

# On Exchange Rate Policy in a World of Generalized Floating: The Case of Korea

Won-Key Kwon\*

## I. Introduction

Since the collapse of the Bretton Woods systems in March 1973, there has been a perceptible increase in the diversity of the exchange rate practices among IMF member countries. On the whole, the members of the Fund have been prepared to change their exchange rate arrangements to meet new economic circumstances to a degree that was unexpected before 1973. In fact, a growing tendency among these countries has been to regard adjusting their exchange rate systems as a tool of economic policy. As a result, the countries that are prepared to conduct their domestic policies so as to preserve a rigidly fixed peg for any length of time represent only a small fraction of world trade.

Since 1975 the Korean economy has exhibited a remarkable ability to improve on its current account balance. For the first time in more than 30 years, Korea managed to achieve a current account surplus of some \$15 million in 1977 and a further surplus on its current account seems to be in prospect for 1978. The issue now should be how to achieve price stability in the face of growing liquidity in the domestic economy brought about by a favorable

\* Senior fellow, Korea International Economic Institute. The views expressed in this paper are solely my own and do not necessarily represent the views of anyone else in the Korea International Economic Institute. The author is indebted very much to Dr. Key W. Kim and Professor Yung-Chul Park for their helpful comments and encouragement.

foreign exchange balance that has also constrained the central bank's ability to carry out the desired monetary policy. The nation should also pay greater attention to the problem of distortion in resource allocation due to inaccurate signals sent by its rigidly fixed current exchange rate practice. Recent developments in the world economy as well as in the Korean economy induce us to give greater attention to exchange rate policy as playing a part in Korea's overall economic strategy.

The purpose of this paper is to give a critical assessment of the exchange rate policy of pegging the Korean won to the dollar and then suggest an alternative regime that is appropriate for the Korean economy in a world of generalized floating. The paper is organized into four sections. As a background, the first section reviews briefly major developments in exchange rate practices among IMF member countries since the adoption of floating exchange rate arrangements by the world's leading industrial nations. A critical assessment of the current exchange rate practice in Korea is made in the second section. In the third section the full range of exchange rate options available to Korea is discussed and a proposal for an improvement of the current exchange rate policy is presented. Concluding remarks are made in the final section.

## II. Recent Changes in Worldwide Exchange Rate Practices

The principles and the provisions adopted by IMF members since the de facto acceptance of the second amendment to the Articles of Agreement of the Fund allow member countries to employ a wide variety of exchange rate regimes. The exchange rate practices that have been employed by member countries over the last five years cover a broad spectrum, ranging from independent floating with relatively little intervention in the workings of foreign exchange markets to the maintenance of a peg to one of the world's major trading currencies — such as the dollar, the pound, or the franc. Within the group of countries that permit continuous flexibility in their exchange rates, the extent to which exchange rates are managed varies quite widely. Among those countries that formally pursue a policy of fixing their exchange rates — which is the majority of Fund members — a number of different pegging techniques have been employed. The most commonly used pegging technique is still that of pegging to a single currency, i.e., a unitary peg.

An increasing tendency to reconsider exchange rate policies is

reflected in the greater frequency with which countries using pegging arrangements have been prepared to change their intervention points as a means of responding to the external and internal balance of their economies. Some countries have changed the intervention points against their peg currency without changing, however, the form of the peg. Others have changed their peg either to another currency or to a currency basket. Still others have made use of formulas or indicators as a guide to peg changes. It is instructive to note that relatively few countries outside the industrial world have chosen to adopt independent floating as a permanent arrangement, although some have used exchange rate flexibility as an interim measure during reestablishment of a fixed peg.

Generally speaking, most major industrial countries have tended to adopt a floating exchange rate system either independently or jointly in a bloc. Most developing countries have adopted to peg their currencies either to a single currency or to a currency composite, including the SDR, while an increasing number of countries have shifted from a unitary peg to a composite peg. Several developing countries in Latin America have opted for the gliding parity system. The result of these developments in the international monetary system is summarized in Table 1.

