 24). Although the wage premium for age, as noted above, has declined during the past decade, Korea's age-earnings profile is even steeper than that in Japan, which is known for its seniority wage system (Figure 26). There is, though, a marked difference between white and blue-collar workers in Korea (Panel B). In the case of white-collar male workers in the manufacturing sector, earnings peak in the 50 to 54 age group at a level 2.5 times above that of the 20 to 24 age group. In contrast, the peak for blue-collar workers occurs earlier, in the 40 to 44 age group, at a level only 73 per cent higher than the pay of younger workers. This may suggest that firms prefer to hire younger persons with a higher level of education rather than training their existing workforce. For female workers, the age premium is relatively small.

Table 24. **Criteria for determining salaries of individual workers**

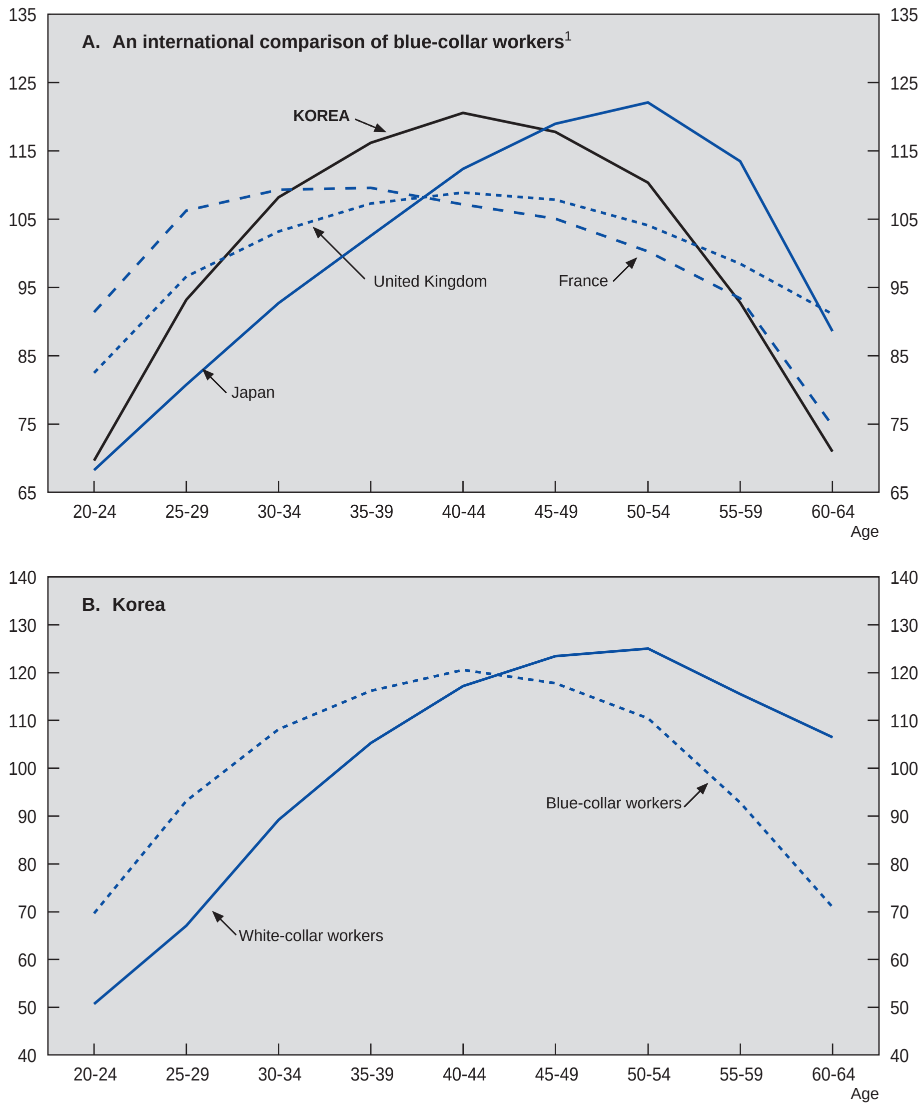
Per cent of responses by employers and trade unions

Criteria	Employers	Trade unions
Age	36.7	25.8
Merit	5.9	5.7
Type of job	1.6	8.7
Age and merit	15.6	12.7
Age and type of job	15.2	19.7
Merit and type of job	6.3	8.7
Age, merit and type of job	18.8	18.8
Total	100.0	100.0

Source: Korea Labour Institute, *Survey on Wage Negotiation*, 1996.

Figure 26. **THE AGE-EARNING PROFILE**

1994, wage of 20 to 64 age group = 100



1. In the United Kingdom, "manual workers" category in 1995; in France, "ouvriers" category in 1992; in Korea and Japan, production workers in 1994.

Source: Korea Labour Institute, *International Labour Statistics*; INSEE (France), *Les salaires dans l'industrie, le commerce et les services en 1992*; Office for National Statistics (United Kingdom), *New Earning Survey*; Ministry of Labour (Japan), *Yearbook of Labour Statistics*; and OECD calculations.

Despite the importance of age in setting pay levels, there appears to be a high level of relative wage dispersion in Korea. In particular, the wages of university graduates in Korea in 1995 were 1.8 times higher than those of secondary school dropouts, significantly higher than the 1.6 ratio in Italy and the United Kingdom and the 1.4 ratio in Japan.[95] The wages of poorly-educated workers have been little affected by the legally-established minimum wage, which is relatively low compared to average wages. The minimum wage system, which was introduced in 1988, applies to workers in firms with at least ten workers – about two-fifths of employees and a fourth of the total labour force. The level, which is set by the Minister of Labour after consultations with management and workers, was equivalent to 22 per cent of average manufacturing wages in 1997 (Table 25). If sick pay, holiday pay and other bonuses and supplements are excluded, the minimum wage was 33.7 per cent of the average manufacturing wage, far below the average of 58 per cent in the seven EU countries for which data were available in 1997 (OECD, 1997). The number of workers who are paid the minimum wage in Korea has fallen sharply in the 1990s to only 1 per cent of private-sector employees, reflecting the decline in the minimum wage relative to the average wage.

The institutional framework for wage formation within firms has an important effect on an economy's ability to adapt real and relative wages to changes in

Table 25. **Minimum wages**

	Minimum wages[1] (won per hour)	Per cent of average manufacturing wage	Number of workers paid the minimun wage	Per cent of private-sector employees
1989	600	29.0	327 954	3.7
1990	690	29.3	187 405	1.9
1991	820	28.0	393 183	3.8
1992	925	27.9	391 502	3.7
1993	1 005	26.2	227 519	2.2
1994	1 085	25.7	102 312	1.0
1995	1 170	24.0	103 033	0.9
1996	1 275	23.4	103 191	0.9
1997	1 400	22.2	127 353	1.1
1998	1 485	..	123 513	..

1. Beginning in 1994, the level was changed in August of each year. The figure for 1995, for example, was in effect from August 1994 to July 1995.

Source: Ministry of Labour.

labour demand and supply conditions. Most wage bargaining in Korea takes place within companies between management and the enterprise union. In 1996, 88 per cent of employers reported wage bargaining at the enterprise level and another 9 per cent at the workplace level. Only 4 per cent participated in co-ordinated bargaining, which occurs primarily in sectors with industrial or regional unions. Wages are set in annual negotiations that are concentrated in the April to June period. Major firms, which tend to reach agreements at the beginning of that time period, exert a considerable influence over wage settlements in other companies. In 1996, 63 per cent of employers and 49 per cent of unions cited agreements at other firms as the first or second most important factor in determining their own wage increases (Table 26). Since the major firms tended to be relatively profitable and to have strong labour unions, their influence put upward pressure on wages elsewhere in the economy. Nevertheless, employment expanded rapidly until the crisis. The ability of firms to pay, which is linked to labour productivity, was cited as the second most important criterion by management and the third most important by unions.

Since the democratisation of Korea in 1987, nominal wage increases have averaged almost 15 per cent a year, outstripping productivity, which rose at an average annual rate of 11 per cent. Such high wage increases reflect both tight labour market conditions during much of the past decade, as well as increased union power. Concerned about the impact on the international competitiveness of

Table 26. **Criteria for determining overall wage increases**

Two responses

	Employers		Labour unions	
	First choice	Second choice	First choice	Second choice
Increase rate of other firms	26.0	36.9	16.9	32.1
Pay ability of firms	44.7	16.1	17.0	13.5
Cost of living increases	5.4	16.5	31.3	22.6
Increase in productivity	8.6	17.3	7.4	10.4
Government proposed increase rate	9.1	9.4	5.2	6.1
Survey of workers	0.8	1.6	8.3	10.4
Directives of higher level unions	1.6	0.8	13.0	3.5
Directives of employers' organisations	3.1	1.6	0.9	1.3

Source: Korea Labour Institute, *Survey on Wage Negotiation*, 1996.

Korean firms, the government has tried to restrain wage growth beginning in 1992.[96] However, wage targets, set by the government or by agreements between national federations of workers and management, have been largely ignored. The use of incomes policy to limit wages is complicated by the decentralised nature of wage bargaining, which focuses on more enterprise-specific issues, such as the ability of firms to pay their workers (Table 26). Moreover, the incomes policy had the negative effect of complicating the wage structure as companies introduced various allowances to evade the targets. The Ministry of Labour reported that firms paid 115 different types of allowances in 1996. While the top thirty business groups, known as *chaebols*, agreed to a 7.4 per cent wage hike that year, the actual increase was much higher at 12 per cent. In 1997, the government did not issue any guidelines, leaving wage bargaining solely in the hands of management and workers.

Employee compensation appears to have shown more variability in Korea than in other OECD countries during the past twenty years (Table 27). While fluctuations in productivity were about twice as high in Korea as in the other countries, the variability of real wages was proportionally even greater. Given the legal constraints on laying off workers, wage flexibility has played an important role in helping companies adjust to economic downturns. This flexibility is particularly evident in the wake of the recent crisis, which has seen nominal wage cuts of 20 to 30 per cent in many firms. The high flexibility reflects strong social cohesion and the structure of employee compensation, which consists of three components (Figure 27); regular earnings (68 per cent), bonus payments (24 per cent) and overtime (8 per cent).[97] Although the number of firms considering bonuses as a regular payment has been increasing, these payments have been more sensitive than regular earnings to fluctuations in economic conditions. Moreover, bonus payments' share of employee compensation has risen markedly since 1987. Consequently, a full one-third of employee earnings in 1996 was at least partially related to cyclical conditions. In addition to bonuses, wage flexibility is enhanced by the wage-setting process. The synchronisation of wage negotiations at the same time of the year may make workers less reluctant to accept a cut in pay increases since similar outcomes are likely at other firms. In addition, the fact that agreements last only one year allows mistakes to be corrected more quickly than in countries where multi-year contracts are the norm.

Table 27. **Flexibility of employee compensation**[1]

1975 to 1995

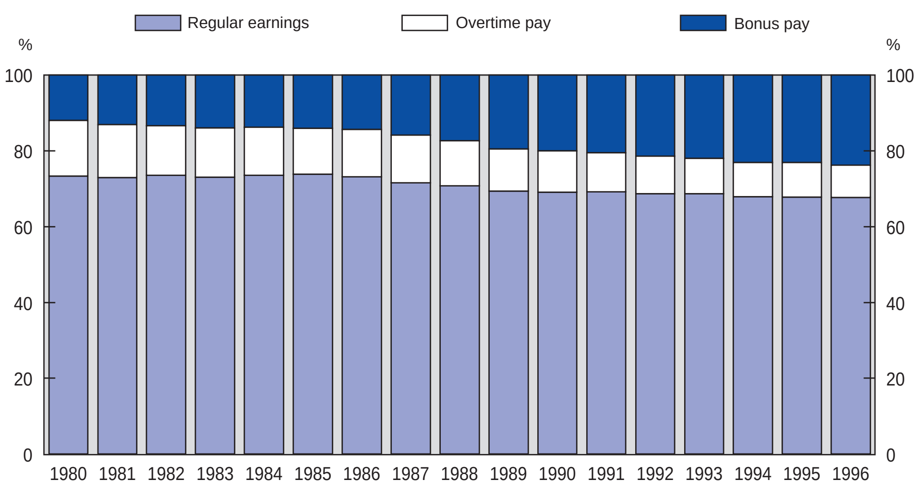
	Real compensation[2]	Productivity
France	1.1	1.2
United States	1.1	1.6
Netherlands	1.3	2.0
Germany[3]	1.8	3.4
Italy	1.9	1.9
Canada	1.9	1.6
United Kingdom	2.4	2.1
Australia	2.8	2.4
Average	1.8	2.0
Korea	4.8	4.1

1. Standard deviation of the percentage change from the same quarter of the preceding year.
2. Employee compensation (excluding government) is divided by employment in the business sector and deflated by the private consumption deflator. The comparison is limited to OECD countries for which such data is available on a quarterly basis.
3. 1975-90.

Source: OECD.

Figure 27. **COMPONENTS OF EMPLOYEE COMPENSATION**

Per cent of total employee earnings



Source: Ministry of Labour.

Taxes and transfers

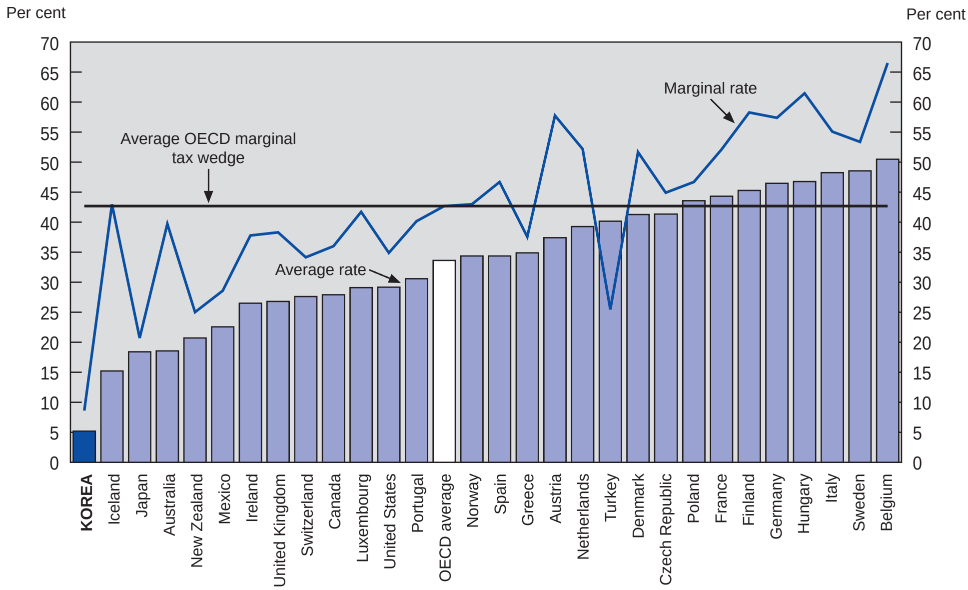
Personal income taxes are relatively low in Korea, reflecting the fact that government expenditure as a share of GDP is the smallest in the OECD area. Personal income from all sources is taxed progressively at one of four rates, ranging from 10 to 40 per cent. Only about 60 per cent of the labour force pays income taxes, given the high threshold. Those who are liable for income taxes fall primarily in the 10 and 20 per cent brackets, which extend to W 40 million (about 2.7 times the average manufacturing wage). During the past ten years, Korea has introduced social welfare programmes – a national pension scheme (1988), national health insurance (1989) and employment insurance (1995) – which are funded, in part, by payroll contributions. The pension contribution is presently set at 9 per cent of regular wages, with employees contributing 3 per cent and employers the remaining 6 per cent. For health insurance, the employer and employee each pay half, with the contribution rate set at between 2 and 8 per cent of regular wages. Finally, payroll contributions, ranging from 0.9 to 1.3 per cent of total wages, finance the Employment Insurance System (EIS), which includes three separate programmes.[98]

Combining the payroll contributions with personal income taxes gives a measure of the tax wedge on workers' incomes.[99] In Korea, the tax wedge is extremely low (Figure 28). For example, a single person earning two-thirds of the standard production workers' income in 1996 faced an average tax wedge of 5 per cent and a marginal tax wedge of 9 per cent compared to the OECD averages of 33 and 43 per cent, respectively. The relatively strong work incentives for low-paid workers has helped to keep the employment to population ratio high for less-educated workers in Korea. In addition, the average and marginal tax wedges on high-income workers are by far the lowest in the OECD area. A single worker earning two-thirds more than the standard production workers' income faced an average wedge of 9 per cent and a marginal wedge of 20 per cent, far below the OECD averages of 42 and 49 per cent, respectively.

An unemployment benefit programme was introduced in July 1995 to support the unemployed. The programme is designed to limit the negative impact on work incentives and to minimise the duration of unemployment. It covered workers in firms with more than thirty employees, insuring 4.3 million workers in 1995, about a third of all employees. To be eligible, workers must have been insured for at least one year and must wait two weeks after losing their job before

Figure 28. **AVERAGE AND MARGINAL TAX WEDGES**[1]

Single person receiving 67% of an average production worker's income



1. Data refer to 1996. The average wedge is the sum of employees' and employers' social security contributions and personal income tax as a percentage of gross labour costs, *i.e.* gross wages plus employers' social security contributions. The marginal tax wedge is the percentage of gross labour costs represented by increased employees' and employers' social security and income tax contributions, following a rise in net wages.

