Policies for Growth with Low Inflation and Increased Efficiency

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POLICIES FOR GROWTH WITH
LOW INFLATION AND INCREASED EFFICIENCY

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THE BANK OF KOREA
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Professor Meltzer has made great contributions in the field of monetary economics, especially in the theory of the relation of money to economic activity and prices, and the development of economic policies based on applicable economic theory.

POLICIES FOR GROWTH WITH
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Monetary and Fiscal Policies
for a Developing Country 2

Financial Reform 11

Deregulating Trade 15

Reducing Uncertainty 16

Conclusion 20

「國文要約」 25
A thirty-fifth anniversary is an unusual time for a celebration. If we think of an anniversary as the celebration of a birth, rather than a marriage, the tenth anniversary of the Bank of Korea marks the end of stagnant development and the beginning of a spurt of sustained real growth. The twenty-first anniversary was the occasion for coming to maturity in a world of fluctuating exchange rates. A thirty-fifth anniversary comes too late for congratulations on successful passage through adolescence and too early for the celebrants to be confined to the rocking chair at the central bank clubhouse, there to reminisce about past monetary crises, to bemoan the fiscal profligacy of governments in the developing and developed countries, or to rest content with past achievements of the Korean economy and its financial system.

In the case of the Bank of Korea, birth was traumatic. The Republic of Korea, only recently independent, was soon involved in a struggle for survival. Within less than a month of its birth, the Bank faced the problem of war finance and, thereafter, the problem of contributing to the reconstruction of a devastated country. The Republic of Korea has not only survived these events and the effects of wartime inflation, but has become an outstanding and admired example of successful economic development. Annual rates of real growth of 9% to 10% or more have been frequent events in the sixties and seventies. In the past few years, the Bank has succeeded in bringing the annual rate of inflation from above 20 or 30% to the low single digits while annual growth rates of real output have fluctuated around an average of 7%. Inflation rates are now comparable to inflation rates in major developed economies like Japan, the United States and West Germany. For these achievements alone, the Bank deserves congratulations on this, its thirty-fifth anniversary.

The Bank's achievements in recent years are not confined to the impressive record shown by macroeconomic performance. The Bank has also fostered the development of a more competitive financial system. Controls on entry into banking and finance have been reduced. Deregulation has started, and foreign banks have been offered limited access to discount facilities previously restricted to Korean banks.
This paper discusses issues of efficiency, financial deregulation, monetary control and growth in Korea. Since I have no previous knowledge of the workings of the Korean financial system and the Korean economy, I have relied on standard sources for description of current and past regulatory practices and monetary policy procedures. I regret any errors that arise from inadvertent misinterpretation or failure to take advantage of sources that may have prevented these errors.

**Monetary and Fiscal Policies for a Developing Country**

In many developing countries, the central bank has difficulty controlling inflation because it lacks effective control of money and cannot limit the size of its monetary issue. There are two main reasons. First, the government may have chosen to control or influence the foreign exchange rate. Since the government cannot control both the foreign exchange rate and the quantity of money, a decision to control the exchange rate is a decision to allow the quantity of money, the price level and the rate of inflation to be determined externally. Second, the government usually has a number of possibly conflicting, non-monetary objectives that are reflected in its fiscal stance, where the latter is broadly defined to include state owned activities, and regulations, restrictions and prohibitions on types of trade and other activities. The financing of state supported activities and the agencies set up to achieve the government's objectives often requires more monetary expansion than is consistent with a policy of controlling either inflation or the exchange rate. Each of these issues has been elaborated many times, but it may be useful to summarize some of the main conclusions with application to Korea.

**Monetary Policy**

The choice of a fixed exchange rate commits a central bank to accept the average rate of inflation in the countries with which it trades. A fixed rate regime is the regime of choice where trade is large relative to GDP, the country's exports are sold in competitive markets and the country's imports are purchased in competitive markets and priced internationally. Domestic welfare then depends on exporters' ability to sell at competitive prices in world
markets, and both production and domestic consumption depend on the importation of materials purchased at world market prices.

Korea meets these conditions very well. Exports of goods and non-factor services have been between 30 and 40% of national expenditures in recent years. Principal exports are manufactured products of various kinds—including textiles, tires, steel and steel products—and machinery and transportation equipment. Principal imports are primary products such as petroleum, raw materials and food.

The principal purchasers of Korean exports are the United States, Japan and the countries of the European Common Market. The principal sources of imports have been the United States, Japan, Australia, Saudi Arabia and the countries of the common market. With a few exceptions, these countries now have relatively low rates of inflation, so a decision to fix the exchange rate for the won against currencies of major trading partners does not run the risk of importing high rates of inflation into Korea.

In 1980, the Bank of Korea adopted a system of managed floating for the won using a multi-currency basket as the standard. Since that time, the exchange value of the won has been changed with reference to two groups of currencies. One is a composite currency, the SDR, and the other is based on five major currencies: the U.S. and Canadian dollars, the yen, the mark and the pound. It is my understanding that the Bank retains discretion over the weights applied to the two separate baskets, so it can revalue or devalue its currency against its partners within the limits set by its ability to alter the weights.

From early 1980 to the spring of 1985, the won has been devalued against the U.S. dollar by about 40%, although wholesale and consumer prices in Korea have increased only 15% more than in the United States. The exchange rate system permitted Korea to improve its terms of trade against its principal trading partner, the United States, while reducing the Korean rate of inflation. During the same period, the exchange rate of the won for the yen has remained relatively stable, despite a much lower rate of inflation in Japan, Korea's second largest trading partner. Japanese imports have become relatively cheaper, and Korean exports to Japan
have become more costly in Japan. As a result, the trade balance with the United States shifted in favor of Korea while the trade balance with Japan did not. Against the world as a whole, however, Korea has increased its exports relative to its imports. Korea continues to borrow and import capital, but the rate of increase of external debt has slowed.

These statistics help to highlight some of the advantages of current monetary arrangements to Koreans. Exchange rates for the dollar and other major currencies have changed much more than price levels or rates of inflation during the period since 1980 when the current exchange rate system was adopted. If the exchange rate of the won for the dollar had remained rigidly fixed, or had been adjusted only to the extent that rates of inflation differed between Korea and the United States, the won would have appreciated against all other currencies along with the dollar. In addition, the won would not have depreciated relative to the dollar. Korean inflation would have been lower, but the terms of trade would have been less favorable for Korea's exports. Exports would have grown more slowly and imports more rapidly. The external debt of Korea would have been much larger and less manageable.

