Exchange Rate Overvaluation and Trade Protection:

Lessons from Experience

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I. Introduction

Although there are clearly advantages and disadvantages of both fixed and flexible exchange rate systems and their variants, more than half the countries in the world maintain fixed or managed exchange rates.\(^1\) While we do not discuss the relative merits of these exchange rate systems in this paper, we note that, as a practical matter, exchange rate management in many countries in the world has resulted in overvaluation of the real exchange rate, in some cases leading to gross distortions.\(^2\)

Since governments are frequently confronted with the problems of external shocks and external trade deficits in the context of a fixed exchange rate regime, a concise survey on the worldwide experience with the effects of overvalued exchange rates in terms understandable to policymakers should be useful. This paper presents theory, cross-country econometric evidence and important case studies of the effects of overvalued exchange rates.

Although as a group developing countries have progressively liberalized their trade regimes during the 1980s and 1990s, some governments take actions to defend an exchange rate that are counter to their long run trade liberalization. That is, one classic pattern is to attempt to defend an overvalued exchange rate by protectionist trade policies.\(^3\) Experience shows that protection to defend an overvalued exchange rate will significantly retard the medium to long run growth prospects of the country. In fact, an overvalued exchange rate is often the root cause of protection, and the

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\(^2\) As of the beginning of 1999, the International Monetary Fund (1999, Appendix I) reported arrangements for 185 countries. The exchange rate regimes can be divided into pegged (84 countries), floating (75 countries) and limited flexibility (26 countries). Of the 84 with pegged exchange rates, 37 have no separate legal tender, 8 use a currency board arrangement, 24 peg to another currency, and 15 to a composite of currencies. Of those floating, 27 maintain a managed float and 48 an independent float.

\(^3\) Ghei and Pritchett (1999) call this the “import compression syndrome.” Since devaluations (which reduce imports) are often accompanied by reductions of trade barriers (which increase imports), econometric evidence on the import reducing impact of devaluation has been weak. Ghei and Pritchett maintain that researchers will estimate that devaluations significantly reduce imports if there is proper adjustment for the simultaneous reduction of trade protection.
country will be unable to return to the more liberal trade policies that allow growth without exchange rate adjustment.

Moreover, a devaluation of the nominal exchange rate appears a necessary condition for achieving a large depreciation of the real exchange rate, as virtually all real devaluations (above 25-35 percent) have been accompanied by nominal devaluations (Ghei and Hinkle, 1999). Sustained efforts to use downward adjustment of wages and prices as a means of restoring a competitive real exchange rate have frequently led to severe recessions or depressions.

Worldwide experience has shown that defending the exchange rate has no medium-run benefits, since falling reserves will force devaluation eventually. It is better that the devaluation be accomplished without further debilitating losses in reserves and lost productivity due to import controls. Rather, the worldwide experience with devaluations shows that, post-devaluation, the exchange rate will reach a new equilibrium and that the equilibrium is strongly influenced by the policies of the central bank and the government.

This paper is organized as follows. In section II we discuss the problems caused by an overvalued exchange rate. We begin with a theoretical discussion of many channels through which an overvalued exchange rate hurts the economy and growth. We then argue that the vast majority of developing countries have downward price and wage rigidities that require some form of nominal exchange rate adjustment to restore external equilibrium. Next we present the cross-country econometric evidence; this shows that overvalued exchange rates lower economic growth. In section III we provide several specific country historical experiences (Chile, Argentina, Uruguay, and Turkey) where overvalued exchange rates led to severe problems. In the case of Chile, the reversal of policies, from overvalued exchange rates and protection to competitive exchange rates and low protection, has paved the way for impressive growth. Given the significant role overvalued exchange rates have played in Sub-Saharan Africa, we also discuss one case from this region in some detail. A final section concludes, with special attention to trade policy issues.

II. The Problems of an Overvalued Exchange Rate

Experience has shown that countries that attempt to maintain overvalued exchange rates significantly impede their growth in the medium to long term. Theory, cross-country statistical studies, and case histories all reinforce the basic findings that exchange rate overvaluation can reduce economic efficiency, misallocate resources, increase capital flight, and most perniciously, lead to exchange and trade controls.

