

January 2006

**Real Exchange Rate, Monetary Policy and Employment: Economic
Development in a Garden of Forking Paths**

by

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Abstract An appropriate level of the real exchange rate (RER) can be a key support for growth, employment creation, and overall development of the “real economy,” but programming the RER is macroeconomically complicated. The coordination issues it raises must be addressed with due attention given to controlling inflation, reducing financial fragility and risk, and aiming toward full employment of available resources. Thus, managing the exchange rate necessarily encompasses monetary and expectational considerations. A key challenge is to provide enough degrees of freedom for the monetary authorities to carry through these tasks.

Dejo a los varios porvenires (no a todos) mi jardín de senderos que se bifurcan.

Jorge Luis Borges, "El jardín de los senderos que se bifurcan"

The exchange rate affects any economy through many channels. It scales the national price system to the world's, influences key macro price ratios such as those between tradable and non-tradable goods, capital goods and labor, and even exports and imports (via the costs of intermediate inputs and capital goods, for example). The exchange rate is an asset price, partially determines inflation rates through the cost side and as a monetary transmission vector, and can have significant effects (both short and long run) on effective demand.

Correspondingly the exchange rate can be targeted toward many policy objectives. In developing and transition economies, five have been of primary importance in recent decades:

Resource allocation: Through its effects on the price ratios just mentioned, the exchange rate can significantly influence resource allocation, especially if it stays stable in real terms for an extended period of time. Through effects on both resource allocation and aggregate demand, a relatively weak rate can help boost employment, a point of concern in light of stagnant job creation in many developing economies over the past 10-15 years.

Economic development: often in conjunction with commercial and industrial policies, the exchange rate can be deployed to enhance overall competitiveness and thereby boost productivity and growth.

Finance: The rate shapes and can be used to control expectations and behavior in financial markets. Exchange rate policy "mistakes" can easily lead to highly destabilizing consequences.

External balance: The trade and other components of the current account usually respond to the exchange rate, directly via "substitution" responses and (at times more importantly) to shifts it can cause in effective demand.

Inflation: The exchange rate can serve as a nominal anchor, holding down price increases via real appreciation and/or maintenance by the authorities of a consistently strong

rate. As will be seen below, it can also serve as an important transmission mechanism for the effects of monetary policy.

All these objectives have figured in recent policy experience. Use of the exchange rate to try to improve external balance has been central to countless stabilization packages over the decades, especially in small poor economies. The inflation objective became crucial in middle-income countries in the last quarter of the 20th century (and is notably less urgent as of 2005). Along with capital market liberalization, fixed rates were significant contributors to the wave of financial crises in the 1990s.

But in many ways the resource allocation and developmental objectives can be the most important in the long run – the central point of this paper. We trace the reasons why in the following section on channels of influence. We then take up the policy implications, contrasting the use of the exchange rate as a development tool in conjunction with its other uses (often in coordination with monetary policy) to maintain external balance, contain inflation, and stabilize asset markets,

1. Resource Allocation, Labor Intensity, Macroeconomics, and Development

Following Frenkel (2004), in this section we trace out three ways in which the exchange rate can have medium- to long-term impacts on development. We begin with overall resource allocation, and go on to the labor market and macroeconomics.

Resource Allocation

The traditional 2 x 2 trade theory model is a useful starting point. It *does* focus on the key role of relative prices. It *does not* take into consideration important non-price components of industrial and commercial policies. Both themes are woven into the following discussion.

The Lerner Symmetry Theorem (1936) is a key early result. Its basic insight is that if only the import/export price ratio is relevant to resource allocation, then it can be manipulated by *either* an import *or* an export tax-cum-subsidy. There is “symmetry” between the two instruments, so that “under appropriate conditions” (at hand in the textbooks) only one need be employed.

A now-obvious extension is to bring three goods into the discussion: exportable, importable, and non-tradeable in a “Ricardo-Viner” model. Two price ratios – say importable/non-

tradeable and exportable/non-tradeable – in principle guide allocation. The real exchange rate (RER or ρ) naturally comes into play as the relative price between the non-tradeable and a Hicksian aggregate of the two tradeable goods.¹ These observations lead to two important policy puzzles.