Source: OECD, *The Tax/Benefit Position of Employees.*

receiving benefits. The waiting period is intended to allow sufficient time to determine whether a worker qualifies for benefits and to avoid encouraging temporary layoffs. Workers who voluntarily quit their jobs are not eligible for benefits. In addition, the unemployed must report to the local labour office once every two weeks to demonstrate their intention to find work. The enforcement of these eligibility criteria is intended to limit the potential disincentive effects of the system. Three years after its introduction, only about a fourth of the unemployed qualify for benefits.

The benefit is set at half of the worker's average salary during the preceding three months, a level comparable to the average in other OECD countries. Taking account of taxes, the replacement rate is 55 per cent. However, the duration of benefits, which depends on age and the length of time insured, is relatively short, in line with the objective of encouraging job search rather than providing long-term income support. A worker under the age of 25 who has been insured less than three years could receive only 30 days of benefits (Table 28). The maximum benefit of 210 days will be available only to workers insured more than ten years and over the age of 50. In contrast, benefits last at least two years in 18 OECD countries and at least four years in 14 countries. Benefits in Korea can be extended, however, for workers who receive training authorised by the local employment office. Korea's unemployment benefit programme, which closely resembles that in Japan, also has several features intended to encourage the unemployed to find new jobs quickly. *First,* workers who find work before the halfway point of their benefit duration receive a special re-employment bonus equivalent to half of their remaining benefit. *Second,* the cost of traveling to other parts of the country to seek jobs and moving expenses are also covered.

The social welfare net for those who do not qualify for unemployment insurance is very limited. Under the Livelihood Protection Act, the government provides support for those who are unable to work (the handicapped, elderly and children) and those whose incomes are below the level necessary to survive. Able-bodied persons of working-age are, in practice, ineligible. To qualify for assistance, the beneficiaries' income and assets cannot exceed a certain limit. In addition, they are subject to a family-support test which limits benefits to those without family members capable of providing assistance. In 1997, 1.4 million persons (3 per cent of the population) received assistance, with total expenditures

Table 28. **Unemployment insurance**

Duration of benefits in days

Age/insured period	1 to 3 years	3 to 5 years	5 to 10 years	More than 10 years
Under 25	30	60	90	120
25 to 30 years	60	90	120	150
30 to 50 years	90	120	150	180
Older than 50	120	150	180	210

Source: Ministry of Labour.

less than 1 per cent of GDP.[100] The average level of benefits appears to be significantly below the subsistence level of income.

Active labour market policies (ALMPs)

Public expenditure on ALMPs has remained at a little below 0.1 per cent of GDP throughout the 1990s, one of the lowest shares in the OECD area. The relatively small amount of spending in this area, which includes public employment services and vocational training, primarily reflects the traditionally low level of unemployment and the short average duration of unemployment.

A fourth of spending on ALMPs is allocated to the Public Employment Service (PES), which includes 52 offices operated by the Ministry of Labour and 287 administered by municipalities (Table 29). Together, they placed about 150 000 workers in jobs in 1995. *Private agencies,* which have been allowed since 1968, play a more important role, accounting for 90 per cent of all workers placed by job agencies in 1995. These agencies are subject to regulations, including licensing every three years, requirements on the qualifications of their personnel and detailed controls on the fees they charge. Nevertheless, their success rate was higher in 1995, filling 91 per cent of their vacancies compared to 12 per cent in the Ministry of Labour offices and 59 per cent in the municipality-

Table 29. **Public and private employment offices in Korea**

1995

	Labour Ministry	Municipalities	Total public agencies	Private agencies
Offices	52	287	339	1 271
Staff	850	360	1 210	3 500
Job applications (in thousands)	55	182	237	1 423
(Per cent of total)	(3.3)	(11.0)	(14.3)	(85.7)
Vacancies (in thousands)	135	235	370	1 432
(Per cent of total)	(7.5)	(13.0)	(20.5)	(79.5)
Placements (in thousands)	16	138	154	1 306
(Per cent of total)	(1.1)	(9.5)	(10.5)	(89.5)
Success rate[1]	11.9	58.7	41.6	91.2

1. Placements as a share of vacancies.

Source: Ministry of Labour.

run offices. The relatively minor role of the PES reflects their limited staff, which, relative to the size of the labour force, is the smallest in the OECD area.[101]

Vocational training has accounted for over two-thirds of expenditures on ALMPs.[102] Each year between 1993 and 1996, about 65 000 persons (0.3 per cent of the labour force) – primarily unemployed adults and workers at risk of losing their jobs – were trained by public providers, such as the Korea Manpower Agency and various non-profit institutions accredited by the government. Compared to other OECD countries, the amount of public-sector training is low in Korea, where private firms play the dominant role. In 1995, enterprises trained 71 per cent of those who participated in training programmes that year. The role of the private sector has been encouraged by the Vocational Training Levy Law of 1976, which required firms with more than 300 workers to train their employees or pay a levy to the government to help finance public training centres. Given the expense of providing in-plant training, however, medium-sized firms have tended to pay the levy. This system was replaced in 1995 by the Job Skill Development Programme under the EIS which provides financial support for employer-organised training. The programme is financed by a premium of between 0.1 and 0.5 per cent of a company's payroll, depending on firm size.

Increasing efficiency, innovative activity and the knowledge base

Product market competition

Competition in product markets is influenced, *inter alia,* by barriers to imports and foreign direct investment, competition policy and government regulation. In Korea, restrictions on international trade and regulations controlling entry and prices have limited competition.

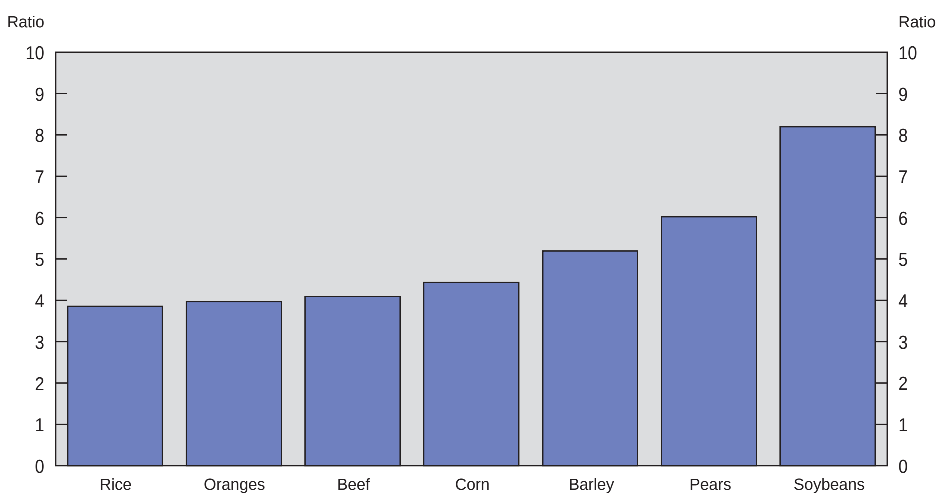
- International competition

Korea has reduced import barriers over the past two decades. The simple average tariff declined from 24 per cent in 1982 to 10 per cent in 1992 (WTO, 1996). The average, though, has fallen only slightly since then for two reasons. *First*, the tariff cuts that the government agreed to in the Uruguay Round will be phased in gradually over ten years since Korea claimed developing country status. *Second,* quantitative restrictions on 37 agricultural products were replaced in 1997 with tariffs, which were very high in most cases.[103] The eight remaining quotas will be phased out in the year 2001, with the exception of that on rice.

Rice imports, which were allowed for the first time in 1995, were initially set at 1 per cent of domestic consumption, rising to 4 per cent by 2004. The agricultural sector, with average tariffs of about 17 per cent, is more highly protected than the manufacturing sector, where the average is 6.2 per cent. Although rising imports of wheat, corn and soybeans have lowered Korea's rate of self-sufficiency in crops to under 30 per cent, import barriers have resulted in large gaps between the domestic and international prices of many agricultural products (Figure 29). The price of rice, for example, which accounts for about a third of agricultural production in Korea, was almost four times above the world price in 1995, while the ratios for some other products were even higher.

Although tariffs on manufactured goods are relatively low, there are significant non-tariff barriers to imports. Most important is the ''Import Diversification Programme'', which was introduced in 1978 to reduce bilateral trade deficits. In practice, it has banned imports of certain products from Japan. The number of banned items was reduced from 258 in 1993 to 113 in July 1997 as part of the plan to eliminate the programme by the end of 1999. Nevertheless, it still

Figure 29. **THE PRICES OF AGRICULTURAL PRODUCTS IN KOREA**
Ratio to world price in 1995



Source: World Trade Organisation, *Trade Policy Review, Korea,* 1996.

continues to prohibit imports of major products, such as certain types of motor vehicles and televisions. Another problem in the area of trade is health and safety regulations that affect imports.

Significant portions of the service sector remain largely insulated from international competition. Until May 1998, foreign direct investment in 42 business areas (out of a total of 495) was totally or partially restricted. These regulations closed significant portions of the transport, communications, finance, insurance and business service industries to foreign investment (WTO, 1996). Under the General Agreement on Trade in Services (GATS), Korea agreed in 1996 to take liberalisation measures to encourage trade in 80 service activities.[104]

- Competition policy

The degree of competition in Korea has increased since 1980, when the Monopoly Regulation and Fair Trade Act was established. In 1981, 88 per cent of product markets (2 257 items) were classified as concentrated, *i.e.* markets in which the top three firms collectively account for more than half of sales. By 1994, the number of concentrated markets had fallen to 76 per cent. In terms of output, concentrated markets declined from 74 to 60 per cent over the same period. In 1994, the Fair Trade Commission (FTC), which is charged with enforcing the Monopoly Regulation and Fair Trade Act, was made an independent agency. It was raised to ministerial status in 1996 and enlarged.[105] During 1995 and 1996, the FTC took almost 2 000 actions, a significant increase from the annual average of around 600 a year between 1981 and 1994 (Table 30). About 60 per cent of the cases were concerned with unfair trade practices, which include predatory pricing, false advertising and refusal to sell. About three-quarters of the cases resulted only in warnings or recommendation for correction, while surcharges were imposed in 73 cases.

- Deregulation

The government's leadership role in directing the development of the country has left Korea with a high degree of regulation. Controls on entry and exit, prices and transactions have been pervasive. In total, there are more than 10 000 regulations. While some regulations are based on law, many are enforced through internal rules and administrative guidance, leading to a lack of transparency, and, in some cases, corruption. In addition, a wide range of social

Table 30. **Actions taken by the Fair Trade Commission**

1981 to 1996

Type of case	1981-92	1993-94	1995-96	Total
Abuse of market-dominating position	17	3	4	24
Mergers	346	37	59	442
Concentration of economic power	100	17	17	134
Collusive activities	94	36	62	192
Trade association activities	255	102	106	463
Unfair trade practices	3 568	1 270	1 210	6 048
Unfair international contracts	2 141	120	534	2 795
Total	6 532	1 702	1 992	10 226

Source: Fair Trade Commission.

regulations have been introduced to deal with growing concerns over safety, health and the environment. Although deregulation has received increased attention in recent years, efforts thus far have focused on reducing the burden of regulations on businesses while leaving most entry barriers in place. Of 325 industries, entry barriers remain in 205 according to a survey by the Ministry of Commerce, Industry and Energy. Even where new firms have been allowed, other regulations limit competition.

Technology and innovation

Technology from abroad has played an important role in Korea's rapid growth. The most important sources have been the technology embodied in imports of capital goods and licensing arrangements. Following the liberalisation of licensing arrangements in 1978,[106] royalty payments rose from an annual average of less than $100 million to $1 billion by 1990 and to almost $2 billion by 1995.[107] In addition, Korean businesses have participated in joint ventures with multinational companies and acquired foreign firms to gain access to technology.[108] In contrast, the inflow of foreign direct investment, a major source of technology for many countries, has been very low in Korea, reflecting high barriers in the past.

High-technology industries have grown rapidly in Korea in recent years. In the manufacturing sector, their share of output rose from 18 to 30 per cent between 1990 and 1995, while their share of employment increased from 14 to

24 per cent.[109] As Korean firms have become major competitors in many fields, foreign companies have reportedly become less willing to sell them technology, making R&D programmes in Korea more important. Investment in R&D has increased at a 20 per cent real rate since the early 1980s, rising from 1.2 per cent of GDP in 1984 to 2.7 per cent in 1996, the third-highest among OECD countries. Korea thus appeared to be close to its target, established in 1993, of boosting such expenditures to between 3 and 4 per cent of GDP by 1998.[110] The business sector has played the major role, increasing its share of R&D spending from 40 per cent in the early 1980s to 73 per cent in 1996 (Table 31). The four-largest chaebols have accounted for a major share of business R&D, with about four-fifths of this investment concentrated in electric machinery and electronics. R&D is facilitated by the availability of trained personnel; the share of the population with graduate degrees in science and engineering is higher in Korea than in Japan. However, three-fourths of Korean scientists and engineers with

Table 31. **Korea's R&D expenditures**

Percentage

A. By spending organisation

Fiscal year	Business enterprises		Higher education		Public, non-profit		Total growth
	Growth	Share	Growth	Share	Growth	Share	
1992	22.3	72.7	5.0	6.1	17.3	21.2	20.0
1993	21.3	71.5	46.8	7.2	23.6	21.3	23.3
1994	30.6	72.8	36.9	7.7	17.5	19.5	28.3
1995	20.2	73.1	26.6	8.2	15.3	18.7	19.6
1996	15.4	73.2	32.2	9.4	7.3	17.4	15.2

B. By source of funds

Fiscal year	Private		Public		Total growth
	Growth	Share	Growth	Share	
1992	23.0	82	7.7	18	20.0
1993	24.4	83	18.3	17	23.3
1994	29.7	84	21.3	16	28.3
1995	15.5	81	41.3	19	19.6
1996	10.5	78	35.4	22	15.2

Source: OECD, STIU Database (DSTI), December 1997; Ministry of Science and Technology, *R&D Indicators in Korea*, 1997.

Ph.D. degrees are employed by universities, which accounted for less than 10 per cent of total R&D investment, compared to the OECD average of 18 per cent. The relatively limited role of universities has hindered basic research, which is considered to be essential for building longer-term innovative capacity. Although the government has sought to strengthen R&D activities in universities by expanding budgetary resources, the gap between university research and industry remains large.

The government has promoted private-sector R&D through preferential tax and credit policies. The most important measure is the Technology Development Reserve Fund, which allows companies to set aside 3 to 5 per cent of operational revenues in any given year for R&D activities during the following three years. The government has also increased its spending on R&D, boosting its share from 16 per cent of total R&D in 1994 to 22 per cent in 1996 (Table 31, Panel B). Given the inadequacy of university research, government research institutes receive about 70 per cent of public expenditure on R&D. A key activity has been the ten-year Han project, initiated in 1992 to develop product technology in ten areas and to develop fundamental core technologies in eight areas considered essential to the economy.[111] In addition, there are sector-specific R&D programmes focused on information and communications, biotechnology and aerospace.

Fostering entrepreneurship

The government has adopted a wide range of policies to promote small and medium-sized enterprises (SMEs, defined as firms with fewer than 300 workers) in order to counterbalance the large role of the chaebols. *First,* the government has taken measures to promote the emergence of technology-based firms. Since 1986, 62 venture capital firms, including 17 jointly-invested by the state and the private sector, have been created. *Second,* there are numerous special financing programmes that provide funds at below-market interest rates.[112] In addition, nationwide commercial banks have been required to allocate 45 per cent of their new loans to SMEs, while the guidelines for such lending were set at 60 per cent in the case of regional banks. *Third,* the government provides tax incentives to encourage investment and restructuring by SMEs. *Fourth,* some lines of business have been reserved exclusively for SMEs. At the end of 1997, large companies and their affiliates were prohibited from 88 areas. The Korean government recognises that these policies have tended to make SMEs dependent on government support while protecting them from competition. Consequently, the policy of restricting certain areas exclusively for SMEs will be abolished.

Upgrading skills and competencies

As noted above, the emphasis on education has brought a sharp increase in enrolment rates during the past thirty years that appears unmatched by any other country. The rapid expansion of education does not appear to have been at the expense of quality. According to standardised tests in mathematics and science given to students in 17 OECD countries, Korean fourth-graders scored the highest in both subjects, while eighth-graders in Korea were first in math and third in science. These excellent results were achieved despite a relatively low level of expenditure. In 1994, public expenditure on education amounted to 3.6 per cent of GDP, well below the OECD mean of 5.1 per cent despite the fact that school-age children account for a relatively large share of Korea's population.[113] Korea has economised by having relatively large class sizes. The ratio of students to teachers in Korea in 1995 was the highest in the OECD area for both primary and secondary schools.[114]

Public expenditures on education have been supplemented by a high level of private spending, reflecting the important role of private schools and universities.[115] In 1994, such spending accounted for 2.5 per cent of GDP, the highest in the OECD area. Combining private and public expenditures, Korean spending on education is near OECD norms, given the country's level of development; expenditure per student relative to GDP per capita in 1994 was almost identical to the OECD average. This does not include spending on private tutoring. Such expenditures, which accounted for an additional 2.7 per cent of GDP in Korea in 1995, played a significant role in Korea's successful results in education.

Despite the favourable performance on international tests, there is concern about the quality of education in Korea. In particular, a presidential commission in 1995 noted that the emphasis on rote learning is poorly-suited to a globalised economy that will require creativity and individual initiative. The current system tends to focus narrowly on preparing students for the all-important university entrance exams. A second concern is the absence of life-long educational opportunities for people who have finished their formal schooling.