Korea's managed float has many of the properties of a fixed exchange rate system where the rate is tied to a basket of currencies rather than a single currency. By tying its currency to a multicurrency basket instead of the dollar, Korea has avoided some of the sharp changes in relative advantage that occurred when currency values adjusted to the changes in economic policies of major trading countries in the 1980s. Korea cannot escape all of these fluctuations under any scheme. The best it can expect to do is to minimize the effects of external shocks on the Korean economy.

A difficulty with the current system is that the weights on the various currencies in the basket can change without advance notice. The Bank of Korea retains discretionary authority at the cost of increased uncertainty about monetary policy. Uncertainty could, and I believe should, be reduced by fixing the weights and announcing the weights publicly. The managed float would then have all the benefits of an exchange rate that is fixed against a basket of currencies of Korea's main trading partners.
The principal alternative to a regime of this kind is a policy of controlling the domestic price level or rate of inflation. This policy is best implemented, I believe, by controlling the stock of money or its rate of growth to maintain a stable price level on average. The main aim of monetary policy, when the central bank controls money growth, should be to enforce the anticipation that prices will remain stable—that the price level will neither rise nor fall on average.

A commitment to price stability that fosters a belief that prices will remain stable encourages economic efficiency in several ways. Decisions about production and consumption are made on more reliable measures of relative cost. Since changes in the rate of inflation do not affect all prices and costs of production uniformly and at the same time, inflation distorts the information in relative prices. With anticipated inflation at zero, this distortion is removed.

Decisions to save and the allocation of saving to different types of assets are affected by inflation also. Even at modest rates of inflation, assets denominated in the country's currency unit (or nominal value) shrink substantially in real value or purchasing power during the course of a working life. Consequently, savers concerned about old age or retirement often accumulate gold, other precious metals, postage stamps, land and other real assets, and they avoid financial assets. The substitution of these real assets for financial assets as components of private wealth retards the development of efficient financial intermediaries to collect saving and direct it toward productive investment.

Central banks in both developing and developed countries encourage inefficiency by regulating interest rates during periods of inflation. The common experience of many countries is that the real return on financial assets is negative during periods of inflation in part because central banks or governments do not allow deposit rates to increase. A policy of price stability helps to avoid this distorting influence of interest rate regulation.

The basic monetary policy choice facing every central bank and government is the choice between these two types of regimes. A fixed exchange rate regime (including the current Korean system
if weights are fixed) requires the central bank to relinquish control of the domestic price level and accept the rate of inflation (or deflation) imported from its trading partners. A system of monetary control gives the central bank power and opportunity to achieve domestic price stability, but it requires the country to accept the exchange rate that reflects the relative rates of inflation in the home country and its trading partners.

There is no single choice of regime applicable to all countries or to the same country at different periods. I believe, however, that a choice should be made. A commitment to one or the other regime is preferable to a hybrid system characterized by neither a fixed exchange rate nor price stability.

The proper choice between fixed exchange rate and price stability depends on the costs and benefits of each. Costs are of two kinds. A fixed exchange rate system requires the central bank to hold foreign exchange as a central bank reserve (or to hold larger reserves). Reserves have an opportunity cost. The country could have a larger capital stock, or smaller foreign debt, if the reserves were not held. In addition, the two systems impose different risks.

A main risk in a fixed exchange rate regime arises from the country's loss of control of its price level and inflation rate. Policy changes in other countries that change their rates of inflation are borne by the home country. Experience under Bretton Woods and with the inflation and disinflation of recent decades has made people aware of the magnitude of these costs. A fluctuating exchange rate system permits countries that join the system to avoid some of the costs of inflation coming from abroad. The price of avoiding these costs is fluctuation in exchange rates and, therefore, in the relative prices of the country's exports and imports. Such changes have real effects on the performance of the economy. Where exports and imports are large relative to domestic output and purchases and sales are made in competitive markets, as in Korea, a fixed exchange rate against major trading partners is often desirable.

The desirability of the multi-currency exchange rate system would be enhanced if the main trading partners adopted policies
to maintain price stability. Although inflation has been reduced in most countries, monetary control has not been used in most developed countries to achieve price stability. In practice, countries have not been willing to pay the cost of ending inflation, so Korea does not have the opportunity to import price stability from abroad.

An advantage of the current multi-currency system for Korea is that, in practice, the fiscal authorities and the government appear to have accepted the implied restriction on monetary policy. Governments often use inflation to finance a transfer of resources from the private sector to the government or the specific projects or groups favored by the government. Of course, a fixed exchange rate system cannot prevent the government or central bank from inflating if it chooses to do so. An explicit fixed rate system, however, increases the information available to the public about the expected adjustments of the exchange rate and its relation to the expected rate of money growth. When holders of financial assets perceive that the rate of money growth, or the rate of change of the exchange rate, is inconsistent with the explicit exchange rate rule and the rate of inflation abroad, they act to protect their wealth. They shift from holding money and other assets denominated in money value to foreign currencies and domestic real assets. The reduction in the demand for domestic money raises domestic prices. The rise in prices and the reported rate of inflation—and public's reaction to inflation—bring out the discipline, if there is any, in the exchange rate system.

**Fiscal Policy**

Few governments inflate entirely by accident. Inflation is often the means used to transfer resources from activities favored by income producers and owners of wealth to activities favored by the government. The favored activities and the means of transferring resources differ in some respects between developed and developing countries.

In developed countries with popularly elected governments, the government typically runs a budget deficit to finance the transfer of income from upper to middle and lower income groups. A common mechanism for affecting the transfer is to index transfer
payments against inflation, by law or practice, and to refuse to index tax rates and depreciation allowances for inflation. The result is that inflation raises the tax rates paid by upper income groups who pay the largest share of income taxes, reduces the real value of depreciation allowances on existing capital, and maintains the real value of the benefits transferred through the fiscal system. Since most transfer payments are used for consumption, resources are shifted toward consumption and away from investment as the relative size of transfers grows. Investment in depreciable, real capital is reduced. Further, inflation reduces the value of money and, to the extent that the rate of inflation is unanticipated when the government sells its debt, inflation also reduces the value of the government's outstanding debt.

