Exchange-Rate Policy and Economic Development: A Note with Special Reference to the Case of Korea

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During the 1960's Korea could not succeed in improving her chronic balance-of-trade deficits at the prevailing rate of foreign exchange even through the maintenance of direct - indirect export subsidies, intensive tariffs, quantitative import controls, and exchange restriction policy.

With a given imbalance in the current account (e.g., in 1960 and 1961 the export-import ratio was 0.1 and 0.4) the remarkable (in view of the country's earlier economic history) growth rates of exports have never succeeded in narrowing the import-export gap. Instead, the absolute gap has widened steadily.[1]

The "ambitious" targets of export - and GNP - growth during the First and the Second Five-Year Economic Development Plans starting in 1962 have outstripped the resources the economy has been able to mobilize with the existing financial and fiscal schemes. And this state of excess demand has subjected the economy to a continual pressure of internal inflation and external balance-of-payment difficulties which have been suppressed by *ad hoc* import-export protective measures and an inflow of accommodating foreign capital. Thus the balance-of-payments situation of the Korean economy is marked by chronic deficits in the current account and an ever-increasing inflow in the capital account.

During the 1960's, on the other hand, relative to the above policy features, the foreign exchange rate[2] had been assigned a unique but not simple role as one of the key policy variables of the economy, in affecting the pattern of development of the internal-external sectors as well as their interrelationship.

1) During the period 1961—1970, the average rate of growth of exports and imports were 215.8% and 167.4% per year, respectively, while the total (commercial) import-export gap increased by US $759 million.

2) The exchange rate is defined as the price of foreign currency in terms of the domestic currency, i.e., Won/US $.

Fluctuation of foreign exchange rates has been kept down at the unrealistically low support points in such a way that the rate of depreciation of the domestic currency has been far below the rate of increase in domestic wholesale price indices.[3] And, one independent study shows, the "real" exchange rate[4] has steadily declined even though the official(or nominal) exchange rate has steadily increased since March 1965 when the fixed exchange rate system was abandoned in favor of floating exchange rates indicating that the fluctuation of the foreign exchange rates has been strictly controlled by official intervention in the foreign exchange market.

Clearly, a certain rationality underlies the conscious maintenance by the exchange authority of an overvalued domestic currency during a fairly extended period of time. The rationale for overvaluation of the domestic currency is seen to be related to domestic industrialization as an economic goal, the resulting composition of imports, and domestic economic conditions-especially, the current inflationary pressure. Under the current situation of both internal excess demand and balance-of-trade deficits in the Korean economy, external deficits can be removed only by a reduction in real expenditure. Now, if this policy is ruled out, and devaluation is resorted to, all it will do is to increase excess demand for home produced goods (including exportables) with uncertain reduction of external deficits. The reduction of external deficits will be uncertain since less imports may be bought as a direct impact of devaluation, but the increased internal demand will soon spill over to imports as domestic prices of traded and non-traded goods increase. Appreciation might therefore be regarded as preferable, because it

3) Until 1970, the domestic wholesale price index increased by 10.1% per year, but the exchange rate showed an annual rate of increase 3.7% after the devaluation.

4) Korean Development Association, *A Study on the Development of Strategic Export Industries and the Direction of Export Promotion Measures,* April 1970, p.712. According to this study the "real" exchange rate declining by 9% during the period 1965-69, while the nominal rate increased by 15.6% during the same period. The "real" exchange rate is defined as a ratio of the nominal exchange rate to the purchasing power parity index with major trading partners (viz., U.S.A. and Japan). There are several key weaknesses both in relying on general price indices for deciding foreign exchange rate adjustment and in believing the casual relationship underlying the purchasing-power parity doctrine. However, the relationship between purchasing-power parities and foreign exchange rates can be of some help in judging overvaluation or undervaluation of a currency, and changes in the degree of over-(under-) valuation, although they cannot indicate the magnitude of the required revaluation. See Balassa, B., "The Purchasing-Power Parity Doctrine: A Reappraisal," *Journal of Political Economy,* Vol. LXXII, 1964, p. 584, and Yeager, L.B., *International Monetary Relations,* Harper and Row, 1966, pp. 177—88.