The first has to do with “level playing fields.” As applied in East Asia and elsewhere, industrial policy often involved both protection of domestic industry against imports by the use of tariffs and quotas, and promotion of exports through subsidies or cheap credits. In the case of a tariff on imports, the domestic price P_m becomes

$$P_m = e(1 + t)P_m^* \quad (1)$$

with e as the nominal exchange rate (defined as units of local currency per unit of foreign), t the tariff, and P_m^* the world price. Similarly if the internal price P_e for exports is set from abroad we have

$$P_e = eP_e^* / (1 - s) \quad (2a)$$

with P_e^* as the world price and s as the subsidy rate.

The level playing field rests on the trade theorists’ notion that internal and external relative prices of tradeable goods should be equal, $P_m / P_e = P_m^* / P_e^*$. This situation can be arranged if $t = s = 0$ or more generally $(1 + t) = 1 / (1 - s)$. The mainstream argument asserts that if all that industrial policy does is give more or less equal protection to both imports and exports, then its costs, administrative complications, and risks of rent-seeking and corruption are unjustifiable. You might as well set $t = s = 0$ and go to a free trade equilibrium.

In a Ricardo-Viner set-up, with P_n as a price index for non-tradeables the price ratios P_e / P_n and P_m / P_n become of interest. Positive values of t and s move domestic relative prices in favor of tradeable goods. From a more or less mainstream perspective (Woo, 2005) this outcome can be interpreted as a justification for industrial policy.

¹ Just to be clear, we will treat the RER as the ratio of tradeable to non-tradeable price indexes. Real devaluation or weakening the RER means that ρ increases.

The world, however, is a bit more complicated. If the home country is exporting a differentiated product, for example, a more appropriate version of (2a) is

$$P_e^* = P_e(1 - s) / e \quad (2b)$$

so that the foreign price of home exports is set by the subsidy and exchange rate. Presumably, a lower value of P_e^* stimulates sales abroad. Moreover, if the economic bureaucracy has the requisite motivation and organization, it can tie export subsidies to the attainment of export, productivity, and other targets and so pursue a proactive industrial policy. In such a context, import protection and export promotion serve different purposes: the former allows domestic production to get started along traditional infant industry lines, while the latter enables national firms to break into international markets.²

Now focus on the exchange rate. An increase in the nominal rate e would also switch incentives toward production of tradeables, without the need for extravagant values of s and t . This simple observation is in fact a strong argument in support of the use of a depreciated RER as a developmental tool. If we define ρ as

$$\rho = [\mu P_m + (1 - \mu) P_e] / P_n \quad (3)$$

with μ as the weight in a tradeable goods price index, then a high value of e means that the real rate ρ will also be weak or depreciated.

Of course, a weak RER may not be a sufficient condition for long-term term development. For example it may usefully be supplemented by an export subsidy or tariff protection to infant industries with their additional potential benefits as mentioned above. Even without an effective bureaucracy, generalizing Lerner symmetry to a Ricardo-Viner world suggests that more than one policy instrument may be helpful because there are two relative price ratios that can be manipulated. The rub is that a strong exchange rate implies that commercial/industry policy interventions also have to be strong, with correspondingly high intervention costs. A weak RER may be only a necessary condition for beneficial resource reallocation to occur, but a highly appreciated real exchange rate is likely to be a sufficient condition for “excessive intervention” in

² Again, these arguments are old. Ocampo and Taylor (1998) provide a recent summary.

a situation in which development cannot happen. It is hard to find examples of economies with strong exchange rates that kept up growth for extended periods of time.

Labor Intensity

Continuing with the allocational theme, it is clear that the exchange rate will affect relative prices of imported intermediates and capital goods on the one hand, and labor on the other. Moreover, the RER largely determines the economy's unit labor costs in terms of foreign currency.