Problems Caused by an Overvalued Exchange Rate: Theory

Theory suggests that there are many channels through which an overvalued exchange rate hurts the economy and growth: (1) it discriminates against exports. Since a significant portion of the costs of production is paid in domestic currency, the overvalued exchange rate results in a reduction of incentives and ability of exporters to compete in foreign markets. This chokes foreign exchange receipts and damages a country’s ability to purchase the imports needed for economic activity; (2) an overvalued exchange rate means that import-competing industries are faced with increased pressure from foreign
companies, resulting in increased calls for protection against imports from industrial and agricultural lobbies. The political pressures for protection eventually prove to be overwhelming and governments yield to lobbying and offer increased tariffs on imports. This closes the economy to international competition, reduces access to needed imported inputs and technology, and growth falls as a result. Devaluation serves the dual purpose of uniformly protecting import competing industries and increasing the incentives to exporters; (3) another way that overvalued exchange rates impede growth is that productivity advances are less rapid. This is because the export sectors and the import competing sectors are disadvantaged by an overvalued exchange rate, and it is in these sectors that productivity advances are often most rapid (Cottani, Cavallo and Khan, 1990); (4) overvaluation induces capital flight among domestic citizens anticipating a devaluation. As a result, less foreign exchange is available for needed imports; (5) foreign exchange may become rationed and allocated inefficiently by the government; and finally, (6) efforts to defend an overvalued exchange rate through very tight monetary policy can plunge the country into severe recession.

The Need to Restore Internal Balance

When a country experiences a deficit in its trade balance, it is not in “external” balance. It follows from a national income accounting identity, however, that a trade deficit means that the country is spending more than its income. That is, the trade deficit allows the country to consume or spend beyond its income (or the value of what it is producing). When a country’s expenditure does not equal its income, it is not in “internal” balance. These imbalances can severely impede country economic performance, and it is these imbalances that countries suffering from external shocks often face.

Although a nominal devaluation is designed to correct the problem of external balance, it will also be important to assure internal balance or the trade deficit may not be corrected by the nominal devaluation. For many developing countries the trade deficit reflects the government’s fiscal deficit, which is often financed by monetary expansion. The monetary expansion in turn leads to inflation. The impact on the real exchange rate of a nominal devaluation in this environment is likely to be eroded by inflation, since high inflation tends to appreciate the real exchange rate, making elimination of the trade deficit problematical.

In general, monetary or fiscal policies will have to be combined with exchange rate policies to achieve both internal and external balance simultaneously. This is a special case of a more general principle of economics that multiple policy targets typically require multiple policy instruments. In this paper, however, we focus on the experience of countries that have limited the use of exchange rate adjustment as an economic policy instrument.

“Automatic” Adjustment Mechanisms to an Overvalued Exchange Rate are Problematical

Unless the central bank takes offsetting action, a trade deficit will result in a decline in the domestic money supply. Thus, one response to an overvalued exchange rate is to hold the nominal exchange rate fixed and assume that domestic prices and wages will fall to help bring tradable goods prices back to internationally competitive
levels. This is the mechanism known as the specie flow mechanism described by David Hume in the 18th century. The problem with this strategy is that prices and wages tend to be sufficiently inflexible downward in most modern economies that sustained and substantial periods of unemployment must be endured if the strategy is to have a chance of being successful. Most countries are unwilling to endure these high costs. For example, as we explain below, Chile in 1982-1983 endured a deep recession before it devalued in 1984, and the CFA zone countries of Africa experienced disastrous consequences from overvaluation as the economic contractions in some of them were comparable to the Great Depression of the United States.

The CFA zone experience also casts doubt on the claim that countries should avoid devaluations in order to retain international investors. The zone certainly had stable prices and exchange rates, but its failure to solve the problems brought on by the overvalued real exchange rate decreased its attractiveness to foreign investors substantially. Capital flight increased in anticipation of an eventual devaluation (Clément et al., 1996).

**Real Exchange Rate Overvaluation and Cross-Country Economic Performance**

Cottani, Cavallo, and Khan (1990) investigated the effects of real exchange rate misalignment and variability on the economic performance of 24 developing countries from 1960-1983. They found that exchange rate misalignment was strongly related to low growth of per capita GDP. Furthermore, misalignment was also related to low productivity. Capital did not go to the companies or sectors that could make the best use of it. Finally, misalignment was also related to slow export growth and slow agricultural growth.

A study of growth in 12 countries from 1965-1985 (Edwards, 1988 and 1989), reinforced these findings. The greater the misalignment, the lower the growth during the period. Furthermore, exchange controls and trade impediments, proxied by the black market exchange rate premium, were negatively related to growth.

There is strong evidence that overvaluation of real exchange rates contributed a great deal towards Africa’s poor economic performance. Among other studies with similar results, Ghura and Grennes (1993) analyzed the relationship between the real exchange rate and macroeconomic performance in 33 Sub-Saharan African countries between 1972 and 1987. They found that misalignment, or overvaluation, was associated with lower levels of growth of real GDP per capita, lower levels of exports, lower levels of imports, lower levels of investment, and lower levels of savings, even when correcting for other causes.