### III. An Assessment of Korea's Exchange Rate Practice

On December 7, 1974 Korea devalued its won by 21.3 per cent against the U.S. dollar as a means to cope with the alarming deterioration in its balance of payments following the oil crisis. Since that time the Bank of Korea, the nation's central bank, has rigidly fixed its "basic exchange rate" at 484 won per U.S. dollar.<sup>1</sup> This practice followed by the Bank, of course, implies that policy makers in Korea have not been willing to allow their exchange rate to serve as a price that correctly reflects the external value of the won vis-a-vis currencies of its major trading partners. There is little question that the major reason for this unwillingness on the part of the policy makers has been the fear that instability in the nation's exchange rate might be harmful to their planning efforts and furthermore retard the nation's economic growth.

1 In the structure of the exchange rates in Korea, "the basic exchange rate by the Bank of Korea" (BERK) is regarded as the market rate which represents the inter-bank rate. The BERK is equivalent to the central rate or par value under the Bretton Woods system. The BERK is determined by the Bank of Korea within the range of 4 per cent - 2 per cent on either side - of the market rate (inter-bank rate) after taking into account the supply of and demand for foreign exchanges in the market. In consequence, the BERK best represents the market rate.

**Table 1**  
**EXCHANGE RATE REGIMES OF THE FUND MEMBERS**

	Number of Currencies		Change in Number of Currencies
	June 30, 1975*	June 30, 1977**	
(1) Currencies that float independently	11 (46.4%)	17 (44%)	6
(2) Currencies pegged to a single currency, of which	81 (14.8%)	68 (11%)	-13
(a) pegged to U.S. dollar	54 (12.4%)	44 (10%)	-10
(b) pegged to French franc	13 (0.4%)	14 (0.5%)	1
(c) pegged to other currency	14 (1.6%)	10 (0.5%)	-4
(3) Currencies pegged to a composite of other currencies, of which	19 (12.4%)	31 (9%)	12
(a) SDR	5	14	9
(b) Other	14	17	3
(4) Currencies pegged to others but that change the peg frequently in light of some formula	4 (2.0%)	7 (2%)	3
(5) Currencies that are floating jointly	7 (23.2%)	7 (24%)	
Total	122	130	

\* Figures in parentheses represent the percentage shares of trade (imports plus exports) of Fund members in 1974.

\*\* Figures in parentheses are the percentage shares of exports of Fund members in 1975.

Sources: IMF, Annual Report, 1975, 1977.

While recognizing that this factor is often put forward as the argument for pegging in the case of Korea as a small open developing country, it must also be noted that pegging to a single intervention currency has rather different implications when the major currencies are floating against each other than it does when the world as a whole is operating under fixed rates. In particular, when currencies of the major trading partners of a small country are floating against one another, movements in the pegged rates of the country reflect developments in the external position of the major country to whose currency it is pegged, and may not necessarily be consistent with the changes in its own balance of payments position.

When exchange rates of the major trading nations are floating, the small country that pegs its currency to its principal trading partner will experience variability in its bilateral exchange rates against currencies of other trading partners and thus aggravate anti-trade bias because of the increased exchange-rate variability.<sup>2</sup>

The standard technique for dealing with a group of floating rates is the concept of effective exchange rate.<sup>3</sup> The effective exchange rate for a country can be defined as a weighted average of the exchange rates of its trading partners, with all rates being measured relative to some base date. It is useful to combine changes in exchange rate into a single index number representing the effective change in the external value of a given currency.

Several methods of measuring such an index number have been developed, with each one using a different weight and each one producing a different result.<sup>4</sup> The most commonly used weights are based on bilateral trade shares. The weights may be computed on the basis of exports, imports, or an average of the two. They may be based on merchandise trade only or total trade in goods and services, or even on the balance of payments. If capital flows are negligible and exogenously determined, then weights based on total trade in goods and services appear to be most appropriate.<sup>5</sup> Selection of the countries to be included in the computation of

2 For the anti-trade bias effect of a generalized floating, see Williamson (1976).

3 For the rationale and measurement of the effective exchange rate, see *Economic Report of the President*, 1974.

4 In the computation of changes in effective exchange rate there are two widely used indices: the Morgan Guaranty index and the Reuters currency index. For more details on those indices, see *Economic Report of the President*, (1974).