In many developing countries, the fiscal mechanism is even less direct than in the developed countries. The government's aims include the provision of public goods such as defense and police, the redistribution of income, and the reallocation of resources. The last category includes decisions to favor particular sectors, activities or groups. Very often, these allocation decisions are not made by setting direct taxes and direct subsidies to alter the market allocation. They are implemented indirectly by regulation, price controls, credit controls and other indirect means.

For a country like Korea, spending for defense and the use of manpower for defense imposes burdens that are larger than the burdens imposed in less hostile neighborhoods. This use of resources is part of the cost of maintaining the territorial integrity and independence that has permitted Korea to develop. The fact that the southern part of the peninsula was once the poorer and is now much the richer part of the peninsula testifies to the material return "earned" on the resources spent for defense. Nevertheless, defense is mainly a form of collective consumption. Korea must use resources for defense, so it must tax and spend for defense. It is best if the taxes to support this public goods are collected directly.

The more troublesome features of fiscal policy, broadly understood, concern the controls, subsidies and allocation schemes that are found in Korea as in many developing countries. Instead of taxing and spending, the government offers loans at
below market interest rates, guarantees product prices and uses other off-budget means of financing. A common device is to set up specialized financial institutions for housing, export finance, agricultural loans and other activities. These specialized intermediaries lend at below market interest rates.

An outside observer unfamiliar with procedures in many developing economies is often puzzled to find high rates of inflation while the government reports annually balanced budgets or fiscal surpluses. Perusal of the international accounts shows no basis for the rate of monetary expansion that sustains inflation. Closer scrutiny often shows that credit allocation, loans made below market interest rates, or guarantees of minimum prices by lending institutions substitute for direct payments to producers or direct subsidies to exports. Often the central bank is required to lend to the specialized intermediaries or discount their loans. In Korea, until the reforms of the early 1980s, budget deficits and the financing of off-budget activities contributed to the growth of the money stock, but the off-budget activities appear to have been the most important force.

The effect of financing off-budget operations on prices and money is much the same as financing a fiscal deficit by issuing money. The money stock and the price level rise. If the volume of subsidized borrowing is large and continues from year to year, the country experiences inflation. Inflation raises open market interest rates and, therefore, increases the demand for loans at the subsidized rates. Inflation becomes difficult to control because a large number of favored borrowers has a stake in maintaining the subsidy to borrowing, and there are costs of adjusting resource allocation from subsidized to non-subsidized activities.

The comparison to fiscal policy extends beyond the effects on monetary expansion. Interest rate subsidies and credit allocations are similar to a tax on efficient producers to finance a subsidy, often given to less efficient activities. Credit allocation at below market rates encourages activities that do not earn competitive rates of return. These activities absorb resources, labor and capital, that would be used more efficiently in the absence of the subsidy. Subsidies to exports are particularly harmful, since, in this case,
consumers in poorer countries are often subsidizing consumption in richer countries.

A particular difficulty with interest rate subsidies and credit allocation is that the precise allocative effects are unknown and often unknowable. Since credit is fungible and the subsidies only influence activity on the margin, no one can be very certain how much or which types of additional activity is stimulated by subsidies to a particular activity. The fact that a borrower uses a subsidized mortgage to finance his home is not evidence that all mortgage subsidies increase homebuilding. The fact that a firm exports its product, or increases its exports, after receiving a low interest loan, does not show that the credit subsidy increased exports. In these, as in other examples, the borrower can substitute subsidized borrowing for non-subsidized borrowing or for equity to complete a transaction he would have made without the subsidy. The subsidized loan finances some activity on the margin. The particular activity may be very different from the activity that the government wishes to foster.

Governments that want to encourage economic development must strive for efficiency in the use of resources. Tax and spending policies can contribute to efficiency in several ways: by financing infrastructure, by supporting education and training, by efficiently supplying public goods, such as defense, courts, laws and the protection of lives and property, and by choosing policies that minimize waste and distortion.

Efficiency is encouraged where the role of government in the production process is limited to such tasks as setting rules, providing uniform application of the rules, encouraging competition and enforcing contracts.

In 1980, Korea adopted a strategy for development that relied much more on market forces, and much less on government direction and control. Imports have been liberalized and inflation has been reduced. The shift in strategy gave new impetus to the economy. Recovery from the 1980 recession began before recovery in the United States and most of the developed world, and recovery has continued without renewing inflation.
Financial Reform

Major reforms of the financial system have been undertaken in recent years as part of the liberalization of the Korean economy and the policies of increasing efficiency by relying more on market processes and less on governmental decrees. The denationalization of the banking system, the introduction of new, privately owned banks and financial intermediaries, the introduction of new financial instruments, and the lowering of restrictions of foreign banks are important parts of this program.

There have also been changes in interest rates and interest rate regulation. Under the system in place at the end of the 1970s, interest rates were set by the monetary authorities. During the 1980s lending and borrowing rates have been moved closer to market rates, and rates have been adjusted more frequently. The corporate bond market has grown, so there is now a better index of open market rates. Most rates for lending and borrowing continue to be set by the monetary authorities, however. The distortions are smaller, but they are still present.

Interest rate regulation in Korea appears to have developed many of the standard problems found in countries with similar policies. Lending and borrowing had no clear relation to the return on capital. Bank lending rates were often set below deposit rates, so the banks had to be subsidized in one way or another. Deposit rates were often below the rate of inflation, so owners of wealth minimized deposits and held their wealth in real assets or in private, unregulated financial institutions. Much of the borrowing by new and small firms was done outside the banking system, often at relatively high rates of interest to compensate for the additional risk and illiquidity of less organized markets. Large and favored borrowers obtained credit at subsidized rates that, frequently, were below the rate of inflation and below the rate paid for deposits. The system discouraged expansion by new and innovative enterprises and encouraged investment by favored enterprises or in favored projects that at times proved to be socially wasteful.