Recent policy initiatives

The March 1997 labour law reform eased restrictions on layoffs by expressly allowing dismissals for ''urgent managerial reasons'', while specifying certain requirements that must be fulfilled beforehand by management. Although this provision was not to take effect until 1999, the Tripartite Commission[116] agreed that it should be implemented in February 1998 to help firms restructure in the wake of the crisis. In the new law, mergers and acquisitions are identified as justifiable grounds for layoffs. Prior to layoffs, though, firms are required to make every effort to avoid dismissals and to notify workers' representatives at least sixty days before any workers are made redundant. During that period, management must have discussions with workers aimed at avoiding layoffs. Moreover, firms are required to establish fair and reasonable procedures for choosing the employees to be dismissed. If the layoffs involve more than ten workers in a firm with less than 100 employees or more than 10 per cent of employees in larger firms, it must also notify the Minister of Labour at least thirty days in advance, providing the rationale for layoffs and proof of sufficient consultation with workers' representatives. Finally, the requirement that companies give one month of notice before dismissing workers for just cause was extended to all firms.

Greater flexibility in allowing layoffs was accompanied by increased rights for labour unions. The reforms introduced in March 1997 and February 1998 addressed a number of the concerns that have been expressed by OECD member governments and the ILO. *First,* the March 1997 reform has paved the way for trade union pluralism at the sectoral and national levels. Nevertheless, the KCTU has not been granted recognition as a trade union, mainly because it includes the unrecognised teachers union (C*hunkyojo*) and has non-workers as union officials. The restriction on teachers' right to organise is to be removed by legislation to be submitted to the National Assembly later this year. In contrast, trade union pluralism at the enterprise level – where most bargaining occurs – will only be allowed from 2002. The delay reflects government concerns about conflicts within the labour union movement.[117] *Second,* the 1997 and 1998 reform allowed third-party participation in collective bargaining and labour disputes and granted unions the right to engage in political activities. *Third*, the requirement that companies establish workplace councils was strengthened and the role of these councils was enlarged. *Fourth,* lower-level public employees will have the right to form consultative associations beginning in 1999.

To address the social costs of the economic crisis, a number of changes in the employment insurance system have been announced in recent months, including expanded firm coverage, relaxed worker eligibility conditions and extended benefit periods. *First,* the coverage, which was initially limited to firms with thirty or more employees, was extended to firms with at least ten employees in January 1998 and to those with at least five employees beginning in March 1998. As a result, the scheme now covers more than half of employees. The government is planning to extend coverage to all workers, including temporary and part-time employees, regardless of company size, during 1999. *Second,* the minimum contribution period needed to qualify for benefits was temporarily reduced from 12 to 6 months until June 1999. *Third,* the minimum duration of benefits was lengthened from 30 to 60 days. These reforms should slightly boost the proportion of the unemployed receiving benefits, which at one-fourth is one of the lowest in the OECD area.

The government has also announced other policies to cope with the rise in unemployment. *First,* the number of persons to be trained by public-sector providers will be increased to 340 000 during 1998. Since it will be difficult for existing providers to achieve this target, the unemployed have been given the option of receiving training in universities, colleges and other institutes, as well as in the in-house training facilities of companies. The government will test the idea of a vocational training voucher, which will expand the choices of the unemployed. The voucher, which covers all training costs, should enable recipients to ‘‘shop around’’ among the various public and private training providers. *Second,* the government plans to create 280 000 new jobs in the public and non-profit sectors. Although the government has thus far avoided public employment programmes, this approach is viewed as preferable in the current context to offering employment subsidies. *Third,* training courses and a loan programme for new business start-ups are being introduced to encourage the unemployed to become entrepreneurs. *Fourth,* temporary work agencies are to be allowed beginning in July 1998. The operation of such agencies, though, is expected to be limited to certain sectors. *Fifth,* the PES office network is to be expanded by adding more than forty offices.

Since joining the OECD in December 1996, the Korean government has increased its commitment to reforming economic and administrative regulations. The Basic Act on Administrative Regulations, which was enacted in August 1997, established the Regulatory Reform Committee. This Committee will examine newly-proposed regulations (or changes in existing regulations) and analyse their likely impact. The new law also established a sunset provision limiting new regulations to less than five years. The main goal of the government's regulatory reform programme is to create a more business-friendly environment and to promote national competitiveness. To accomplish this, the government intends to encourage the autonomy and creativity of the business sector through reducing government interference in markets and by strengthening competition. Specific deregulation measures are planned, particularly in telecommunications[118] and the energy sector.[119]

Korea has also agreed to take steps to reduce trade barriers. Most importantly, the abolition of the import diversification programme, which had been planned for the end of 1999, has been accelerated to June of that year. Since the end of 1997, 65 products have been removed from the list of items that could not be imported from Japan, with the remaining 48 to be liberalised in two steps. The government has also promised to review import certification procedures and to present a plan by August 1998 to bring them into line with international practice. Finally, foreign banks and brokerage houses were allowed to establish subsidiaries in Korea beginning in March 1998.

The five-year plan for scientific and technological innovation seeks to increase government expenditures in this area from the current 3 per cent of the total budget to 5 per cent by the year 2002. The plan is designed to modernise Korea's science system and enhance the innovation potential of the economy by supporting key technologies and nurturing new technology-based firms. The increased emphasis on R&D is to be accompanied by educational reform based on the principles established by a presidential commission.[120] The commission stressed the importance of making lifelong educational opportunities available to those who have finished their formal schooling. In addition, school curricula should be broadened by focusing less on university entrance exams and more on promoting creativity and the international dimensions of education. Finally, the report calls for more diversity in the educational system in order to offer more choice to students.

Assessment and scope for further action

Since the economic crisis at the end of 1997, the Korean labour market has faced perhaps its most difficult challenge ever. Firms struggling to survive are implementing drastic measures to reduce labour costs by adjusting both the price and volume of labour (see Chapter I). Nominal wages are being cut by as much as 10 to 20 per cent, reflecting sharp reductions in bonus payments. Even so, the number of unemployed has tripled from about half a million last fall to 1.5 million in June, primarily as a result of bankruptcies and the difficulty of new school-leavers in finding jobs. Consequently, the unemployment rate has risen from around 2 per cent last autumn to 7 per cent in June, even prior to the layoffs that are under consideration by large firms.

Ensuring sufficient labour market flexibility is essential in the short run, as the highly-indebted corporate sector restructures in the wake of the crisis, and in the longer term, as changes in corporate governance practices and financial sector reform increase the emphasis on creating value for shareholders. One important element is to maintain the flexibility of wages. The large nominal wage cuts announced by troubled firms during the past few months suggest a high degree of social cohesiveness, with workers and management prepared to make sacrifices to limit declines in employment. However, wage flexibility needs to be accompanied by greater freedom for firms to shed surplus employees. In this regard, the impact of the new layoff provisions passed at the end of February 1998 is still uncertain, given the required 60-day notification period.

While the new layoff provisions are a step in the right direction, Korea's employment protection legislation still appears to be more stringent in some respects than in other OECD countries. In particular, the newly-added preconditions for layoffs that have been imposed on management, including the 60-day advance notification to labour unions and proof of their efforts to avoid dismissals, resemble provisions in high-protection countries, such as Portugal, Spain and Austria. Moreover, the requirement that collective dismissals be reported to the Minister of Labour corresponds to regulations found in many European countries. The commitment by the Ministry to ''strictly control reckless layoffs'' suggests that this could act as a constraint on the freedom of firms to shed surplus workers. It is important that the new layoff provisions be implemented in a way that allows firms sufficient scope to reduce their workforces. Finally, the severance pay regulation remains extremely generous, reflecting its origin as a substitute for both pensions and unemployment insurance. However, as the social welfare system develops, there would appear to be scope to ease the legal severance pay requirements.

It is important that the social safety net be expanded to reduce the hardship resulting from the sharp rise in unemployment. The expansion of unemployment insurance is beneficial in this regard. However, other policies are needed for job losers who do not qualify for benefits or who have been cut off after a short period, as well as for former employees of bankrupt firms who have not received severance payments. In particular, the eligibility requirements under the Livelihood Protection Programme, which provides payments to about 3 per cent of the population, could be eased to mitigate poverty. In addition, the payments provided under this programme should be boosted to a subsistence level of income during the next few years. However, in expanding the social safety net, it is important that the generosity of the system does not expand to a point which undermines the incentives to work and save in the longer term.

Regarding other labour market initiatives, the plan to increase training should help the unemployed find new jobs. However, the pilot programme, which provides vouchers to all benefit recipients, should be carefully evaluated before being made available on a nationwide basis. Given the capacity constraints of the training system, the government needs to establish clear eligibility criteria for participation and to analyse the incentives generated by the voucher programme. The planned expansion of the PES system should help facilitate information flows about job vacancies. It would be useful, though, to increase the co-ordination between the Ministry of Labour offices and those run by municipalities to ensure full compatibility of their respective computerised information systems. The expansion of the PES should be accompanied by removal of the remaining restrictions on private job placement agencies. Finally, temporary work agencies should be allowed to operate across a wide range of industries to promote labour market flexibility during a time of rapid restructuring.

Several issues related to labour union rights remain under discussion within the Tripartite Commission. Among the most important is whether public servants will be allowed to form proper trade unions endowed with collective bargaining rights. Most other OECD countries have recognised the right of civil servants to organise unions or other types of employee associations, although important restrictions remain as to the nature and scope of bargaining and the right to reach collective agreements. A second issue is the scope of public services defined as ‘‘essential’’ and therefore subject to compulsory arbitration in the case of industrial action. Many other OECD countries, though, restrict the right of public service employees to strike without constraining their right to organise. A third issue is how to organise bargaining once multiple unions are allowed at the company level beginning in 2002. Other issues include the ban on the payment of wages by firms to full-time union officers, a matter left to collective bargaining agreements in other OECD countries, and the law stipulating that dismissed workers may not remain members of a union. In other Member countries, unions are allowed to set the qualifications for membership. It is important that Korea continue to bring its industrial relations system into line with practices prevalent in other OECD countries.

Policies to enhance competition and to increase the knowledge base, efficiency and innovative capacity are also important. In the longer term, deregulation is a key to increasing competition and sustaining output and employment growth. In particular, a transparent, rule-based regulatory regime would help attract foreign investors by assuring them of non-discriminatory treatment. Reducing entry barriers, which remain pervasive, should promote job creation. In addition, it is essential to reduce red tape, which discourages entrepreneurship. Competition should also be increased by removing formal trade barriers and aspects of the domestic regulatory system that limit imports. In the area of technology, it is important to encourage foreign direct investment, which is a major potential source of innovation. In addition, the government should enhance the role of universities and encourage interaction between firms, government research institutes and universities. Moreover, it should avoid a policy of trying to ‘‘pick winners’’ in the area of technology. Indeed, some government proposals in the area of R&D have not sufficiently reflected the needs of companies, resulting in a low rate of voluntary participation. This has reduced the effectiveness of projects to develop technology. Finally, the principles for educational reform proposed by the presidential commission should be put into practice. Increased emphasis on lifelong learning and curricula that focus less on entrance examinations and more on creativity would be beneficial.

Notes

1. Export prices fell 13.4 per cent, while import prices fell 1.2 per cent in 1996. This terms-of-trade shock was equivalent to some 4 per cent of national income, most of it being borne by profits.
2. Insolvency data should not be looked at in isolation because they are dominated by the high birth and death rates among small firms However, stress in the company sector is clearly illustrated by the drop in the ratio of company registrations to insolvencies in 1997 to 3.4 compared with an average of 4.5 over the previous four years.
3. Part of this dependence on debt also reflected supply-side factors, notably an aversion to foreign direct investment, an underdeveloped equity market and tax advantages related to debt finance.
4. From 1987 to 1995, pre-tax rates of return on capital of industrial companies (ROC) were below pre-tax cost of debt (D). Bank of Korea data by industry group for 1993 to 1995 (capital stock data include land purchases at book value – land appreciation is excluded from earnings) indicate that ROC and D were: 11.7 and 12.6 per cent for the construction sector; 8.6 and 11.3 per cent in automobiles; 8.9 and 11.8 per cent in food; 11.5 and 11.8 per cent in chemicals and 10.5 and 9.3 per cent in the steel industry. In sum, only the steel industry realised profits in excess of debt charges from 1993 to 1995, a period of rapid growth. To a large extent, such mediocre ROCs reflected poor capital allocation across sectors. Korea's total capital input per capita in 1995 was 47 per cent of the US level. However, capital intensity was particularly high in construction (89 per cent of the US level), manufacturing and agriculture (81 and 84 per cent, respectively). By contrast, total factor productivity (TFP) is only 50 to 70 per cent of US levels in manufacturing and construction. For agriculture, TFP might be only a third of US levels. OECD estimates for Producer Subsidy Equivalents (PSEs) in agriculture indicate that despite a small decrease, the Korean PSE in 1996 was 78 per cent, twice the OECD average. The counterpart of these distortions has been a capital-starved service sector, particularly in trade and personal services which account for a large share of employment. For details, see McKinsey (1998).
5. Korea's phenomenal economic growth up until the 1980s provides an interesting case study for advocates of industrial policy, as it allowed Korea to break into world markets and industries where in principle it had little comparative advantage. For example, by 1997 Korea had the world's fifth-largest car industry and it had become the world's largest producer of DRAM chips. However, these achievements have been made at considerable cost, notably with respect to low profitability. To a large extent, this also reflects the small scale of Korean firms by world standards and an excessive number of domestic firms

competing across a wide range with a large number of similar products. Although Korea's use of total capital and labour inputs are similar to those in the United States in industry, the level of TFP trails by some 50 per cent, in part because fragmented production units have resulted in quite low average capacity utilisation rates. Indeed, most of Korean industry's success has been achieved *within* the product ranges related to its management and technological capabilities. For example, in the steel industry, Korea is competitive in basic production and processing activities, but its technology in free cutting steel is 70 to 90 per cent of Japan's level. Korea can also match Japan in the quality of flat steel for shipbuilding, but tensile strength for automotive flat steel trails by a third. Other industries reveal similar patterns. For example, technology in the automobile sector is 90 per cent that of the advanced countries (the United States, Germany and Japan), but it trails badly (in ascending order) in new product development, design and R&D capabilities. Most telling, defect rates during the first 90 days for new cars (Hyundai) were over 40 per cent higher than the industry average. As regards the semiconductor industry, Korea has been successful in producing DRAM chips, in part because much of this technology was bought off the shelf. However, Korea (as Japan) has made little inroads into the lucrative non-memory chip market where cutting edge technology and flexible management techniques and design are at a premium. By contrast, service sector productivity, as in Japan, is very low. Productivity in the retail sector, which accounts for 8 per cent of employment, is only a third of US levels. These examples draw extensively on industry case studies cited in Booz, Allen and Hamilton (1997) and, especially, McKinsey (1998).

6. This followed a cyclical peak in 1995 of 2.8 per cent, reflecting a boom in semiconductor and other export prices. Over the period 1989 to 1996, this ratio averaged 1.5 per cent (comparable figures in the United States were some three times higher, and rose to the 5 to 6 per cent range in 1995 and 1996).

7. Korean firms placed low priority on cash management and other principles of basic risk management. The end results have been a fragile set of cash-starved companies, which would be easy targets for hostile take-overs in a more competitive, deregulated environment.

8. The reliance on short-term borrowing probably reflected attempts to reduce interest costs by borrowing at shorter maturities.

9. It was at this point that some foreign banks began to reduce their exposure to Korea, first by cutting back their credit lines.

10. Participating banks agreed for a fixed period to abstain from calling in their loans or exercising their claims against certain firms on the brink of insolvency because of temporary funding problems. During this grace period, the possibility of turning the firm around was assessed. If the assessment was positive, the firm's rehabilitation programme was supported by a consortium of banks. In 1997, Jinro, Dainong, Kia Motors and Tail-Jung Mil came under this agreement. In the event, the standstill agreement proved futile, as most of these firms eventually entered into ''work out'' programmes or into court receivership later in 1997.

11. This measure understates sovereign risk at the height of the crisis because trading in Korean sovereign debt had stopped and no market quotes were available.

12. Kia Motors agreed to a ''work-out'' programme organised by its creditor banks to restructure rather than to liquidate it. (Hanbo Steel had a similar agreement in January 1997.) This work-out programme proved ineffective. Debate then raged as to whether the firm could be saved by externally imposed restructuring, finding a new investor or by merging. In the event, Kia was in essence nationalised, as a state-owned bank purchased 49 per cent of it in late October.

13. MCT consists of M2, certificates of deposit (CDs) plus trust accounts.

14. Recognising these difficulties, the Bank of Korea acted to stabilise financial markets immediately after the Kia failure in July by injecting W 1.5 trillion of liquidity through repurchase agreements. In September, further support was provided by an injection of W 1 trillion into troubled merchant banks and W 1 trillion into Korea First Bank. Further massive injections of liquidity (W 11.3 trillion) were also made at the height of the crisis in mid-December to offset the liquidity crunch associated with the closure of nine merchant banks. For details, see the calendar of economic events (Annex II).

15. These co-operative loans were often made at some 5 to 6 percentage points below those on corporate bonds.

16. Co-operative loans to distressed firms were reported to have risen by W 2 trillion since October, reaching some W 22 trillion by mid-May. Of this total, some W 9 trillion came from banks.