To explore the implications, we can consider the effects of sustained real appreciation on different sectors. Producers of importables will face tougher foreign competition. To stay in business they will have to cut costs, often by shedding labor. If they fail and close down, more jobs will be destroyed. If home's export prices P_e^* are determined by a relationship like (2b), similar logic applies to that sector. In non-tradables, which will have to absorb labor displaced from the tradeable sectors, jobs are less likely to open up insofar as cheaper foreign imports in the form of intermediates and capital goods substitute for domestic labor. On the whole, real appreciation is not likely to induce sustained job creation and could well provoke a big decrease in tradeable sector employment. Reasoning in the other direction, RER depreciation may prove employment-friendly.

In both cases, it is important to recognize that a new set of relative prices must be expected to stay in place for a relatively long period if these effects are going to work through. Changes in employment/output ratios will not happen swiftly because they involve restructuring firms and sectoral labor market behavior. This must take place via changes in the pattern of output among firms and sectors, by shifts in the production basket of each firm and sector, and adjustments in the technology and organization of production. These effects arise from a restructuring process in which individual firms and the organization of economic activity adapt to a new set of relative prices. Gradual adjustment processes are necessarily involved.

Finally, in the long run if per capita income is to increase there will have to be sustained labor productivity growth with employment creation supported by even more rapid growth in effective demand. Macroeconomics comes into play.

Macroeconomics

The question is how a weak exchange rate (possibly in combination with other policies aimed at influencing resource allocation among traded goods) fits into the macroeconomic system. Much depends on labor market behavior in the non-traded sector. Following Rada (2005) we work through one scenario here, to illustrate possible outcomes.

Assume that output in the tradable sector is driven by effective demand, responding to investment, exports, and import substitution as well as fiscal and monetary policy. The level of imports depends on economic activity and the exchange rate (along with commercial/industrial policies). A worker not utilized in tradable sectors must find employment in non-tradables, become under- or unemployed, or leave the labor force.

For concreteness, we assume that almost all labor not employed in tradeables finds something to do in non-tradeable production as a means of survival. Typical activities would be providing labor services in urban areas or engaging in labor-intensive agriculture. If L_t is tradeable sector employment and L is the economically active population, then employment in non-tradeables is $L_n = L - L_t$. With w_n as the non-tradable wage, the value of labor services provided is $Y_n = w_n L_n$. The tradeable sector wage rate w_t is determined institutionally, at a level substantially higher than w_n .

The non-tradable sector's demand-supply balance thus takes the form

$$Y_n - w_n L_n = Y_n - w_n (L - L_t) = 0 \quad . \quad (4)$$

Demand for Y_n is generated from the value of tradable sector output $P_t X_t$. At the same time, real output X_t determines L_t and thereby L_n . Suppose that P_t is set by mark-up pricing on variable costs including labor and imports. Then from both the demand and supply sides an increase in X_t leads to a tighter non-traded labor market which should result in an increase in w_n . Equation (4) becomes the upward-sloping "Non-tradable equilibrium" schedule in Figure 1. Non-tradable labor services become more valuable when economic activity rises. In national

accounting terms this signals a productivity increase in the sector because each worker produces a higher value of output in terms of tradable goods, or a general price index. In other words, an endogenous productivity level is built into the specification.

FIGURE 1

If workers in both sectors don't save, then their behavior does not influence overall macroeconomic balance. Leaving aside a formal treatment of fiscal and monetary instruments for simplicity, the equation takes the form

$$I_t + E_t - s\pi X_t - eP_m^*(1+t)aX_t / P_t = 0 \quad . \quad (5)$$

Demand injections come from investment I_t , exports E_t and changes in the magnitude of the import coefficient a via import substitution. Saving leakages come from profits with π as the tradeable sector profit share and s the saving rate as well as from "foreign saving" in the form of imports. Equation (5) is the vertical "Macroeconomic equilibrium" line in Figure 1. Together, the two schedules determine X_t and w_n . In the lower quadrant, the trade deficit is assumed to be an increasing function of tradeable sector output in the short run.

