Currency Depreciation and Imports

Currency depreciation in developing countries need not lead to a contraction of real imports. It can, as part of a broader policy package, facilitate an expansion of imports.

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Exchange rate policy influences the level of imports. It does so by affecting both the demand for imports and the foreign exchange available to finance imports. This article examines the variety of ways in which currency depreciation can affect imports, mainly through its impact on the prices of imports and on real incomes and assets, and its effects on financial inflows. The article draws upon the broad theoretical and empirical findings that have emerged from past Fund staff analyses and country experience, especially within the framework of Fund-supported adjustment programs.

Currency depreciation is usually part of a package of policies designed to limit current account deficits to levels that are sustainable in the medium term while striving to sustain or augment economic growth. In such adjustment programs, currency depreciation and the associated policies are, in principle, tailored according to whether or not a fall in real imports is required in relation to real output and exports. The basic factors in this decision are the magnitudes of external debt and debt service vis-à-vis exports and gross domestic product, the rate of inflation, structural imbalances, the prospects for capital inflows, and the rate of output growth. In these respects, adjustment programs of the past few years have been undertaken by countries in two sets of circumstances. In the first, inflation and external debt are high in relation to exports and GDP, even while the currency remains seriously overvalued. For such countries adjustment programs are designed, *inter alia*, to reduce aggregate expenditures relative to income and provide for debt-service payments. Since external creditors generally take a cautious view of them, countries in these circumstances would be unlikely to attract substantial additional financial inflows for some time. Adjustment programs in such cases would normally incorporate a short- to medium-term drop in import growth relative to export growth.

In the other set of circumstances, adjustment has been undertaken to redress acute structural imbalances and low underlying output growth. Such countries might or might not have experienced high inflation or serious debt-servicing difficulties. The restructuring of their economies would generally entail rapid growth of investment and imports in relation to GDP. Hence policies, including currency depreciation, would normally be designed to facilitate rapid expansion of exports and increased foreign financial inflows in relation to GDP. Even for such countries, however, the relative price and demand effects of the currency depreciation, which are discussed below, often begin to affect real imports before the favorable effects are felt on export expansion and financial inflows. In the meantime, bringing back into use some old equipment, more intensive use of new machinery, and other short-term measures would be required to prevent this fall in growth of real imports from retarding output growth. Hence, real import growth could drop in the short term in relation to output growth; this decline could be reversed as exports and financial inflows boost the capacity to import. Many countries have implemented policies designed to alter the composition of imports in order to retain those with the greatest impact on output growth. Altering the pattern of equipment use and modifying the structure of imports have, in fact, reduced the share of

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consumer and capital goods imports in favor of raw materials and other intermediate goods.

Private decision makers may be able to predict what the authorities will do with the exchange rate. The authorities may, for instance, react to certain objective indicators, such as the size of the balance of payments deficit or domestic inflation vis-à-vis foreign inflation. When such is the case, private agents, armed with this knowledge, may be able to predict the future path of the real exchange rate incorporating the authorities' reaction. Private agents would then pattern their output, investment, and composition of imports taking into account the anticipated evolution of exchange rate changes. To the extent that their expectations are correct, a currency depreciation and the associated real exchange rate change would not be a surprise and, in that sense, would not fundamentally alter the behavior of agents. The discussion that follows holds completely only for the unanticipated portion of changes in the real exchange rate.

Real import prices

When appropriately supported by monetary and fiscal policies, currency depreciation engenders a fall in the real exchange rate—the relative price of nontraded goods to traded goods—and a rise in the domestic price level. The domestic price rise will, in turn, lower the real values of variables that affect spending, such as the money stock, nominal incomes, wages, and physical assets, because with supportive macroeconomic policies the nominal values of these variables do not adjust upward by the same percentage as the currency depreciation.

