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THE EXCHANGE RATE AS AN EXPORT-STIMULATION MECHANISM

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1. INTRODUCTION

Over the past two decades or so, the Latin-American growth performance has been extremely poor, especially when compared with Asian countries (see table 1). Something was apparently wrong in Latin America and it was obvious that another development strategy was needed. The days of CEPAL's import-substitution religion headed by Raul Prébisch as its high priest are definitely numbered. The Southern Cone countries introduced drastic policy changes already in the 1970s in order to open up their economies to competition from abroad and reap the benefits of the international division of labour. The record has been patchy, however. Latin America was hit by a number of adverse shocks, and even without such shocks a policy turnaround can only succeed if a number of conditions are fulfilled, in particular regarding macroeconomic policies. Nevertheless, it has been generally accepted in Latin America, especially in the smaller countries, that efficient production and growth calls for large markets and consequently (for those smaller countries) for much freer trade.

→ Trade liberalization almost always implies a devaluation. First, conflicting aims of exchange-rate policy are studied. Next, we analyze what devaluations can do to help stimulate exports and what macroeconomic conditions must be fulfilled for devaluations to succeed. Finally, the experiences of three countries are reviewed, representing three different cases. In Chile trade liberalization has been drastic, in Colombia more cautious steps have been taken and in Uruguay early attempts that did not go very far anyway, unlike liberalization of the capital account, ended in failure. In all cases, we try to establish a relationship between the real exchange rate and the openness of the economy.

We do not find any surprising results. It appears that the rate of exchange, in so far as it influences the real rate of exchange, can be used as an instrument to stimulate exports and open up the economy. The rate of exchange has also been used in Latin America as

an instrument to fight inflation, but the experience has not been a happy one. It seems preferable to use monetary and fiscal policies to that end.

<u>year</u>	<u>all developing countries</u>	<u>Western Hemisphere</u>	<u>Asia</u>
average			
1974-83	1.3	0.5	3.2
1984	2.0	1.4	6.5
1985	2.1	1.3	5.2
1986	1.1	1.0	4.8
1987	2.3	1.4	6.3
1988	1.5	- 1.6	7.1
1989	1.4	- 1.2	3.6
1990	1.8	- 2.1	3.8
1991	1.3	0.8	4.1

Table 1. Real per capita GDP growth, 1974-1992.

Source: *World Economic Outlook*, IMF, October 1992, p.99.

2. AIMS OF EXCHANGE-RATE POLICIES

2.1. Policy aims

8 → For governments, there's no getting round the need to follow some exchange-rate policy. First of all, they have to make a decision on which system to adopt: a fixed-rate (for all practical purposes a fixed-but-adjustable peg) system, a fully-floating rate system, or something in between (such as a predetermined crawling peg or *tablita* system). Secondly, in a fixed-rate system some level of the exchange rate must be chosen and in a floating-rate system a choice must be made between fully free floating and 'dirty' floating. The choices made depend on a government's policy aims on the one hand and the economic environment on the other. Broadly speaking, one of two policy aims will take precedence: (i) the repression of inflation or (ii) export promotion. More generally, the rate of exchange can be utilized as a *nominal anchor*, such as is needed in a monetary economy to fix prices, or for attaining *real targets* (Corden, 1993). Other, less respectable aims may motivate governments in actual practice. In cases where there is no full convertibility, i.e., where economic agents are not free to buy and sell any amount of foreign exchange they wish in official markets or at the official exchange rate, governments have an opportunity to confer favours on groups whose allegiance they seek for their survival, or the ruling groups may simply themselves appropriate the rents created by restricting access to the foreign-exchange market. Such behaviour may take various forms. There may be one official rate of exchange at which there is excess demand or there may be a multiple-rate system in force. Permits to buy foreign exchange, or permits to buy foreign exchange at a favorable rate, are valuable and can either be used to distribute favours or to siphon off rents. The government of the Sudan, e.g., is known to have allocated permits to buy cheap foreign exchange to certain powerful groups of traders whose support it was dependent on. Those traders thus were able to buy foreign goods cheaply and sell these at a high price on the domestic market (Brown, 1990, pp. 142, 215). We will concentrate here on the two policy aims first mentioned, but one should be aware that the world is a wicked place. Inconvertibility creates rents and these rents elicit morally reprehensible behaviour which, even worse in the eyes of some, is at odds with allocational efficiency and forms one reason for preferring full convertibility (the allocational inefficiencies will be discussed below in section 4).

2.2. The aim of repressing inflation

It was the professed aim of the Southern Cone governments in the second half of the 1970s to fight inflation with the help of the exchange rate. A very serious attempt was made by the Argentine Minister of Finance José Martínez de Hoz in the years 1976-80, first by means of fixed-but-adjustable parities and as from December 1978 with the help of a *tablita* system. Mr Martínez's attempt failed through a number of causes. First, though he succeeded in reducing the primary budget deficit, i.e., the deficit less interest payments on outstanding debt, from 6.9 per cent of GDP in 1976 and 6.0 per cent in 1977 to 1.8 per cent of GDP in 1978 and 2.4 per cent in 1979, the total deficit remained intractable, reaching 12.9 per cent in 1976, 11.9 per cent in 1977, 10.1 per cent in 1978, 9.0 per cent in 1979 and 11.3 per cent in 1980, after which it shot up again. Mr Martínez will also have cursed his luck when in 1980 a financial crisis broke out in which the central bank had to bail out the biggest three commercial banks. This implied pumping extra money in the economy. Finally, General Viola, who was to take over as head of state in March 1981, left everybody, including probably himself, in the dark about the economic policies he would adopt (cf Calvo, 1986, and Corbo and de Melo, 1987). The Argentine currency became grossly overvalued and economic agents expected Martínez's policy to founder. They invested in dollar-denominated accounts abroad and spent much on vacations in Brazil, as long as foreign exchange could still be bought cheaply. Only time can tell if the recent attempt by Minister Domingo, who fixed the dollar price of the Austral in April 1991 (and introduced a new peso in January 1992, without effectively changing the rate of exchange) will meet with more success. So far, he holds out, but prices are rising disconcertingly. The Chilean experience will be discussed below.

Attempts to utilize the rate of exchange to fight inflation rest on the assumption that the Law of One Price is approximately relevant. For small countries, this fits in with the dependent-economy model. In this model, the Law of One Price applies to tradeables, for which the country in question is a price taker. Foreign-currency prices of tradeables are given and the way to keep domestic price rises of tradeables in check is to link the domestic currency firmly to a foreign currency. The logic is impeccable, provided the dependent-economy is relevant, but for such a policy to succeed, domestic monetary and fiscal policies must be not too expansionary. The rate of exchange in itself is clearly insufficient to contain inflationary pressure (cf Dornbusch and Fischer, 1993). In section 3 the relevant model will be presented.

2.3. The aim of export promotion

If the aim of exchange-rate policy is to increase exports and improve the current account of the balance of payments, a high real exchange rate is called for. We define the

exchange rate e as the price of one unit of foreign currency expressed in units of domestic currency. The *real exchange rate* RER is the nominal exchange rate adjusted for the ratio of foreign and domestic price levels: $RER = e \cdot P_f / P_d$ (RER is a dimensionless variable in this definition; under purchasing power parity it equals unity). In the literature often the reciprocal of RER as defined here is used, but with our definition of e the present definition of RER appears logical: a rise in e means that foreign currency becomes more expensive relative to domestic currency, and a rise in RER means that foreign goods become more expensive relative to domestic goods. In the framework of the dependent-economy model another definition of RER is also used. RER as defined above implies an improvement of the competitiveness of domestic goods in world markets as RER rises, but in dependent-economy models the Law of One Price holds and similar goods have similar prices on all markets, so that price competition finds no place in the model. Instead, in dependent-economy models RER is defined as the ratio between tradeables prices P_T and nontradeables prices P_N (or its obverse). A rise in RER means that producing export goods or import-competing goods becomes more attractive to domestic producers. We will mostly use RER in the first sense.

If export promotion is the driving force of exchange-rate policy, the dependent-economy model is not the only one that presents itself. In that case, one need not believe that the Law of One Price is good approximation to reality. The tried and trusty IS/LM model, where prices and wages are sticky, could serve as well. For the sake of brevity, though, we remain within the confines of the dependent-economy model.

2.4. The economic environment and the choice of exchange rates

We mentioned the economic environment as one factor determining the choice of exchange-rate system. This concerns the choice between some form of fixed-rate system and a more flexible-rate system. Pegging one's currency to another currency may be an attractive option if there is a dominant trading partner, especially if the currency of that country is not subject to a serious fall in purchasing power, i.e., if inflation is low there. If international trade is more evenly spread over a number of countries whose exchange rates are not fixed, stabilization of the domestic currency in terms of a basket of other currencies may be the preferred option. If, however, export revenues fluctuate strongly because the main export good is a primary product with a widely fluctuating world market price, a floating rate may be called for in order to provide some protection to the domestic market against foreign shocks. Export receipts will fluctuate less wildly in terms of domestic currency if buoyant exports imply a low exchange rate and a depressed market leads to a high exchange rate. This helps provide a modicum of stabilization to nominal national income and also helps in adjusting imports, which is especially important if foreign exchange reserves or credit lines are insufficient to bridge a significant, even if

temporary, fall in export revenues. Generally, however, even if a stable nominal exchange rate is not feasible, a stable RER is certainly called for. With a fluctuating RER, exporters have less incentive to set up sales networks abroad and exports, most of all those of manufactures, suffer.