Now consider the outcomes of a devaluation. It will have impacts all over the economy, including a loss in national purchasing power if imports initially exceed exports, redistribution of purchasing power away from low-saving workers whose real wages decrease, a decline in the real value of the money stock, and capital losses on the part of net debtors in international currency terms. Presumably exports will respond positively to an RER depreciation but that may take time if "J-curve" and similar effects matter. Another positive impact on the demand for tradables will come from import substitution, reducing the magnitude of the coefficient a .

One implication is that for a given level of output, the trade deficit should fall with devaluation, or the corresponding schedule should shift toward the horizontal axis in the lower quadrant. If devaluation is contractionary, the Macro equilibrium schedule will shift leftward in the upper quadrant, reducing X_t , w_n , and the trade deficit further still. In this case, real devaluation

should presumably be implemented together with expansionary fiscal and monetary policies. As discussed in detail below, exchange rate strategies must be coordinated with other policy moves.

If export demand and production of import substitutes are stimulated immediately or over time by a sustained weak RER, the macroeconomic equilibrium curve should drift to the right, driving up economic activity and employment in the medium to long run.

So far, the analysis has taken labor productivity as a constant. Medium and long run considerations have to take into account the evolution of productivity. For the tradeable sector, this question can be analyzed in terms of Figure 2, sketched verbally but not actually drawn by Kaldor in his 1966 Inaugural Lecture (published in Kaldor, 1978). To the traditional diagram we follow Rada and Taylor (2004) by adding dashed “Employment growth contours” with slopes of 45 degrees. Each one shows combinations of the output growth rate ($\hat{X}_t = (dX_t / dt) / X_t = \dot{X}_t / X_t$) and labor productivity growth rate (ξ_{Lt}) that hold the employment growth rate ($\hat{L}_t = \hat{X}_t - \xi_{Lt}$) constant. Employment growth is more rapid along contours further to the SE.

FIGURE 2

Movements across contours show the effects on employment growth of shifts in the diagram's two solid curves. The “Kaldor-Verdoorn” schedule represents a “technical progress” function of the form proposed by Verdoorn (1949) and Okun (1962),

$$\xi_{Lt} = \bar{\xi}_{Lt} + \gamma \hat{X}_t \tag{5}$$

in which the productivity trend term $\bar{\xi}_{Lt}$ could be affected by human capital growth, industrial policy, international openness, population growth, and other factors.

The “Output growth” curve reflects the assumption that more rapid productivity growth can make output expand faster, for example by reducing the unit cost of exports. The diagram presupposes that this effect is rather strong because the slope of the Output growth line is less than 45 degrees, implying that $\partial \hat{X}_t / \partial \xi_{Lt} > 1$.

If a depreciated RER stimulates net export growth, the Output growth curve will shift to the right, causing ξ_{Lt} , \ddot{X}_t , and \hat{L}_t all to increase. One might also imagine that the trend rate $\bar{\xi}_{Lt}$ of productivity growth could rise in the new regime. The Kaldor-Verdoorn schedule would shift upward, and with a relatively flat output growth curve, all three growth rates would rise.

However, if the slope of the Output growth curve were to exceed 45 degrees, effective demand would not increase as rapidly as productivity so that \hat{L}_t would have to fall.

What happens to wages and productivity in the non-tradable sector? Let $\lambda = L_t / L$ be the share of tradable sector employment in the total. Then $\lambda \hat{L}_t + (1 - \lambda) \hat{L}_n = \hat{L}$ where \hat{L} is overall employment growth. Non-tradable employment expansion becomes

$$\hat{L}_n = \frac{1}{1 - \lambda} [\hat{L} - \lambda(\hat{X}_t - \xi_{Lt})] .$$

Let the elasticity of demand for non-tradables with respect to X_t be ν . Differentiating (4) then gives

$$\hat{w}_n = \nu \hat{X}_t + \frac{1}{1 - \lambda} [\lambda(\hat{X}_t - \xi_{Lt}) - \hat{L}]$$

Even taking into account the favorable effects on employment of a weak exchange rate that were mentioned above, a low demand elasticity ν and fast labor force growth \hat{L} could mean that a strong export performance translates into weak or even negative wage and productivity growth in the non-traded sector. A case like this calls for fiscal and social policies intended to foster demand for non-tradables and compensate for the negative effects on income distribution and employment.