5 In the short run the currency of denomination in international transactions should be taken into account in the choice of weights. For a further technical point of this "currency contract" issue in the choice of weights, see Magee (1973).

weights can markedly affect the value of the index. Bilateral trade shares of a country are expected to shift over time. The index, therefore, can be sensitive to the choice of the period for which bilateral trade shares are computed as well. Such an index gives extremely useful information concerning the effect of changes in exchange rates initiated by others on the competitive position of a given country.<sup>6</sup>

For the purpose of constructing an index for the change in the effective exchange rate for Korea, the currencies of the nation's ten major trading partners have been selected, as is shown in Table 2.<sup>7</sup> These ten countries together account for about 82 per cent of the

**Table 2**  
**WEIGHTS ASSIGNED TO CURRENCIES OF**  
**10 MAJOR TRADING NATIONS**

In per cent (%)

Currency	Weights Assigned to Each Currency*	
	Before Modification	After Modification
Australian Dollar	2.46 (1.63)	1.85 (1.38)
Canadian Dollar	3.09 (4.81)	2.32 (4.06)
Deutsche Mark	4.81 (6.94)	3.61 (5.87)
Indonesian Rupiah	2.16 (0.96)	1.62 (0.81)
Japanese Yen	35.80 (29.97)	26.84 (25.36)
Kuwait Dinar	5.83 (2.65)	4.36 (2.24)
Netherlands Guilder	1.56 (3.20)	1.17 (2.71)
Pound Sterling	2.85 (4.06)	2.13 (3.43)
Saudi Riyal	8.12 (4.89)	6.09 (4.14)
U.S. Dollar	33.31 (40.90)	50.00 (50.00)

\* Figures in parentheses are weights assigned to each currencies on the basis of bilateral commodity exports.

6 Nevertheless, one problem associated with the use of these indices is that the weights take into account only bilateral trade with a given country, when, in fact, changes in any one exchange rate affect trade with other countries. This drawback can in principle be resolved by the use of the IMF's Multilateral Exchange Rate Model (MERM). See Artus and Rhomberg (1973).

7 The countries are: Australia, Canada, Indonesia, Japan, Kuwait, the Netherlands, Saudi Arabia, the United Kingdom, the United States, and West Germany.

total commodity trade (exports plus imports) of Korea during the period January 1975 - September 1977. This period corresponds to the one in which Korea succeeded in a large measure in diversifying its trading partners to a degree thought impossible in the past.

For our purposes, the weights are computed in such a way so as to be proportional to the relative share of commodity trade that each of these ten countries has with Korea. Considering the very special position that the United States still occupies in Korea's external economic relations in terms of not only trade in goods and services but also capital flow, a 50 per cent weight has been assigned to that country. The remaining 50 per cent weight has been distributed among the remaining nine major trading partners in proportion to their respective commodity trade shares.

The index for changes in the effective exchange rate is computed by using December 7, 1974 as the base date. It may be recalled that this was the date on which the won was most recently devalued against the U.S. dollar.

The computation of effective changes in exchange rate of the won is carried out by using the following equation:

$$EER_k = \sum_{i=1}^{10} S_i \cdot \left\{ (Z_{it}/Z_{ib}) - 1 \right\}$$

where  $EER_k$ : the rate of change in the exchange rate of the won against the currency composite of 10 major trading nations under the  $k^{\text{th}}$  peg of the won ( $k$  = dollar peg, and SDR peg if the exchange rate of the won would have been pegged to the SDR)

$S_i$ : the weight of the  $i^{\text{th}}$  currency in the currency composite

$Z_{ij}$ : the exchange rate of the won in terms of the  $i^{\text{th}}$  currency [ $\{(\$ / w) \cdot (i / \$)\}$  under the dollar peg, and  $\{(\text{SDR} / w) \cdot (\$ / \text{SDR}) \cdot (i / \$)\}$  under the SDR peg] in the  $j^{\text{th}}$  point in time ( $j$  = b, t, where b and t represent the base date and the end of each month, respectively)

The result of this computation, as is noted in Table 3, shows a relatively stable trend in the effective exchange rate of the won during the three year period 1975-77, except for the fourth quarter of 1977 during which the dollar experienced significant depreciation. This relative stability of effective exchange rate of the won under the dollar peg may be attributed to the relatively stable exchange rate of the U.S. dollar against most of currencies of Korea's

other major trading nations over most of this period. Except for the period September 1975 - December 1976, there was an effective depreciation of the won vis-à-vis currencies of its major trading partners. The computation also illustrates that different weightings produce different trends in effective exchange rates.