High marginal and average reserve requirement ratios on deposits added to the problem. These ratios differed for different
types of deposits; they were lower for deposits of agricultural and fishery cooperatives than for other demand or time deposits and lower for time and saving deposits than for demand deposits. Differences of this kind alter the cost of particular deposits to banks. It is doubtful that any of the administrators of this complex system of interest rate controls, reserve requirement ratios and credit allocation had any clear understanding of the allocative effects of the system.

The use of reserve requirement ratios raises the banks' cost of attracting deposits. In a regulated system with exchange controls, the increase in cost either raises the banks' lending rate, or lowers the banks' profits or encourages the banks to impose minimum balance requirement and other terms to compensate for the higher cost. Since lending rates were administered rates, and were at times set lower than deposit rates, reserve requirements may not have affected lending rates. The actual effect is unclear, at least to me, and the effect on the allocation of resources was most likely unclear to the regulators.

The reforms of the 1980s reduced many of these problems but did not eliminate them. Competition has been fostered and efficiency encouraged by the policy of opening the system to competition, allowing new entry of banks and non-bank financial institutions, denationalizing banks and permitting foreign entry. Reserve requirement ratios have been reduced, and the structure is simpler. Interest rates are adjusted more often, and recently by smaller increments, but changes in deposit rates occur only two or three times a year despite substantial changes in external conditions and in the growth rate of output in Korea. The Bank of Korea and the government do not have a comparative advantage in setting interest rates on different maturities or in fixing lending rates relative to deposit rates. Decisions of this kind are best left to borrowers and lenders operating in the marketplace.

A problem with deregulation and new entry that arises in many countries, and very likely in Korea, is that the new entrants are free of the heritage of past regulation while existing institutions are not. The loan portfolios of older financial institutions contain loans made at rates of interest below the market rate, and these
loans yield returns that are often far below the returns on new assets. Although the assets are carried on the balance sheet at face value, there is a hidden capital loss that arises from the difference between the market rate on new loans of the same risk class and maturity and the current market rate.

Deposit rates have been controlled also, so there is a hidden gain on the liabilities side that disappears when deposit rates are free of regulation. By holding deposit rates below market rates, regulators have given a subsidy to the banks or the borrowers at the expense of the depositors. The size of this subsidy is no more certain than the subsidy on the loan account if competition induced banks to offer services and other non-pecuniary payments to some of their depositors.

Interest rate deregulation and new entry pose a problem in these circumstances. The problem is that if new entrants can compete for deposits, they will offer rates of interest above the rates paid by the existing banks. The competition for deposits will draw deposits from the existing banks to the new banks. To hold their deposits, existing banks must pay competitive rates on all of their outstanding deposits.

New entrants can pay higher interest rates on deposits if they earn higher interest rates on their deregulated asset portfolios. Since the new entrants do not hold loans at below market interest rates, they have an advantage during a transition period. Existing banks must pay market rates on all deposits, in a deregulated system, but they earn deregulated rates on only that portion of their portfolio that has been deregulated.

The importance of this problem for deregulation varies from country to country. The problem is to distribute the capital loss arising from past financial regulation. If deposit and loan rates are deregulated simultaneously and all at once, new entrants force the existing banks to pay market rates. In this case, the capital loss is borne by the owners of the capital in existing banks. Where the capital loss is large, relative to the net worth or the capital and surplus of existing banks, insolvency may result.

The implicit capital loss did not arise from negligence or
mismanagement by the bank's officers, and the bank's owners did not profit from the regulations in the past. Some of the benefits went to the industries or firms that borrowed at preferential rates and perhaps to the consumers of their product, including foreign buyers of Korea's exports. Since the banks were nationalized, some of the benefits may have gone to the fiscal authorities.

Gradual deregulation shifts the loss from the bank's owners to other members of society. For example, complete deregulation of interest rates on loans and gradual deregulation of interest rates on deposits imposes the loss on two groups that, broadly, represent the whole society. Current owners of deposits are usually a diversified group that includes many of the corporations that have benefited from preferential lending rates, but others as well. Gradual deregulation means that depositors receive less than market rates, so they are taxed to reduce the losses of the banks. Since the public is offered less than the market rate on deposits, they hold fewer deposits. More private wealth is allocated in the less organized markets. There is an efficiency loss for the society as a whole or, more accurately, a continuation of the efficiency losses resulting from the continued regulation of deposit rates.

How long should deposit rates be regulated after lending rates are deregulated? The answer depends on three factors: (1) the proportion of loans in current portfolios that pay preferential rates; (2) the difference between market rates and the preferential rates paid by subsidized borrowers; (3) the maturity of the loan portfolio. The first two factors determine the size of the capital loss that must be borne. If the loss is small relative to the capital and surplus of the banks, deregulation of deposit rates can be accomplished quickly. If the capital loss is large and the maturity of the loans is relatively long, complete deregulation of deposit rates must be delayed. Delay, of course, produces windfall profits for new entrants.

In Korea, bank loans increase about 20 to 30 per cent per year. At this rate, the size of the portfolio doubles every two to three years. If interest rates on new loans and renewals are deregulated in 1985, the transition to unregulated deposit rates can be completed within three to five years on very conservative assumptions.
about average maturity of the existing loan portfolio. During the transition, interest rates on deposits should move gradually toward market rates, and the number of banks should be permitted to expand.

Avoiding deregulation mainly to protect existing banks continues subsidies through the banking system and the inefficiencies and malallocations that result. If subsidies are to be continued, it is best to pay the subsidies directly from the government budget.

**Deregulating Trade**

Desirable as financial deregulation is, the gains from a more efficient financial structure are probably less than the gains from deregulating trade. Korea, like many developing countries, has introduced a complex system of trade restrictions that distort production and investment decisions and prevent producers from finding their comparative advantage. These restrictions should be reduced and, if possible, eliminated.

Of course, there are also restrictions against Korean exports. Major exports such as food, textiles and steel are subject to international cartel agreements between governments or are limited by quotas and other non-tariff barriers. These agreements share markets and work against producers, particularly new entrants into the market and developing economies. These restrictions should be reduced also. But, even if progress in reducing restrictions against Korea is slow, Korea should try to achieve as much efficiency as possible by reducing the restrictions that are under its own control with deliberate speed. These include duties, licenses and other restrictions on imports.