2. Macroeconomic Policy Regimes for a Stable Competitive RER

For the reasons just indicated, a competitive and stable RER can make a substantial contribution to economic growth and employment creation. Programming the RER, however, is no easy task. It is most directly impacted by the nominal exchange rate, itself influenced by many factors, but also depends on the overall inflation rate and shifting relative prices. Nor can the RER be the only macro policy objective. In any economy, there are bound to be multiple and partially

conflicting objectives. And all policies – exchange rate, fiscal, monetary, and commercial/industrial – are interconnected and have to be coherently designed and implemented.

The following discussion focuses on these exchange rate coordination issues in the context of middle income economies with at least sporadic access to private international capital markets. Although they are not addressed in detail here, somewhat similar questions can easily arise in low income countries receiving official capital inflows, especially if they jump to levels of 10-20% of GDP as suggested in the discussion of the Millenium Development Goals (MDG).

So how can policy-makers target the RER while at the same time controlling inflation, reducing financial fragility and risk, and aiming toward full employment of available resources? Our focus necessarily has to shift from the “real economy” to encompass monetary and expectational considerations. The principal emphasis is on the degrees of freedom available to the monetary authorities, if only because they have been at center stage in recent policy debates.

What Determines the Nominal Exchange Rate?

To set the stage, a few observations about how the nominal exchange rate fits into the macroeconomic system make sense.

Theories that can reliably predict the level of the rate and its changes over time when it is not strictly pegged do not exist. (The fact that pegs not infrequently break down means they do not have 100% predictive power either.) In present circumstances in developing and transition economies (especially those at middle income levels) it is not unreasonable to assume that a more-or-less floating rate is determined in spot and future asset markets; in effect the spot rate floats against its “expected” future values. The quotation marks mean that we view expectations along Keynesian lines as emerging from diverse opinions on the part of market participants about how the rate may move. “Beauty contests” which magnify small shifts in average market opinion and other sources of seemingly capricious market behavior can easily come into play (Eatwell and Taylor, 2000).

With regard to the *level* of the rate, it is useful to think about a simple bond market equilibrium condition such as

$$i = f(e, \dot{e}^{\text{exp}}, M) \tag{6}$$

with i as the local interest rate, e the spot exchange rate, \dot{e}^{exp} the expected (as an aggregate of by market perceptions) change in the rate over time, and M an index of monetary relaxation. A high or depreciated value of e means that national liabilities are cheap as seen from abroad. It should be associated with high local bond prices or low interest rates. If expected depreciation \dot{e}^{exp} rises, on the other hand, foreign wealth-holders will want to shift away from local liabilities and i will increase. Open market bond purchases will increase M and be associated with a reduction in i .

Over the past couple of decades under conditions of external liberalization, most developing economies have been afflicted by high local interest rates and appreciated currencies. This unfavorable constellation of “macro prices” is consistent with (6).

The *dynamics* of the exchange rate will be influenced by interest rates, because it is an asset price. One crucial question is whether lower domestic rates will tend to make the nominal rate depreciate or appreciate. If it tends to rise (or depreciate) over time, then exchange rate dynamics can be a powerful mechanism for transmitting the effects of expansionary monetary policy into inflation by driving up local production costs.

Standard arbitrage arguments as built into interest rate parity theorems imply that the expected change in the spot rate \dot{e}^{exp} should be an increasing function of the difference between domestic and foreign rates. If myopic perfect foresight applies, the expected change will be equal to the observed change (up to a “small” error term). Hence a lower local interest rate should cause *appreciation* over time. On Wall Street, such an analysis of exchange rate movements is called an “operational” view.

A “speculative” view is that the exchange rate will *depreciate* when the local interest rate decreases.³ This view makes intuitive sense insofar as low interest rates should make national liabilities less attractive. It was perhaps first advanced macroeconomically by Minsky (1983) and can be made consistent with the parity theorems if it is assumed that there is a relatively strong

³ To be more precise, the change over time in the spot rate $\dot{e} = de / dt$ will turn negative when i decreases if the operational view applies and positive when the speculative view is true.

positive feedback of expected exchange rate increases into the domestic interest rate via the bond market equilibrium condition (6).