When effective changes in exchange rate of the won are computed under the hypothetical SDR peg on the basis of the above equation, the result, as is shown in Table 3, suggests two observations. First, changes in effective exchange rate are more pronounced, on the whole, under the SDR peg than under the dollar

**Table 3**  
CHANGES IN EFFECTIVE EXCHANGE RATE OF  
THE WON UNDER ALTERNATIVE PEGS<sup>+</sup>

In per cent (%)

End of Month	Current Dollar-Peg*	SDR-Peg**
1975 March	-1.04 (-1.06)	0.83 (0.80)
June	-0.44 (-0.29)	0.52 (0.67)
Sept.	1.21 (1.77)	-3.59 (-3.21)
Dec.	1.38 (1.91)	-3.72 (-2.91)
1976 March	0.77 (1.24)	-4.84 (-4.40)
June	0.84 (1.46)	-5.61 (-5.02)
Sept.	-0.20 (0.38)	-5.66 (-5.10)
Dec.	0.37 (0.78)	-4.73 (-4.34)
1977 March	-0.87 (-0.27)	-6.15 (-3.06)
June	-1.86 (-1.26)	-6.57 (-5.99)
Sept.	-2.12 (-1.54)	-7.01 (-6.46)
Dec.	-5.18 (-4.80)	-5.92 (-5.54)

+ Changes in effective exchange rate are computed by using weights after modification. Figures in parentheses are export-weighted changes in the effective rate.

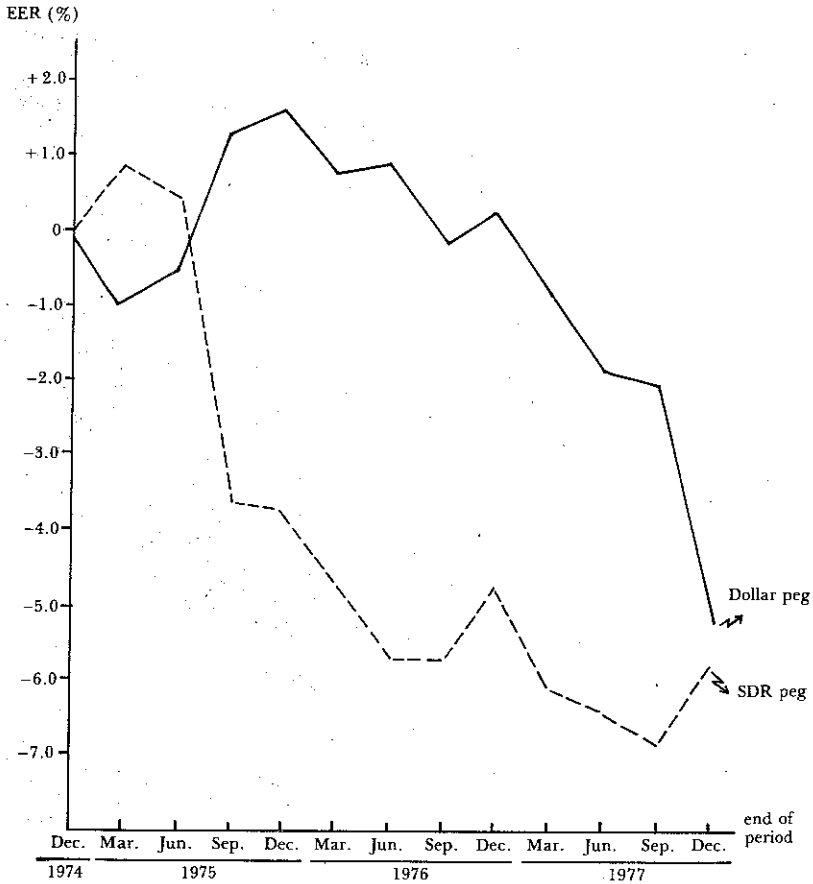
\* Market rate of the won in terms of the dollar has been set at W484 = \$1 continuously since December 7, 1974.

\*\* Changes in effective exchange rate if the exchange rate of the won would have been pegged to the SDR. The hypothetical exchange rate of the won under the SDR-peg will be shown later.