3. THE DEPENDENT-ECONOMY MODEL

3.1. Introduction

We give a succinct graphical exposition of the dependent-economy model. It can of course be depicted with the help of the Salter diagram. Another kind of diagram, though, offers the opportunity to depict not only the equilibrium conditions in both good markets, but also explicitly the equilibrium condition in the Walrasian money market. A graphical analysis will suffice for an understanding of the working of the system (see for the algebra Frenkel and Mussa, 1985).

3.2. The fixed-rate case

We start with the fixed-rate case. The model is depicted in figure 1. NN shows the equilibrium condition in the market for nontradeables. As the money supply increases people feel richer and spend more. Starting from equilibrium, excess demand will develop in the nontradeables market. In order to maintain equilibrium, the relative price q of nontradeables has to rise. A rise in q causes a shift in production from tradeables to nontradeables and a shift in consumption from nontradeables to tradeables, thus eliminating excess demand. Hence, NN has a positive slope. Similarly, an increase in the money supply will, starting from equilibrium, cause excess demand in the market for tradeables. The relative price of tradeables has to rise, i.e., q has to fall, in order to restore equilibrium. TT is negatively sloped. A fall in q will set in train a shift in consumption away from tradeables and a shift in production toward tradeables. If the price mechanism functions smoothly, the economy is always on the NN curve, i.e., the market for nontradeables is always in equilibrium. There may, however, be disequilibria in the market for tradeables. A disequilibrium in the market for tradeables is just another term for a current account disequilibrium (neglecting international factor payments). Current account equilibrium is found at the intersection of the TT curve and the NN curve. It is to be noted that the situation of the NN and TT curves depends on both private and public spending propensities.

Now consider an inflationary financed increase in government spending on nontradeables. The NN curve will shift upward, for at any level of the money supply a higher relative price of nontradeables will be necessary to ensure equilibrium in the nontrade-

ables market. Spending by the government has increased and, as can be seen from the figure, the money supply has to fall in order to prevent overspending. Private expenditure is reduced in this way. Consequently, current-account equilibrium is also found at a lower level of the money supply, i.e., the CA curve shifts to the left. However, inflationary finance means that the money supply has risen rather than fallen. Over and above the upward shift of the NN curve, there has been a movement to the right along the NN curve. q has risen too much and must fall again for equilibrium to be restored. Abstracting from (net) international capital flows, an automatic stabilizer is at work.

The current account turns into deficit and, in the absence of net capital flows, the money supply decreases. If all goes well the economy starts sliding down the NN curve toward the intersection with the TT curve. Two conditions must be met, though, for such an automatic restoration of equilibrium to occur. First of all, money creation must stop. Secondly, we assumed price flexibility. Given tradeables price P_t , q can only fall if P_n falls. If the prices of nontradeables exhibit downward stickiness, unemployment will develop in the nontradeables market. In that case, the nominal rate of exchange can be utilized as an instrument to increase the real exchange rate. The real exchange rate has fallen, but has to rise in order to restore equilibrium. This can be brought about by a devaluation. Such a devaluation will immediately reduce the real money supply, i.e., in the model, the money supply in terms of tradeables and so reduce spending. If net capital inflows occur, the adjustment may be postponed, but subsequently an even higher fall in q may be necessary in order to create a surplus on the goods and services account, enabling interest and amortization to be paid. The economy now has to move to the left of the intersection of NN and TT.

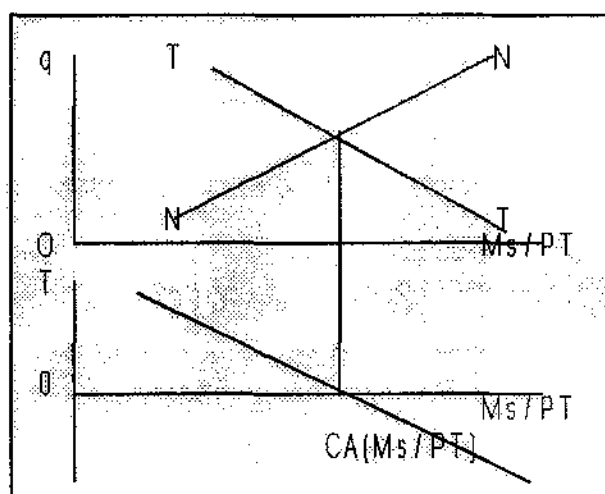


Figure 1. Equilibrium situation in the dependent economy under fixed exchange rates.

Symbols: $q = P_n/P_t$, M_s = money supply, CA = current account.

3.3. The floating rate case

For the floating-rate case, the diagram differs slightly. The money supply is independent of the balance of payments. We drop the CA segment in the diagram and add a segment picturing the equilibrium condition in the Walrasian money market, in the process restricting the transmission mechanisms between the monetary and the real sectors of the

economy to the interest rate mechanism (see figure 2). In the absence of net capital flows, the economy must be in the intersection of the NN and TT curves, if the price mechanism functions properly. With net capital flows, the economy must still be on the NN curve, but it need not be on the TT curve, as net capital flows compensate any disequilibrium on the current account. Consider the case of fully interestelastic capital flows (figure 3). In the case of capital imports the current account will be in deficit and the relative price of tradeables will be lower than in current account equilibrium. In other words, there is an excess demand for tradeables which translates into an import surplus.

In the short term capital is sector specific. An increase in spending on nontradeables will draw labour away from tradeables production. The marginal product of labour falls in the nontradeables industry, but the relative price of nontradeables rises, as it will have to in order for the nontradeables industries to be able to match wages in the tradeables industries, which have risen in terms of tradeables (because of increased marginal product). Obviously, if real wages are sticky downward in terms of nontradeables, unemployment results. If now for some reason capital inflows dry up, as they generally did in Latin America in 1982¹, the relative price of tradeables will have to rise and real balances will have to fall in order to maintain full employment in both the tradeables and the nontradeables sectors. Production has to shift to tradeables because import surpluses are no longer financed by capital imports and real balances have to fall because nontradeables have to become relatively cheaper and excess demand for nontradeables must be prevented. It will even be necessary to create an excess supply of tradeables in order to fulfil debt service obligations, which implies an even further fall of the relative price of nontradeables. Unemployment will now result if real wages exhibit downward stickiness in terms of tradeables. Obviously, the relative price of nontradeables cannot easily be reduced through an absolute price fall, so the common solution to the problem will be to

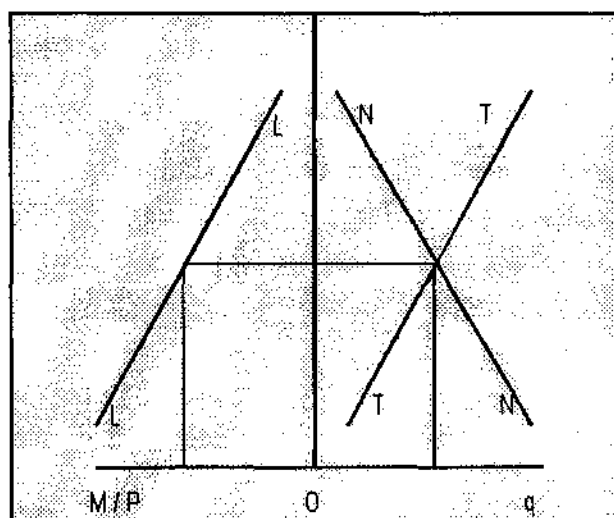


Figure 2. The dependent-economy model with free-floating exchange rates.

let the exchange rate rise. Tradeables become more expensive and the average price level increases, which serves to diminish real balances, as is required for maintaining equilibrium in the nontradeables market. It is to be noted that in the long term relative prices need a smaller change in order to bring about the desired change in production proportions. This is because factor mobility is a function of time (cf Hoffmann and Homburg, 1990). If labour is sector-specific, there is no way at all to avoid unemployment.