Currency depreciation can be inflationary without altering relative prices between traded and nontraded goods. This would tend to occur if, following the exchange rate change, nontraded goods prices are raised by the same percentage as import prices, and if domestic monetary and fiscal policies then passively adjust to provide the additional money balances needed to sustain the higher price level. In such a situation, continuous currency depreciation can produce inflationary effects without providing any of the beneficial consequences of relative price changes. Monetary and fiscal policies must thus be restrictive enough to hold down the prices of nontraded goods and prevent them from rising in line with import prices.

The rise in the prices of traded goods in relation to the prices of nontraded goods means that the real prices of imports (import prices deflated by the average domestic price level) tend to rise with currency depreciation. But the domestic prices of imports are determined by more than just the foreign currency prices of imports and the exchange rate of the domestic currency. In particular, some of the liberalization measures that often accompany currency depreciation can contribute to higher import prices, while others may have the opposite effect. For instance, policies that tend to reduce import prices in domestic markets include the reduction of customs duties and excise taxes on imports; the relaxation of foreign exchange restrictions on current payments and transfers; and the suspension of monopoly rights of importation (usually of state enterprises). In contrast, liberalization measures that may increase the domestic prices of imports include the elimination or reduction of subsidies on imported goods (usually food) and the lifting of effectively enforced domestic price controls.

When a country has been engaging in exchange restrictions, parallel markets may have developed in which the domestic currency is substantially depreciated in comparison with the official rate. Many commodity prices in the economy, in such a circumstance, will tend to reflect the parallel market rather than the official exchange rate. In the event of an unanticipated currency depreciation only those prices closely tied to the official rate—primarily those established by public sector enterprises or effectively controlled by the government—will be affected by the full impact of the rate change. Only to the extent that the parallel rate moves in reaction to the official rate change would the currency depreciation exert a direct influence over all prices in the economy. The relationship between official exchange rates and parallel market rates in an economy with exchange controls is outside the purview of this article. Nevertheless, when there is a parallel market it is often impossible to tell, with a high degree of accuracy, the total imports of a country. Hence this article is concerned with official imports, that is, imports that are paid for with foreign exchange and capital inflows that go through official channels.

When the complete package of policies, of which the exchange rate is an essential part, is in place, therefore, the impact on import prices need not be inflationary. Much will depend on the supporting macroeconomic policies as well as the nature of the accompanying liberalization measures. A country with serious structural distortions will often depreciate its currency as part of a large-scale liberalization effort. Such exchange rate cum-liberalization measures often exert a downward pressure on the real price of imports. In contrast, a country without the need for such liberalization measures is likely to experience a rise in real import prices after currency depreciation. Since a currency depreciation, in and of itself, pushes up the real price of official imports, this article will assume that these prices rise with the depreciation, whether or not the policy measures include trade and exchange liberalization.

Import demand

With a rise in the real prices of imports and a fall in the real purchasing power of income and assets, following a currency depreciation, the amount of imports that individuals and firms want to buy (import demand) falls by a magnitude that depends on the price and real income elasticities of demand for imports.

Consumer goods. In the case of consumer goods, currency depreciation affects the quantity imported through its impact on three important variables: real disposable income (real income after taxes), the ratio of desired consumption to disposable income, and the real value of imported goods chosen within real consumption budgets. An increase in any of these variables contributes to increasing real imports of consumer goods. Currency depreciation by itself will tend both to reduce real disposable income and to lower the value of imported goods in real consumption. But it is unclear how effective currency depreciation is in altering the ratio of consumption to income. A reduction in the ratio of consumption to income is deemed advisable, other instruments, including increased interest rates and specific taxes on consumption, are usually introduced, as part of the adjustment package, to help achieve this result.

The real income available to private households and firms for spending depends on real output, the aggregate price level, and taxes on income. Currency depreciation, by raising the price level, lowers real disposable income, and thus consumption. Real imports of consumption goods therefore also tend to decline, in the absence of countervailing changes in taxes or output growth.