Note: Exchange rates of the 10 major trading countries used in this computation are exchange rates at the end of period ("ae" or its equivalent in the IFS listings).



**Figure 1**  
**THE TREND IN CHANGES IN EFFECTIVE EXCHANGE RATE**



peg during the same three year period. These more pronounced changes in the effective exchange rate under the SDR peg can possibly be attributed partly to the different weights assigned to the currencies of major trading nations from weights in SDR, and in part to the fact that many of Korea's major trading partners experienced relatively large changes in their exchange rates against the SDR. Second, under the hypothetical peg to the SDR, the won would have experienced a significant depreciation since September 1975. This is mainly because the currencies of Korea's more important trading partners, such as the United States, Japan, and West

Germany, continually appreciated against the SDR since September 1975.

By comparing the effective changes in exchange rate under the dollar peg with those under the hypothetical peg to the SDR, it can be concluded that the dollar peg has contributed more to the stability of the international purchasing power of the won and thereby to the domestic stability of the Korean economy than it would have under the hypothetical SDR peg during the three year period 1975-77. In other words, the depreciation or appreciation of the SDR against currencies of Korea's more important trading partners, such as the United States and Japan, would have tended to distort the competitive position of the Korean economy vis-à-vis most of its trading partners even more than the depreciation or appreciation of the dollar against the currencies of the same trading partners.

#### IV. Choice of Exchange Rate Policy

Choice among alternative exchange rate systems, like any other decision making, depends on costs and benefits involved.<sup>8</sup> Different exchange rate systems have different benefits and costs in terms of the efficiency in resource allocation and financial and human resource costs.<sup>9</sup>

Ignoring for the moment political costs which are even less quantifiable than economic costs, the costs associated with each exchange rate regime can be measured in principle in terms of resources needed to maintain a given system, including the need for administrative and control apparatus, and for holding different levels of external reserves. Likewise, the probable stabilization benefits of each regime can be evaluated in terms of the improved efficiency in resource allocation.<sup>10</sup>

Those economic costs and benefits are affected fundamentally

8 For a good discussion of merits and demerits of alternative exchange rate policies, see Black (1976).

9 Different exchange rate systems require different institutional structure of exchange and financial markets. For example, successful adoption of floating rates may require removal of exchange controls, greater stability of domestic economic and political policies, development of an efficient forward exchange market, and development of a domestic securities market to which foreign exchange market is linked. Such requirements would cause substantial costs in terms of the commitment of both financial and human resources.

10 Aliber termed out resource costs as "efficiency costs" and stabilization benefits as "utilization costs." For more details on the concepts and coverages of utilization costs and efficiency costs, see Aliber (1972).

by a wide variety of factors: (1) the degree of openness and the size of the economy, (2) the type of shocks to which the economy is most frequently exposed and the origins of those shocks, (3) differences in relative inflation rates between countries, (4) the degree of commodity and geographic concentration of trade, and (5) the width and depth of domestic financial markets including forward exchange market.<sup>11</sup>

The result of calculations on economic costs and benefits of alternative exchange rate systems based on the above five factors might give rise to a Phillips-curve type trade-off locus between resource costs and stabilization benefits. The choice between alternative exchange rate systems should be based not only on the assessments of costs and benefits associated but also on targets of economic policies.

Macro-economic policy, in general, has four objectives: to curtail the level of unemployment, to attain a stable price level, to maintain a strong external position, and to sustain the high rate of economic growth in the long run. Faced with these four economic policy objectives, the central aim of exchange rate policy in the short run is to combat inflation and, where necessary, strengthen the external position of a country in the belief that such an approach will make for a better record of growth and employment in the long run insofar as long-run is the limit of a succession of short-runs.<sup>12</sup>

The Korean economy is not only small but also highly open. The average ratio of commodity imports to GNP over the period 1973-76 was 36.8 per cent, while the average ratio of commodity exports to GNP over the same period was 28.5 per cent. The ratio of total trade to GNP over this period was 65.3 per cent. Imports in Korea consist largely of industrial raw materials and capital goods. Under these conditions the adoption of a floating exchange rate system will have a greater impact on domestic price level than a pegged exchange regime.