Again, the success of the adjustment process hinges on monetary and fiscal

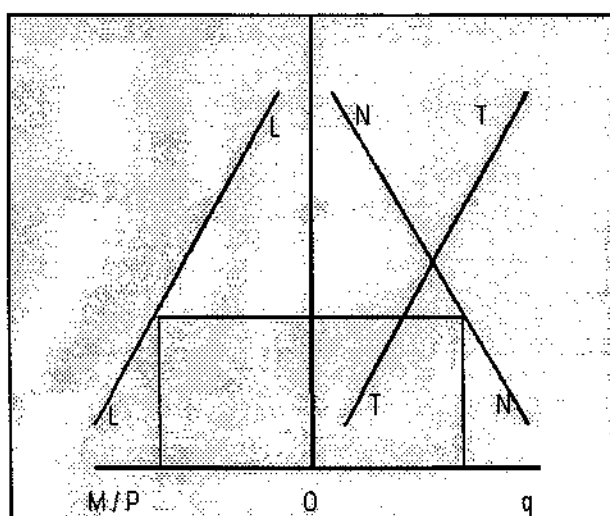


Figure 3. Capital imports in a dependent economy with floating exchange rate.

polies being restrictive. Too expansive monetary policies would lead to ongoing price increases and ongoing depreciations of the domestic currency. For fiscal policies, we have to make a distinction between government spending on tradeables and government spending on nontradeables. In both cases, an increase means an upward shift of the relevant curve. An increase in spending on tradeables makes the TT curve shift upward, which leads to a higher rate of interest and, given the money supply, a higher price level. The relative price of tradeables increases, which in this case can only mean that the

absolute price of tradeables rises. This amounts to a depreciation of the currency. An increase in government spending on nontradeables has less clearcut results. The NN curve shifts upwards, the relative price of nontradeables rises and the general price level again goes up. Now these two movements are compatible with higher, lower and constant tradeable prices, so the exchange rate may stay put or move in any direction. With fully interestelastic capital flows an increase in government spending leaves the rate of interest, and, given the money demand function, the general price level, undisturbed. Higher spending translates into an excess demand for tradeables and a deficit on the current account which is financed by capital imports.

A spending shock in the nontradeables market again does not influence the rate of interest or the general price level. Production has to shift from tradeables to nontradeables, which is dependent on a rise in the relative price of nontradeables. The relative price of nontradeables can only increase, given the average price level, if absolute nontradeable prices increase and absolute tradeable prices fall. This means an appreciation of the currency. The relative price of nontradeables moves beyond the point where the market for tradeables is in equilibrium. Tradeable prices are too low for equilibrium and, again, excess demand develops. Note that government spending shocks are here assumed to be neutrally financed, for the money supply remains unchanged. An increase in private spending propensities will have similar results. If now capital inflows dry up, not only restrictive monetary policies, but also restrictive fiscal policies will help maintain full employment during the drastic adjustment to a situation with an excess supply of tradeables rather than excess demand. A cutback in spending on tradeables will help sustain the rate of exchange, a cutback in spending on nontradeables will be accompanied by a depreciation.

3.4. A three-good economy

The dependent economy model can be extended by splitting up tradeables into importables and exportables. Importables are both produced domestically and are imported and exportables are produced domestically and sold both in domestic and foreign markets. We remain within the framework of the dependent economy model (cf Aghevli, Khan and Montiel, 1991; see for a three-goods, two-factor model using an Edgeworth-Bowley box diagram Edwards, 1986(a)). World market prices of importables and exportables therefore are given for a small country. They need not, however, remain unchanged. The commodity terms of trade therefore may change. The model can be utilized to analyze a number of problems. Consider a reduction in import duties. Importable prices fall, excess demand develops in the importables market and excess supply in the exportables and nontradeables markets. The excess supply in the exportables sector helps finance the increased imports. To restore equilibrium in the nontradeables market a relative price reduction for tradeables is called for. As absolute price decreases are painful, this means a depreciation of the currency.

Sector-specificity of production factors may, again, complicate the adjustment process (cf Novak, 1989, pp. 49-52). A reduction in protection will make importables cheaper relative to exportables and nontradeables. Labour will switch to exportables and nontradeables. The marginal product of labour in terms of exportables and nontradeables will fall and if wages are sticky downward in terms of these goods unemployment will result. In the course of time, as capital also moves across sectors, the labour intensity of production in the exportables and nontradeables industries is reduced again. The marginal product of labour in terms of exportables and nontradeables increases and wages will rise or unemployment will decrease.

4. RESTRICTIONS ON INTERNATIONAL PAYMENTS

If the rate of exchange is used as an instrument to stimulate exports, it is imperative to free the foreign-exchange market from restrictions that artificially keep the rate of exchange down. We first consider a unified official exchange rate and next a multiple-rate system.

4.1. Payments restrictions under a unified exchange rate

All too often, a currency is overvalued in the sense that without restrictions even on current account payments its value cannot be maintained. Let the authorities fix the rate at OB, then excess demand is CG and foreign exchange has to be rationed one way or another. Beneficiaries earn a rent of ABCE and it is a society with unusually high ethical standards indeed in which no waste of resources in rent seeking, nepotism or outright bribery will occur. But even in a society of saints the burden of rationing on the economy is bound to be high. Usually, people have to wait for considerable periods before foreign exchange is allotted to them. If the foreign exchange is needed for the import of spare parts or a replacement for worn-out machinery or simply for raw materials, production can be seriously affected. Also, the costs of running the system in terms of personnel can be considerable. Finally, people will do their utmost to circumvent regulations and resort to overinvoicing (in the case of importers) and underinvoicing (in the case of exporters; see for empirical estimates Gupta, 1984, and Dornbusch and Tellez Kuenzler, 1993, p. 115, citing figures by J. Cuddington). Foreign exchange is siphoned off to a black market and the amount available to the authorities shrinks.

When the foreign-exchange market is liberalized, overshooting of the exchange rate may occur. First, the exchange rate may rise to OA. As imports and exports react (see for the lags between devaluations and export increases Donovan, 1981; Krueger, 1978 p. 176; Denoon, 1986, p. 5), the system will move in the direction of F. If a black market had been flourishing, the black market rate would have been not too much above F and the exchange rate paid by those who had no access to the official market will consequently react less violently.

If a liberalization of the foreign-exchange market induces high capital inflows, e.g., because of big foreign loans or a return of flight capital, continued restrictions on capital payments may temporarily be needed in order to prevent an appreciation that would price the country's products out of the market. We will return to this issue in section 5.

Finally, it should be noted that this analysis suggests that not all devaluations are aimed at improving the current account of the balance of payments. Some at least are put into effect as part of a liberalization effort (Corden, 1993, p. 203). Nevertheless, the aim of increasing exports still stands, as liberalization means an increased participation in the international division of labour. Empirical research has shown that devaluations that form part of a liberalization package give a large impetus to exports, much larger than devaluations that

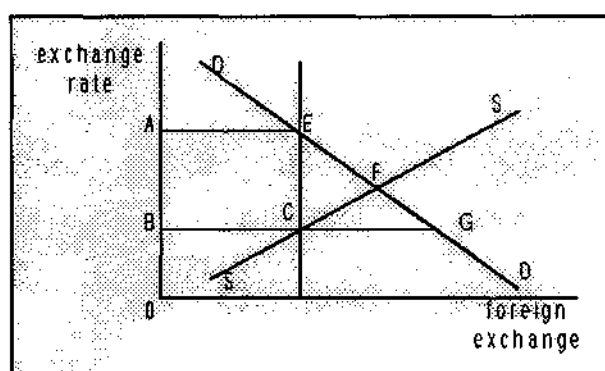


Figure 4. The foreign-exchange market with an overvalued currency.

do not (Donovan, 1981, p. 714). This suggests that inputs for export production indeed seriously suffer from import restrictions. Support is provided by Michaely *et al.*, who found that exports grow rapidly after a relaxation of import restrictions and a rise in the RER (Michaely *et al.*, 1991, p. 194, quoted by Falvey and Kim, 1992, p. 916). They even found that exports responded without any appreciable lag.

4.2. Dual and multiple exchange rates

International capital flows may cause substantial erratic shocks in the real exchange rate. The authorities may decide to control capital flows but could also decide not to intervene but to leave the capital account of the balance of payments to its own devices and fix a rate for current account transactions. This is an excellent principle, with often much lost in the execution, though. The monetary authorities would have to screen each and every individual foreign-exchange transaction, so administrative costs would be very high. Also, there would be strong incentives to cheat. Moreover, it may be difficult to define the boundary between current account and capital account transactions: e.g., depending on the various rates, shifts between short-term loans and trade credit will occur. These problems are compounded if instead of a dual exchange rate a system of multiple rates applies.