**III. Case Studies of the Effects of Overvaluation**

The economic histories of developing countries that followed a classic import-substituting industrialization strategy after World War II provide good illustrations of the negative effects of an overvalued exchange rate combined with trade controls. Latin America, more than any other region, followed this strategy but was not alone. We select illustrative episodes from Argentina, Chile, Uruguay, Turkey, and the CFA zone of Africa.

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4 See Sachs and Larrain (1999) for a further discussion.
5 The 12 are Brazil, Colombia, El Salvador, Greece, India, Israel, Malaysia, Philippines, South Africa, Sri Lanka, Thailand, and Yugoslavia.
Argentina, Chile, and Uruguay

Argentina, Chile, and Uruguay all followed import-substituting industrialization policies that led to a bias against exports, extremely uneven rates of trade protection across sectors, and controlled financial systems. They also experienced recurrent balance-of-payments crises and slow growth (Corbo, de Melo, and Tybout, 1986). By the early 1970s, all three had accelerating inflation, bottlenecks in production, slow export growth, and balance of payments difficulties (Corbo and de Melo, 1987).

In response, they went through two phases of stabilization and reform, one in the mid-1970s and the other from 1979-1982. The second phase is most applicable to judging the effects of an overvalued exchange rate and import controls on economic performance.

In the second phase, all three countries used a nominal exchange rate anchor to halt inflation. The exchange rate appreciated, and when it became apparent that the nominal rate could not be sustained, capital flight resulted. In Uruguay and Argentina, where there were no capital controls, major capital outflows occurred. In Chile, where there were capital controls, people engaged in capital flight by buying imported consumer durables. This capital flight occurred in all three countries well before the onset of the debt crisis in 1982.

Other problems resulted. Profitability fell in the tradable goods sectors. In Argentina, which remained quite restrictive to imports throughout, the gross margins of exporting businesses were hurt much more than those of import-competitive businesses. In Uruguay, the rate of growth of nontraditional exports fell sharply from 1979-1981. And in Chile, the leading growth sectors during the period became construction, internal trade, and financial services, all nontradables, even though reforms during the 1975-1979 period had reduced the bias against exports significantly by June 1979.

Chile: The Aftermath

Chile is now well known for its economic success. Its average annual rate of growth of real GDP has been more than 7% since 1984. Its policies following a crisis of 1982-1983 are instructive. Chile experienced high rates of growth in the late 1970s following a deep contraction in 1974-1975, and came as a result of a number of deregulation and reform measures, including instituting a uniform 10% tariff on all goods except automobiles. However, as alluded to above, inflation persisted, hurting the reforms, and Chile fought back with a fixed rate as a nominal anchor in 1979. Combined with other policies, this at first led to large external borrowings, most of which were at variable interest rates. In the early 1980s, the external financing dried up as confidence in the sustainability of the exchange rate ebbed. Making matters worse, Chile experienced a deterioration in the terms of trade, and then foreign interest rates rose, further hurting the Chilean financial and business sectors. In 1982-1983 Chile experienced its worst depression since the 1930s, with real GDP falling 15 percent.

During and immediately after the recession, Chile tried a number of policies, including an increase in tariff rates to switch domestic spending to domestic products. In June 1982, the government abandoned the fixed rate and eliminated compulsory wage indexation, and initiated a series of nominal devaluations. For a short time, Chile allowed the exchange rate to float (Corbo and Fischer, 1994). However, Chile then followed an erratic policy, implementing five different exchange rate regimes (Labán and Larraín, 1995).
In 1985 the government embarked on the strategy it maintains to this day, specifically, an export-oriented structural adjustment. This included steady devaluations and a staged lowering of uniform tariffs from 35% in 1984 to 11% by 1991. Importantly, the new nominal exchange rate system featured a crawling band, and policy makers intended to use it to maintain the international competitiveness of Chilean exports (Dornbusch and Edwards, 1994). In fact, though they used the nominal rate as the policy variable, they focused on the real exchange rate, adjusting the nominal rate for the differential between domestic and foreign inflation. Using an index of 100 as the value of the real rate in 1977, the real exchange rate appreciated to 84.5 in 1981, then fell to 118.2 in 1984, and then following the introduction of the new policy, depreciated to 145.2 in 1985. It continued depreciating to 180.1 in 1990 (Corbo and Fischer). In 1998 the Chilean legislature approved further lowering of the uniform tariff to 6% in stages, and in late 1999 Chile abandoned the exchange-rate band system for a float.