may not improve the external situation, but at least would reduce internal excess demand and inflationary pressures. Therefore, a move toward an equilibrium foreign exchange rate[5] (or devaluation of overvalued domestic currency), partly in order to make imports of luxury consumer goods more expensive for domestic purchasers is to use "a sledge hammer to kill a mosquito." This is because direct controls have already been imposed to discourage such imports, and devaluation will discourage *all* imports and result in higher prices for all imports including machineries and industrial raw materials that are vital to the already accepted indus trialization programs of the economy.[6]

As for the export industries, it is apparent that under the current trend of domestic inflation and the high foreign-resource content of exports,[7] lower exchange rates will help curb cost-push inflation in export industries. This impact will be reflected in a rightward shift of both export firms' cost schedules and industry's export supply curve. This may offset export-distinctive of lower exchange rates.

At the same time, however, lower exchange rates will have several disadvantages. Any possible deflationary effects of lower exchange rates are quite limted, for direct import controls (i.e, import quotas, tariffs, import-license, and direct and indirect import-export-export linking system) by themselves have already raised the domestic prices of the protected (domestic) goods and imported foreign resources(and thus the prices of output employing foreign resources) in the face of internal excess demand. Also, the downward pressures on export prices through lower import costs of foreign resources may not be strong enough to compensate for the depressing effect of currency overvaluation on exports, unless the share of import costs in the export supply prices

5) An equilibrium exchange rate is defined as "the rate that over the course of a period not longer than a year equates the demand and supply of foreign exchange. Neither the presence of full employment and price stability nor the absence of new restrictions is an integral part of the concept of international equilibrium". Cohen. B.J., *Balance-of-Payments Policy*, Penguin Modern Economics Texts, 1969, p. 98. Accordingly, the "lower" (or "higher") exchange rate is referred to as an exchange rate which is lower(or higher) than the(hypo-thetical) equilibrium exchange rate, and thus a state of overvaluation(or undervaluation) of domestic currency.

6) This is the case not only of Korea, but also of the most of the developing economies, especially in Latin America. Professor B. Herrick of UCLA discusses this problem in detail in his(unpublished) article "Exchange Rate Overvaluation and Economic Development."

7) In 1970, for instance, total exports reached US $788.1 million (excluding sales to U.S. forces) while export industry imported US $404.4 million worth of raw materials and equipments.

is unity. Furthermore, downward pressures on export prices from lower exchange rate can be divided into the effects of lower costs of foreign resource imports for export industries, and the resultant increase in input coefficients of foreign resources relative to those of domestic resources over time.

The latter will then definitely reduce the net foreign-exchange-earnings per unit of export value,[8] and the consequent underdevelopment and underutilization of domestic resource industries will reduce the marginal "carry-over or linkage" effects of exports on the domestic economy.[9] In addition, so long as the tariffs are not prohibitive, the implicit subsidies to imports implied by the import controls and lower foreign exchange rates during a fairly extended period of time tend to reduce incentives to innovation which can improve productivity (in terms of foreign exchanges earned or saved) of a given foreign resource and export industries using foreign resources.

Therefore, the positive gains of the overvaluation of domestic currency will be short term benefits at the costs of underdevelopment and inefficient allocation of domestic resources (including technology). This will constitute the most significant costs to the economy, especially from the long run development point of view. This is because so long as the current pattern and trends of both internal and external development continue, the "dualistic" nature of the economy (which results from the "technological" unemployment of domestic resources and the limited "carry-over" effect from export sector to other sectors of the economy) will be aggravated, while the import-export continue grow.[10]

The interrelationships between the domestic and external sectors in a developing economy include two major effects; the primary effects of the domestic sector on the external sector and the feedback effects of the external features on the domestic sector. And the central aim of economic policy can be described as achieving the desired rate of economic growth, without a foreign payments crisis and without inflation. Quantitatively, these require three types of *ex ante* balance; (a) in the foreign payments, to avoid loss of foreign exchange, (b) in saving and investment, to avoid inflationary pressures, (c)

8) In case of manufactured goods, for instance, which accounted for 80% of total exports in 1967—68, net dollar-earning ratio per unit export declined from 52% in 1967 to 43% in 1968. And for the whole export industry, the average ratio declined from 63.3% in 1967 to 53.2% in 1968.