Just like payment restrictions in a unified exchange rate system, multiple rates lend themselves easily to abuse for political purposes. The allegiance of powerful groups can be bought by giving them access to cheap foreign exchange. More respectable ends can also be pursued by such a system. A government may, for instance, try to further economic development by applying a low exchange rate for traditional exports and essential imports and a high rate of exchange for non-traditional exports and non-essential imports, in order to stimulate non-traditional exports and curb non-essential imports. The rate of exchange in this way is deployed as an instrument of trade policy and industrial policy. Obviously, assuming for the moment that such policies are justified, for trade policy import duties and export rebates are the better instruments whilst for industrial policy taxes and subsidies would do the job with fewer distortions (cf Fleming, 1974). It is, for instance, hardly commendable to try and hinder imports of luxury goods and thus protect inefficient domestic production of such goods. Much better to levy an excise which burdens both domestic and foreign produce. Also, the way is wide open, again, to abuse. In Argentina, exports of wheat and meat were hindered for a number of years by a low rate of exchange (a high value of the peso) in order to keep domestic prices, and with them the urban cost of living, low. This was in the interests of urban capitalists but to the detriment of agrarian exporters (Cooper, 1973, p. 169). It must have been simply a case of a power struggle and had little to do with comparative advantage. After Martínez de Hoz abolished the discrimination in favour of exports from the urban industrial sector exports of wheat and meat soared, as indeed did total exports. It is to be noted that

multiple exchange rates may unduly burden the government deficit, sc. if on average a high rate is paid to exporters and a low rate is asked from importers. It has been estimated that the central bank of Peru ran up a loss of 2 per cent of GDP in 1987 in this way (Dornbusch and Tellez Kuenzler, 1993, p. 107).

In conclusion, payment restrictions and dual and multiple exchange rates pose a serious threat to welfare. They involve static welfare losses in terms of consumer rent and obstruct the smooth flow of production. Furthermore, they are costly to run and offer only too much opportunity for dubious activities. Also, it appears that trade and payments restrictions often include restrictions on the purchase of foreign know-how (Corbo and de Melo, 1985, Preface). Still, a case can be made for restrictions on capital transactions in order to insulate the real exchange rate from damaging shocks or for a dual exchange rate, for the same purpose, provided the system can be run efficiently by the authorities. Real exchange rate stability obviously may only come at a price.

5. HOW TO GO ABOUT LIBERALIZATION

If it is decided that international payments are to be liberalized as part of an overall liberalization process, the question arises which sequence would be best. Several combinations present themselves:

- (i) First liberalization of the current account, later followed by liberalization of the capital account;
- (ii) First liberalization of the capital account, later followed by liberalization of the current account;
- (iii) Simultaneous liberalization of the current account and the capital account.

If a liberalization policy, coupled with a stabilization policy (suppression of inflation and cutting the government budget deficit) is seen as credible by the public, there is a high probability of substantial net capital imports. It will become relatively easy for domestic agents to borrow abroad and in addition flight capital will return. Such net capital imports may play havoc with attempts to stimulate exports (cf McKinnon, 1973, Ch. 11). In a fixed-rate system capital imports, if sizeable, lead to money creation which will make it very difficult to fight inflation. Nontradeable prices will rise relatively to tradeable prices and the production of tradeables becomes less profitable. In a floating-rate system, the currency will appreciate, with similar results. Net capital imports may of course subside after some time, but if the production structure has been distorted by the capital imports, a restructuring will be painful; better to forestall such shocks. Anyhow, for a number of products marketing and setting up distribution networks abroad is costly and time-consuming and it would be better not to frustrate efforts in that direction at the outset. All this suggests that liberalization efforts aimed at greater participation of a country in international trade could be seriously undermined by simultaneously freeing the

capital account with the current account or even freeing the capital account before the current account. It would probably be wise, though, to ease restrictions on capital imports a bit at the time the current account is liberalized. Exports need time to build up, while liberalized imports may surge at once. In a fixed-rate system, the current account will tend to show a deficit at first, which could put quite a strain on the central bank's currency reserves if capital imports are now allowed to finance the current-account deficit. In a flexible-rate system the domestic currency would tend to depreciate strongly, only to appreciate later when export growth gets under steam. Relative prices, in particular those between tradeables and nontradeables, would move first in one direction, then in another, which of course is not very conducive to investment in hardware and in sales networks by exporters.

Of course, one cannot be sure that liberalization of the capital account induces net capital inflows. The experiences of the 1970s, when after the 1973 oil crisis bankers seem to have thrown caution to the winds when selling loans, should not be generalized. Too much capital inflow is undesirable, but no net capital inflow at all might jeopardize the liberalization effort as well. In order to ensure at least the availability of a modest volume of foreign credit or direct investments, it would be helpful if foreign governments and/or official financial institutions made stand-by credits available. Besides, capital may well flow out, if for instance a government has not yet earned itself a fair degree of credibility or if the domestic capital market has not yet been liberalized and interest rates are still subject to ceilings (Edwards, 1984(a), p. 3). A wish on the part of domestic wealth holders for portfolio diversification after liberalization of the capital account may play a role as well (see for further discussion Mathieson and Rojas-Suárez, 1993).

Apart from abolishing payments restrictions, other import (and indeed export) restrictions can also be reduced. A liberalization of trade can take different forms. One could opt for the cold turkey method and sweep aside all import restrictions in one fell swoop, replacing them by a low (uniform) tariff. It is also possible to go about it more cautiously. Liberalization really implies two different things: one, removing price distortions, two, opening up the domestic market to foreign trade. Of course, import and export restrictions in themselves create price distortions, but it is possible to reduce price distortions without opening up the domestic market. As Dornbusch (1991, p. 34) has argued, it is possible, and indeed in some circumstances advisable, to put liberalization through in two rounds. First, after payments have been made free quotas and licences can be abolished too and a uniform high tariff can be introduced. This goes a long way to reduce price distortions and in addition exposes the domestic tradeables sector to the fresh winds of competition, or rather a fresh breeze. Secondly, tariffs could be lowered gradually. If foreign capital is not available in sufficient amounts and a strong temporary real depreciation is not though advisable, because of fear of price instability and possibly also out of fear for inflation, this could be an attractive option. In either case, moreover, the government gets some breathing space before income from trade taxes fall.

It should be obvious from this analysis that no hard-and-fast rule can be given. The measures to be taken depend on expected net capital flows and the expected responses of the tradeables sector to a reduction of protection (see for some finer welfare theoretic points based on second-best considerations Falvey and Kim, 1992).

6. OBSTACLES TO LIBERALIZATION AND DEVALUATION

Several forces work against liberalization and the devaluation it implies. First of all, devaluation and liberalization may be beneficial for exporting industries, but the benefits must be worked for and can only be reaped in the future, whereas the losers, first of all producers of importables, feel their loss at once. The losers therefore will tend to fight harder for maintaining their privileges, i.e., their sheltered position in the market, than the beneficiaries fight for liberalization.

Next, if governments have pledged to fight inflation and maintain fixed exchange rates, to devalue is tantamount to admitting defeat. If then a crisis develops in which a devaluation can no longer be avoided, the political life of the minister of finance or even the cabinet as a whole is in danger (see Cooper, 1973, pp. 193-'4 for empirical findings). One should not, though, jump to the conclusion that devaluation is risky for one's political life. Rather, it seems better both for one's political life and the economy to devalue before a crisis develops than to make promises and be forced to renege on them.

At first sight, there may also be respectable economic arguments against devaluation. Residents who have borrowed abroad or at least have borrowed in foreign exchange and have failed to cover their position suffer a loss if devaluation takes place (unless the devaluation was expected at the time the loans were concluded and the devaluation risk consequently was reflected in the interest rate difference between domestic currency and foreign currency loans). Serious bouts of business failures may even result, as was the case in the early 1980s in Chile, Argentina and Uruguay. These were, however, to a large degree the consequence of high real interest rates following from attempts to defend the rate of exchange and of distress borrowing by firms in the tradeables sector trying to survive in the face of a low RER (*Trends in Developing Economies 1990*, p. 101; Corbo and de Melo, 1987, p. 133). Better then, again, to devalue at an earlier stage.

Another concern was that devaluations would hardly help boost export proceeds in a world where price elasticities were presumably low. Such fears can be justified in the case of countries that export primary commodities and not much else, the (short-run) price elasticity of supply often being low. In Latin America (including the Caribbean) manufactured products amounted to only 7 per cent of merchandise export in 1965, but in 1990 comprised 32 per cent of merchandise exports (*World Development Report 1992*, p. 249), so this objection has lost much of its force. Moreover, supply elasticities of primary commodities will be higher in the long run than in the short run.

Devaluation makes the domestic price level rise. If, however, domestic monetary and fiscal policies are sufficiently restrictive the price level rises less than the exchange rate and real depreciation takes place (see for empirical evidence Cooper, 1973; Connolly and Taylor, 1976; Kamin, 1988; of course, if macroeconomic policies are insufficiently restrictive inflation will nullify real depreciation, see for such cases Bautista, 1982; Edwards, 1989). Furthermore, if devaluation is coupled with foreign trade and payments liberalization, the disappearance of rents, the lowering of import duties and the freer availability of imported inputs will dampen any tendency of prices to increase. If before devaluation price controls were in force, black markets are likely to have developed and actual prices will have been higher than official prices. Price increases as found in official statistics then overstate actual price increases. Finally, more exports and a generally higher degree of participation in international trade mean more division of labour, involving the closing down of inefficient industries and the expansion of efficient ones, enabling these to reap economies of scale. Average costs are lowered in this way.