Recent macroeconomic history (Frenkel, 2004) suggests that the speculative view is the more accurate description of exchange rate behavior in middle income economies.

Avoiding Catastrophes

The most fundamental justification for avoiding a persistently strong exchange rate is that it is an invitation to disaster. Exchange appreciation is always welcome politically because it may be expansionary (at least in the short run), is anti-inflationary and reduces import costs (including foreign junkets for those who can afford them). However, for the reasons discussed above it can have devastating effects on resource allocation and prospects for development. Moreover, fixed or quasi-fixed strong real rates can easily provoke destabilizing capital flow cycles as perhaps first described analytically by Frenkel (1983) and re-enacted many times since

.The existence and severity of these cycles is in practice a powerful argument for a stable exchange rate regime built around some sort of managed float (details below). A floating rate does appear to moderate destabilizing capital movements in the short run, and is therefore a useful tool to deploy. At the same time, the central bank has to prevent the formation of expectations that there will be RER appreciation, which can easily become self-fulfilling along beauty contest lines. An commitment to a stable rate, back up by forceful intervention if necessary, is one way the bank can orient expectations around a competitive RER.

Trilemmas

Possibilities for central bank intervention are often said to be constrained by a “trilemma” among (1) full capital mobility, (2) a controlled exchange rate, and (3) independent monetary policy. Supposedly, only two of these policy lines can be consistently maintained. If the authorities try to pursue all three, they will sooner or later be punished by destabilizing capital flows, as in the run-up to the Great Depression around 1930 and Britain and Italy's difficulties during the ERM crisis more than 60 years later.

The trilemma as just stated is a textbook theorem which is, in fact, invalid. Even with free capital mobility, a central bank can undertake transactions in both foreign and domestic bonds (not to mention other monetary control maneuvers) to regulate the money supply, regardless of whatever forces determine the exchange rate (Taylor, 2004).

Nevertheless, something like a trilemma can exist in the eye of a beholder. There are practical limits to the volume of interventions that a central bank can practice, along with complicated feedbacks. Possibilities for sterilizing capital inflows or outflows are bounded by available asset holdings. Volumes of flows depend on exchange rate expectations which in turn can be influenced by central bank behavior and signaling.

So how does the market decide when a perceived trilemma is ripe to be pricked? The fact that no single form of transaction or arbitrage operation determines the exchange rate means that monetary authorities have some leeway in setting both the scaling factor between their country's price system and the rest of the world's and the rules by which it changes. However, their sailing room is not unlimited. A fixed rate is always in danger of violating what average market opinion regards as a fundamental. Even a floating rate amply supported by forward markets can be an invitation to extreme volatility. Volatility can lead to disaster if asset preferences shift markedly away from the home country's liabilities in response to shifting perceptions about fundamentals or adverse "news." Unregulated international capital markets are at the root of any perceived trilemma. It is a practical problem that must be evaluated in each case, taking into account the context and circumstances of policy implementation.

Monetary and Exchange Rate Policies and Capital Flows

The implication is that if it wishes to target the RER, the central bank has to maintain tolerable control over the macroeconomic impacts of cross-border financial flows in a world with relatively open foreign capital markets. For the sake of clarity, it makes sense to analyze situations of excess supply and excess demand for foreign capital separately.

Large capital inflows can easily imperil macro stability. Indeed, central bank attempts to sterilize them by selling domestic liabilities from its portfolio may even bid up local interest rates

and draw more hot money. Preservation of monetary independence in this case may well require capital market regulation. Measures are available for this task.⁴ They do not work perfectly, but can certainly moderate inflows during a boom. Booms never last forever; the point is that the authorities can use capital market interventions to slow one down to avoid an otherwise inevitable crash.