17. Corporate sector distress in 1997 has partly been ascribed to a ''credit crunch''. Although the concept is ambiguous, the term can be used to describe shifts in aggregate credit supply, owing to reductions in banks' ability to lend (*i.e.* a lower capital base) or a reluctance to lend (*e.g.* greater risk aversion or perceived risk for any class of borrower or the introduction of more objective credit risk analysis). Assessing the importance of the phenomenon is difficult. OECD Secretariat estimates below are based on a demand for credit relation, specified to capture transactions and precautionary demands, with error correction properties. This allows an estimate of what ''normal'' credit demand would have been, had equilibrium relations (debt/equity, liquidity ratios, etc.) prevailed in 1997. On these estimates, a credit crunch started in May, three months after the Hanbo scandal and worsened after the Hong Kong, China stock market collapsed in late October. From August to November, as Korea's equity, bond and commercial paper markets imploded, the short-fall in *ex ante* credit supply might have been 2 to 3 per cent. This was not a huge figure absolutely (some W 20 trillion) but still represented some 10 per cent of bank loans, when other credit lines had been cut off in the wake of financial panic, and would probably represent a lower end estimate, given distortions in year-end money supply data. In the event, the credit crunch worsened in 1998. By June 1998, bank loans were 1.5 per cent lower than their level in February.

18. The exchange rate was ''allowed'' to fluctuate in a band of plus or minus 2.25 per cent a day. In theory, the authorities intervened only to smooth erratic movements, but in practice, given continuing capital market restrictions, the system largely functioned as a fixed but adjustable peg.

19. Up to the end of October, some 90 per cent of commercial bank credit lines were still being rolled over. However, this ratio dropped precipitously from 60 to 20 per cent between

November and December. In January, the rollover rate recovered to some 80 per cent following an agreement to extend the maturities of Korea's foreign commercial bank debt.

20. The desirability of liberalising long-term capital flows was clearly stressed in the OECD *Economic Survey of Korea 1996,* p. 128.

21. The IMF programmes have had numerous critics including Sachs and Radelet (1998) and Feldstein (1998). However, probably the most balanced and penetrating analysis of the Asian crisis is by Krugman (1998*a* and 1998*b*).

22. The standby agreement projected GDP growth and inflation of some 2 to 3 and 7 per cent, respectively, and a small current account deficit.

23. The end of April review revised the 1998 GDP and inflation forecasts to –1 and 9 per cent, respectively. Fiscal targets have also been revised in line with the weaker economic outlook (see below), and the projection for a current account surplus revised cautiously upwards.

24. However, this ratio understates the role of the government in the economy, which has a pervasive influence through ownership of public companies, regulations, controls on allocation of capital, administrative guidelines, etc.

25. The central government budget includes the general account (64 per cent of expenditures) and twenty special accounts, which are financed by transfers from the general account, earmarked tax revenue and borrowing. The consolidated budget eliminates the double-counting due to transfers within the government.

26. As the system was only introduced in 1988, the size of benefits and the number of recipients are quite small. In 1994, for example, contributions were more than six times benefits.

27. The share of direct taxes in total tax revenue, already the lowest in the OECD area, fell to 36.5 per cent. The average in OECD countries is around 50 per cent. The low share in Korea has negative implications for equity. Tax receipts account for about 70 per cent of central government revenue in Korea.

28. Initial budgets are based on non-consolidated expenditure and revenues, while the reported rise in spending was on a consolidated basis. Over the past 12 years, expenditures and revenues on a consolidated basis have remained fairly constant at between 80 and 85 per cent of those on a non-consolidated basis.

29. A total of W 7.9 trillion is to be provided for the unemployed. About W 1.7 trillion will be provided by financial institutions, while another W 1.1 trillion will be provided by cutting the salaries of government employees. Consequently, the additional budget costs will total W 5.1 trillion. The W 3.6 trillion for financial sector restructuring is to be equally divided between the interest costs of expanding the deposit insurance system and financing KAMCO, which is purchasing the non-performing loans of banks (see Chapter II for details).

30. On a general government basis, the surplus would decline to about 2 per cent of GDP.

31. On a year-on-year basis, total employment in the first quarter of 1998 was down 3.7 per cent.

32. Surveys in Spring 1998 indicate that virtually all large companies implemented a freeze on base pay in their wage settlements, while a few cut wages. At the same time, overtime and bonuses, which account for almost 30 per cent of the wage bill (see Chapter IV), were cut sharply at the end of 1997.

33. Linking bonus payments directly to profit performance would be an important step forward towards an operational system of profit-sharing and would probably enhance labour market flexibility.

34. Analysis by the OECD Secretariat suggests that perhaps three-fourths of the projected $35 and $50 billion current account surpluses for these years might be cyclical. By 2003, when the economy is projected to re-attain trend output, this estimate would be consistent with a current account surplus of around 1 per cent of GDP (see below).

35. Four of the five-largest chaebols have recently reported their profit and loss statements on a consolidated basis for the first time. The result was to double reported losses compared with their past reporting practices. For example, Samsung, LG and Hyundai reported losses ranging from $375 million to $400 million, while Daewoo reported a small profit. The 510 listed companies on the Korean Stock Exchange reported combined losses of W 4.55 trillion (roughly $3 billion.). Thirty per cent of firms reported losses.

36. These calculations are based on the cautious assumptions that new equity issues and FDI will each total W 3.5 trillion. In 1997, new share issues were W 3.4 trillion while total foreign investment was $6.9 billion, of which existing stock buyouts and M&As accounted for $698 million. In the first quarter of 1998, comparable figures were $572 and $329 million, respectively.

37. If land and real estate prices (which are reported to have dropped by one-third) are included, total wealth may have fallen by an amount equivalent to almost 100 per cent of GDP since late 1997.

38. In the past, Korea relied little on foreign investment due to its indigenous growth strategy and high saving rate. This resulted in a weak foreign presence and made Korea one of Asia's most difficult markets; according to managers participating in the International Institute for Management Development, Korea ranked among the least attractive sites for FDI in 1996. For example, Dow Chemical recently cancelled a multi-billion dollar project, which had already been approved by the central government, and moved to Malaysia because of conflicts over local zoning and other regulations. The government has introduced legislation to address this problem by setting up a ''one-stop'' FDI government office.

39. The MTB assumes that the won will correct for overshooting and re-attain the W 1 200 level by 2000 and remain constant at that rate through 2003.

40. TFP has contributed around 3 percentage points to growth since 1979 according to estimates by Pilat (1993) and Kim and Hong (1997). If the TFP contribution remains in that range, potential growth, taking account of labour and capital inputs, would be between 5 and 6 per cent.

41. Although the government plans to increase the contribution rate by 3 percentage points every five years from its current level of 9 per cent, the Social Security Fund will cease accumulating assets in 2008 and will move into deficit before 2030. To put the system on an actuarially-sound basis, fundamental reform, including some combination of a higher retirement age, less generous benefits and a more rapid increase in contributions, will be required.

42. See Song (1998).

43. Due to the magnitude of losses of NBFIs and the low level of the NBFIs capital and the insurance fund, the government may well have considerable liability for losses in the NBFI sector.

44. This is intended to limit moral hazard problems of financial institutions and their clients. The government will guarantee only the principal of new accounts if it exceeds W 20 million as of August 1998.

45. The responsibility for the rehabilitation of the banking system was originally assigned to the OBS. With the consolidation of regulatory functions in April 1998, the FSC assumed responsibility. During the early months of 1997, the OBS originally adopted a rather lenient policy with the view of allowing the banks to extend credit while giving them time to bring the problem of impaired credit under control gradually. However, as the crisis appeared increasingly threatening and as the government's attitude hardened, the banks were held to more rigorous standards for taking action to improve credit quality. In June 1997, the OBS issued rules requiring banks to set aside full provisions for losses by June 1999. In December 1997, policy was made yet more exacting with full provisioning required at the end of 1998.

46. Among the items covered by IAS30 are guidelines on the treatment of contingent commitments, losses on loans and advances, assets pledged as security, trust activities and related party activities.

47. Including loans 3 to 6 months in arrears would boost this figure to W 118 trillion.

48. The problem banks in question (with the acquiring bank in parentheses) are: 1) Dong Hwa Bank (Shinhan Bank); 2) Dongnam Bank (Housing and Commercial Bank); 3) Dae Dong Bank (Kookmin Bank); 4) Chung Chong Bank (Hana Bank); and 5) Kyungki Bank (Koram Bank).

49. The relatively few large firms that do not belong to the chaebols are mostly former or current state-owned companies, with relatively strong balance sheets and dominant market positions.

50. This refers to three-digit industries in the KSIC system of classification. In total, there are around 100 such industries.

51. The survival of chaebols depends, of course, on many other factors, including their level of debt and their ability to adjust to changing economic conditions. The number of affiliates of the six that filed for bankruptcy in 1997 were: Hanbo (21), New Core (18), Halla (17), Kia (16), Jinro (14) and Sammi (8). Hanbo and New Core operated in 13 industries, while Kia and Jinro were in 11, Halla in 12 and Sammi in 9. While the number of affiliates is relatively small, it increased much more rapidly for these six groups than for the other chaebols during the past three years.

52. The high concentration of ownership is not unique to chaebol-linked firms; it is also found in independent companies as well.

53. For example, the *de facto* holding companies of the leading chaebols are Hyundai Heavy Industries, Samsung Life Insurance and Samsung Electronics, LG Chemicals and LG Electronics, and Daewoo Heavy Industries and Daewoo Corporation.

54. As noted in Chapter I, for the thirty-largest chaebols, the average was more than 500 per cent in 1997.

55. The role of the state in economic development is discussed in Amsden (1989), Cho (1994), Shun-Woo Nam (1990 and 1994), Sakong (1993) and Westphal (1990).

56. Net assets are defined as total assets minus the sum of liabilities, equity investments made by other affiliates and any government subsidies.

57. The privatisation of a large part of the Korean banking sector took place in the early 1980s. In some of the banks, however, the state is still by far the largest shareholder. Apparently, it has been rather passive in directly exercising its shareholder rights. A few major, special-purpose banks, such as the Korea Development Bank, remain majority state-owned, but may be included in the privatisation plans of the new government.

58. The regulation of insurance portfolios seems to be stricter, with intra-group exposure limited to 5 per cent of total assets.

59. This includes 108 public enterprises. Of these, the government's share is over half in seventeen and under half in six enterprises. The remaining 85 companies, in which the government has no share, are subsidiaries of the above twenty-three. The 9 to 10 per cent share of value-added overstates the role of the public sector since it includes companies in which the government has only a minority holding or none at all.

60. On the other hand, the state often finds itself in the awkward position of becoming a totally passive shareholder in order to avoid political interference, thus leaving the management of public enterprises unchecked (see OECD, 1998).

61. In December 1993, the government announced an ambitious new plan to privatise 58 public enterprises and to merge 10. As of the end of 1997, however, only 26 public enterprises had been completely privatised, with another eleven still in the process and six merged into other companies. These measures shifted about 10 000 public employees to the private sector. In the revised 1996 plan, the number of public enterprises targeted for privatisation or merger was reduced to 33.

62. The most important legal provisions concerning shareholder protection in larger companies can be found in the Korean Commercial Code (the Company Law), Securities and Exchange Law and the listing requirements of the Korean Stock Exchange. The government is preparing a new Commercial Code, which has clauses covering cumulative voting, the fiduciary duty of directors and the indemnification of *de facto* directors.

63. The Financial Supervisory Commission combines the functions of the Office of Bank Supervision, Securities Supervisory Board and the Insurance Supervisory Board, as well as the supervisory authority of merchant banks (see Chapter II).

64. A derivative suit is an action brought by shareholders against one or more directors of a company in the name (and, eventually, at the cost) of the company.

65. It should be noted that some of the chaebols already have outsiders sitting on the boards of their major listed companies. In many OECD countries, including the United States, the United Kingdom and the Netherlands, this requirement is part of a voluntary code. In the case of Korea, however, it seems appropriate that the Korea Stock Exchange has made it part of its listing requirements, given the urgent need for increasing transparency in the market.

66. Since most loans have relatively short maturities, the phasing-out of debt guarantees will not be too disruptive.

67. It could be argued that improving corporate governance and increasing transparency would cause this practice to disappear gradually. However, given the deeply-entrenched nature of debt guarantees and the likelihood that changes in corporate governance will be more evolutionary than revolutionary, an outright prohibition seems preferable.

68. Some of the chaebols have already produced CFSs on a voluntary basis. For example, LG adopted this practice in fiscal 1995. A closer look at these accounts, however, reveals that a considerable degree of obscurity still remains as regards intra-group transactions. Moreover, large parts of the group, most notably its financial businesses, remain at arms-length accounting. The FSC will hold public hearings on a preliminary draft of standards for CFSs, which includes financial businesses and details of intra-group transactions. The final standards, which are scheduled to be completed by the end of October 1998, should require CFSs to effectively address these issues.

69. Individual companies have been required to mention in their footnotes such dealings with affiliated companies since 1996. However, without the legal requirement to combine financial statements, it was difficult to obtain a comprehensive picture of intra-group obligations.

70. The committee must include one outside director, the second and third-largest shareholders and the two largest creditors.

71. A unitary procedure does not distinguish between re-organising and liquidating assets. Instead, it allows the administrator of the debtor's estate (whether the debtor or a third party) and the creditors to proceed to the restructuring and/or liquidation of assets as they see fit in order to preserve value for the creditors.

72. Recently, the attitude of the courts seems to be shifting significantly towards a more rigorous application of existing norms. In two major March 1998 cases involving Kia Motors and New Core Group, judges refused to appoint incumbent management as administrators/receivers. This is a hopeful sign that insolvency proceedings will be used in the future as the important financial discipline and asset re-allocation tool they are intended to be in a market economy.

73. This also argues for a change in classification requirements. Loans should have been fully provisioned simply on the fact of delinquency, *i.e.* independent of the legal filing. Moreover, classification and provisioning requirements should not vary according to the type of the procedure chosen (*i.e.* composition instead of bankruptcy) as is currently the case.

74. LG might be considered a pioneer in chaebol reform. It introduced combined financial statements in 1995 and was the first one to include independent directors on the boards of its quoted subsidiaries. In addition, it was the first to announce organisational reform in early 1998.

75. While these are welcome developments, care should be exercised by government, supervisory authorities, shareholder associations and the companies themselves that practices similar to the Japanese ''sokaiya'' corporate extortion rackets are avoided. In this respect, the strengthening of the responsibilities of directors towards the company should not go so far as to impair the power of the directors to make and execute decisions that are required for the day-to-day functioning of the firm according to their business judgement, without having to follow cumbersome procedures.

76. The differences, though, are inflated by the low proportion of part-time workers in Korea.

77. Paid leave from work, including annual leave, holidays, sick leave and summer vacations, averaged 22.6 days (excluding Sundays) in 1996.

78. The agricultural workforce is relatively old; in 1995, more than two-thirds were over the age of 50.

79. In 1995, self-employed and family workers accounted for 82 per cent of the agricultural labour force. Consequently, their share of the total labour force was 37 per cent. Among OECD countries, this level is surpassed by Mexico (42 per cent), Greece (46 per cent) and Turkey (58 per cent).

80. Consequently, the proportion of full-time employment to the working-age population is 64 per cent, substantially higher than the OECD average of 57 per cent.

81. Beginning in the mid-1980s, Korea experienced acute shortages of labour in certain industries. This reflected the impact of population ageing, the increased length of time spent in formal education and the increased reluctance to work in ''3-D industries''. The labour shortage was most severe at small companies (10 to 29 employees), where it rose from 2.8 per cent of their work force in 1984 to 18 per cent in 1991, reflecting their difficulty in paying competitive wage rates.

82. Unemployed persons are defined as those without jobs who looked for work during the preceding week. Most OECD countries use the definition recommended by the OECD, which includes those who had sought to find employment during the preceding four weeks. Korea plans to adopt this definition in 1999, a change that may add about a quarter of a percentage point to the measured unemployment rate.

83. See Hahn (1996).

84. Although this law dates back to 1962, it has not entirely prevented conflicts between unions. For example, the 126-day strike at Hyundai Heavy Industry in 1987 was due to a dispute between unions.

85. A second national federation, the Korean Confederation of Trade Unions (KCTU), which was formed in 1993, has not been recognised. As of April 1998, the KCTU, which is dedicated to replacing the current enterprise-union system with industrial unions, had 535 203 members in 1 283 unions. The KCTU has been denied recognition primarily because it includes the Korean Teachers and Educational Worker's Union, which is unrecognised.

86. The relatively equal distribution in Korea reflected a variety of factors. *First,* the redistribution of land between 1947 and 1950 reduced inequality in rural areas. *Second*, much of the capital stock was destroyed during the Korean War, forcing everyone to start over again. *Third,* the emphasis on education and its availability to the entire population encouraged social mobility. *Fourth,* the outward-oriented development strategy increased exports of labour-intensive manufactures, boosting employment and wages. However, the degree of equality in Korea compares less favourably with more advanced countries. In other OECD countries, the ratio between the ninetieth and tenth percentiles of the population ranges between 2.5 and 6 (OECD, 1995).

87. This is consistent with the urban household survey, which shows that income distribution among urban families became more equal between 1990 and 1993. In contrast, the ratio of rural to urban household income does not show a clear trend, but instead has fluctuated

around one. In 1993, the ratio was 0.96 (see Choi and Kwon, 1997). Finally, a measure of within-group wage differentials narrowed between 1990 and 1993.