Another problem can be the loss of government income after a liberalization involving the lowering of import duties. As was mentioned in the preceding section, a shift from non-tariff restrictions to tariffs enables a government to reduce the general level of trade restrictions (expressed in tariff equivalents) and still increase government revenue.²

7. COFFEE AND OTHER DRUGS AS GERMS OF DUTCH DISEASE

Fajnzylber (1988, p. 18) notes that there is, on a world scale, a surprising positive correlation between a lack of natural resources and the level of competitiveness in the industrial sector. This is perhaps less surprising than it looks at first sight. Obviously, if a country is able to earn foreign exchange by exporting primary commodities, there is less need to concentrate on exports of manufactures. Indeed, there will be less opportunity to do so. Exports of primary commodities exert such downward pressure on the rate of exchange that relatively few manufacturing industries are able to face competition in world markets. In fixed-but-adjustable peg systems export surpluses develop that either create inflation or induce a revaluation, in either case effecting a real appreciation.

If, from a given situation, exports of primary commodities start to grow, the manufacturing sector is apt to suffer. We then have a case of Dutch disease (see, from an extended literature, Corden, 1984). What happens, in terms of the dependent-economy model, is this. We split up the tradeables sector in the primary commodity sector T1 and the manufacturing sector T2. T1 produces mainly for export. Let T1 prices rise and T1 exporters earn more dollars. They spend part of it domestically. As a result, nontradeables N become more expensive in terms of T2 and T2 imports increase. Furthermore, factors of production move from T2 to T1 and N. T2 production declines and net imports of T2 rise sharply. Thus, there is de-industrialization. This effect will be strengthened if

T1 exports bring in such amounts of money that a nominal appreciation is called for or takes place automatically.

The development of manufacturing industry will have been hampered in this way in countries such as Chile, with its copper exports, and Colombia, with its exports of coffee, coal and oil. Indeed, Edwards' (1984(b)) story of Colombia during the 1975-79 coffee boom exactly follows the scenario just sketched. Illegal drugs exports are also likely to have contributed to Dutch disease de-industrializing, in so far as the proceeds from drugs exports have not been invested abroad. Apart from illegal activities, if a country has a comparative advantage for primary commodities, allocational efficiency demands that primary commodities rather than manufactured products are produced and exported. The development policy of many countries has been aimed, however, at developing manufacturing industry, from a belief that manufacturing industry is the epitome of modernity or, in a more sophisticated form, from the idea that industrialization is associated with increasing returns and external economies and therefore is a prerequisite for continued growth (see Lal, 1983, Ch. 4; containing a harsh criticism of forced industrialization). Empirical evidence for such countries as the Netherlands, however, shows that labour productivity in the agrarian sector need not grow at a lower rate than in the industrial sector.³ Nevertheless, high productivity growth inevitably leads to an expulsion of labour from the agrarian sector. Wages have to be sufficiently low to make at least some T2 industries competitive and to enable the N sector to absorb sufficient numbers of workers. A sudden expansion of primary commodity exports may lead to real appreciations that hamper such adjustments. Given that money wages are sticky downward, an upsurge in unemployment is bound to result. This is the more harmful for the economy if such a boom is temporary and capital markets imperfections preclude T2 industries to bridge a temporary bad situation. A boom in coffee or drugs exports can thus quite seriously hinder the development of manufacturing industry, at the cost of high unemployment.

It should be noted that foreign economic aid, if it amounts to a substantial fraction of GDP and is converted into domestic currency, will also cause Dutch disease phenomena.

8. CHILE

8.1. Opening up the economy: 1974-79

We will now give a round-up of Chile's liberalization efforts, with the emphasis on exchange-rate policy and in the next two sections the experience of Colombia and Uruguay will be reviewed. Figures will be presented showing the relationship between the openness of the economy, as measured by the ratio between exports and GDP, and RER. Now there is a difficulty here. A dominant primary export commodity may mess up the picture. If the world price of such a product rises, *ceteris paribus*, export proceeds as a percentage of GDP of the exporting country will rise too, whereas its RER will fall. Given world demand for the commodity in question, a devaluation of the exporter's currency will also increase openness as measured by the exports/GDP ratio. This time around RER has risen, though. The increase in openness may only be a statistical artefact, resulting from the domestic price increase of such a *Tradeable II* commodity, in McKinnon's terminology⁴. For other products, *Tradeables I*, there will in general be a more unequivocally positive relationship between RER and export performance, given sufficiently high elasticities. For Chile and Colombia we therefore also present figures for exports minus copper and coffee exports, respectively. This procedure at least reduces the direct effect of relative price changes of Tradeables II on the exports/GDP ratio.

After the overthrow of the Unidad Popular government in September 1973, the Pinochet government in 1975 turned to Chicago-educated technocrats to run the economy. These so-called Chicago boys or Chicago kids resolved on an unprecedented opening-up of the economy over quite a short period. Nontariff barriers were abolished and tariffs were reduced from a weighted average of 105 per cent and a maximum of 750 per cent in September 1973 to a 10 per cent flat rate, with the exception of cars over 850 cc capacity, in June 1979 (see for an account Corbo and de Melo, 1985, p. 8).

In order to reverse the extremely high inflation brought about by the Unidad Popular government an orthodox deflation was engineered. Still, inflation remained high and devaluations were inescapable. Chile went on a floating-rate system and 1975 saw a real devaluation of close on 25 per cent. One cause was the dismantling of protection. Moreover, exports had been hit by a fall in copper prices and a quadrupling of oil prices. In 1976 the multiple exchange rate system was replaced by a unified exchange rate. The rate of exchange became the main tool in the fight against inflation (see Edwards 1986(b) p. 247). Both in 1976 and 1977 10 per cent revaluations were implemented, followed by the introduction of a tablita in early 1978. In figures 5 and 6 we see a fall in RER. In true textbook fashion, the capital account was not liberalized in step with the current account. Restrictions on medium-term capital flows were not lifted until April 1980, but even then restrictions remained in place for inflows of capital with less than two years maturity.

Interviews with entrepreneurs conducted by a World Bank team (Corbo and de Melo, 1985, p. 8) show that the credibility of the policy of dismantling trade restrictions was high, which means that business firms did not hesitate to adjust to the new environment.⁵ The virtual abolishment of protection involved drastic changes in relative prices, not only between tradeables and nontradeables, but also among tradeables, which had been subject to a wide range of different import tariffs. The reallocations of factors of production involved made increased labour mobility of the essence. Internal reallocations of labour between jobs and layoffs became easier. Business firms responded to the opening-up of the economy by drastically reducing costs through streamlining production (Corbo and Sanchez, 1985, p. 108-9; see also Edwards, 1986(b), p. 254 for changes in value added per worker). A typical response of import-competing firms was also to increase the quality of their products (Corbo and Sanchez, 1985, p. 111). Inevitably, the 1975 depression, partly engineered by the government's deflation policy but also a result of external developments, combined with the industrial restructuring following the dismantling of protection to increase unemployment.

8.2. Squeezing inflation out of the economy, 1979 - 1982

Notwithstanding the measures taken, inflation remained at a worryingly high level. The government decided to increase reliance on the exchange rate as an anti-inflationary weapon. This policy was based on the explicitly professed belief that the dependent-economy model was applicable. The tablita introduced in 1978 was replaced in June 1979 by a fixed dollar rate. The idea both with the tablita and the fixed rate was to squeeze inflation out of the economy and reduce the rate of inflation expected by economic agents. In this the government succeeded, but, at least partly as a result of wage indexation, it took to 1981 before inflation converged on the world average of 9.5 per cent. During the adjustment period, though, the Chilean price level had risen vis-à-vis the world price level. In other words, RER fell (see figures 5 and 6).

The real appreciation of the Chilean peso hit the tradeables sector more than it had done a few years earlier, when it had been relatively easy to improve efficiency (Corbo and Sanchez, 1985, p. 114; see for a detailed analysis based on financial statements of industrial enterprises Galvez and Tybout, 1985). The current account

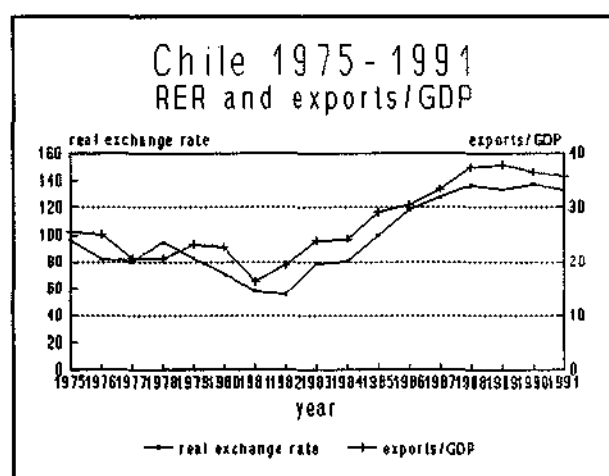


Figure 5. RER and openness of the Chilean economy.

lurched heavily into deficit, to the tune of 13.7 per cent of GDP in 1981 (Corbo, 1985, p. 906), capital inflows soared and, in conformity with the two-sector dependent economy model, the nontradeables sectors, such as construction, commerce and other services, boomed (Corbo and Sanchez, 1985, p. 51). Capital inflows had contributed a great deal to the fast increase in the money supply. Notwithstanding the restrictions on capital inflows, the monetary expansion only subsided when the 1981-82 debt crisis made international capital flows to Latin America dry up (see for figures Corbo and Sanchez, 1985, p. 89).