Not much is known about the optimal rate for reducing trade restrictions or removing distortions when many sectors of the economy and many activities have been regulated. A few principles can be applied however. Tariffs and other restrictions on trade should be removed before restrictions on capital movements. There are two main reasons.

First, asset markets—and therefore capital movements—adjust more quickly to new arrangements than the structure of produc-
tion and trade. The exchange rate and domestic prices are likely to reflect the removal of controls on capital movements, if capital controls are removed before, or at the same time as, the elimination of trade restrictions. If trade restrictions are removed first, investment decisions will be based on the unregulated commodity prices, so production will be based on the undistorted (or less distorted) prices. Portfolio decisions will continue to be distorted by controls on capital, so the amount of foreign capital will not be at the level that is most efficient.

Second, once investment and production have had time to adjust to deregulation, capital account restrictions can be removed. The faster speed of adjustment of the capital account to new information means that the adjustment will be prompt and will have at most a temporary effect on the structure of production. Some losses will be borne, inevitably, by owners of capital who responded to the opportunities present when the restrictions remained in place.

An inappropriate choice from the standpoint of Korea's welfare is to delay removing barriers to trade. Many of the barriers delay or prevent the adjustment of the Korean economy to new and changing opportunities in the world economy. Barriers usually safeguard the positions of existing firms at the expense of new firms and reduce competition for capital and labor in Korea. In a changing world, protecting existing firms often proves to be costly.

Reducing Uncertainty

One cause of inefficiency in resource allocation that is least discussed, but not least important, is the excess burden imposed by frequent changes in policy variables and changes in policy. Frequent changes in government actions that are unrelated to a policy rule generate uncertainty, and increased uncertainty imposes
avoidable costs on the economy. Sometimes private decisions are delayed or not taken pending a government decision. Sometimes private decisions are accelerated in anticipation of a policy action. Additional resources are used to monitor or influence government action. Investment in long-term capital is less attractive, since it is long-term capital that is often most affected by frequent changes in policy rules or actions.

Governments that seek to increase welfare by raising current and future standards of living cannot completely smooth the path of the economy and the circumstances faced by individual firms or industries. There are risks inherent in nature and in political and market arrangements. Rainfall may be insufficient, excessive or abundant. Changes in technology and in market opportunities do not occur at steady rates. Foreign governments can change their policies or their policy stance, thereby altering the environment in which trade and exchange take place. This threat of war heightens uncertainty at times. Maintaining the peace requires the government to claim more resources at some times and fewer resources at others.

Variability and uncertainty cannot be avoided. Uncertainty can be reduced, however, by government policy. Pre-announced, or predictable courses of action reduce uncertainty about government action and, in many cases, reduce the risks and uncertainty that households and businesses face by reducing the variability they experience.

The aim of government should be to raise welfare by reducing uncertainty to the minimum level inherent in nature and in political and market arrangements. Government actions to smooth the economy by varying the policy instruments that government controls often increase variability and uncertainty. The reason is that neither government nor the private sector can correctly forecast the events affecting the economy or the duration of observed changes. Transitory changes may be viewed as permanent or permanent changes as transitory. After a decade characterized by frequent, large changes in oil prices, foreign inflation, trade restrictions and other external shocks, these comments require less elaboration. It is useful to remember, however, that just about the
time that most experts predicted that oil prices would reach $100 a barrel by the end of the century and that inflation rates in the U.S. and some other developed economies would remain in double digits, oil prices declined until they are now below $12 a barrel in 1972 U.S. dollar prices. And inflation has returned to the rates of the early 1970s.

A country situated like Korea cannot avoid the shocks coming from abroad. The use of stable rules and predictable policies can reduce the effect of the shocks and the variability experienced by the Korean economy. A recent study of the effects of alternative monetary regimes and financial arrangements suggests that substantial differences in variability or uncertainty arise under different policy arrangements.2

Following a change in policy, Japan reduced the variability of quarterly real output under fluctuating rates from 1971 to 1983 to approximately one-ninth the variability under fixed exchange rates from 1957 to 1971. The variability of money declined to approximately one-fifth of its previous value. The shift from fixed to fluctuating exchange rates permitted Japan to lower the variability faced by households and businesses. Moreover, the reduction occurred despite the oil shocks, the fluctuations in exchange rates, and the large changes in U.S. policy in the 1970s and 1980s.

The recorded variability of real output and money is one measure of uncertainty, but it may not be the most relevant measure. Some changes can be forecast correctly and are not unexpected. An alternative measure of uncertainty, that I believe is more useful, is the variability of forecast errors obtained by an efficient, statistical forecasting procedure that uses current and past information to forecast ahead and revises forecasts quarterly. Anticipated changes are separated from unanticipated changes in level or rate of change.

Data for Japan show that, following the change in policy from fixed to fluctuating exchange rates, the variability of real output

fell to one-third of its previous value. A further reduction in variability and uncertainty followed the decision by the Bank of Japan to announce projections for money growth. Following the announcements, the variability of errors made in forecasting real output fell to one-sixth of the value before the Bank made monetary projections available to the public. The combined change following the two declines—the first after the adoption of fluctuating exchange rates and the second after the announcement of monetary projection—reduced the variability of computed forecast error to less than six percent of the value achieved under the Bretton Woods regime.

The actual price level is more variable in the fluctuating exchange rate regime. The increased variability may be the result of the two oil shocks and the decline in the rate of inflation. Whatever its cause or causes, the increased variability of prices is not reflected in the quarterly forecasts of prices. This measure of variability of prices declined by 50% after the shift to fluctuating exchange rates and by an additional 40% following the announcement of monetary projections. The variability of forecast errors for the price level under fluctuating exchange rates with pre-announced monetary projections is, then, 30% of the variability under the Bretton Woods arrangement.

These increases show that sizeable reductions in uncertainty about prices and output can be achieved. They suggest that, at least for Japan, the shift to fluctuating exchange rates and announced monetary targets or projections has brought lower inflation, less variability and therefore greater predictability. These changes enhance welfare.