88. This figure, reported in the OECD's 1997 *Employment Outlook*, is based on the Ministry of Labour's *Yearbook of Labour Statistics.* The *Employment Outlook* also reports a figure of 8.7 years for average tenure based on the 1992 *Report on Employment Structure Survey.*

89. The average tenure reported in Table 23, which is based on a survey of firms with more than ten workers, differs from both measures reported in the OECD *Employment Outlook.*

90. Between 1986 and 1994, for example, the share of light industry, defined as food products, textiles, apparel and footwear, fell from 30 to 20 per cent of manufacturing value-added.

91. Such job-hopping is encouraged by the wage system, in contrast to Japan, where those who change jobs often take large pay-cuts. In Japan, a male worker in the 50 to 54 age group who joins a new company earns less than two-thirds of a worker with thirty years of tenure in the same firm.

92. See Kim and Lee (1997). In this regard, Korea resembles Japan, where established case law limits the right of dismissal (see OECD *Economic Survey of Japan 1996*).

93. In February 1998, for example, an investigation of 100 companies accused of unfair labour practices resulted in the arrest of seven company presidents.

94. See, for example, Young Sook Nam (1996).

95. In Korea, this ratio fell from 3.8 in 1970 due to the increased supply of university graduates following the expansion of tertiary education in the early 1980s. The OECD *Jobs Study* (1994) compared the wages of upper secondary school drop-outs to university graduates for full-time male employees in five countries. Only the United States, with a ratio of 2.0, was above Korea. For Korea and Japan, the comparison is based on monthly regular earnings plus one-twelfth of annual bonus earnings.

96. Wage increases at large firms were to be limited to 5 per cent that year, while in 1993 and 1994, the Federation of Korean Trade Unions and the Korea Employers' Federation negotiated a 5 to 8 per cent nationwide target range for wage hikes. When they could not agree in 1995 and 1996, the government proposed wage guidelines.

97. These figures are based on the *Monthly Labour Survey,* which includes firms with more than ten employees.

98. *First,* employers pay 0.2 per cent of their total wage bill to fund job security activities. These include the Public Employment Service, programmes to promote the employment of women and the elderly and employment subsidies. *Second,* skill development programmes are financed by a contribution of between 0.1 and 0.5 per cent of total wages, depending on the size of the firm. *Third,* the contribution for unemployment insurance is set at 0.6 per cent of total wages, half of which is paid by employers.

99. The average wedge is the sum of employees' and employers' social security contributions and personal income tax as a percentage of gross labour costs – gross wages plus employers' social security contributions. The marginal tax wedge is the percentage of any marginal increase in gross labour costs arising as a result of an increase in gross wages which is paid in employees' and employers' social security contributions and personal income taxes.

100. This includes in-kind benefits, such as food and free education and medical services. In addition, cash benefits, including regular monthly payments, rent and fuel subsidies, are provided.

101. In Korea, there are more than 17 000 persons in the labour force per PES officer. Countries with labour forces of roughly the same size, such as Italy or Spain, have 10 or 12 times more PES staff than does Korea. Comparisons of workers placed understates the importance of the PES since they tend to place workers in more stable, long-term jobs compared to private agencies. Moreover, their lower success rate reflects the fact that they get the most difficult cases.

102. The remaining 10 per cent of ALMP expenditure in 1996 was spent on measures for the disabled and employment subsidies, which are focused on the reintegration of women in the labour force after child-care leave and the hiring of workers above 55 years of age.

103. For example, quantitative restrictions on oranges were replaced by a tariff of 84.3 per cent.

104. However, significant areas, such as postal, educational, recreational, rail, pipeline, legal, medical and dental services, were excluded from Korea's GATS commitments.

105. Two new bureaus – Consumer Protection and Subcontract Policy – were created. The latter is intended to prevent abuse of small firms in their dealings with larger firms.

106. The licensing system was liberalised by abolishing the requirement for prior government approval and replacing it with a reporting system. The government can still block licensing agreements, however, since it can refuse to accept the report. For example, the government blocked Samsung's entry into the car market by refusing for two years to accept its technology licensing agreement with a Japanese company (see Kim and Seong, 1997).

107. The major sources of technology have been the United States, which has accounted for about half of royalty payments, and Japan, which received another third. By industry, the major purchasers of technology have been electronics, accounting for almost half, followed by machinery and chemicals.

108. For example, Hyundai acquired AT&T's GIS micro-electronics division and Samsung purchased AST Research.

109. The government defines high-tech industries as electronics, information, advanced machinery, chemical, aircraft and advanced automobiles.

110. This target, though, is unlikely to be met as surveys report that firms are planning to cut R&D expenditures by 10 to 30 per cent in 1998 in the wake of the economic crisis.

111. The HAN project, which absorbs about 13 per cent of government spending on technology, includes 256 megabite semiconductor chips, high-definition television and high-speed railways. The government requires the private sector to fund four-fifths of the programme.

112. These programmes include Banks' Investment Fund, Equipment Financing Fund, Foreign Currency Loan, Small and Medium Industry Fund for Equipment, Main Equipment Fund and Lease Fund (Ministry of Finance and Economics, *Economic Bulletin,* May 1996).

113. See OECD, *Education at a Glance* (1997), page 62. The 5 to 14 age group accounted for 16.4 per cent of Korea's population compared to an OECD average of 13.7 per cent.

114. At the primary school level, the ratio was 28 in Korea compared to a mean of 19 in the OECD countries. The ratio for secondary schools was 25 in Korea compared to an OECD mean of 15.

115. In 1992, enrolment in private schools accounted for 27 per cent of students in lower secondary schools, 63 per cent in upper secondary schools and 66 per cent in four-year universities and colleges. Consequently, private spending was particularly important for tertiary education, where it accounted for more than four-fifths of expenditures, reflecting the major role of private universities.

116. The Tripartite Commission was established in January 1998 by the then president-elect to address labour-market issues. The commission is composed of representatives of labour, management and government.

117. In particular, the government is concerned about possible rivalry between FKTU and KCTU-affiliated enterprise unions within firms, which could undermine industrial peace. To reduce this risk, the government has proposed establishing ‘‘a single bargaining channel’’ at the enterprise level. The ILO has asked Korea ‘‘to speed up the process of legalising trade union pluralism at the enterprise level’’ (309th Report of the Committee on Freedom of Association, March 1998). Ideas discussed in trade union circles in Korea include a merger of the FKTU and KCTU and a shift of bargaining to the industrial level, which would reduce the importance of enterprise unions.

118. The approval system for the tariffs on long distance and international telephone calls was changed to a notification system in January 1998. Charges for mobile phones and local telephone service will also be liberalised within three years. Later this year, entry barriers in the voice resale, Internet telephone and international call-back service markets are to be removed and the new entrants will be allowed to compete with conventional service providers.

119. The government has decided to abolish standards for entry into the power generation business and to introduce competition into the retail electricity market in 1998. In addition, prices for fuel were liberalised in January 1998.

120. The original report, *Educational Reform: Proposals for the Establishment of a New System of Education for an Age of Globalisation and Information*, was released in May 1995 and was followed by reports in February 1996, August 1996 and June 1997.

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Annex I

Corporate sector profitability

This annex analyses how corporate sector profitability might evolve in 1998-99 based on simulations of the manufacturing sector's aggregate income statement. These simulations are based on the OECD Secretariat's projections and assumptions for industrial output, compensation of employees, interest rates and inflation presented in Chapter I. The main implication of this experiment is that Korea's manufacturing base will not survive the 1998 crisis in the absence of significant pay cuts, labour shedding and debt restructuring. Similar implications hold for the corporate sector as a whole given the key role of manufacturing in the economy.

Table A1 summarises the main results of the simulation. For 1997 as a whole, the manufacturing sector is estimated to have recorded a small loss on ordinary income of

Table A1. **Manufacturing sector sales, costs and profits**

Per cent of sales

	1993	1994	1995	1996	1997	1998[1]	1999[1]
Sales (A)	100	100	100	100	100	100	100
Cost of sales plus selling and general administrative expenses (B)	93.0	92.4	91.7	93.5	91.7	89.7	88.8
of which: Labour costs	13.7	13.5	12.6	12.9	11.4	9.4	8.5
Operating income (A-B)	7.0	7.7	8.3	6.5	8.3	10.3	11.2
Non-operating costs (net) (C)	5.3	4.9	4.7	5.6	8.6	10.2	4.7
Net financial costs	4.3	4.1	4.0	4.3	4.9	4.8	4.1
Net foreign exchange losses	0.3	–0.1	–0.2	0.4	3.1	4.7	–0.2
Ordinary income (A-B-C)	1.7	2.7	3.6	1.0	–0.3	0.0	6.5
Memorandum items:							
Sales growth rate (per cent)	9.9	18.2	20.4	10.3	11.0	2.4	7.9
Debt-to-equity ratio (per cent)	294.8	302.5	286.7	317.1	396.3	350	300

1. OECD Secretariat projections.
Source: Bank of Korea.

0.3 per cent relative to sales, owing to a sharp rise in financial costs and large year-end foreign exchange-related losses. These high financial costs have persisted into 1998 and are likely to remain high, assuming that interest rates average 16.8 and 10 per cent in 1998 and 1999, and that the exchange rate broadly stabilises. Notwithstanding a projected 15 per cent drop in labour costs, this would barely suffice to achieve a full year balance with respect to corporate ordinary income. But by 1999, as the economy recovers, ongoing nominal wage moderation and lower foreign debt service costs (reflecting a modest recovery in the year-average level of the won), could swing the corporate sector back to significant profitability.

Assuming that private-sector investment spending is reduced by a third in 1998 and stabilises at this lower level in 1999, the manufacturing sector's debt to equity ratio could fall from almost 400 per cent in 1997 to perhaps 300 per cent in 1999. (The non-chaebol corporate sector had a debt to equity ratio in 1997 very similar to that for the manufacturing sector as a whole, at just under 400 per cent.) Net financial costs would fall accordingly. On these assumptions, lowering the manufacturing sector's debt to equity ratio to the 200 per cent target suggested by the government for the end of 1999 would only be attainable in the face of a surge in foreign direct investment or massive asset sales – improbable events in the coming 18 months in view of the depressed state of asset markets and investor confidence throughout Southeast Asia.

Annex II

Calendar of main economic events

1996

February

The Ministry of Finance and Economy announces a new plan for capital market liberalisation.

April

Foreigners are allowed to buy indirectly Korea's emerging growth stocks in the over-the-counter market (OTC).

The Monetary Board of the central bank cuts the reserve requirement ratio from 9.4 to 7.4 per cent, a change that is expected to increase the profitability of commercial banks. This was the first such reduction in six years.

June

The Deposit Insurance Corporation is founded.

The Ministry of Finance and Economy gives permission to 15 short-term finance companies to convert themselves into merchant banks. Consequently, the number of merchant banks in Korea is doubled.

October

Korea is invited to join the OECD and becomes the 29th member country in December.

1997

January

Hanbo Steel collapses under $6 billion in debts, the first bankruptcy of a leading Korean conglomerate in a decade.

March

Sammi Steel fails, provoking fears of a looming corporate debt crisis.

July

Thailand abandons the baht's peg with the US dollar.

Kia, Korea's third largest car maker, asks its creditors for a work-out agreement on its debt of $8 billion to avoid receivership.

August

In spite of strong intervention, the central bank is unable to defend the exchange rate at the level of W 900 per US dollar.

The government announces the possibility of guaranteeing, if necessary, the foreign liabilities of Korea's financial institutions.

September

As a follow-up to the government's financial market stabilisation measures announced in August, the Bank of Korea provides W 1 trillion in special loans to Korea First Bank and another W 1 trillion to the financially-troubled merchant banks.

October

Speculative attacks on the Hong Kong dollar lead to a sharp rise in interest rates and a fall in the stock market, with world-wide spillover effects.

November

As the central bank abandons its defence of the won, the exchange rate breaks through the W 1 000 level.

The government announces a set of financial support policies. These include measures to restructure the banks and to address the bad-loan problem, as well as widening the daily trading band for the currency from 2.25 to 10 per cent.

The new Minister of Finance and Economy announces that Korea would seek a rescue package from the International Monetary Fund.

Standard and Poor's, a credit-rating agency, lowers Korea's foreign currency long-term credit rating from AA+ to A–.

December

The Korean government and the IMF agree on a record $57 billion rescue loan.

The government suspends fourteen merchant banks and requires them to submit reorganisation plans by the end of the year, while promising to insure completely the principal of depositors in merchant banks.

The government invests W 1.18 trillion each in Seoul Bank and Korea First Bank by swapping equities held by the government for new issues by the bank. As a result, the government owns 59 per cent of the outstanding stock of each bank.

Citing the prospect of a liquidity squeeze, Standard and Poor's cuts Korea's long-term foreign-currency credit rating from A-minus to junk-bond status.

The 10 per cent daily trading band for the currency is abandoned and the won is allowed to float.

Kim Dae Jung is elected president on 18 December.

The government substantially opens the capital account by removing restrictions on the corporate bond market and on long-term borrowing by private firms, public institutions and local governments. In addition, the ceiling on foreign shareholding in domestic companies was boosted from 26 to 55 per cent.

The won plunges to a new record low of W 1 962.5 following the downgrading of Korea's credit rating.

1998

January

The Korean government and a group of thirteen leading international banks reach agreement on a plan to extend the maturities of approximately $24 billion of short-term Korean bank credit. Under the plan, this amount will be replaced by new loans guaranteed by the Korean government with maturities of one, two or three years, and bearing floating interest rates of $2\frac{1}{4}$ per cent, $2\frac{1}{2}$ per cent and $2\frac{3}{4}$ per cent, respectively, over the six-month London interbank offered rate (LIBOR).

The government orders the closure of ten merchant banks. The decision is based upon the restructuring plans submitted by the banks and the first report of the evaluating committee which audited all 30 merchant banks during December 1997.

February

The Tripartite Commission, consisting of the representatives of labour, business and the current and incoming government, reaches an agreement on various aspects of labour law reform. Most notably, labour agrees to allow layoffs should there be an urgent management need, or in the case of mergers and acquisitions.

The IMF approves the fifth instalment ($2 billion) of its stand-by agreement, bringing its total loans to Korea to $15.1 billion (out of a planned total of $21 billion).

The remaining 20 merchant banks are subject to a second round of evaluation. The government closes two of these banks while allowing 15 to resume normal operation (the decision on the remaining three is to be made later).

March

The World Bank approves the first instalment of a $2 billion Structural Adjustment Loan (SAL) for Korea.

Moody's, a credit-rating agency, changes its assessment of Korea's long-term credit standing (Ba1) from Review for Possible Downgrade (RPD) to stable status.

The Korean government announces that it will fully liberalise foreign exchange transactions and foreign investment.

The government and the Deposit Insurance Corporation (DIC) announce plans to privatise Korea First Bank and Seoul Bank. The government and the DIC each hold 47 per cent shares in the two banks.

April

The Korean government successfully sells $4 billion of dollar-denominated bonds. The yield on the $1 billion of five-year bonds is 345 basis points over the rate of US Treasury bonds with the same maturity, while that on the $3 billion of ten-year bonds was 355 basis points higher.

May

The government announces plans to restructure the financial sector. As of the end of March, problem loans (non-performing loans plus loans in arrears by 3 to 6 months) of all financial institutions were estimated at W 118 trillion, of which W 100 trillion worth is targeted for immediate disposal. It is estimated that the market value of these problem loans averages half of their book value. Therefore, the loss borne by financial institutions will be approximately W 50 trillion. The government will mobilise fiscal resources of W 50 trillion by issuing public bonds. Of this amount, W 25 trillion is for the resolution fund of the Korea Asset Management Corporation, W 16 trillion for the re-capitalisation of financial institutions and W 9 trillion for the DIC.

June

The creditor banks' review committees complete their first round assessment of client firms and decide to cut off any new credit to 55 non-viable firms, of which 20 are affiliated with the five-largest chaebols. The assets of these firms, however, represent less than 1 per cent of the total assets of the five chaebols.

The Financial Supervisory Commission (FSC) effectively closes five non-viable banks by merging them with healthier banks through so-called Purchase and Assumption (P&A) agreements. The rehabilitation plans of seven other banks receive conditional approval.

July

The Ministry of Finance and Economy revises the Foreign Exchange Management Regulation. This revision includes: liberalisation of overseas borrowings with maturities of over one year and issuance of securities with maturity of a minimum of one year by business enterprises; liberalisation of foreign investment in over-the-counter (OTC) stocks and bonds; and removal of restrictions on the purchase and sale of local real estate by foreigners.