The story can easily be told in terms of the dependent-economy model. The capital inflow had financed a nontradeables boom and an excess demand for tradeables, i.e., a current-account deficit. RER fell, until capital inflows suddenly stopped (see figure 5). Projects in the nontradeables sector remained unfinished and RER had to rise steeply in order to make the current account move in the direction of equilibrium. To the same end, domestic absorption had to fall. A rise in RER implied either a fall in nontradeable prices or a rise in tradeable prices. The former would have taken time and would have implied even higher unemployment than actually was the case. So there had to be a sharp nominal devaluation of the peso.

A collapse of the financial sector helped put the entire policy of the government in jeopardy. All the time, real interest rates had remained disconcertingly high after the liberalization of the capital market. This may have been the result of a high demand for loans by firms desperate for funds in order to avoid bankruptcy, and of devaluation expectations. The squeezing of the tradeables sector resulting from the fall in RER may have played a role here too, as it forced firms to seek loans at all cost (Edwards, 1990, pp. 8, 9). It seems that right from 1974-5 the banks had been used by businessmen to finance the acquisition and growth of firms within the conglomerate they controlled, in the process accumulating bad loans. Prudential supervision was virtually nonexistent. Bad debts and high dollar liabilities combined to plunge the banking sector into crisis after the fall of the peso in 1982. The government had to step in and take over a number of privatized banks. The privatization programme of the government had suffered a serious setback (reprivatization of the banks started in 1985).

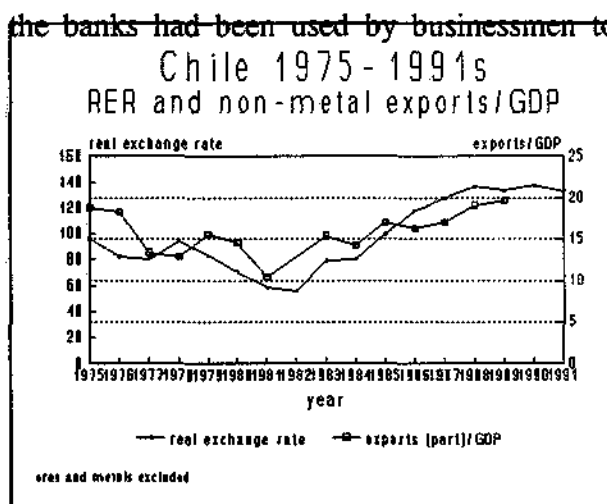


Figure 6. The relationship between openness and RER for Chile, metals and ores excluded. Note that the figure of exports/GDP for 1982 is lacking, which gives the probably wrong impression that the curve starts rising sharply after 1981 already.

8.3. Back from the brink, 1982 - ..

Recession hit the economy in 1982, triggered by world depression and the drying up of capital inflows - which had amounted to no less than about 15 per cent of GDP in 1981 (Harberger, 1986, p. 235) - and compounded by the low RER, high real interest rates and the downward inflexibility of real wages. The peso was devalued by 18 per cent in June 1982 whilst wage indexation was suspended. Further devaluations and exchange rate policy switches followed and between June 1982 and June 1983 the peso devalued by 99 per cent (i.e., the dollar price of the peso rose by nearly 100 per cent), causing the sought-for real depreciation. In 1984 the Chicago boys were out and import tariffs were raised to 35 per cent. These and other measures to stimulate the economy only resulted in rapidly increasing inflation. In 1985 Corbo (1985 p. 909) wrote: "Today it appears that the reforms failed", but in that same year a fresh start was made, again relying on market forces and macroeconomic stability. The increased import tariffs have gradually been reduced again to 11 per cent in June 1991.

Economic policy was now firmly aimed at increasing the real exchange rate, i.e., at a real depreciation. Thanks to sufficiently restrictive monetary and fiscal policies, the nominal depreciation was not matched by increasing inflation (cf Edwards and Edwards, 1992, p. 209). RER increased sharply over a number of years and the openness of the economy grew roughly in step. New products were offered on export markets. It is noteworthy in this respect that products such as canned fish and canned fruits did not do nearly as well as, e.g., apples and grapes, the difference being that they require higher marketing efforts. The government did not provide a clear export promotion strategy (Arriagada, 1985, p. 122). This is in marked contrast to such Asian countries as Taiwan and South Korea (Lin, 1988, p. S157).

9. COLOMBIA

Colombia's development policy in the 1950s and early 1960s was based on import substitution. Further import substitution behind high import barriers was not really viable (cf *Trade Policy Reforms*, 1992, p. 109). No sweeping reforms were implemented, though. The balance of payments was highly dependent on coffee exports. A near-doubling of coffee prices in 1976 for instance led to an external payments surplus. This was followed by higher inflation in the next year (Dornbusch and Fischer, 1993, p. 20). Expansionary macroeconomic policies combined with both a fall in coffee prices and a fall in RER in 1981 to worsen the external situation. Moreover, as in Chile, lending to conglomerates had landed a number of banks in bankruptcy, forcing the government to nationalize them (Supelano, 1992, p. 853). The trade liberalization efforts that had been under way were put to an end and import licensing became a prominent feature. 1984 saw the introduction of an orthodox adjustment programme which included a sizeable depreciation in 1985 (Corden, 1991, p. 70; Liuksila, 1992, p. 40). This made RER increase steeply. The government also liberalized foreign trade by reducing import licensing requirements and lowering import duties (Schloss and Thomas, 1986; Hommes, 1991). In 1986 the current account of the balance of payments took a turn for the better, both as a result of restrictive macroeconomic policy measures that reduced the budget deficit and because of a rise in coffee prices. After 1986, coffee exports (expressed in dollars) fell back to roughly half the 1986 level, but RER increased and non-coffee exports rose in step. In 1990, when a new government took office, measures were introduced to further open up the Colombian economy, intensifying the efforts which the outgoing administration had started in its closing days (Supelano, 1992, p. 854).

Colombia has to cope with an influx of money from drugs trafficking. The central bank has a special window, the *ventanilla siniestra*, where no questions are asked about the money's provenance (Colombia, 1989, p. 14). The revenues from cocaine sales are estimated at some two to three billion dollars every year, as against \$1.4 to 1.7 billion from coffee (1987 - 1991 figures, from *International Financial Statistics*; total official exports rising in this period from \$4.6 to \$7.2 billion). On top of those cocaine dollars there are inflows from illegal exports of marihuana, gold and emeralds (Vaessen, 1990, p. 9). Other estimates work out much higher, though.

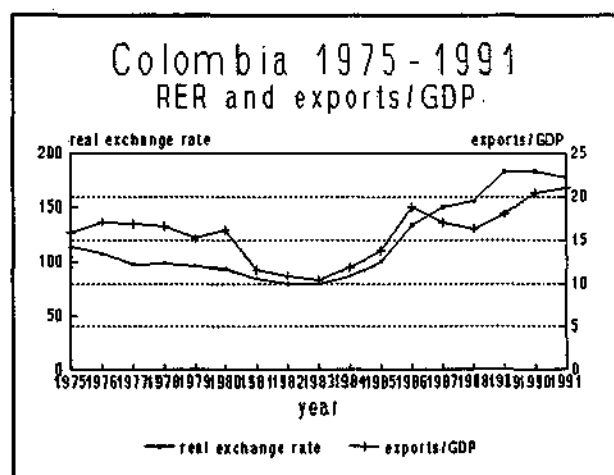


Figure 7. RER and openness of the economy, Colombia.

According to estimates by E. Crawley export revenues of cocaine from Colombia

in 1990 totalled between \$11.5 billion and nearly \$24 billion, from which \$1.8 billion and \$3.7 billion imported raw material should be subtracted (quoted by Fonseca, 1992, p. 504). It is not clear, however, how much of these export earnings are channelled abroad. Some of it at least seems to have found its way into investment in land and company shares (Supelano, 1992, p. 853), thus driving up asset prices and probably the relative price of nontradeables.

Table 8 shows that non-coffee exports as a percentage of GDP are closely related to RER. The fall in coffee export proceeds after 1986 is more than compensated by the absolute and relative rise in non-coffee exports. Non-coffee exports never exceeded 54 per cent of total exports over the 1975 - 1986 period, but have since monotonously risen from 63.6 per cent in 1987 to 80.7 per cent in 1991 (figures from *International Financial Statistics*). Both RER and non-coffee exports as a percentage of GDP would most probably have been on a higher level, though, but for drugs exports. That would have been beneficial for employment, if we make the reasonable assumption that more man-hours of labour are involved in producing \$1 million net exports of non-coffee non-drug goods than in producing of \$1 million of net drugs exports.