Currency depreciation tends to diminish the share of imported goods in total consumption by raising import prices in relation to domestic prices. Recall that the relative price effects will hold unless they are neutralized by liberalization measures or by accommodating monetary and fiscal policies. The impact of the relative price changes is greatly affected by the structure and the significance of consumption imports and the associated price elasticities of demand. The closer are domestically produced substitutes for imported consumer goods, and the more important are durable goods in relation to nondurables (including food), the greater will be the price elasticity of demand for imports, other things being equal. The replacement of durable goods can be postponed by lengthening the average period of use, and thus the demand for such goods can be reduced. This option is not available for many nondurable...
items, although the average level of inventories can be reduced by a once-and-for-all adjustment that does not substantially affect the normal demand for such items. If there are good domestic substitutes for imported nondurables, the price elasticity of import demand would be higher the greater is the price elasticity of domestic supply of these substitutes.

Finally, the price elasticity of demand for imported consumer goods tends to be smaller, other things being equal, the smaller is the share of imported consumer goods in total consumption. This is a general principle of household demand behavior, namely, the smaller the expenditure on an item, the less changes in its price affects total expenditure and hence the less households tend to adjust changes in its price affect total expenditure.

The ratio of desired consumption to disposable income depends on real assets, real interest rates, and taxes on consumption, as well as on real disposable income. Currency depreciation, by raising domestic prices, causes the real value of financial assets and of disposable income to fall. The decline in financial assets would encourage saving as people strive to replenish their assets in relation to incomes. But the drop in real income may induce a fall in savings relative to income, since households generally resist a reduction in their real consumption levels. In short, by itself, it is not clear that currency depreciation perceptibly alters the consumption-income ratio. Of course the changes in consumption taxes and real interest rates that accompany currency depreciation, as part of the set of policies designed for adjustment, may induce a change in the aggregate consumption-income ratio. But these effects should be distinguished from those traceable to currency depreciation per se, except where they are directly associated with the exchange rate depreciation (e.g., ad valorem import and sales taxes).

**Raw materials, capital goods.** Production and investment in developing countries usually entail substantial use of imported raw materials and capital goods. Currency depreciation affects the importation of these raw materials and capital goods—which together are also commonly called producer goods—not only by changing relative prices between foreign and domestic inputs in production but also by influencing planned production and investment activities.

If techniques of production can be altered, currency depreciation can facilitate the substitution of domestic for imported inputs. In particular, domestic labor, raw materials, and capital goods can be substituted for foreign raw materials and capital goods. Although changes in techniques may take many months to accomplish, even in the short to medium term substitution possibilities are often substantial. Such opportunities are, nevertheless, likely to be far greater for raw materials than for capital goods, since, for the majority of the developing countries, domestic substitutes are likely to be more readily available for the former than for the latter. Apart from changes in production techniques, currency depreciation further reduces imports of producer goods relative to output if the modification of the production structure that is induced favors goods that are relatively heavy users of domestic factors of production.

Hence, following a currency depreciation, the increase in the domestic cost of imported producer goods exerts a downward influence on real imports depending on the input-substitution possibilities in production. But imports of producer goods are also affected by what happens to investment and output growth. Investment and growth will be favorably affected to the extent that the production of exports and import substitutes expands without a countervailing contraction in other production. This would be particularly true where there is excess productive capacity and where the price elasticity of demand for a country’s exportables is high. Improved confidence and an expectation of increased returns from investment in domestic assets relative to foreign assets could also increase investment and output growth, and hence imports of producer goods.

The availability of inventories and the possibility of postponing investment both tend to affect the importation of producer goods when their prices rise following a depreciation. Thus in the case of raw materials, inventories could be drawn down; while in the case of capital goods old equipment could be used for longer than normal. Both possibilities permit some adjustment of imports to take place without adversely affecting output, which could be very advantageous over the short term when techniques are difficult to modify.

**Financial inflows**

When currency depreciation induces additional financial inflows it is especially favorable to investment and output growth, and hence import expansion. However, forecasting the magnitude of these flows is difficult. In principle, currency depreciation and supportive policies, when credible, tend to augment net foreign private and official capital inflows, reduce capital flight of domestic residents, and enhance exceptional balance-of-payments financing, such as debt relief or emergency aid.