STATISTICAL ANNEX AND STRUCTURAL INDICATORS

Table A. **Selected background statistics**

	Average 1987-97[1]	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
A. Percentage changes											
Private consumption[2]	7.8	9.0	10.8	10.7	9.5	6.6	5.7	7.6	8.3	6.8	3.1
Government consumption[2]	6.1	8.0	8.5	7.2	8.5	7.6	3.0	4.2	1.0	7.8	5.7
Gross fixed capital formation[2]	9.7	13.7	15.9	25.9	12.6	–0.8	5.2	11.8	11.7	7.1	–3.5
Total domestic demand[2]	7.9	11.4	12.6	13.1	11.3	3.4	4.3	10.2	8.3	8.2	–2.8
Exports of goods and services[2]	12.1	12.5	–4.1	4.2	11.8	11.0	11.3	16.5	24.0	13.0	23.6
Imports of goods and services[2]	13.5	12.9	16.3	14.3	19.2	5.1	6.7	21.7	22.0	14.8	3.8
GDP[2]	7.7	11.3	6.4	9.5	9.1	5.1	5.8	8.6	8.9	7.1	5.5
GDP price deflator	6.0	6.7	5.3	9.9	10.1	6.1	5.1	5.5	5.6	3.4	2.4
Industrial production	8.1	12.1	2.9	9.0	9.5	5.9	4.3	10.9	11.9	7.7	6.8
Employment	2.6	3.2	4.1	3.0	2.9	1.9	1.5	3.0	2.7	1.9	1.4
Compensation of employees (wages, current prices)	16.9	22.5	19.1	23.0	23.9	12.3	10.0	13.2	16.1	13.4	7.5
Productivity (GDP/employment)	5.0	7.9	2.2	6.3	6.0	3.1	4.1	5.4	6.0	5.1	4.1
Unit labour costs (compensation/GDP)	7.7	10.1	11.9	12.3	13.6	6.9	4.0	4.2	6.6	5.9	1.9
B. Percentage ratios											
Gross fixed capital formation as per cent of GDP at constant prices	35.7	29.6	32.3	37.1	38.3	36.1	36.0	37.0	37.9	38.0	34.7
Stockbuilding as per cent of GDP at constant prices	0.2	1.3	1.8	–0.2	0.6	0.1	–0.9	0.5	0.0	1.2	–2.4
Foreign balance as per cent of GDP at constant prices	1.1	8.1	2.3	–0.5	–2.6	–0.9	0.5	–1.1	–0.5	–1.3	7.0
Compensation of employees as per cent of GDP at current prices	46.4	42.1	44.7	45.7	47.2	47.5	47.0	46.5	46.9	48.0	47.8
Direct taxes as per cent of household income	5.1	4.3	4.3	4.8	4.6	4.9	5.3	5.5	6.2	6.1	. .
Household saving as per cent of disposable income	19.9	23.4	21.7	19.8	21.9	20.2	18.6	17.9	17.9	17.3	. .
Unemployment as per cent of total labour force	2.4	2.5	2.6	2.4	2.3	2.4	2.8	2.4	2.0	2.0	2.6
C. Other indicator											
Current balance (billion dollars)	–3.6	14.5	5.4	–1.7	–8.3	–3.9	1.0	–3.9	–8.3	–23.0	–8.2

1. Or last year available.
2. At constant 1990 prices.

Source: Bank of Korea and OECD.

Table B. **Expenditure on gross domestic product**

Trillion won

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
A. At current prices											
Private consumption	59.0	68.0	79.4	96.4	115.0	129.7	143.7	164.4	186.4	209.8	225.8
Government consumption	10.8	12.7	15.2	18.2	22.2	26.1	28.7	32.4	36.1	41.7	46.9
Gross fixed capital formation	32.6	39.4	47.6	66.6	82.9	87.9	96.2	109.4	128.7	143.7	147.3
Stockbuilding	0.8	1.9	2.5	–0.3	1.0	0.0	–2.5	0.9	1.7	6.1	–0.1
Total domestic demand	103.3	122.0	144.8	180.9	221.1	243.8	266.2	307.1	352.9	401.3	419.9
Exports	45.1	51.1	48.8	53.5	60.7	69.4	78.2	92.1	116.4	126.2	160.5
Imports	36.4	40.6	44.8	54.4	66.0	71.8	77.0	94.4	120.1	141.6	163.5
Statistical discrepancy	0.1	0.6	0.3	–0.4	–0.1	–1.0	–0.2	1.1	2.8	3.9	4.2
GDP	112.1	133.1	149.2	179.5	215.7	240.4	267.1	306.0	352.0	389.8	421.0
Net factor income	–2.4	–1.8	–1.2	–1.3	–1.5	–1.7	–1.6	–2.2	–3.0	–3.4	–5.0
GNP	109.7	131.4	147.9	178.3	214.2	238.7	265.5	303.8	349.0	386.4	416.0
B. At 1990 prices											
Private consumption	72.1	78.6	87.1	96.4	105.5	112.5	118.9	127.9	138.5	147.9	152.5
Government consumption	14.5	15.6	17.0	18.2	19.7	21.2	21.9	22.8	23.0	24.8	26.2
Gross fixed capital formation	40.1	45.6	52.9	66.6	75.0	74.4	78.3	87.5	97.7	104.6	100.9
Stockbuilding	0.7	2.0	2.9	–0.3	1.1	0.2	–1.9	1.2	0.1	3.2	–6.9
Total domestic demand	127.4	141.9	159.9	180.9	201.4	208.3	217.1	239.3	259.3	280.6	272.8
Exports	47.5	53.5	51.3	53.5	59.8	66.4	73.9	86.0	106.7	120.5	149.0
Imports	36.3	41.0	47.6	54.4	64.9	68.2	72.8	88.6	108.0	124.0	128.7
Statistical discrepancy	–0.2	–0.4	0.4	–0.4	–0.3	–0.5	–0.5	–0.4	–0.4	–1.4	–2.2
GDP	138.5	154.1	164.0	179.5	195.9	205.9	217.7	236.4	257.5	275.7	290.9
Net factor income	–2.6	–1.9	–1.3	–1.3	–1.5	–1.6	–1.5	–2.0	–2.8	–3.5	–5.3
GNP	135.9	152.2	162.7	178.3	194.5	204.2	216.2	234.3	254.7	272.2	285.6

Source: Bank of Korea and OECD, *National Accounts.*

Table C. **Gross domestic product by industry**

Percentage of total

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
At 1990 prices											
Agriculture, forestry and fishing	10.9	10.7	10.0	8.7	8.0	8.1	7.4	6.9	6.6	6.4	6.2
Mining and quarying	0.8	0.7	0.7	0.6	0.5	0.4	0.4	0.4	0.3	0.3	0.3
Manufacturing	29.1	29.7	29.1	29.2	29.1	29.1	28.9	29.4	30.0	30.1	30.3
Electricity, gas and water	1.9	1.9	2.0	2.2	2.1	2.2	2.3	2.4	2.4	2.5	2.7
Construction	9.6	9.3	10.1	11.5	12.1	11.5	11.8	11.4	11.3	11.3	11.0
Wholesale and retail trade, restaurants and hotels	13.1	13.1	12.8	12.9	12.8	12.8	12.6	12.6	12.5	12.4	12.3
Transport, storage and communication	6.4	6.4	6.6	6.7	6.8	7.1	7.3	7.5	7.8	8.2	9.0
Finance and insurance [1]	13.4	14.0	14.6	14.9	15.4	16.2	17.2	17.4	17.2	17.2	17.2
Community, social and personal services	3.4	3.4	3.5	3.5	3.5	3.6	3.6	3.7	3.7	3.6	3.5
Total industry	88.6	89.3	89.5	90.1	90.5	91.0	91.6	91.8	91.9	92.0	92.5
Producers of government services	8.3	7.8	7.6	7.3	6.9	6.8	6.6	6.2	5.8	5.5	5.4
Other producers	2.5	2.5	2.5	2.4	2.3	2.3	2.3	2.2	2.1	2.1	2.0
Import duties	3.4	3.4	3.7	3.8	4.2	4.1	4.1	4.5	5.0	5.3	5.0
(*less*) Imputed bank service changes	2.8	2.9	3.3	3.6	3.9	4.3	4.6	4.7	4.8	4.9	4.9

1. Includes ownership of dwellings.

Source: Bank of Korea and OECD, *National Accounts.*

Table D. **Gross domestic product in manufacturing by industry**

Percentage of total

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
At current prices, factor cost											
Food, beverage and tobacco	14.6	13.4	12.9	13.2	13.1	12.4	12.3	12.4	12.3	10.9	11.5
Textiles and leather industries	16.2	16.6	14.0	12.9	11.6	10.3	9.5	7.6	6.5	5.1	4.4
Wood and wood products, including furniture	0.8	0.9	0.8	0.8	0.8	0.8	0.7	0.8	0.7	0.6	0.6
Paper, paper products, printing, etc.	4.5	4.2	4.1	4.4	4.3	4.2	4.3	4.3	4.8	4.6	4.6
Chemicals, petroleum, coal, rubber and plastic products	17.5	16.8	17.3	16.5	14.6	17.1	18.4	19.0	19.1	20.1	19.9
Non-metallic mineral products except coal and petroleum	4.9	4.7	4.9	5.0	5.3	5.8	5.7	5.2	4.5	4.2	4.3
Basic metal industries	7.8	8.7	9.4	9.3	8.9	9.3	8.6	9.1	8.3	8.9	8.0
Fabricated metal products, machinery and equipment	30.6	31.4	33.2	34.7	38.6	37.3	38.0	39.6	41.9	43.9	45.2
Other manufacturing industries	3.2	3.4	3.4	3.3	2.8	2.7	2.4	2.2	1.9	1.7	1.6

Source: Bank of Korea and OECD, *National Accounts.*

Table E. **Cost components of gross domestic product**

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
						Billion won					
Compensation of employees	45 386	55 714	66 368	81 740	101 360	113 876	125 165	141 766	164 696	186 788	200 791
Operating surplus	42 605	48 547	50 978	58 649	69 178	75 248	84 510	97 289	108 146	110 427	117 522
Consumption of fixed capital	11 591	14 052	15 688	18 587	21 590	23 926	26 964	29 910	35 544	40 606	44 080
Gross domestic product at factor cost	99 583	118 313	133 033	158 976	192 128	213 050	236 639	268 965	308 385	337 821	362 394
Indirect taxes	13 068	15 212	16 763	21 519	24 857	28 916	32 549	39 152	45 912	53 564	59 346
Subsidies	520	391	631	956	1 251	1 573	2 041	2 147	2 322	1 572	753
Gross domestic product at market prices	112 130	133 134	149 165	179 539	215 734	240 392	267 146	305 970	351 975	389 813	420 987
						As percentage of GDP at factor cost					
Compensation of employees	45.6	47.1	49.9	51.4	52.8	53.5	52.9	52.7	53.4	55.3	55.4
Operating surplus	42.8	41.0	38.3	36.9	36.0	35.3	35.7	36.2	35.1	32.7	32.4
Consumption of fixed capital	11.6	11.9	11.8	11.7	11.2	11.2	11.4	11.1	11.5	12.0	12.2
Gross domestic product at factor cost	100	100	100	100	100	100	100	100	100	100	100
Indirect taxes	13.1	12.9	12.6	13.5	12.9	13.6	13.8	14.6	14.9	15.9	16.4
Subsidies	0.5	0.3	0.5	0.6	0.7	0.7	0.9	0.8	0.8	0.5	0.2
Gross domestic product at market prices	112.6	112.5	112.1	112.9	112.3	112.8	112.9	113.8	114.1	115.4	116.2

Source: Bank of Korea and OECD, *National Accounts.*

Table F. **Cost components of gross domestic product by industry**

Per cent of total

	1985			1990			1995			1996		
	Capital consump-tion	Compen-sation of employees	Operating surplus	Capital consump-tion	Compen-sation of employees	Operating surplus	Capital consump-tion	Compen-sation of employees	Operating surplus	Capital consump-tion	Compen-sation of employees	Operating surplus
Agriculture, forestry and fishing	5.1	12.9	82.0	5.5	12.0	82.5	8.0	10.8	81.2	8.3	10.7	81.0
Mining and quarying	18.6	71.3	10.1	16.2	61.2	22.6	12.3	58.5	29.2	12.6	50.2	37.1
Manufacturing	15.2	46.8	38.0	16.1	52.9	31.0	15.5	45.7	38.8	16.5	48.6	35.0
Electricity, gas and water	32.4	18.6	49.0	33.1	22.1	44.8	33.6	21.4	44.9	37.0	23.3	39.7
Construction	6.8	56.8	36.3	8.0	66.5	25.5	7.4	73.3	19.3	7.1	74.5	18.4
Distribution	3.7	31.4	64.9	3.7	34.0	62.3	3.5	36.1	60.4	3.6	37.2	59.2
Transport and communication	22.4	48.9	28.6	22.4	51.0	26.6	19.6	49.5	30.9	21.8	50.9	27.3
Finance and insurance, etc.[1]	11.5	32.6	55.9	11.9	35.2	52.9	12.4	41.0	46.6	12.6	41.7	45.7
Community services	5.3	55.0	39.7	4.9	58.7	36.4	4.7	61.0	34.3	4.7	61.1	34.1
Total industry	11.5	38.2	50.4	11.9	44.2	44.0	11.8	45.6	42.6	12.3	47.3	40.4
Producers of government services	5.7	94.3	..	5.1	94.9	..	5.1	94.9	..	5.3	94.7	..
Other producers	8.4	91.6	..	7.4	92.6	..	6.9	93.1	..	6.8	93.2	..
Total GDP	11.3	45.3	43.4	11.7	51.4	36.9	11.5	53.4	35.1	12.0	55.3	32.7
GDP in manufacturing by industry												
Food, beverage and tobacco	14.5	49.1	36.4	13.1	51.7	35.3	13.4	52.1	34.6	13.6	52.6	33.9
Textiles and leather industries	11.1	57.3	31.6	9.9	60.4	29.7	10.2	61.8	28.1	8.0	63.6	28.4
Wood and wood products	11.4	55.1	33.5	9.4	57.2	33.4	11.6	54.1	34.3	11.8	55.7	32.6
Paper, paper products, printing, etc.	10.6	57.2	32.3	15.3	57.3	27.3	13.9	54.2	31.9	23.6	56.1	20.3
Chemicals, petroleum, coal, rubber	17.0	34.2	48.8	23.0	47.1	30.0	19.7	36.3	44.0	24.5	40.4	35.1
Non-metallic mineral products	19.6	42.2	38.2	17.1	52.2	30.7	15.5	54.4	30.1	15.1	54.5	30.5
Basic metal industries	24.9	29.5	45.7	22.4	35.3	42.2	14.4	31.8	53.8	15.3	36.4	48.3
Machinery and equipment	14.8	50.3	34.9	15.1	55.5	29.3	15.3	47.3	37.4	14.2	50.1	35.7
Other manufacturing industries	8.7	55.7	35.7	10.8	68.7	20.6	9.9	67.3	22.8	9.1	67.2	23.7

1. Includes ownership of dwellings.

Source: OECD, *National Accounts.*

Table G. **Gross fixed capital formation**

Billion won

	1985	1990	1994	1995	1996	1985	1990	1994	1995	1996
	Current prices					1990 constant prices				
By type of capital goods:										
Residential building	3 521	14 578	23 393	27 619	29 385	4 865	14 578	16 935	18 391	18 464
Non-residential building	3 613	12 282	18 610	22 867	23 979	5 128	12 282	13 716	15 532	15 308
Other construction	4 904	10 361	23 154	26 181	32 577	7 041	10 361	17 039	17 626	20 571
Land improvement	1 163	2 385	4 429	5 719	7 248	2 056	2 385	2 895	3 454	4 040
Transport equipment	3 239	7 752	12 480	12 668	13 408	4 067	7 752	11 847	12 025	12 528
Machinery and equipment	6 914	19 093	27 152	33 419	36 945	7 793	19 093	24 879	30 496	33 566
Breeding stock	81	119	161	191	147	69	119	174	193	165
Gross fixed capital formation	23 435	66 569	109 379	128 664	143 689	31 018	66 569	87 484	97 717	104 641
By kind of economic activity:										
Agriculture, forestry and fishing	1 585	4 583	6 903	7 972	9 879	2 152	4 583	5 065	5 421	6 295
Mining and quarrying	245	305	293	202	195	353	305	230	168	151
Manufacturing	6 010	18 932	26 081	34 432	38 547	7 353	18 932	22 002	27 783	30 239
Electricity, gas and water	1 738	2 333	5 859	7 479	8 601	2 257	2 333	5 275	6 220	6 715
Construction	622	1 997	2 569	2 816	3 193	861	1 997	2 157	2 208	2 398
Distribution	1 020	2 835	4 562	4 997	5 955	1 408	2 835	3 544	3 761	4 270
Transport and communication	3 481	6 189	9 784	13 393	12 938	4 174	6 189	8 579	11 158	11 182
Finance, insurance and real estate	4 564	20 328	35 112	37 132	39 318	6 481	20 328	27 092	27 141	27 148
Community services	492	1 311	2 908	3 183	3 615	642	1 311	2 226	2 286	2 405
Public administration	3 679	7 757	15 308	17 058	21 449	5 338	7 757	11 314	11 572	13 838