10. URUGUAY

Uruguay has had a long history of protection. It already started in 1875 and in the mid-1950s economic stagnation set in, with protection becoming increasingly more onerous and complicated (de Melo and Dhar, 1992, p. 30).

1959 saw the introduction of a dual exchange rate system, which replaced the multiple rate system until then in force. The dual system included a fixed commercial rate, which was devalued three times in the year of introduction, and a floating financial rate. Inflation soared and over the 1963-68 period the peso fell from 11 to 250 in the U.S. dollar. From 1968 to March 1972 the exchange rate was fixed, but prices continued rising and the imposition of a 50 per cent tax on all foreign transactions in 1971 meant a *de facto* devaluation. In early 1972 the peso was devalued to 500 per dollar and a crawling peg system was introduced. The period 1974-78 was oriented towards liberalization and stabilization under Minister of Economic Affairs Alejandro Vegh Villegas. The capital

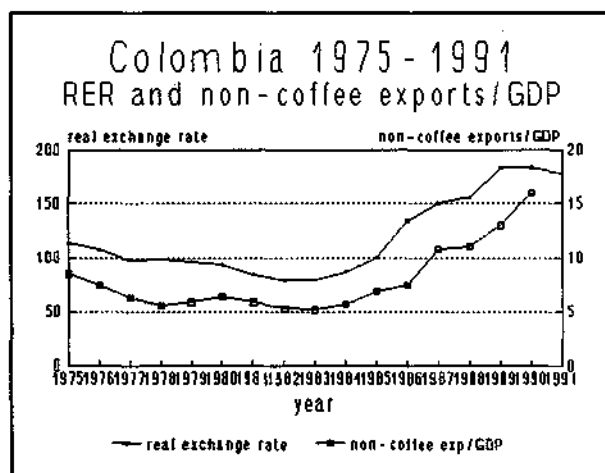


Figure 8. RER and openness of the Colombian economy, measured by the non-coffee exports/GDP ratio.

account was liberalized in 1974. Import quotas and licensing requirements were abolished in 1975 and controls on capital goods imports in 1977. In contrast to Chile, import restrictions were maintained (which were connected with extensive rent-seeking activities, de Melo and Dhar, 1992, p. 31). Liberalization of the capital account came first, soon accompanied by domestic financial reform (Edwards 1990 p. 7). Under Vegh's successor Valentin Arismendi (1979-81) there was a policy shift away from growth towards the reduction of inflation. The authorities firmly believed that the Law of One Price held for tradeables and, in addition, that capital markets were perfect, i.e., that the Law of One Price held for the rate of interest as well (Mezzera and de Melo, 1985, p. 160). A *tablita* system was introduced in January, 1979. In January 1980 a programme of tariff reductions was announced, aimed at attaining a flat rate of 35 per cent in December, 1985 (coupled to a reduction of export subsidies). The Law of One Price was proved wrong and we see RER fall (figure 9), but exports to Argentina held up for a time because of the real appreciation of the Argentine peso. Meanwhile, in conformity with the theoretic model, the capital-import financed demand pressure led to a boom in nontradeables, especially in residential construction. Private investment in construction rose by 45.5 per cent in 1979 and a further 12.2 per cent in 1980 (Mezzera and de Melo, 1985, p. 162). The Argentine devaluation of March 1981, together with high energy prices and the international recession, left the Uruguayan peso seriously overvalued and in November 1982 a flotation of the peso could no longer be averted. Here too, a financial crisis developed because banks had taken up dollar loans at high interest rates and borrowers were unable to pay off their debts.

The stabilization experiment ended in failure. Since November 1982, when the peso started floating, it fell from 11.59 in the dollar to 2489 in the dollar at the end of 1991, whereas inflation usually exceeds the 60 per cent mark. The connection between RER and openness of the economy is less clearcut than in the cases of Chile and Colombia. One reason may be the preponderance of primary commodities in exports, but it may also be the case that rampant inflation makes the price system function less satisfactorily.

11. FINAL OBSERVATIONS

Devaluations are an inescapable feature of liberalization programmes. In a protectionist environment the real exchange rate is lower than the level that can be maintained after liberalization. The real exchange rate will have to rise, making a devaluation inevitable. It appears from empirical studies that the inflationary pressures that inevitably result from devaluations can be held in check through restrictive macroeconomic policies. This means that devaluations indeed help to raise the real exchange rate, provided macroeconomic policy is used to support the devaluation effort. Empirical research also suggests that the current account of the balance of payments reacts favourably to devaluations in such

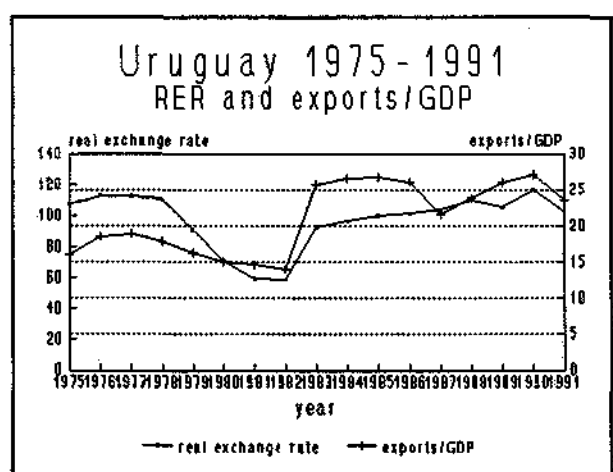


Figure 9. RER and openness of the Uruguay economy.

circumstances. The evidence from the three countries which have been studied here suggests that a rise in RER is instrumental in increasing the openness of the economy. More openness means more competition and a better division of labour and what evidence there is indeed points to an increase in efficiency and better product quality (apart from the evidence on Chile quoted above, see for additional evidence on the impact of trade liberalization and growth *Trade Policy Reforms*, 1992, ch. 5). On the debit side, a change in policy implies restructuring between and within industries, which can hardly fail to temporarily increase unemployment. This is a sacrifice in the short term that may be expected to bring in

rewards in the long term. All the signs are that orthodoxy works, but it probably helps if a country is not overly dependent on exports of primary commodities. The impact of a rise in RER on exports could be increased if governments supported the business community in improving its international marketing efforts.

The experience so far has shown that a liberalization process can be seriously jeopardized by crises in the financial sector. Prudential supervision apparently is a weak spot in a number of countries. In particular, there seems to be a need for stringent supervision on intra-conglomerate loans.

In opening up the economy, Chile's *laissez-faire* approach is not the only option available. Within CEPAL the idea seems to have taken hold that the Latin American countries have to restructure their economies to become competitive and, at the same time, safeguard social equity. This calls for interaction between the government, business firms and non-profit institutions. It is not believed that simply opening up the economy and relying on export growth to dynamize the economy will do (see on this Bitar and Bradford, 1992). The Asian examples of the Republic of Korea, Taiwan and Singapore indeed suggest that active government involvement is, at the least, not incompatible with bringing about growth combined with equity (whereas the Hong Kong government has been following a more hands-off type of policy, see Morawetz 1977 p. 39; *The Newly Industrializing Countries*, 1988). The idea of liberalizing foreign trade itself does not seem to meet with much opposition any longer, and rightly so.

NOTES

The data underlying Figures 5 through 9 are mostly from *International Financial Statistics* (IMF). Figures on RER before 1980 are for exports and were taken from *Economic Survey of Latin America and the Caribbean* (ECLAC). Export figures for metals and ores for Chile (which were subtracted from total exports in order to construct Figure 6) are from *Handbook of International Trade and Development Statistics* (UNCTAD). There is an inconsistency in the Figures in that total exports refer to exports of goods and services whereas RER only refers to goods.

Text notes:

1. According to IMF figures net capital inflows into non-oil developing countries in the Western Hemisphere fell from \$40.1 billion in 1981 and over \$20 billion in each of the three preceding years to \$4.1 billion in 1982 (*World Economic Outlook*, Occasional Paper 21, IMF, Washington, 1983).
2. According to Dornbusch and Kuenzler (1993, p. 113) 12 per cent of total government revenue in Latin America derives from taxes on international trade. See for more detailed figures on Colombia, Jamaica, and Mexico *Trade Policy Reforms*, 1992, pp. 123-25.
3. From 1950 to 1978 labour productivity in Dutch agriculture rose in step with labour productivity in Dutch manufacturing industry. From 1978 onwards the former grew much faster than the latter (Stolwijk, 1992, p. 14).
4. Tradeables I are goods "in which producing firms can control (set) the market price for their own particular products"; "tradeables II are more homogeneous commodities where one firm's output may be graded and precisely compared to that of others" (McKinnon 1979 pp. 74-5).
5. This was not reflected in the investment ratio, though (see for figures Zahler, 1980, p. 148 and Edwards (1986(b), p. 257). For one thing, public sector investment fell, for another, the allocation of investment will have been improved considerably.