If there are capital outflows too large to manage with normal exchange rate and monetary policies, the authorities certainly do not want to engage in recession-triggering monetary contraction. If the exchange rate has been maintained at a relatively weak level, the external deficit is not setting off financial alarm bells, and inflation is under control, then there are no “fundamental” reasons for market participants to expect a maxi-devaluation. Under such circumstances, the way for the authorities to maintain a policy regime consistent with a targeted RER is to impose exchange controls and restrictions of capital outflows.

Contrary to IMF-style opinion that all runs against a currency must be triggered by poor fundamentals (even if they momentarily escape the notice of the authorities and IMF officials), it is perfectly clear that they can arise for reasons extraneous to economic policy – think of a political crisis, the fallout from mismanagement of an important bank, or the impacts of financial contagion from a regional neighbor. In all such cases, outflow controls can be used to maintain an existing policy package in place. They may not have to be utilized for very long.⁵

Monetary Policy

In a developmental policy regime, monetary policy must be designed in view of its likely effects on the RER, inflation control, and the level of economic activity. There is nothing very surprising here – in practice central banks always have multiple objectives. In the United States, despite lip service to controlling price inflation, the Federal Reserve certainly responds to the level of economic activity and financial turmoil (witness the 1990s stock market bubble and the LTCM

⁴ For an ample menu, see papers by Deepak Nayyar, Eric Helleiner, and Gabriel Palma in Eatwell and Taylor (2002) and Epstein, Grabel and Jomo (2003). Salih Neftci and Randall Dodd assess the possibilities of using financial engineering to circumvent controls.

⁵ Argentina, for example, successfully managed exchange controls and capital outflow restrictions in mid-2002. The measures were transitory. They were gradually softened as buying pressure in the exchange market diminished.

near-crisis). In many developing countries, central banks intervene more or less systematically in the exchange markets. The proposal here is that these interventions should help support a developmentally oriented RER for the reasons presented above. That is, the nominal rate should move to hold the RER in the vicinity of a stable competitive level for an extended period of time.

Inflation targeting, on the other hand, is the current orthodox buzzword. The nominal exchange rate and other policies should be programmed to ensure a low, stable rate of inflation. A trilemma-like argument is involved. If exchange market interventions target the RER as opposed to the nominal exchange rate and the central bank cannot manage the money supply, there is no nominal anchor on inflationary expectations. The inflation rate cannot be controlled.

As we have seen, in practical terms the trilemma can be circumvented, allowing the monetary authorities to bring developmental objectives into their remit. But they have to take at least five important considerations into account in monetary management.

First, many developing countries now have low to moderate inflation rates, demoting inflation control in the hierarchy of policy objectives.

Second, will low interest rates tend to set off inflationary nominal depreciation (under “speculative” exchange rate dynamics as discussed above)? RER targeting can help the central bank steer away from this problem.

Third, shifts in aggregate demand likely to result from changes in the exchange rate and monetary policy must be taken into account, and appropriate offsetting policies deployed.

Fourth, also as mentioned above, some mix of temporary capital inflow or outflow controls may be needed to allow the central bank to regulate monetary aggregates and interest rates rather than be overwhelmed by attempts at sterilization.

Finally, unstable money demand and other unpredictable factors mean that the monetary authorities have to be alert and flexible. Indeed, “inflation targeting” is a codeword for orthodox recognition that quantitative monetary and even interest rate targets are impractical. It is a means for giving more discretion in trying to attain a single target.

The point being made here is that discretion can and should serve other ends. A stable competitive RER in coordination with sensible industrial and commercial policies can substantially

improve prospects for economic development. Surely that should be the over-riding goal of the monetary and all other economic authorities in any developing or transition economy.