Source: Bank of Korea and OECD, *National Accounts.*

Table H. **Household appropriation account**

Billion won

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Compensation of employees	45 754	56 045	66 742	82 083	101 739	114 283	125 670	142 232	165 189	187 242
Operating surplus	27 205	31 674	34 273	37 786	43 987	47 174	50 080	55 342	60 479	67 065
Property and entrepreneurial income	5 915	6 950	8 689	11 818	15 737	18 883	22 545	29 276	38 049	41 834
Withdrawals from quasi-corporate firms	564	597	541	693	804	814	1 053	1 432	1 590	1 335
Interest	4 236	4 950	6 258	9 123	13 039	16 258	19 249	25 530	33 519	37 666
Dividends	553	625	1 049	1 107	1 099	1 140	1 361	1 342	1 892	1 588
Rent	562	778	841	896	796	671	882	972	1 049	1 245
Other current transfers	9 638	11 687	15 445	19 240	23 858	29 152	33 154	37 992	42 339	45 879
Social security benefits	1 023	1 420	1 844	2 671	3 163	4 142	4 587	5 353	6 209	7 855
Social assistance grants	476	639	754	966	1 548	1 769	1 974	2 284	2 352	2 479
Other transfers	8 138	9 629	12 847	15 602	19 146	23 241	26 593	30 355	33 778	35 545
Total income	88 512	106 356	125 149	150 927	185 321	209 491	231 449	264 842	306 056	342 019
Direct taxes	3 209	4 424	5 097	6 822	8 054	9 636	11 508	13 505	17 266	19 044
Fees and fines	225	317	376	503	659	761	1 056	1 245	1 720	2 039
Social security contributions	1 171	2 039	2 661	3 359	4 133	5 062	7 175	7 842	9 122	11 602
Interest	2 912	3 658	4 822	7 050	9 318	12 599	14 052	18 717	24 729	28 222
Net land rent	542	762	826	828	776	603	811	919	975	1 141
Other transfers paid	4 931	6 407	9 895	12 127	15 154	18 302	20 379	22 334	25 102	26 123
Total deductions	12 990	17 606	23 676	30 689	38 095	46 962	54 982	64 562	78 915	88 170
Disposable income	75 522	88 749	101 474	120 238	147 226	162 529	176 467	200 280	227 141	253 849
Consumption	59 031	67 963	79 424	96 388	115 043	129 735	143 722	164 356	186 413	209 818
Saving	16 491	20 786	22 050	23 850	32 183	32 794	32 745	35 924	40 728	44 031
Saving ratio[1]	21.8	23.4	21.7	19.8	21.9	20.2	18.6	17.9	17.9	17.3

1. As a percentage of disposable income.

Source: Bank of Korea and OECD, *National Accounts.*

Table I. **Non-financial corporate enterprises appropriation account**

Billion won

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Receipts										
Operating surplus	16 754	18 425	19 071	23 743	29 091	32 714	38 639	47 120	55 492	52 333
Interest	1998	2 848	3 799	4 711	6 793	8 226	8 188	9 658	11 992	13 614
Dividends	166	253	337	322	400	452	418	507	651	783
Rent	34	72	58	82	120	156	198	231	364	292
Casualty insurance claims	745	813	1 049	1 522	1 991	2 701	2 972	3 338	3 668	4 140
Current receipts, total	19 696	22 410	24 314	30 380	38 395	44 248	50 415	60 853	72 166	71 162
Disbursements										
Interest	8 675	9 660	11 569	14 145	19 707	23 821	25 645	30 120	37 157	42 329
Dividends	911	1 019	1 532	1 534	1 808	1 948	2 278	2 731	3 021	2 836
Rent	543	674	853	1 131	1 318	1 478	1 368	1 643	2 158	2 293
Withdrawals from quasi-corporate firms	564	597	541	693	804	814	1 053	1 432	1 590	1 335
Direct taxes [1]	2 042	2 641	4 063	4 541	5 264	5 971	5 800	7 275	9 305	10 265
Other transfers	1 665	1 754	2 427	3 123	3 937	4 996	6 106	6 370	7 431	7 595
Current disbursements, total	14 400	16 345	20 985	25 167	32 838	39 028	42 250	49 571	60 662	66 653
Saving	5 296	6 065	3 329	5 213	5 557	5 220	8 165	11 282	11 504	4 509

1. Including fines, fees, penalties and other transfers n.e.c to general government.

Source: Bank of Korea and OECD, *National Accounts.*

Table J. **General government appropriation account**

Billion of won

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Receipts											
Direct tax	5 555	7 611	9 719	11 726	13 891	16 249	18 100	21 740	27 187	29 696	29 943
Social security contributions	1 171	2 039	2 661	3 359	4 133	5 062	7 175	7 842	9 122	11 602	13 607
Other current transfers received	412	565	611	828	1 172	1 462	2 212	2 396	2 899	3 221	3 105
Indirect taxes	13 068	15 212	16 763	21 519	24 857	28 916	32 549	39 152	45 912	53 564	59 346
Property income	703	854	1 242	1 613	2 132	2 396	2 579	2 818	3 368	4 845	5 131
Current receipts, total	20 909	26 281	30 996	39 045	46 185	54 085	62 615	73 948	88 488	102 928	111 132
Disbursements											
Final consumption expenditure	10 843	12 660	15 238	18 187	22 170	26 110	28 746	32 425	36 087	41 723	46 888
Subsidies	520	391	631	956	1 251	1 573	2 041	2 147	2 322	1 572	753
Property income	778	756	756	829	967	1 060	1 189	1 457	1 899	2 065	2 115
Social security benefits	1 023	1 420	1 844	2 671	3 163	4 142	4 587	5 353	6 209	7 855	11 133
Social assistance grants	476	639	754	966	1 548	1 769	1974	2 284	2 352	2 479	2 739
Other transfers	385	516	645	898	1 164	1 741	2 329	3 064	4 186	5 416	6 541
Current disbursements, total	14 025	16 382	19 868	24 507	30 263	36 395	40 866	46 730	53 055	61 110	70 169
Saving	**6 884**	**9 899**	**11 128**	**14 538**	**15 922**	**17 690**	**21 749**	**27 218**	**35 433**	**41 818**	**40 963**

Source: Bank of Korea and OECD, *National Accounts.*

Table K. **Central government appropriation account**

Billion won

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Income and outlays											
Direct taxes	5 222	7 163	9 122	10 953	12 821	14 819	16 421	19 619	24 520	26 452	26 303
Fees, fines and penalties	253	344	441	586	790	882	1 219	1 369	1 684	2 053	2 144
Indirect taxes	11 128	12 465	12 284	15 768	17 665	20 611	22 965	27 686	32 753	39 001	43 841
Property and entrepreneurial income	484	549	762	833	1 029	1 183	1 258	1 285	1 506	2 039	2 616
Other current transfers	79	124	54	94	205	325	627	580	657	645	533
Current receipts	17 166	20 645	22 663	28 234	32 510	37 820	42 490	50 539	61 120	70 190	75 437
Final consumption expenditure	6 849	7 856	9 270	10 764	12 649	14 469	15 831	17 419	18 617	21 006	23 630
Property income	629	596	554	662	748	786	901	887	1 361	1 539	1 463
Subsidies	517	387	625	944	1 236	1 553	2 009	2 104	2 250	1 501	673
Other current transfers	4 582	5 393	6 647	8 447	11 485	13 582	14 761	18 545	22 314	25 138	29 230
Transfers to other government subsectors	4 186	4 788	5 896	7 543	9 992	11 787	12 703	15 963	19 020	21 502	24 727
Social assistance grants	248	375	486	600	1 006	1 156	1 195	1 370	1 314	1 367	1 589
Other transfers n.e.c.	148	230	265	304	487	639	863	1 212	1 980	2 269	2 914
Current expenditure	12 577	14 232	17 096	20 817	26 118	30 390	33 502	38 955	44 542	49 184	54 996
Saving	4 589	6 413	5 567	7 417	6 392	7 430	8 988	11 584	16 578	21 006	20 441
Capital accumulation											
Consumption of fixed capital	182	228	259	339	363	387	430	475	519	597	..
Net saving	4 589	6 413	5 567	7 417	6 392	7 430	8 988	11 584	16 578	21 006	20 441
Capital transfers	–1 228	–1 275	–1 401	–1 538	–1 805	–2 312	–1 906	–2 772	–3 518	–3 798	..
From other government subsectors	–972	–971	–1 092	–1 587	–1 994	–2 429	–2 475	–2 763	–3 471	–3 845	..
From other resident sectors	–255	–304	–309	49	189	116	569	–10	–47	48	..
Finance of gross accumulation	3 543	5 366	4 425	6 218	4 950	5 505	7 512	9 287	13 579	17 805	..
Gross fixed capital formation	1 459	1 534	1 676	1 923	2 167	2 755	3 128	3 341	3 996	5 817	..
Stockbuilding	33	143	–23	–56	22	26	30	–24	16	–16	..
Land purchases	–5	88	183	188	387	320	407	301	405	969	..
Purchases of intangible assets, net	0	0	0	2	–1	1	0	1	–1	0	..
Net lending	2 057	3 601	2 590	4 160	2 373	2 402	3 947	5 668	9 162	11 035	
Gross accumulation	3 544	5 366	4 426	6 217	4 948	5 504	7 512	9 287	13 578	17 805	..

Source: OECD, *National Accounts.*

Table L. **Balance of payments**

Million US dollars

	1990	1991	1992	1993	1994	1995	1996	1997
Exports, fob	63 659	70 541	76 199	82 089	94 964	124 632	129 968	138 619
Imports, fob	66 109	77 344	77 954	79 771	97 824	129 076	144 933	141 798
Trade balance	–2 450	–6 803	–1 755	2 319	–2 860	–4 444	–14 965	–3 179
Non-factor services, net	–615	–2 153	–2 884	–2 126	–1 801	–2 979	–6 179	–3 200
Transportation	–819	–1 024	–1 151	–815	247	–373	–1 465	695
Travel	393	–358	–523	–569	–1 173	–1 190	–2 603	–2 256
Other	–189	–771	–1 210	–743	–875	–1 416	–2 112	–1 639
Investment income, net	–88	–164	–396	–391	–487	–1 303	–1 815	–2 454
Transfers, net	1 150	803	1 091	1 188	1 280	218	–46	667
Current balance	–2 003	–8 317	–3 943	990	–3 867	–8 508	–23 005	–8 167
Capital account	2 896	6 741	6 994	3 216	10 732	17 273	23 924	1 922
Direct investment	–263	–309	–433	–752	–1 652	–1 776	–2 345	–1 605
Assets	1 052	1 489	1 162	1 340	2 461	3 552	4 670	–4 449
Liabilities	789	1 180	728	588	809	1 776	2 325	2 844
Portfolio	84	3 055	5 803	10 014	6 120	11 591	15 185	14 295
Other investment	3 075	3 995	1 625	–6 047	6 264	7 459	11 085	–10 768
Other capital	–331	–330	–407	–475	–437	–488	–598	–608
Errors and omissions	–1 747	762	1 064	–723	–1 782	–1 233	1 067	–5 069
Change in reserve assets	1 186	1 143	–3 708	–3 008	–4 646	–7 045	–1 389	11 922

Source: Bank of Korea.

Table M. **Imports by principal commodities**

Million US dollars

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Coal and coke	1 165	1 306	1 288	1 599	1 616	1 733	1 777	2 081	2 337	2 399
Crude petroleum	3 687	4 932	6 385	8 133	9 548	9 151	8 878	10 809	14 432	17 772
Organic chemicals	3 168	3 537	3 349	3 466	2 814	2 919	3 488	5 364	4 880	4 893
Plastics	1 052	1 143	1 225	1 381	1 356	1 516	1 770	2 160	2 174	2 079
Woven textiles	777	956	1 030	1 210	1 311	1 284	1 606	1 854	1 752	1 598
Non-ferrous metals	1 655	1 871	1 887	2 128	2 025	2 226	3 066	4 617	4 126	4 395
Power generating equipment	1 285	1 298	1 612	2 334	2 782	2 493	2 768	3 891	3 666	3 480
Metal working machinery	986	1 384	1 294	1 654	1 583	1 184	1 788	2 341	3 192	2 082
Heating and cooling equipment	579	844	983	1 127	1 086	795	1 337	1 784	2 160	1 410
Office machinery	1 457	1 606	1 813	1 995	1 735	2 001	2 615	3 570	3 992	3 719
Telecommunications equipment	1 065	1 011	1 093	1 284	1 377	1 645	2 221	2 659	3 069	2 844
Semi-conductors	3 591	4 073	4 560	5 309	6 012	5 650	6 983	9 838	11 448	13 758
Aircraft	1 444	1 225	1 068	1 822	1 965	1 846	2 208	2 479	2 766	1 671
Control instruments	1 139	1 401	1 570	1 811	1 776	2 049	2 664	3 607	3 886	3 561
Total of above	23 050	26 587	29 157	35 253	36 986	36 492	43 169	57 054	63 879	65 660
Other products	28 760	34 878	40 687	46 272	44 789	47 308	59 179	78 065	86 460	78 956
Total imports	51 810	61 465	69 844	81 525	81 775	83 800	102 348	135 119	150 339	144 616

Source: Bank of Korea.

Table N. **Exports by principal commodities**

Million US dollars

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Woven fabrics	3 057	3 461	4 150	5 114	5 735	6 444	7 838	8 735	8 703	8 864
Iron and steel plates	1 966	2 351	2 536	2 811	3 257	3 515	3 261	3 923	3 747	4 139
Office machinery	2 573	2 762	2 702	2 918	3 091	3 474	3 607	4 967	5 673	6 405
TVs	1 421	1 362	1 506	1 633	1 537	1 463	1 698	1 901	2 207	1 558
Radios	1 424	1 321	1 377	1 232	1 184	1 126	1 092	909	530	377
Recorders	1 766	1 633	1 408	1 555	1 479	1 582	1 757	1 824	1 747	1 293
Telecommunication equipment	1 597	1 762	1 981	2 116	2 337	2 922	3 687	4 244	4 404	4 572
Household electric goods	1 274	1 085	833	1 024	1 091	1 213	1 485	1 685	1 909	1 901
Semi-conductors	3 856	4 702	5 364	6 645	7 763	8 078	11 848	19 373	17 035	19 663
Cars	3 336	2 048	1 849	2 124	2 534	3 884	4 470	7 243	9 089	9 264
Ships	1 759	1 788	2 800	4 129	4 113	4 061	4 945	5 533	7 127	6 520
Apparel	8 694	9 096	7 879	7 420	6 770	6 166	5 652	4 958	4 221	4 192
Footwear	3 800	3 587	4 307	3 836	3 184	2 309	1 780	1 506	1 236	982
Musical instruments	986	1 058	1 137	1 185	1 104	1 133	1 199	1 385	1 451	1 196
Total of above	37 509	38 016	39 829	43 742	45 179	47 370	54 319	68 184	69 079	70 924
Other products	23 187	24 361	25 187	28 128	31 452	34 866	41 694	56 874	60 636	65 240
Total exports	60 696	62 377	65 016	71 870	76 631	82 236	96 013	125 058	129 715	136 164

Source: Bank of Korea.

Table O. **Money and credit**

Billion won, end of period level

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
M1	12 151	14 329	15 905	21 752	24 586	29 041	32 511	38 873	39 542	35 036
Quasi-money	36 787	44 309	52 802	61 994	71 672	83 178	100 668	115 073	138 770	168 495
M2	48 939	58 638	68 708	83 746	96 259	112 219	133 179	153 945	178 312	203 532
Certificates of deposit	1 570	1 606	6 227	8 915	10 346	14 177	17 406	19 997	21 898	15 989
M2 plus CDs	50 509	60 244	74 934	92 661	106 604	126 396	150 584	173 943	200 209	219 521
Deposits of non-bank financial intermediaries	66 541	90 415	120 424	148 069	190 126	233 855	289 793	353 074	414 752	480 765
Total liquidity (M3)	120 359	153 927	198 124	244 837	298 277	354 933	442 663	527 017	614 962	700 285
Counterparts to M3										
Total domestic credit	122 004	158 179	204 073	255 376	303 385	364 121	455 239	537 960	638 059	763 282
Claims on private sector	120 528	156 802	203 136	253 865	299 390	352 872	443 855	528 981	628 444	747 307
Claims on public sector	1 476	1 377	937	1 511	3 995	11 248	11 384	8 979	9 616	15 976
Foreign sector (net)	4 872	7 357	7 890	3 742	6 007	9 156	9 421	9 214	3 678	–8 071

Source: Bank of Korea.