9) For further discussion of the "carry-over" problem, see Meier, G.M., *Leading Issues in Development Economics*, Oxford University Press, 1964, pp. 371—76.

10) For a comprehensive discussion of "technological" unemployment and the dual economy, see Meier, *op.cit.* pp. 68—71.

in the markets for particular commodities, to avoid excess demand (or supply).

Internal equilibrium is not, therefore, the only objective of macro-economic policy, Balance-of-payments policy is merely a subset of national economic policy, sharing most of the means and ends (i.e., policy variables and policy goals) as well as a fundamental problem confronting every economic decision maker - the problem of choice. A range of policy instruments is available to the financial authorities for dealing with problems of payments imbalance. Likewise, a range of policy objectives is formulated by the authorities, which may or may not always be compatible with achievement of external equilibrium. Since there are no set rules in these matters, the problem is to make the correct choice - that is, to allocate means to ends.

Therefore, available instruments of policy must be evaluated for their potential, both in over-all quantitative terms and qualitatively in terms of their suitability for specific tasks.

In general, the system of economic planning ideally aims at maximizing the "desired" effects in terms of socioeconomic reorganization, mobilization of inputs, acceleration of the rate of growth of GNP, alleviation of market imperfection, and promotion of economic stability. At the same time, however, this system will be open to "undesired" consequences, especially, in terms of administrative inefficiencies, unreliable valuation criteria, micro-economic inefficiencies, and macro-economic maladjustment.

At another level, development programs must simultaneously confront two sets of problems. In the short run, progress is hampered by structural disequilibrium in factor markets and in the markets for particular goods. In the long run, the distribution of priorities among sectors becomes increasingly imporant because the pattern of growth in each period will depend on the choices made previously. Correspondingly, development programs that are influenced mainly by the existing structural disequilibrium tend to give a high priority to the need for short run balance between domestic demand and supply, while development programs that take a longer view tend to pay more attention to comparative advantage over time.[11]

Both the inefficiencies of development programs and the contradiction between short run and long run aspects of policy goals, if any, will be reflected in, and determine the nature of, the balance of payment problems as low income countries try to accelerate the process of development in the

11) For further discussion of comparative advanttage over time, see Chenery, H. B., "Comparative Advantage and Development Policy," *American Economic Review*, March 1961, p.18.

short run. And as a developing economy, Korea is no exception. Under the current situation, the trade-balance of the economy can be improved either by accelerating the rate of growth of exports or by encouraging import-competing industries along with further restrictions on commodity imports, or by both. It may be predicted, however, that further increases in exports and growth of import-competing industries will definitely call for more imports of foreign resources. However, the drastic cut of imports will aggravate inflationary pressures as well as create immediate unemployment. This is rather a typical dilemma for an economy suffering from both balance of trade deficits and domestic inflation, especially in developing economies where it is compounded by underdevelopment of domestic resource industries "fundamental disequilibrium."[12]

Insofar as economic development is defined as a long run process of structural transformation, the structural improvement of balance-of-trade and the ultimate goal of simultaneous achievement of internal and external equilibrium will be a long run problem for a developing economy.

For a long run restoration of equilibrium of the balance-of-payments, it will be necessary to generate a resource reallocation, namely, reallocation of domestic resources to export and import-competing industries and reduction of foreign-resource content of exports.