Korean exports are still highly concentrated in labor-intensive commodities and have been concentrated geographically on only a

11 For more details on the role of these five factors in the determination of costs and benefits of an alternative exchange rate system, see Heller (1977). Also see Heller (1974), Mundell (1973), Grubel (1973), McKinnon (1963).

12 We are not concerned here with the efficient or optimal assignment of policy instruments to respective targets in line with the Tinbergen-Meade-Mundellian type of reasoning.

couple of countries -- the United States and Japan.<sup>13</sup> Erratic changes in export receipts have a disruptive impact on the domestic economy when, in particular, Korea pursues export-led development strategy.

Furthermore, domestic financial markets in Korea have not developed well enough to function competitively and smoothly. Interest rates on bank loans are inflexible at unrealistically low rates, leading to fragmentation of the financial assets market and a multiplicity of interest rates paid in a disorganized market. Korea has yet to develop automatic convertibility of the won and a forward market for foreign exchange transactions. In light of such considerations as these, an early adoption of a floating rate for Korea is out of question.<sup>14</sup> This leaves the realistic choice between a unitary peg and a composite peg.

Exchange rate practices in Korea have been based on the dollar peg mainly because of Korea's close economic relations with the United States in terms of trade in goods and services and capital transactions, as already noted. The problems involved in the dollar peg of the won have already been analyzed, and there is no need to repeat them here.

A policy of pegging the domestic currency to the SDR implies that the local currency price of the dollar changes exactly as does the SDR price of the dollar. The exchange rate of the won in terms of the dollar under a hypothetical peg to the SDR is obtained from the product of the price of the SDR in terms of the won ( $W/SDR$ ) and the SDR value of the dollar ( $SDR/\$$ ), i.e.,  $W/\$ = (W/SDR) \cdot (SDR/\$)$ .<sup>15</sup> Under the SDR peg, exchange rates of the won in terms of the dollar ( $W/\$$ ) would have been below the actual exchange rate ( $W484 = \$1$ ) during the first half of 1975 because of the depreciation of the dollar against the SDR during the same period. On the other hand, the exchange rate of the won would

13 Korean commodity trade with the United States and Japan accounted for 62.3 per cent, on the average, of Korea's total trade for the period 1973-76.

14 Even the adoption of a gliding-parity system may be less preferable since no one knows for certain what the practices are, nor the rules that govern the glides. Adjustment (ex post) of exchange rates by using formulas or indicators as guides to peg changes will aggravate the domestic instability of the economy because of the time lag between actual adjustment and desired adjustment of exchange rates.

15 The dollar price of the won ( $\$/W$ ) under the SDR peg, however, will only be affected by changes in the SDR value of the dollar ( $SDR/\$$ ) since under the SDR peg the SDR value of the won ( $SDR/W$ ) remains constant over time at the SDR value of the won on the base date. In our example the base date is December 7, 1974. The SDR value of the won ( $SDR/W$ ) on the base date, which also remains at 0.001688 over time under the SDR peg, is obtained from the product of the SDR price of the dollar ( $SDR/\$$ ) and the dollar value of the won ( $\$/W$ ) on the base date.

have been above W500 per U.S. dollar during the two year period September 1975 — September 1977.<sup>16</sup> This is mainly because the dollar was strong against the SDR in this period.

**Table 4**  
**HYPOTHETICAL EXCHANGE RATES OF THE**  
**WON UNDER ALTERNATIVE PEGS**

In won per U.S. dollar

End of Month	Composite peg*	SDR peg
1975 March	478.93 (478.70)	475.06
June	481.93 (482.39)	479.39
Sept.	489.48 (491.88)	508.91
Dec.	490.44 (492.61)	506.33
1976 March	487.33 (489.24)	512.56
June	487.09 (489.72)	517.06
Sept.	481.70 (483.56)	512.03
Dec.	484.26 (485.67)	509.94
1977 March	477.78 (480.08)	511.25
June	472.14 (474.38)	508.39
Sept.	470.81 (473.04)	509.42
Dec.	453.31 (454.55)	487.80

\* Exchange rates of the won are computed by using weights after modification. Figures in parentheses represent exports-weighted exchange rates.