**Foreign financial inflows.** Currency depreciation, particularly when accompanied by far-reaching liberalization measures, is usually a clear indication that substantial policy reform is under way. For private foreign enterprises this usually indicates that there will likely be enhanced opportunities for profits and greater freedom to remit dividends, interest, and principal. For official creditors the policy reforms provide evidence that additional funds made available to a country will contribute to enhancing growth and that future debt servicing of the borrowing country will be smooth. The consequence of the increased profit opportunities and greater confidence in the economy will be enlarged capital inflows and balance of payments support, thereby expanding the country’s capacity to import.

These financial inflows, of course, can take many different forms and can be quite sizable in relation to exports or imports. They include new bilateral and multilateral loans and new private equity investment and loans. But in addition, they also include debt relief—through official and private rescheduling—as well as reinvestment of profits by foreign investors and IMF balance of payments support.

**Capital flight.** When the exchange rate is clearly out of line, especially in a regime with a pegged rate, capital flight has often become a serious problem in many developing countries. Capital flight occurs in many ways, but most commonly it entails the purchasing of foreign exchange in parallel markets, the under invoicing of exports, and the over invoicing of imports. The greater the premium on foreign currency in the parallel market, and the larger the additional return expected to be earned in foreign financial markets, the more foreign exchange tends to be hoarded and traded outside official channels. Capital flight is also encouraged, in such circumstances, by the expectation that the official exchange rate is itself going to be depreciated sooner or later. Tightening restrictions on payments and transfers generally serves only to increase the incentive to take capital out of the country.

Currency depreciation, however, can be used to reduce and even eliminate the differential between the rate in the parallel and official markets, and thereby stimulate the surrender of foreign exchange earnings from exports. When accompanied by a liberalization of foreign exchange and domestic financial markets, currency depreciation also damps the incentive for capital flight by raising the real return on funds invested domestically and by making it easier to obtain foreign exchange through official channels to make payments abroad. In short, currency depreciation supported by appropriate measures can, by reducing capital flight, provide additional financing for imports. When the problem of capital flight has been very serious, however, currency depreciation must usually be supplemented by interest rate and other measures directed at the capital market, and
at investment in general, to ensure that incentives are appropriate and adequate to reverse the capital flight.

**Overall adjustment**

The total effect of the various factors and the response of imports following a currency depreciation are generally difficult to predict. The overall change and path of real imports depend on the extent to which the exchange rate change was anticipated; how quickly import demand adjusts to unanticipated relative price changes; how much and how quickly exports and foreign financial inflows increase with the depreciation; how much capital flight is reversed; and how real output growth and investment are affected.

From a practical policy perspective, it is always necessary to bear in mind that currency depreciation is only part of a package of policies designed to promote external adjustment; the various other policies included in such a package usually also have an impact on each of the above variables that affect imports. A complete analysis of the role of currency depreciation must, therefore, be able to isolate the part played by currency depreciation per se from the total effect of the policy package. Such an exercise usually involves use of standard empirical techniques and where results are statistically reliable provides a guide to the overall design and composition of the policy package.

In practice, it is often far more useful to focus on real effective exchange rate changes than on currency depreciation per se. The real effective exchange rate measures the evolution of a country's prices relative to those of its trading partners, adjusted for exchange rate changes of currencies. A case in point is when currency depreciation, which tends to depreciate the real effective exchange rate, is accompanied by liberalization, which, by lowering the prices of imports, tends to appreciate the real effective exchange rate. Because of its ability to capture the overall relative price effects of exchange rate changes, liberalization, and fiscal, monetary, and interest rate policies of countries, vis-à-vis their trading partners, the real effective exchange rate can be an important indicator for assessing policy packages in many adjustment programs. In this kind of framework, it is often not necessary to distinguish a depreciation of the real effective exchange rate due to currency depreciation from one caused by other factors.