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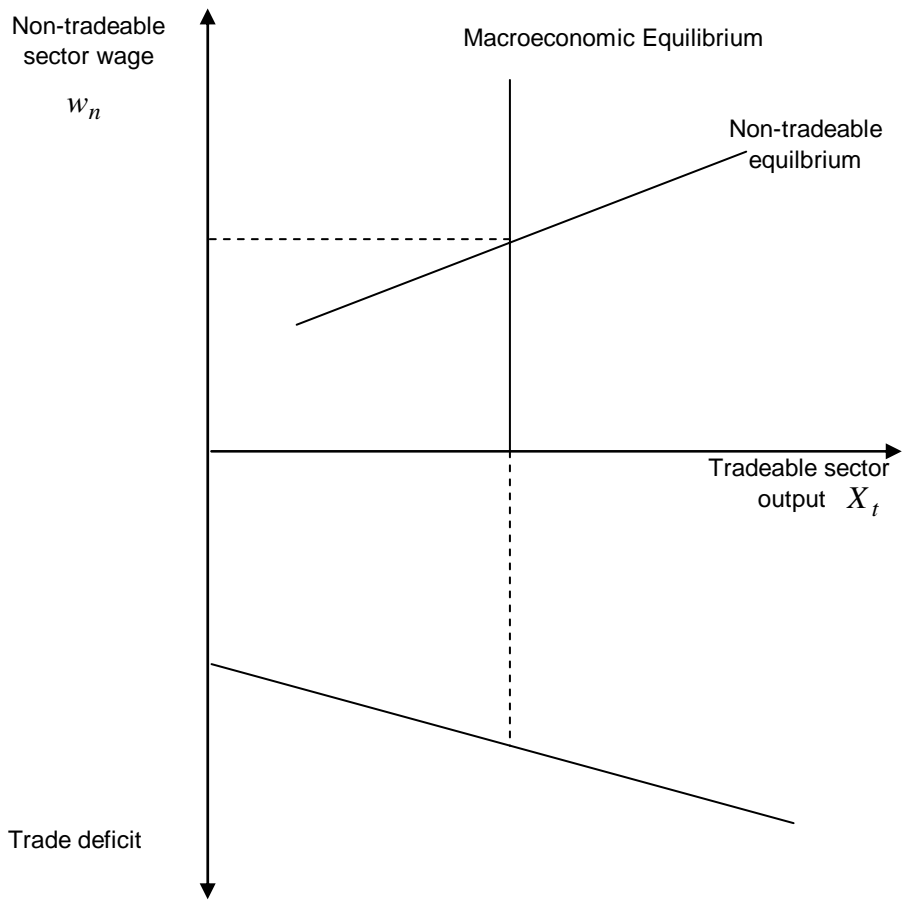


Figure 1: Equilibrium between tradeable and non-tradeable sectors

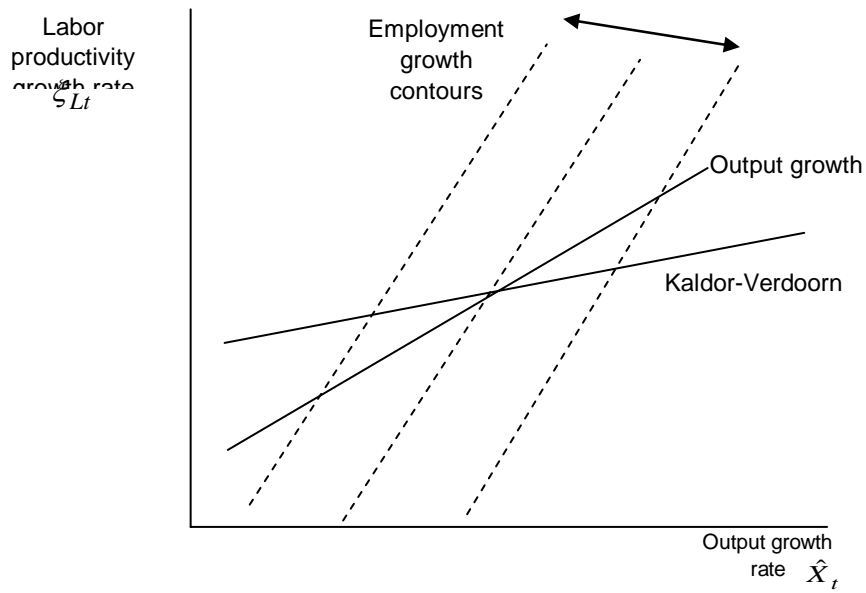


Figure 2: Output, labor productivity, and employment growth in the tradeable sector