BASIC STATISTICS:

INTERNATIONAL COMPARISONS

BASIC STATISTICS: INTERNATIONAL COMPARISONS

	Units	Reference period [1]	Australia	Austria	Belgium	Canada	Czech Republic	Denmark	Finland	France	Germany	Greece
Population												
Total	Thousands	1996	18 289	8 060	10 157	29 964	10 316	5 262	5 125	58 380	81 877	10 465
Inhabitants per sq. km	Number	1996	2	96	333	3	131	122	15	106	229	79
Net average annual increase over previous 10 years	%	1996	1.3	0.6	0.3	1.3	0	0.3	0.4	0.5	3	0.5
Employment												
Total civilian employment (TCE)[2]	Thousands	1996	8 344	3 737 (94)	3 675 (95)	13 676	4 918	2 593	2 087	21 951	35 360	3 824 (95)
of which: Agriculture	% of TCE	1996	5.1	7.2 (94)	2.5 (95)	4.1	6.3	4	7.1	4.6	3.3	20.4 (95)
Industry	% of TCE	1996	22.5	33.2 (94)	26.7 (95)	22.8	42	27	27.6	25.9	37.5	23.2 (95)
Services	% of TCE	1996	72.4	59.6 (94)	71.4 (95)	73.1	51.7	69	65.3	69.5	59.1	56.4 (95)
Gross domestic product (GDP)												
At current prices and current exchange rates	Bill. US$	1996	398.9	228.7	268.2	579.2	56.2	174.9	125.1	1 536.6	2 353.5	91.2 (95)
Per capita	US$	1996	21 812	28 384	26 409	19 330	5 445	33 230	24 420	26 323	28 738	8 722 (95)
At current prices using current PPPs[3]	Bill. US$	1996	372.7	172.4	222	645.1	..	118	96.7	1 198.6	1 736.1	133.5
Per capita	US$	1996	20 376	21 395	21 856	21 529	..	22 418	18 871	20 533	21 200	12 743
Average annual volume growth over previous 5 years	%	1996	3.9	1.6	1.2	2.2	2	2.2	1.6	1.2	1.4	1.3 (95)
Gross fixed capital formation (GFCF)	% of GDP	1996	20.3	23.8	17.3	17.7	33	16.7	16.1	17.4	20.6	17 (95)
of which: Machinery and equipment	% of GDP	1996	10.2 (95)	8.8 (95)	7.5 (95)	6.6	..	7.9 (95)	6.4 (95)	7.8	7.6	7.7 (95)
Residential construction	% of GDP	1996	4.6 (95)	5.9 (95)	4.6 (95)	5.4	..	3.2 (95)	3.5 (95)	4.4	7.3	3.3 (95)
Average annual volume growth over previous 5 years	%	1996	5.6	2.1	0.3	2.2	9.4	2	–4.1	–1.5	0.2	0.5 (95)
Gross saving ratio[4]	% of GDP	1996	18	21.9	22.2	17.8	..	17.6	19.6	18.7	20	16 (95)
General government												
Current expenditure on goods and services	% of GDP	1996	17	19.8	14.5	18.7	21.5	25.2	21.9	19.4	19.8	20.8 (95)
Current disbursements[5]	% of GDP	1995	35.6	48.6	52.2	45.8	..	59.6	55.9	50.9	46.6	52.1
Current receipts	% of GDP	1995	34.9	47.4	49.9	42.7	..	58.1	52.8	46.9	45.9	45
Net official development assistance	% of GNP	1995	0.36	0.33	0.38	0.38	..	0.96	0.32	0.55	0.31	0.13
Indicators of living standards												
Private consumption per capita using current PPPs[3]	US$	1996	12 596	12 152	13 793	12 959	..	12 027	10 282	12 506	12 244	9 473
Passenger cars, per 1 000 inhabitants	Number	1994	460	433	416	466	282	312	368	430	488	199
Telephones, per 1 000 inhabitants	Number	1994	496	466	449	576	209	604	551	547	483[8]	478
Television sets, per 1 000 inhabitants	Number	1993	489	479	453	618	476	538	504	412	559	202
Doctors, per 1 000 inhabitants	Number	1995	2.2 (91)	2.7	3.7 (94)	2.2	2.9	2.9 (94)	2.8	2.9	3.4	3.9 (94)
Infant mortality per 1 000 live births	Number	1995	5.7	5.4	7.6 (94)	6.3 (94)	7.7	5.5	4	5.8 (94)	5.3	8.1
Wages and prices (average annual increase over previous 5 years)												
Wages (earnings or rates according to availability)	%	1996	1.7	5.2	2.7	2.4	..	3.2	3.8	2.6	4.2	11.8
Consumer prices	%	1996	2.4	2.9	2.2	1.4	11.9	1.9	1.5	2	3.1	11.6
Foreign trade												
Exports of goods, fob*	Mill. US$	1996	60 288	57 870	170 223[7]	202 320	21 910	51 030	40 576	288 450	521 263	11 501
As % of GDP	%	1996	15.1	25.3	63.5	34.9	39	29.2	32.4	18.8	22.1	12.9 (95)
Average annual increase over previous 5 years	%	1996	7.5	7.1	7.6	9.7	..	6.2	12.1	6.3	5.4	5.8
Imports of goods, cif*	Mill. US$	1996	61 374	67 376	160 917[7]	170 931	27 721	44 987	30 911	271 348	455 741	27 402
As % of GDP	%	1996	15.4	29.5	60	29.5	49.3	25.7	24.7	17.7	19.4	30.4 (95)
Average annual increase over previous 5 years	%	1996	9.7	5.9	5.9	7.7	..	5.6	7.3	3.9	3.3	6.6
Total official reserves[6]	Mill. SDRs	1996	10 107	15 901	11 789[7]	14 202	8 590	9 834	4 810	18 635	57 844	12 171
As ratio of average monthly imports of goods	Ratio	1996	2	2.8	0.9	1	..	2.6	1.9	0.8	1.5	5.3

* At current prices and exchange rates.
1. Unless otherwise stated.
2. According to the definitions used in OECD *Labour Force Statistics*.
3. PPPs = Purchasing Power Parities.
4. Gross saving = Gross national disposable income minus private and government consumption.
5. Current disbursements = Current expenditure on goods and services plus current transfers and payments of property income.
6. End of year.
7. Data refer to the Belgo-Luxembourg Economic Union.
8. Data refer to western Germany.
9. Including non-residential construction.
10. Refers to the public sector including public enterprises.

Sources: Population and Employment: OECD, *Labour Force Statistics.* GDP, GFCF and General Government: OECD, *National Accounts*, Vol. I and *OECD Economic Outlook*, Historical Statistics. Indicators of living standards: Miscellaneous national publications. Wages and Prices: OECD, *Main Economic Indicators.* Foreign trade: OECD, *Monthly Foreign Trade Statistics*, Series A. Total official reserves: IMF, *International Financial Statistics.*

BASIC STATISTICS: INTERNATIONAL COMPARISONS *(cont'd)*

	Units	Reference period[1]	Hungary	Iceland	Ireland	Italy	Japan	Korea	Luxembourg	Mexico	Netherlands	New Zealand
Population												
Total	Thousands	1996	10 193	270	3 621	57 473	125 864	45 545	418	96 582	15 494	3 640
Inhabitants per sq. km	Number	1996	77	3	52	191	333	458	161	48	380	14
Net average annual increase over previous 10 years	%	1996	–0.3	1.1	0.2	0	0.4	1	1.3	2	0.6	1.1
Employment												
Total civilian employment (TCE)[2]	Thousands	1996	3 605	142	1 307	20 036	64 860	20 764	212 (95)	32 385 (95)	6 983	1 688
of which: Agriculture	% of TCE	1996	8.4	9.2	10.7	7	5.5	11.6	2.8 (95)	23.5 (95)	3.9	9.5
Industry	% of TCE	1996	33	23.9	27.2	32.1	33.3	32.5	30.7 (90)	21.7 (95)	22.4	24.6
Services	% of TCE	1996	58.6	66.2	62.3	60.9	61.2	55.9	66.1 (90)	54.8 (95)	73.8	65.9
Gross domestic product (GDP)												
At current prices and current exchange rates	Bill. US$	1996	43.7 (95)	7.3	70.7	1 214.2	4 595.2	484.8	17	329.4	396	65.9
Per capita	US$	1996	4 273 (95)	27 076	19 525	21 127	36 509	10 644	40 791	3 411	25 511	18 093
At current prices using current PPPs[3]	Bill. US$	1996	..	6.3	68.8	1 148	2 924.5	618.5	13.5	751.1	324.5	63.6
Per capita	US$	1996	..	23 242	18 988	19 974	23 235	13 580	32 416	7 776	20 905	17 473
Average annual volume growth over previous 5 years	%	1996	–2.4 (95)	1.5	7.1	1	1.5	7.1	4.8	1.7	2.3	3.7
Gross fixed capital formation (GFCF)	% of GDP	1996	19.3 (95)	17.5	17.2	17	29.7	36.8	20.8	18	19.7	20.9
of which: Machinery and equipment	% of GDP	1996	..	6.7	5.5 (95)	8.8	10.1 (95)	13	..	8.8	9.4	10
Residential construction	% of GDP	1996	..	3.9	4.9 (95)	4.5	5.3 (95)	7.6	..	4.7	5	5.6
Average annual volume growth over previous 5 years	%	1996	–0.9 (95)	–1.4	6	–1.4	1.3	6.9	0.2	–0.7	2.2	9.6
Gross saving ratio[4]	% of GDP	1996	..	15.6	21.7	20.5	31.4	34.2	37.5	22.7	25.7	16
General government												
Current expenditure on goods and services	% of GDP	1996	24.9 (95)	20.8	14.1	16.4	9.7	10.6	13.6	9.7[10]	14	14.4
Current disbursements[5]	% of GDP	1995	..	35.1	39.2 (94)	49.5	28.5	15.1	..	..	51.8	..
Current receipts	% of GDP	1995	..	36	39.3 (94)	44.5	32	25.1	..	..	50	..
Net official development assistance	% of GNP	1995	..	..	0.29	0.15	0.28	0.03	0.36	..	0.81	0.23
Indicators of living standards												
Private consumption per capita using current PPPs[3]	US$	1996	..	14 244	10 020	12 224	13 912	7 354	17 811	5 045	12 477	10 895
Passenger cars, per 1 000 inhabitants	Number	1994	212	434	264	517	342	115	544	91	383	457
Telephones, per 1 000 inhabitants	Number	1994	170	557	350	429	480	397	564	93	509	470
Television sets, per 1 000 inhabitants	Number	1993	427	335	301	429	618	215	261	150	491	
Doctors, per 1 000 inhabitants	Number	1995	3.4	3.9 (94)	3.4	3.0 (94)	1.7	1.6 (92)	1.8 (94)	1.1	2.2 (93)	1.6
Infant mortality per 1 000 live births	Number	1995	11	6.1	6.3	6.6 (94)	4.3	9	5.3 (94)	17 (94)	5.5	7.2 (94)
Wages and prices (average annual increase over previous 5 years)												
Wages (earnings or rates according to availability)	%	1996	..	..	3.7	3.5	1.8	..	..	–1.6	2.4	1.5
Consumer prices	%	1996	23.2	2.6	2.2	4.5	0.7	5.3	2.4	19.7	2.5	2
Foreign trade												
Exports of goods, fob*	Mill. US$	1996	15 674	1 891	48 416	250 842	411 067	129 715	..	96 000	203 953	14 316
As % of GDP	%	1996	35.9	26	68.5	20.7	8.9	26.8	..	29.1	51.5	21.7
Average annual increase over previous 5 years	%	1996	8.9	4	14.8	8.2	5.5	12.5	..	17.6	8.9	8.2
Imports of goods, cif*	Mill. US$	1996	18 105	2 032	35 763	206 904	349 149	150 340	..	89 469	184 389	14 682
As % of GDP	%	1996	41.4	27.9	50.6	17	7.6	31	..	27.2	46.6	22.3
Average annual increase over previous 5 years	%	1996	9.6	3.4	11.5	2.5	8	13.9	..	12.4	7.8	11.8
Total official reserves[6]	Mill. SDRs	1996	6 812	316	5 706	31 954	150 663	23 670	..	13 514	18 615	4 140
As ratio of average monthly imports of goods	Ratio	1996	..	1.9	1.9	1.9	5.2	..	..	1.8	1.2	3.4

* At current prices and exchange rates.
1. Unless otherwise stated.
2. According to the definitions used in OECD *Labour Force Statistics*.
3. PPPs = Purchasing Power Parities.
4. Gross saving = Gross national disposable income minus private and government consumption.
5. Current disbursements = Current expenditure on goods and services plus current transfers and payments of property income.
6. End of year.
7. Data refer to the Belgo-Luxembourg Economic Union.
8. Data refer to western Germany.
9. Including non-residential construction.
10. Refers to the public sector including public enterprises.

Sources: Population and Employment: OECD, *Labour Force Statistics*. GDP, GFCF and General Government: OECD, *National Accounts*, Vol. I and *OECD Economic Outlook*, Historical Statistics. Indicators of living standards: Miscellaneous national publications. Wages and Prices: OECD, *Main Economic Indicators*. Foreign trade: OECD, *Monthly Foreign Trade Statistics*, Series A. Total official reserves: IMF, *International Financial Statistics*.

BASIC STATISTICS: INTERNATIONAL COMPARISONS *(cont'd)*

	Units	Reference period [1]	Norway	Poland	Portugal	Spain	Sweden	Switzerland	Turkey	United Kingdom	United States
Population											
Total	Thousands	1996	4 370	38 618	9 935	39 270	8 901	7 085	62 695	58 782	265 557
Inhabitants per sq. km	Number	1996	13	123	108	78	20	172	80	240	28
Net average annual increase over previous 10 years	%	1996	0.5	0.3	–0.1	0.2	0.6	0.8	2	0.3	1
Employment											
Total civilian employment (TCE)[2]	Thousands	1996	2 110	14 977	4 475	12 394	3 963	3 803	20 895	26 088	126 708
of which: Agriculture	% of TCE	1996	5.2	22.1	12.2	8.7	2.9	4.5	44.9	2	2.8
Industry	% of TCE	1996	23.4 (95)	31.7	31.4	29.7	26.1	27.7	22	27.4	23.8
Services	% of TCE	1996	71.5 (95)	46.2	56.4	61.6	71	67.4	33.1	71	73.3
Gross domestic product (GDP)											
At current prices and current exchange rates	Bill. US$	1996	157.8	117.9 (95)	103.6	584.9	251.7	294.3	181.5	1 153.4	7 388.1
Per capita	US$	1996	36 020	3 057 (95)	10 425	14 894	28 283	41 411	2 894	19 621	27 821
At current prices using current PPPs[3]	Bill. US$	1996	106.7	..	130.1	587.2	171.4	180.6	383.3	1 095.5	7 388.1
Per capita	US$	1996	24 364	..	13 100	14 954	19 258	25 402	6 114	18 636	27 821
Average annual volume growth over previous 5 years	%	1996	4.1	2.2 (95)	1.5	1.3	1	0.1	4.4	2.2	2.8
Gross fixed capital formation (GFCF)	% of GDP	1996	20.5	17.1 (95)	24.1	20.1	14.8	20.2	25	15.5	17.6
of which: Machinery and equipment	% of GDP	1996	8.4	..	11.7 (93)	6.1 (95)	7.9	9.3	11.9	7.6	8.3 (95)
Residential construction	% of GDP	1996	2.6 (94)	..	5.2 (93)	4.3 (95)	1.9	11[9]	8.4 (95)	3	4.1 (95)
Average annual volume growth over previous 5 years	%	1996	2.8	5.4 (95)	2.2	–1	–2.6	–0.8	6.9	1.3	6.9
Gross saving ratio[4]	% of GDP	1996	29.9	..	21.6	20.7	16	27.1	22.3	14.6	16.6
General government											
Current expenditure on goods and services	% of GDP	1996	20.5	16.9 (95)	18.5	16.3	26.2	14.3	11.6	21.1	15.6
Current disbursements[5]	% of GDP	1995	45.8	..	42.5 (93)	41.2	63.8	47.7	..	42.3 (94)	34.3
Current receipts	% of GDP	1995	50.9	..	39.8 (93)	37.9	57.5	53.8	..	37.2 (94)	32.1
Net official development assistance	% of GNP	1995	0.87	..	0.27	0.24	0.77	0.34	0.07	0.28	0.1
Indicators of living standards											
Private consumption per capita using current PPPs[3]	US$	1996	11 593	..	8 522	9 339	10 096	15 632	4 130	11 865	18 908
Passenger cars, per 1 000 inhabitants	Number	1994	381	186	357	351	406 (93)	451	47	372	565
Telephones, per 1 000 inhabitants	Number	1994	554	131	350	371	683	597	201	489	602
Television sets, per 1 000 inhabitants	Number	1993	427	298	190	400	470	400	176	435	816
Doctors, per 1 000 inhabitants	Number	1995	2.8	2.3	3	4.1 (93)	3.1	3.1 (94)	1.2	1.6 (94)	2.6 (94)
Infant mortality per 1 000 live births	Number	1995	4	13.6	7.4	6 (94)	4	5	46.8 (94)	6.2 (94)	8 (94)
Wages and prices (average annual increase over previous 5 years)											
Wages (earnings or rates according to availability)	%	1996	3.2	..	..	5.8	4.8	..	..	4.9	2.7
Consumer prices	%	1996	1.9	..	5.6	4.7	2.7	2.2	81.6	2.7	2.9
Foreign trade											
Exports of goods, fob*	Mill. US$	1996	49 576	24 417	24 614	102 067	84 836	79 581	23 301	259 941	625 075
As % of GDP	%	1996	31.4	20.7	23.8	17.5	33.7	27	12.8	22.5	8.5
Average annual increase over previous 5 years	%	1996	7.8	..	8.6	11.2	9	5.3	11.1	7	8.2
Imports of goods, cif*	Mill. US$	1996	35 575	37 185	35 192	121 838	66 825	78 052	43 094	287 033	795 289
As % of GDP	%	1996	22.5	31.5	34	20.8	26.5	26.5	23.7	24.9	10.8
Average annual increase over previous 5 years	%	1996	6.9	..	6.1	5.5	6	3.2	15.1	6.5	10.3
Total official reserves[6]	Mill. SDRs	1996	18 441	12 409	11 070	40 284	13 288	26 727	11 430	27 745	44 536
As ratio of average monthly imports of goods	Ratio	1996	6.2	..	3.8	4	2.4	4.1	3.2	1.2	0.7

* At current prices and exchange rates.
1. Unless otherwise stated.
2. According to the definitions used in OECD *Labour Force Statistics*.
3. PPPs = Purchasing Power Parities.
4. Gross saving = Gross national disposable income minus private and government consumption.
5. Current disbursements = Current expenditure on goods and services plus current transfers and payments of property income.
6. End of year.
7. Data refer to the Belgo-Luxembourg Economic Union.
8. Data refer to western Germany.
9. Including non-residential construction.
10. Refers to the public sector including public enterprises.

Sources: Population and Employment: OECD, *Labour Force Statistics.* GDP, GFCF and General Government: OECD, *National Accounts*, Vol. I and *OECD Economic Outlook*, Historical Statistics. Indicators of living standards: Miscellaneous national publications. Wages and Prices: OECD, *Main Economic Indicators.* Foreign trade: OECD, *Monthly Foreign Trade Statistics*, Series A. Total official reserves: IMF, *International Financial Statistics.*

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