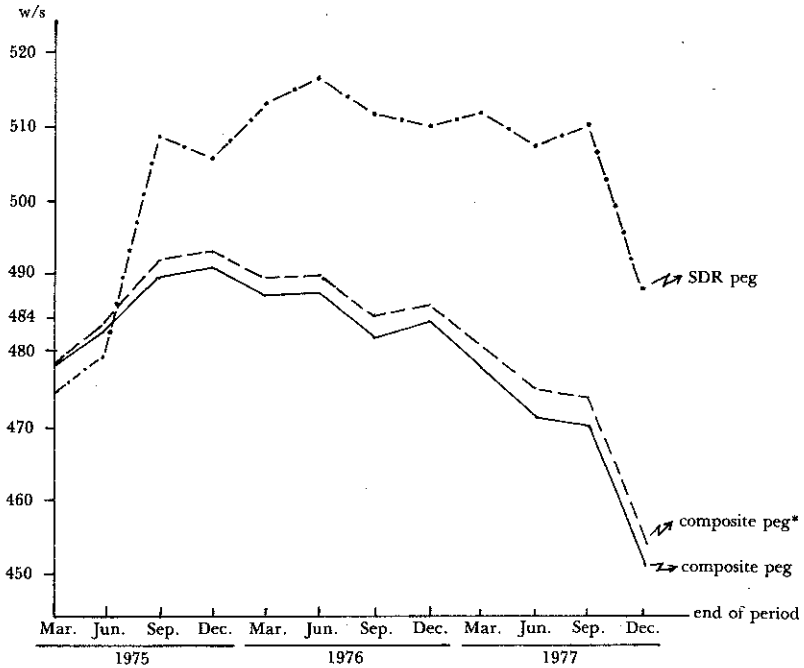
Under the hypothetical peg to the SDR, fluctuations in the exchange rate of the won would have been appreciably wider than the dollar peg. This is because (1) many of Korea's major trading partners have not themselves pegged to the SDR, (2) the exchange rate of the won in terms of the dollar (W/\$) would have depended on the SDR value of the dollar (SDR/\$), and (3) the weights in the SDR are different from those in the currency composite of Korea's major trading partners.

If Korea had opted for the SDR peg during the three year

<sup>16</sup> The movement of exchange rates does not necessarily mean that they would have been at the level shown on the Table 4 continuously during the specified period because we measure the exchange rates at the end of the specified month.

Figure 2

## EXCHANGE RATES UNDER ALTERNATIVE COMPOSITE PEGS



\* Export-weighted exchange rates under the composite peg.

period 1975-77, its exports would have increased more than under the current dollar peg since exchange rates of the won would have depreciated noticeably and thus remained at the level above  $W484 = \$1$  for this period. The SDR peg, however, would have aggravated the domestic instability of the Korean economy through a large depreciation of the won and of larger effects on the domestic prices.

In particular, wide fluctuations in the effective exchange rate of the won would have increased the variance of prices of traded goods and thus would have been harmful to the domestic stability of the Korean economy. Furthermore, more rapid monetary expansion resulting from an increase in exports under the SDR peg rather than under the dollar peg would have worsened inflationary pressure in the Korean economy. To help moderate these unwelcome influences of the SDR peg, while retaining much of the

advantages of pegging, policy makers of Korea would certainly have chosen to peg the value of the won to the currency composite of Korea's major trading partners.

To calculate exchange rates under the hypothetical composite peg, it is necessary to define a new basket of currencies for the currency composite of Korea's ten major trading nations which was used in the previous analysis of effective exchange rates. For the computation of this exchange rate the following equation is used.<sup>17</sup>:

$$E_t = R_b \sum_{i=1}^{10} S_i \cdot (R_{it}/R_{ib})$$

- where  $E_t$ : the dollar value of the won (\$/W) at the end of each month (t) under the composite peg  
 $S_i$ : the weight of the  $i^{\text{th}}$  currency ( $i = 1, 2, 3, \dots, 10$ )  
 $R_b$ : the dollar value of the won on the base date (b)  
 $R_{ij}$ : the dollar price of the  $i^{\text{th}}$  currency (\$/i) at the  $j^{\text{th}}$  point  
 {  $j = b$  (the base date),  $t$  (the end of each month) }