The improved incentives to exporters from the reduction in the import tariff and the devaluation led to an expansion of nontraditional exports (10.5% a year from 1985-1989) and efficient import substitution. Macroeconomic stabilization, tax reform, and cuts in government spending combined to promote savings and investment. And privatization of state-owned firms, rehabilitation of the financial sector through recapitalization, and the strengthening of bank regulation combined to spur private business activity.

Turkey

Three episodes from the post-WWII history of Turkey, recounted in Krueger (1995), also illustrate the problems created by an overvalued exchange rate combined with import restrictions. Like the Latin American countries, Turkey followed an import-substituting industrialization growth strategy. Starting in 1953, export growth ceased for a number of reasons and inflation accelerated. Inflation combined with a fixed nominal exchange rate meant a strengthening real exchange rate and a bias against exports. Foreign exchange became scarce, so the country started import licensing in 1954. By 1957, export earnings were falling and imports were severely restricted, damaging domestic economic activity. By 1958, Turkey could not finance imports and it appeared that the country would not even be able to obtain gasoline for trucks to move that year’s harvest to ports. In response, Turkey adopted an IMF stabilization plan featuring devaluation, import liberalization, and fiscal and monetary restraint. Real GDP had been declining, but started growing immediately in response to the availability of imports. Inflation fell and export earnings started to rise again. Turkey was among the most rapidly growing developing countries of the 1960s.

In the late 1960s, however, Turkey’s exchange rate again became overvalued due to moderate inflation throughout the decade (five to 10 percent annually) combined with a fixed nominal exchange rate. The high demand for imports combined with the bias against exports caused foreign exchange to become scarce. The resulting problems getting imports caused a slowdown in both production and real investment. The country responded in 1970 with a nominal devaluation, and the result was extremely rapid export growth. Turkey then experienced rapid economic growth through 1975.

The third Turkish episode occurred in the late 1970s. Large fiscal deficits, a failure to change the internal price of oil following the 1973 oil shock, and an overvalued exchange
rate, made worse by extremely high inflation, spurred this third crisis. Once again, the country ended up with severely constrained imports, falling real output, and falling income.

The CFA Zone Countries

The countries of the CFA zone of Africa have their currencies fixed precisely to the French franc. Until the second half of the 1980s, these countries experienced stable and positive economic performance (Elbadawi and Majd, 1996). For example, their average annual real GDP growth rate from 1973 to 1981 was 5.7 percent, compared to an average of 2.8 percent for 18 non-CFA Sub-Saharan African countries. In addition, their annual average export growth rate was 7 percent.

However, the economic performance of the CFA zone countries began to deteriorate in the mid-1980s for two reasons: the appreciation of the French franc and a series of primary-commodity price shocks (Azam and Devarajan, 1997). Studying 12 countries, Devarajan (1997) found an average overvaluation of 31 percent in 1993 on the eve of the devaluation, with Cameroon’s real exchange rate the most overvalued (78 percent) and Chad’s real rate the only undervalued one. Eight of the 12 had overvaluations of 20 percent or more. Making matters worse, other African countries were devaluing during the 1980s, contributing to the overvaluation of the real rates of the CFA zone countries compared to those of their export competitors. Elbadawi and Majd (1996) showed statistically that CFA membership, and by implication the high real exchange rate level, was partly to blame for the poor economic performance of the CFA countries in the late 1980s.

Because of the overvaluations and mounting structural problems, such as rigidly high wages, economic performance started to deteriorate. The zone saw no economic growth between 1986 and 1994 when other Sub-Saharan African countries were growing at 2.5 percent annually (Clément, 1994). In fact, for some of the countries there was an output contraction comparable to the Great Depression in the United States (see Table 1).

Table 1. Comparing Great Depressions: Cameroon, Côte d’Ivoire and the United States

<table>
<thead>
<tr>
<th>Measure of Output Decline \ Country</th>
<th>Cameroon</th>
<th>Côte d’Ivoire</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchasing Power Parity (^a^)</td>
<td>31.4</td>
<td>29.1</td>
<td>N.A.(^c^)</td>
</tr>
<tr>
<td>Purchasing Power Parity with Terms of Trade adjustment (^b^)</td>
<td>38.5</td>
<td>34.5</td>
<td>N.A.(^c^)</td>
</tr>
<tr>
<td>Market Prices (^b^)</td>
<td>41.5</td>
<td>18.8</td>
<td>30.9</td>
</tr>
</tbody>
</table>

\(^a^\) Author’s calculations for 1986-1992 from the Penn World Table Mark 5.6, described in Summers and Heston (1991) and available on the website: [http://pwt.econ.upenn.edu](http://pwt.econ.upenn.edu). Post-1992 data are unavailable.