Not all countries have benefited equally. The variability of prices and real output in the United States, as measured by the variability of quarterly forecast errors, is about the same under fixed and fluctuating exchange rates. One reason may be that the U.S. policy actions and operations were not much different under the two regimes. Policymakers in the U.S. gave verbal support to the Bretton Woods agreement, but they were not constrained by its rules. After the end of Bretton Woods, they continued to operate monetary policy about as before. Hence, variability and uncertainty
in the United States did not decline as they did in Japan.

Korea's opportunities differ from Japan's. The economy is smaller and more dependent on exports. The monetary regime that contributes most to welfare in Korea is not necessarily the same as the system of fluctuating exchange rates with pre-announced monetary targets that has been used with much success in Japan.

The lesson Korea can learn from Japan's experiments with monetary regimes is that welfare can be increased by reducing uncertainty about the monetary process. I have suggested earlier that Korea is best served at present by fixing its exchange rate against a basket of currencies. This is similar to the present system of a managed float against a basket of currencies. The principal difference is that, under the fixed rate system, the weights in the basket would be fixed and announced publicly. Announcing the weights would increase certainty, lower the costs of monitoring and give more information to the public from which to form their anticipations of future inflation. I believe that by increasing information about current and future policy, the Bank of Korea would increase its contribution to the welfare of the Korean people.

**Conclusion**

The achievements of the Korean economy during the past thirty-five years are impressive. Success of this kind is rare in the history of the world; few countries have accomplished as much in so short a time. The fact that Korea achieved this record in a hostile environment adds to the sense of achievement.

Looking ahead, the opportunities are great. By the time the Bank of Korea celebrates its fiftieth anniversary, at the start of the next century, per capita income of Koreans can be $6,000 in 1985 dollars at a growth rate of about 7%. This is less than the growth rate Korea has achieved to date, so it is not impossible. Whether Korea achieves that level of per capita income will depend in part on events in the rest of the world. For Korea to maintain a growth rate of 7% or more for 15 years, the world must avoid the drift toward protection of domestic industries and agriculture that is visible everywhere.
The growth of the Korean economy will depend also on decisions taken in Korea. I have recommended a number of changes that, I believe, will increase the efficiency of the Korean economy by improving monetary, fiscal and regulatory practices. Many of these changes remove regulations and controls that, in many cases, have ceased contributing to growth and efficiency. High on the list of restrictions to be removed are the complex restrictions on imports, interest rates and credit.

Korea has taken the first steps toward a less regulated, more efficient financial services industry. By reducing inflation, Korea reduced the cost of removing regulation of financial institutions. Additional progress will be made if rates on loans are allowed to adjust to market rates and rates paid on deposits are deregulated according to a pre-announced plan.

Efficiency will be enhanced by reducing further the barriers to entry into banking and financial services, by fixing reserve requirement ratios permanently at current relatively low levels, by removing the preferential treatment of loans to particular firms and industries and by using direct subsidies in place of the past system of credit allocation, interest rate regulation and other indirect subsidies. Each of these steps encourages the development of a system in which principal reliance for resource allocation is on market prices and market determined interest rates. Changes of this kind, and a continuation of the low inflation rate, will bring more private saving out of the secret recesses of the Korean financial system and into the market, further increasing economic efficiency.

Efficiency is important to Korea for more than its contribution to current and future output. The current level of Korea's international debt relative to its exports is an additional reason for concern about efficiency and the gains from trade. The ability of countries to pay their debt service depends on the use they make of the resources they control. When investments yield returns above the cost of capital, relatively high debt to output ratios remain manageable. When investments are chosen for reasons other than rate of return and resources are used to increase 'prestige,' reward friends or maintain losing enterprises, foreign exchange ...
receipts frequently fall below the level that pays for imports and services the outstanding debt.

Lastly, I have recommended that the Bank of Korea devote most of its attention to deregulation and not to monetary control. A country of the size and openness of the Korean economy is, I believe, well served if the exchange rate is fixed against a basket of currencies representing Korea's major trading partners. The weights in the basket should be pre-announced, and maintained rigidly. Korea will then import the rate of inflation of its major partners but, by pegging its currency to a basket of foreign currencies, it will smooth large fluctuations in individual country currency values and rates of inflation.
[國文要約]

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경제성능의 提高의 物價安定期間下의 成長政策

韓國是獨立後在入關前的戰爭的苦於要到和入關後
世紀的痛苦是性的成長性的經濟發展是困難的工人。
60年代到70年代的4～10％的實質成長是入關後是入關
數年直到
年平均7％成長也門年間20～30％可以有個「印拉德」率的流
著流於流於

開途讓的通貨及財政政策

很多開途讓中前中央銀行的通貨為結構化所以通貨
貨幣發行的限制可以是因為「印拉德」為結構化但是一般財政
在同時 structural한 경우
通貨和結構化是不行因此政府的財政政策

通貨政策

全都中央銀行和政府的相對基礎性的通貨政策的選擇問題是
通貨的對外價值的對內價值中其中某的安定期率點是不同
的事伴。 為外價值的安定期率點是固定結構化的事伴
中央銀行的國內物價水準的結構化和為交易相對國 등의
通貨印拉德（固定為「印拉德」）的率的流於流於
為相對價值的安定期率點是固定結構化的事伴
中央銀行的物價安定期率的相對固定率的流於流於的結構化
的流於流於的流於

1980년 韓國銀行的通貨價值是 SDR과 주요 5개국通貨群에

複合通貨「바르스」制度的結構化是流於流於的韓國銀行是為
「바르스」的加權值的相對權力的相對通貨群的通貨外
대하여 평가를 하며 혹은 평가를 하지할 수 있다.

새로운 환율제도에서 한국은 강력한 환율제도였고 미국에 대하여
는 외환수지, 무주환율제도였던 일본에 대하여는 외환수지
를 보이는 가운데 전체적인 외환수지가 구준히 개선되어 왔으며, 물
가도 안정됨으로써 현재의 정책을 잘 실행한다고 본다.

현재 정책은 "바스켓"에 있는 여러 통화의 가중치가 출고없이 변할
수 있기 때문에 통화정책에 대한 정반향성이 커지다는 문제점은 가
지고 있는데, 통화는 가중치를 고정시키고 이를 공정함으로써 정반
향성을 감소시켜야 한다고 생각한다.