Categorically, three different policies are available for the balance-of-payments adjustments; financial policy (or fiscal-monetary mix), direct trade controls, and adjustment of foreign exchange rate. Among these, the fiscal-monetary mix is hardly a true, fundamental adjustment mechanism. "It does not adjust the balance-of-payments, it merely stabilizes it. Flows of funds due to the interest rate differentials initiated by deflationary financial policy simply fill the gap between autonomous demand and supply of foreign exchange. In effect, the mix is no different from elementary financing of an imbalance."[13] Moreover, for the developing economy, "both fiscal and mone-

12) The Executive Directors of IMF interpet this term [Article IV, section(a)] to mean that steps are necessary to protect a member from unemployment of a chronic or persistent character, arising from pressure on its balance of payments. See Aufricht, H., *The Fund Agreement: Living Law and Emerging Practice*, Princeton University Press, 1969, p. 3. Also, E.M. Bernstein's discussion of both "price and cost parity" and "structural maladjustment" as the cases for devaluation are seen to mean fundamental disequilibrium. See "Strategic Factors in Balance of Payment Adjustment," *Review of Economics and Statistics*, (Supplementary Issue), Feb. 1958, pp. 133—37.

13) Cohen, B. J., *Balance-of-Payment Policy*, Penguin Modern Economics Texts, 1969, p.111.

tary expansion are likely to attract foreign capital inflow only to the extent that they induce a flush of domestic prosperity and an appearance of favorable prospects for international sales but they may set in motion an outflow of foreign capital to the extent that they induce fears of domestic inflation, institution of controls over access to foreign exchange, or inconvertibility. Therefore, management of the classic adjustment process (as represented by the mix of fiscal and monetary policy) appears to be limited promise in developing countries."[14] The restrictive and selective price adjustments (or "compensatory" corrections) operating through tariffs, subsidies, quotas, and exchange controls find their justification in their emergency or temporary effectiveness, since they resist the automatic market response and result in repercussions that may frustrate the initial attempts.[15]

On the other hand, a devaluation of the domestic currency tends to reinforce the automatic market response to a payment disturbance which is capable of inducing genuine reallocation of resources. A proposition has been made that not only is resource reallocation through the devaluation of overvalued domestic currency compatible with the principle of comparative advantage, but also that devaluation is, in fact, a necessary prerequisite for this resource reallocation.[16] There are, of course, a number of contradictions between the

14) West, R. L., "Impact of the Adjustment Process on Developing Countries," in Fellner, W.(ed.), *Maintaining and Restoring Balance in International Payments*, Princeton University Press, 1966, pp. 240—41.

15) "Restrictive measures by deficit countries often remain ineffective, or an initially corrective impact will be offset by unintented side-effects, reactions, and repercussions." Machlup, F., "Adjustment, Compensatory Correction, and Financing Imbalances in International Payments," in Baldwin, R.E.(ed.), *Trade, Growth, and the Balance of Payments*, Rand McNally, 1965, p. 211. For a detailed discussion of the pros and cons of the "exchange controls" (including currency overvaluation) of the developing countries see Marshall, J., "Exchange Controls and Economic Development," and "Comments" by Marquez, J., Hirschman, A. O., and others, in Ellis, H.S.(ed.), *Economic Development for Latin America*, St. Martin's Press, New York, 1961, pp.430—69.

16) This is on the assumption that epuilibrium exchange rates which improve the balance-of-trade will make it possible to remove other rigid trade-balancing controls. Equilibrium exchange rates (or devaluation of the overvalued domestic currency) and the avoidance of the trade-balancing controls then tend to promote resource allocation in accordance with comparative advantage and thus also tend to be anti-inflationary, at least in the long run, by increasing trade volume in both directions. See Yeager, L.B., *International Monetary Relations*, Harper and Row, 1966, pp.184—88, Sohmen, E., *International Monetary Problem and Foreign Exchange Rate*, Princeton Univ. Press, 1963, p.44, and (for a selective devaluation problem) Baldwin, R.E., "Exchange Rate Policy and Economic Development," *Economic Development and Cultural Change*, July 1965, pp. 598—603.