BIBLIOGRAPHY

- Aghevli, B.B., M.S. Khan and P.J. Montiel *Exchange Rate Policy in Developing Countries: Some Analytical Issues* IMF Occasional Paper 78 (Washington, D.C., 1991).
- Arriagada, P. "Adjustments by Agricultural Exporters in Chile during 1974-82" in V. Corbo and J. de Melo (eds) 1985.
- Brown, R.P.C. *Sudan's Debt Crisis*, Ph.D. dissertation Groningen State University (The Hague, 1990).
- Bautista, R.M. "Exchange Rate Variations and Export Competitiveness in Less Developed Countries under Generalized Floating", *Journal of Development Studies*, Vol. 18, No. 3, 1982.
- Bitar, S. and C.I. Bradford, Jr, "Strategic Options for Latin America in the 1990s", in C.I. Bradford, Jr (ed) *Strategic Options for Latin America in the 1990s* (Paris 1992).
- Calvo, G.A. "Fractured Liberalism: Argentina under Martínez de Hoz", *Economic Development and Cultural Change*, Vol. 34, No. 3, 1986.
- Colombia, The Economist Intelligence Unit Country Report No. 4, London 1989.
- Connolly, M. and D. Taylor "Testing the Monetary Approach to Devaluation in Developing Countries", *Journal of Political Economy*, Vol. 84, No. 4 Part 1, 1976.
- Cooper, R.N. "An Analysis of Currency Devaluation in Developing Countries, in M.B. Connolly and A.K. Swoboda (eds), *International Trade and Money* (London, 1973).
- Corbo, V. "Reforms and Macroeconomic adjustments in Chile during 1974-84", *World Development*, Vol. 13, No. 8, 1985.
- and J. de Melo (eds) *Scrambling for Survival; How Firms Adjusted to the Recent Reforms in Argentina, Chile, and Uruguay*, World Bank Working Paper No. 764 (Washington 1985).
- and J. de Melo "Lessons from the Southern Cone Policy Reforms", *World Bank Research Observer*, Vol. 2, No. 2, 1987.
- and J.M. Sanchez "Adjustments by Industrial Firms in Chile During 1974-82", in V. Corbo and J. de Melo (eds) 1985, o.c.
- Corden, W.M. "Booming sector and Dutch disease economics: survey and consolidation, *Oxford Economic Papers*, Vol. 36, No. 3, 1984.
- , "Macroeconomic Policy and Growth: Some Lessons of Experience", *World Bank Annual Conference 1990* (Washington 1991).
- , "Exchange Rate Policies for Developing Countries", *Economic Journal*, Vol. 103, No. 416, 1993.
- de Melo, J. and S. Dhar *Lessons of Trade Liberalization in Latin America for Economies in Transition*, World Bank Policy Research Working Paper (Washington 1992).
- Denoon, D.B.H. *Devaluation under Pressure: India, Indonesia, and Ghana* (Cambridge, Mass. 1986).

- Donovan, D.J. "Real Responses Associated with Exchange Rate Action in Selected Upper Credit Tranche Stabilization Programs", *IMF Staff Papers*, Vol. 28, No. 4, 1981.
- Dornbusch, R. "Policies to Move from Stabilization to Growth", *Proceedings of the World Bank Annual Conference on Development Economics 1990* (Washington, 1991).
- and S. Fischer "Moderate Inflation", *The World Bank Economic Review*, Vol. 7, No. 1, 1993.
- and L. Tellez Kuenzler "Exchange Rate Policy: Options and Issues", in R. Dornbusch (ed.) *Policymaking in the Open Economy* (New York 1993).
- Edwards, A. Cox and S. Edwards, "Markets and Democracy: Lessons from Chile", *The World Economy*, Vol. 15, No. 2, 1992.
- Edwards, S. *The Order of Liberalization of the External Sector in Developing Countries*, Princeton Essays in International Finance No. 156 (Princeton, N.J. 1984(a)).
- , "Coffee, Money and Inflation in Colombia", *World Development*, Vol. 12, No. 11/12, 1984(b).
- , "The Order of Liberalization of the Current and Capital Accounts of the Balance of Payments", in A.M. Choksi and D. Papageorgiou (eds) *Economic Liberalization in Developing Countries* (Oxford 1986(a)).
- , "Stabilization with Liberalization: An Evolution of Ten Years of Chile's Experience with Free Market Policies", in A.M. Choksi and D. Papageorgiou (eds), o.c. 1986(b).
- , "Exchange Controls, Devaluations, and Real Exchange Rates: The Latin American Experience", *Economic Development and Cultural Change*, Vol. 37, No. 3, 1989.
- , "The Sequencing of Economic Reform: Analytical Issues and Lessons from Latin American Experiences", *The World Economy*, Vol. 13, No. 1, 1990.
- Fajnzylber, F. "International competitiveness: agreed goal, hard task", *CEPAL Review*, No. 36, August 1988.
- Falvey, R. and Cha Dong Kim "Timing and Sequencing Issues in Trade Liberalisation", *Economic Journal*, Vol. 100, No. 413, 1992.
- Fleming, J.M. "Dual Exchange Markets and Other Remedies for Disrupted Capital Flows", *IMF Staff Papers*, Vol. 21, No. 2, 1974.
- Fonseca, G. "Economie de la drogue: taille, caractéristiques et impact économique", *Revue Tiers Monde*, Vol. 33, No. 131, 1992.
- Frenkel, J.A. and M.L. Mussa "Asset Markets, Exchange Rates and the Balance of Payments", in R.W. Jones and P.B. Kenen (eds), *Handbook of International Economics*, Volume II (Amsterdam, 1985).
- Galvez, J. and J. Tybout "Microeconomic Adjustments in Chile during 1977-81: The Importance of Being a Grupo", *World Development*, Vol. 13, No. 8, 1985.

- Harberger, A.C. "A Primer on the Chilean Economy, 1973-1983", in A.M. Choksi and D. Papageorgiou (eds), *Economic Liberalization in Developing Countries* (Oxford 1986).
- Hoffmann, J. and S. Homburg "Explaining the Rise and Decline of the Dollar". *Kyklos*, Vol. 32 No. 1, 1990.
- Hommes, R. "Colombia and Venezuela", in J. Williamson (ed.) *Latin American Adjustment: How much has happened?* (Washington 1991).
- Kamin, S.B. *Devaluation, External Balance, and Macroeconomic Performance: A Look at the Numbers*, Princeton Studies in International Finance No. 62 (Princeton 1988).
- Krueger, A.O. *Liberalization Attempts and Consequences* (Cambridge, Mass. 1978).
- Lal, D., *The Poverty of 'Development Economics'* (London 1983).
- Lin, Ching-yuan "East Asia and Latin America as Contrasting Models", *Economic Development and Cultural Change*, Vol. 36, No. 3, Supplement, 1988.
- Liuksila, C. "Colombia: el ajuste económica y los pobres", *Finanzas y Desarrollo*, Vol. 29, No. 2, 1992.
- Mathieson, D.J. and L. Rojas-Suárez *Liberalization of the Capital Account*, IMF Occasional Paper 103 (Washington 1993).
- McKinnon, R.I. *Money and Capital in Economic Development* (Washington 1973).
- McKinnon, R.I. *Money in International Exchange* (New York 1979).
- Mezzer, V. and J. de Melo "Adjustments by Industrial Firms in Uruguay During 1974-82" in V. Corbo and J. de Melo (eds), 1985, o.c.
- Michael, M., D. Papageorgiou and A.M. Choksi *Liberalizing Foreign Trade: Lessons of Experience in the Developing World* (Oxford 1991).
- Morawetz, D., *Twenty-five Years of Economic Development 1950 to 1975* (Baltimore 1977).
- Novak, F. *Auswirkungen der Außenhandels- und Kapitalverkehrsliberalisierung auf den realen Wechselkurs und die Produktion von Gütern* (Göttingen 1989).
- Schloss, M. and V. Thomas "Ajuste con crecimiento: la experiencia de Colombia", *Finanzas y Desarrollo*, Vol. 23, No. 4, 1986.
- Stolwijk, H.J.J. *De Nederlandse landbouw op de drempel van de 21^{ste} eeuw*, CPB Onderzoeksmemorandum No. 95 (The Hague 1992).
- Supelano, A. "The Political Economy of Latin America: The Colombian Experience during the 1980s", *Journal of Economic Issues*, vol. 26, No. 3, 1992.
- The Newly Industrialising Countries; Challenge and Opportunities for OECD Industries*, OECD (Paris 1988).
- Trade Policy Reforms under Adjustment Programs*, World Bank Operations Evaluation Study (Washington 1992).
- Trends in Developing Economies 1990*, World Bank (Washington 1990).

Vaessen, T. "De 'witte motor' van de Colombiaanse economie" *International Samenwerking*, Vol. 5, No. 9, 1990.

World Development Report 1992, World Bank (New York 1992).

Zahler, R. "The monetary and real effects of the financial opening up of national economies to the exterior; The case of Chile 1975-1978", *CEPAL Review*, No. 10, 1980.

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