From the result of this computation we can observe that the effective exchange rate under the composite peg would have been relatively stable during the three year period 1975-77, except for the third quarter of 1977 in which the dollar was significantly weak against other major currencies. This is mainly due to the stable movement of exchange rates for Korea's major trading partners. The result also shows that the won would have appreciated somewhat if Korea had had a composite peg during the three year period March 1975 - December 1977, except for the period September 1975 - June 1976. This can be attributed to the fact that in the latter period the dollar was strong, on balance, against the currency composite of Korea's major trading partners while for the other remaining period the dollar was relatively weak, on the average, against the basket of currencies. Under the composite peg, inflationary pressure on the Korean economy would have been smaller through a greater stability in the effective exchange rate of the won and a slower monetary expansion than under the dollar peg for the period, although exports could have been adversely affected somewhat due to the small appreciation of the won.

In recent years, Korea has made serious efforts to diversify its markets for international transactions. To this end, also, a com-

<sup>17</sup> The reciprocal of  $E_t$  will give the won value of the dollar (W/\$).

posite peg would have significantly contributed to the reduction of an anti-trade bias resulting from the adoption of floating rates among its major trading partners.<sup>18</sup> A policy of pegging the domestic currency to the currency composite of Korea's major trading nations would have stabilized the effective exchange rate of the won.

Furthermore, exchange rates of the won under a composite peg would reflect Korea's real competitive position even more accurately and thereby greatly increase the efficiency in resource allocation between the tradable sector and non-tradable sector of the economy. A composite peg would also reduce significantly a number of control apparatus required for the maintenance of the peg to the dollar. Such considerations as these lead one to conclude that a composite peg based on the currency basket of Korea's major trading partners is the most preferable exchange rate system for the nation.<sup>19</sup>

There remains, of course, the question of choosing the weights that are appropriate for different currencies. The choice does not represent, however, an insurmountable problem. In any event, at a time when Korea is rapidly diversifying its partners in trade as well as in capital transactions, the weights should be calculated frequently in order to take account of the changes in the economic importance of individual countries involved with Korea.

## V. Concluding Remarks

This paper has attempted to give an assessment of the exchange rate policy in Korea in a world of generalized floating and to explore the possibility of finding a better exchange rate regime for the nation. For the purpose of analysis the relevant existing conditions about the economy, such as the financial markets, the size and the degree of openness of the economy, and the structure of trade, are assumed to be given.

The major conclusion of our study can be summarized as follows: The most useful concept for a small open economy such as

18 The anti-trade bias resulting from the increased variability in exchange rates under a generalized floating may partly be eliminated by pegging the won to the dollar, which is the most important currency in Korea's international transaction. The cost of the dollar peg, however, is that of adding a trade-diverting bias against the rest of the world. This trade-diverting bias would be minimized by pegging the effective exchange rate instead of pegging to a single currency. See Williamson (1976).

19 Heller (1977), in his analysis on the basis of discriminant method, shows that it is advisable for Korea to peg the won to a composite of currencies.



Korea's in a world of generalized floating is the index of the effective exchange rate computed with the help of the weights based on trade shares of its major trading partners. The stability of the Korean economy will be greater under the dollar peg than under the SDR peg. However, the rigidly fixed current dollar peg will lead to relatively large effective changes in the exchange rate of the won if the external value of the dollar becomes unstable vis-à-vis currencies of Korea's major trading countries and if Korea's external markets for international transactions are rapidly diversified. Under the peg to the dollar, the nation managed to achieve a high export growth but at the expense of greater domestic instability. Under the peg to the SDR, the nation would have achieved an even higher export growth at the expense of serious distortion in the nation's competitive position vis-à-vis its major trading partners.

The choice of exchange rate policy should be considered carefully on the basis of benefits and costs of alternative exchange rate regimes in relation to the goals of economic policy currently pursued. In view of the characteristics of the Korean economy and of the basic policy targets necessary for the attainment of the domestic stability necessary to sustain rapid growth, a strong recommendation for the adoption of a composite peg is made.

The choice of weights used in this paper was meant to be illustrative. The weights assigned to individual currencies need not be fixed for all times. In fact, the weights should be continuously revised in order to accurately reflect the change in the relative economic importance of the major trading partners for Korea. More careful analysis of choice of weights is needed.

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