통화통제방법은 이와 같은 환율통제정책과는 달리 국내 물가수준
또는 물가수준을 통제하는데 역점을 둔다. 이는 평균적인 물가수
준을 안정시키기 위해서 환율이나 환율변동률을 통제하는 정책인
데 중앙은행은 환율정책을 통하여 물가가 안정수준이 되는 것이라는
패턴을 심어 주여 여러면에서 경제성과를 향상시키게 된다. 즉, 생
산과 소비의 결정은 보다 신뢰할 수 있는 신용가격을 통해 이루어
지며, 자산이 늘어나고 금융여신기능의 효율도 높이지 저축된 자
금이 생산적인 투자로 연결될 수 있게 된다.

固定환율제도와 통화통제정책의 선택은 각각의 용해에 달려있다.
固定환율제도에서는 한국은 외환수지의 조정에 필요한 환을
의 "상자" 또는 "상자"로 보유하여야 하므로 그만큼 돈을 증대시키거나
외환을 감축할 수 있는 기회를 상실하게 되며 "상자"를 변경시
키는 타국의 정책이 변하면서 자국으로 파급되기 때문에 물가수준
이나 "상자"를 통제하기 어렵게 된다. 반면 변환율제도는 외
부에 대한 것 "상자"를 직접적으로 해주는 태시, 변환율제도에
따라 수출품과 수입품의 상대가격이 변화하면서 주로 물가상황
동향을 반영한다.

각각의 조건이나 시간의 차이에 관계없이 언제나 작용될 수 있는
정책은 단 존재하지 않으므로 위 두가지 정책중 어느 하나를 선택해
야 하며, 수준도 通貨統制도 아닌 折衷式政策보다는 중 하나를 선택하는政策이 더 낫다고 본다.

韓国과 같이 수출과 수입이 국내생산에 비해 상대적으로 크고 競争市場에서 이루어 질 때는 主要交易相對通貨에 대한 固定換率制度가 바람직하다. 이 경우 예상되는 檢率調整이나 그에 따른 難想通貨增加率에 관해 大衆이 利用할 수 있는 情報을 중대시켜 준다는 점에서 加重値を 明示하는 것이 더욱 좋다.

財政政策

「인플레이션」은 所得創造者와 富의 所有者에게 유리한 經済活動으로 부터 정부에게 유리한 經済活動으로 資源을 이전시키는 수단으로 종종 이용된다.

先進國の 경우 政府는 高所得層에서 中間 및 低所得階層으로 所得을 移転시키기 위한 財源을 조달하기 위하여 象算赤字라는 「인플레이션」的 方法을 典型의으로 이용한다. 『인플레이션』은 資源を 投資로부터 消費로 이전시키고 貨幣の 가치를 떨어뜨리며 政府가 超債負할 때 예상되지 않았던 「인플레이션」率 만큼 政府負債 殘高の 가치를 감소시킨다.

 많은 開發途上國의 경우 財政 「예카니즘」은 先進國의 경우보다는 直接적이고 아니다. 政府의 目標는 國防과 治安 등 公共財的供給, 所得再配分, 資源의 再配分을 포함하는데 特히 資源配分은 종종 조세나 價格檢定政策を通じて 이루어 지지 않고 規制措置나 價格統制 信用統制 등의 間接의 手段에 의해서 수행된다. 開發途上國에서는 政府部門이나 海外部門에서 별다른 通貨増発要因이 없는데도 불구하고 高率の 「인플레이션」이 흔히 발견되는데 이는 信用割當 및 低利融資, 最低価格 保障, 象算外政府活動에 대한 中央銀行資金의 支援 등이 通貨増発要因으로 작용하기 때문이다.

 利子率 補助와 信用割當은 效率的인 生産者에게서 棟税를 徵收하여 그보다 定 高率의 個部門에 補助金을 支給하는 것과 비슷하다.
金融制度 改革

金融制度의 自律化 및 市場經濟原理 強化政策에 따라 최근 金融制度面에서도 종요한 개혁조치가 단행되었다. 銀行의 民營化 推進, 民營金融機關의 新設認可, 新羅金 金融商品의 導入, 外國銀行에 대한 規制緩和, 金利의 一部 自由化 등의 것이다. 1970년대말까지도 金利は通貨著局에 의해 일정적으로 결정되었으나 80년대 들어 奮起 金利가 점차 市場金利에 가깝게 결정되고 있으며 會社債市場도 성장하여 増大 鑑定한 市場金利의 規定이 가능하게 되었다.
한국에서의 금리규제는 다른 나라들이 경험한 바 있는 많은 문제들을 야기시킨 것으로 보인다. 주로 금리인 대출은 융자금리설의 수익과 큰 관계없이 이루어져 왔으며, 금융기관은 여러가지 형태의 자금을 받지 않으면 안되었다. 때문에 금리금리가 물가상승률에 못미치는 일부의 자금을 가급적 줄이는 대신 물가상승률에 투여하거나 은행에서 보다 많은 자금을 투여하는 현상이 발생하기도 하였고, 은행권 밖의 시장에서 자금을 투여하는 협력은 일정한 범위로 그 양이 늘어난 결과를 부담하였다. 예전에 발권의 수준은 높고 금리규제의 수준도 상승하였기 때문에 금리규제의 수준을 은행이 부담하는 결과를 초래하였다.

80년대의 금리구조는 이러한 문제들을 완전히 없애지는 못하였으나 많이 완화하였다. 금리구조가 강화되고 이에 따른 효율성이 나타났으며, 지표율도 이하되고 단순화되었다. 최근에는 금리의 개방이 지속적으로 이루어지고 있으나 아직도 금리의 통상화에 의해 결정되고 있으며 시장금리와의 격차가 줄었다는 것에 여전히 귀리가 존재하고 있다. 특히 금리규제의 경우에는 외부적전입에 국내 경제 성장의 변화에도 불구하고 1년에 2 ~ 3 회 정도밖에 조정되지 않고 있다.

득이 금리의 자유화와 금융시장의 개방은 과거의 규제로 인하여 높은 수익을 보유하고 있는 은행은 금융기관을 상대적으로 불리하게 만드는 문제점을 야기하고 있다. 은행 금융기관들은 금리의 변동에 따라 수익성이 크게 떨어지는 반면, 금리시장에서는 이러한 부담이 없는 새규 금융기관과 같은 조건에서 경쟁해야 하는 어려운 입장에 처하는 것이다.