implications of the pure theory of international trade applied to a developing economy and the theory of economic development,[17] and thus several objections can be made to the principle; the Heckscher-Ohlin theory does not allow for observable differences in the qualities of commodities, and for the necessity of interpreting comparative advantage in a dynamic setting in which the efficiency of production may change over time, external economies may exist, and the market prices of inputs and outputs may differ from their opportunity costs. "Nevertheless, it cannot be denied that differences in resource endowment do exist and that given these differences and given the state of technology in the different countries output patterns do not coincide with demand patterns on a country-by-country basis."[18] In particular, for the export sector, even "dynamic" concepts of comparative cost are implicitly based on the condition that all the resources are supplied within the economy; if not, that the resource allocation problem will be solved over time.

Indeed, "government intervention in international economic transactions find their justification in part in long run development needs. Given a long-time horizon the main considerations relate to the allocation of resources."[19] In particualr, the achievement of a reasonably continual high rate of economic growth with external equilibrium is an extremely difficult task. But the difficulty is not greater than the need. Policy to maintain a high rate of economic growth is an extremely desirable task, "yet a subsidiary one insofar as, at least, as it is more desirable that economy should move in the right direction than that it should move more quickly and, possibly in the wrong direction."[20]

In fact, our study of the policy-choice should be based on the propositions that sustaining the unrealistic relationship between domestic prices and the foreign exchange rate in the developing economy will make the balance-of-payments problem still worse in the long run, and that the long run restoration of the external disequilibrium will be most consistent with overall policy

17) For a further detailed discussion of the conflict between the pure theory of trade and the theory of economic development, see Chenery, H.B., "Comparative Advantage and Development Policy," *American Economic Review*, March 1961, p.18, and Myint, H., "The 'Classical Theory' of International Trade and Underdeveloped Countries," *Economic Journal*, June 1958, pp. 317—37.

18) Linnemann, H., *An Econometric Study of International Trade Flows*, North-Holland Publishing Co., 1966. p. 10.

19) Papanek, G.P., Schydlowsky, D.M., and Stern, J. J., *Decision Making for Economic Development*, Houghton Mifflin Co., 1971, p. 54.

20) Mishan, E.J., *The Cost of Economic Growth*, New York, 1967, p. 41.

goals of the developing economy.

Insofar as the rationale for the devaluation of an overvalued domestic currency can be recognized from the long run point of view, an equally strategic consideration for devaluation in the developing economy (including Korea) is the impact of exchange rate changes on the balance of trade. This is because a decision on the country's trade policy must balance the long run requirements of economic development and external adjustment, affected by the allocation of resources, against the requirements of effectiveness in the short run.

The IMF system permits devaluation if a country is suffering from "fundamental disequilibrium" in its international transactions. However, this is not to suggest that short run effects of devaluation are always desirable. During the last decade, devaluation attempts undertaken by developing countries have as often failed as succeeded. By failure it is meant that the new "real" rates could not be maintained over any length of time and direct trade controls had to be reintroduced before long or could not be abolished at all. In this respect, Korea is no exception. Nonetheless, the short term failure of devaluation policy does not necessarily negate the potential role of the exchange rate as a policy variable, since it is the *potential* (or maximum attainable) improvement of trade balance, but not the *actual* improvement of trade-balance, that constitutes feasibility of the devaluation policy.

The discrepancy between the actual and potential improvement of trade-balance should be accounted for either by the lack of complementary measures or by the pursuance of other contradictory policies, or by both, the exact nature of which depending upon the specific situation of an economy at a specific time concerned.

Therefore, for an effective evaluation of the role of the foreign exchange rate as a policy variable in the Korean economy, an extensive study has to be made to pinpoint key determinants of the potential effect of devaluation and the root causes for a discrepancy between the actual and potential effect of devaluation.