\(^b^\) Authors’ calculations from the peak to the trough of the depression. This is 1986-1994 for Cameroon and Côte d’Ivoire, and 1929-1933 for the United States. Data are from the World Bank (1999) and U.S. Bureau of the Census (1975).

\(^c^\) Not Available.

\(^6\) Countries analyzed included Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Congo, Côte d’Ivoire, Gabon, Mali, Niger, Senegal, and Togo.
There were a large number of other ill effects from the period of overvaluation in the CFA zone. Several countries suffered large increases in poverty (Devarajan and Hinkle, 1994). For example, the incidence of poverty doubled in Côte d'Ivoire from 30 percent to 60 percent between 1985 and 1992. Devarajan and Hinkle also note that banking systems in a number of countries became insolvent or illiquid as a result of the private sector's inability to repay debts, government and public enterprise arrears, and capital flight. Export earnings collapsed in response to the adverse terms of trade shocks and the overvaluation of the real exchange rate. The contractionary macroeconomic policies adopted by most of the CFA countries reduced import levels and inflation remained low; but budget and external deficits rose. The fixed nominal rate and various policy-induced rigidities in domestic prices—particularly in wages and non-tradable goods prices—meant adjustment had to come through reduced employment, output, and growth.7

Constrained by their fixed exchange rates, at least two of the CFA zone countries tried to undergo so-called mock devaluations, with subsidies to exports and increases in import tariff rates. In Côte d'Ivoire, the scheme collapsed after a short trial because of administrative difficulties, inability to give the export subsidy plan a sufficient budget, and lack of support by the government. In Senegal, administration proved difficult, and the scheme encouraged over invoicing by exporters and smuggling and under invoicing by importers. The plan also proved costly to the budget, as tariffs were already high and the increases could not generate much more revenue.

Finally, the countries held a “maxi-devaluation” on January 12, 1994, changing their rates to the French franc from 50 to one to 100 to one.8 The CFA devaluation has had excellent intermediate-term effects on growth. For the 12 CFA countries in Devarajan’s sample, real GDP growth from 1990 to 1993 averaged almost negative 0.3 percent annually weighted by GDP, according to World Bank data (World Bank, 1999). However, from 1994 to 1997, growth in these same countries averaged 5.1 percent annually, according to the same data source.9 Cameroon, the largest country in the CFA zone, grew at an annual rate of –3.4 percent in the first period, but 4.5 percent in the second period (World Bank, 1999). Devarajan found that a year after the devaluation, the average undervaluation was two percent for the group, but with significant variance.

IV. Conclusion

Worldwide experience has shown that defending the exchange rate has no medium-run benefits. A classic pattern is, once reserves are drawn down, countries often apply trade protection that is very high or prohibitive on selected products or countries. However, even with a limited objective of reducing the demand for foreign exchange,

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7 For example, both Senegal and Côte d'Ivoire had rigid labor laws that kept wages high throughout the pre-devaluation period (Foroutan, 1997). Clément (1994) noted that throughout the CFA zone, rising wage costs contributed to substantial drops in public enterprise profitability, expanding the public sector financing requirement. Extensive controls over both producer prices and retail prices, particularly non-tradable goods prices, also added to the price rigidities in many countries.

8 The Western and Central African Monetary Unions (comprising Benin, Burkina Faso, Cameroon, CAR, Chad, Congo, Côte d'Ivoire, Equatorial Guinea, Gabon, Mali, Niger, Senegal, and Togo) changed their rates from 50 CFA francs to one French franc to 100 CFA francs to one French franc. Comoros changed its rate from 50 Comoros francs to one French franc to 75 Comoros francs to one French franc at the same time.

9 The unweighted averages are 0.1 percent for 1990 to 1993 and 4.7 percent for 1994 to 1995.
depending on how porous the borders are, we will observe an increase in imports through informal channels. And with diverse protection, while some sectors will be protected, the burden of the costs of adjustment to the overvalued exchange rate will be borne by the unprotected sectors, those sectors that are more susceptible to informal or illegal imports, and the export sectors. Countries typically eventually devalue, but it is better that the devaluation be accomplished without debilitating losses in reserves and lost productivity due to import controls.

Thus, a competitive real exchange rate is an issue of great importance. Policy-makers must avoid policies that contribute to an overvalued exchange rate. While we do not advocate any particular type of exchange rate regime in this paper, we emphasize that whatever regime is employed, policies should be aimed at maintaining a competitive real exchange rate.

References