따라서 금리 자유화 이전의 규정으로 인한 손실은 어떻게 분산시키느냐 하는 것이 중요한 문제인데, 금리산출은 금리상승을 일거에 자유화할 경우 부담은 은행의 주주에게 귀착되며, 손실이 너무 클 때에는 금융기관이 도산할 우려도 있다. 그런데 이 과정에서 발생하는 손

31
실은 은행경쟁의 장에 기인한 것이 아니라 사기 금리 규제의 포인트 이든 주주에게 돌아갔던 것도 아니다. 그 영향은 저금리를 받은 업계, 이러한 업계의 제품을 구매한 소비자들에게 귀속되었음을 것이다. 그 리므로 정책적인 규제완화로 이러한 손실을 주주로 부터 사회의 구성원에 이전시키는 방안을 모색해야 할 것이다. 정책적 자유화된 예금주들이 완전한 자유화가 이루어지기까지 당분간 시장 금리보다 낮은 금리를 적용받는 것을 알지 못하여 결국 은행 손실을 줄이기 위해 펀드를 몰고 되는 것을 의미한다.

대출 금리가 자유화된 후 어느정도의 기간동안 변동금리가 규제되어야 하는가는 과거의 원심 금리가 적용되는 빌딩의 구성비, 시장 금리와 원심 금리와의 격차, 원심 금리 변동의 만기 동안에 따라 결정되어야 할 것이다.

한국의 경우 은행 대출이 매년 20~30% 증가하여 금융기관의 채무 규모가 2~3년 만에 2배로 커지므로 금융권의 전반 자유화 후 3~5년 내에 변동금리 자유화가 완결될 수 있을 것이다. 단지 금융기관의 보험 규제 목적이 만으로 자유화를 기피하는 것은 은행조직자 동의로 직원과 그에 따른 비용을 못함이 중립적인 자산을 지속하는 결과가 되므로 지양되어야 할 것이며 지원을 계속해야 한다면 정부 투자에서 직접 보조금으로 지급하는 것이 최상의 방책이 될 것이다.

貿易自由化

貿易自由화를 통해 얻을 수 있는 혜택은 금융의 자율화보다 크다고 본다. 한국은 많은 경제기반 복잡한 규제를 실시하고 있는데 이는 생산 및 투자 결정을 무효시키고 생산자들로 하여금 경제적 우위가 어디에 있는지를 알기 어렵게 하고 있다. 이러한 규제는 축소되어야 하며 가능하다면 철폐되어야 한다. 이로 한국의 산업소재에 대한 외국의 규제緩和가 늦어지고 있다 하더라도 한국은 정책적 규제조차 완화로 가능한 한 많은 혜택을 얻을 수 있도록 노력해야 할
것이다. 한편 경제의 자유화가 이루어지지 않은 사회에서 어느 정도의 속도로 외국이 활발하게 나가지 않기 때문에에서는 그렇게 많이 알려져 있지는 않으나 몇가지 적절한 적용할 수 있는 정, 그러나가 관문이나 전략에 대한 근본적인 문제와 재정과 관련하여 어떠한 결과가라는 것이다.

한국의 입장에서 규제의 기술은 변화하는 경제적 시장에 대한 적응을 지연시키고, 새로운 기업에 부담이 될 것으로 보아, 예전 기업들을 보호하는 결과를 가져올 것이다.

불확실성의 확대

자원의 효율을 떠내더라도 요인중 하나는 정책의 부합
한 정책의 변화의 변화로 발생하는 불확실성이다. 불확실성의 크기에 따라 불필요한 경제적 부담을 회피하기 위해서는 정책의 부합을 안정시키고, 예측가능한 정책을 재택하여야 할 것이다.

일본은 변동률 정책으로 이행 및 통화안정의 발표를 통해 불확
실성을 감소시킴으로써 국민적 증가가 크게 얻어진 바 있다.

한국은 정책과 여러 경제의 변동으로 정책의 적응도가 높기 때문에 많은 정책이 필요하다. 특히 '바스켓'의 구조적 변동의 정도를 고찰하고 이를 공식적으로 발표함으로써 정책의 확실성이 증대되고, 적정상환의 예측이 가능하게 되어 국민적 증가가 증대할 것이다.

결론

한국 경제가 금후 바람직한 성장을 실현하기 위하여는 세계 경제가
보호주의를 부활하게 되면, 이것은 매우 중요하다. 현행의 금융, 재정 및 각종 규제의 관행을 개선함으로서, 한국 경제의 효율성을 높일 수 있을 것이며 특히 전염, 보상, 金融.
에 대한 복잡한 규제체제의 폐지가 가장 우선적으로施行되어야 할 것이다. 그리고 貸出金利를 市場金利에 따라 實勢化하고, 儲金金利를 價格표록에 따라 점진적으로 自由化시키면, 金融産業의 發展이 촉진될 것이다. 金融의 效率性을 높이기 위하여는 이 외에도 銀行 및 金融「서비스」産業에 대한 新規參與의 阻礙을 더욱 낮추고, 統裁率를 현제와 같이 낮은 수준에 調整적으로 고정시키며, 特定企業 및 産業에 대한 特別金融의 靜止 및 異기와 같은 與信割當, 金利規制와 기타 間接의 補助手段을 直接의 補助手段으로 대체하여야 할 것이다.

對外債務面에서는 對外借入資本에 의한 投資가 資本費用을 초과하는 收益을 가지는 때에는 國民經濟規模에 비하여 상대적으로 높은 對外債務도 그다지 문제되지 않을 것임을 유의하여 投資가 收益이외의 요인에 의하여 결정되거나, 資源이 對外的인 威信이나, 私的인 友好関係 또는 不実企業을 유지하는데 사용되지 않도록 하여야 할 것이다.

마지막으로 韓國銀行은 通貨貿易보다는 金融의 自律化에 보다 큰 관심을 가져야 할 것이며, 換金製度로는 主要交易相對国の 通貨「바스」에 適用하는 制度가 적절할 것이다.