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ASYMMETRIC REPUTATION, DEVALUATIONS, AND THE NO-GROWTH DISEASE IN DEVELOPING COUNTRIES: A PROPOS OF THE PESO CRISIS

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One can think of economic development as a field of economics that got its start after the Second World War. This is not because development was not happening earlier. It was, and Kuznets has written convincingly about it. But in the era of laissez faire, back in the 1920's, for example, the mainstream doctrine was simple: free markets and sound money. If one took care of first things development would take care of itself. Within the confines of free markets and sound money there was not much room left for development economics.

In the aftermath of the War the mainstream view had changed in favor of an active development strategy and controlled money. Import substitution industrialization was at the heart of the development strategy. It was backed by fixed exchange rates, foreign exchange restrictions and controls on trade. Under this regime, and to the middle of the 1970s, the world experienced an unprecedented spurt of economic growth that was also broadly spread to most corners of the earth.

Following the oil crisis and on the heels of the debt bonanza of the late 1970s the paradigm started shifting again. And by the 1980s there was a new mainstream view that was actually quite old: liberalization and sound money. It has been dubbed the Washington Consensus, not so much in honor of the U.S. capital

city as to denote the center of gravity of the international financial institutions and the locus of most international meetings that deal with problems of the Third World.

THE TWO APPROACHES TO SOUND MONEY

The essence of sound money consists of putting the domestic currency in direct competition with other (reserve) currencies by liberalization of the foreign exchange market. Lifting the restrictions on foreign exchange is the centerpiece of the Washington Consensus, and of the assorted stabilization and structural adjustment programs that are in place in most overindebted developing countries around the world. On the scaffold of unrestricted access to foreign exchange two basic scenaria have been erected.

The so-called Latino approach uses the exchange rate as a nominal anchor to stabilize the real economy. It consists of fixed (or pegged) exchange rates. It works for a while, and when it falls apart (as it always does) the terminal diagnosis is that it led to appreciation of the domestic currency.

The alternative, and more common approach outside Latin America, lets the exchange rate float freely so that it stabilizes the real economy by getting the tradable and nontradable prices right. When that goes wrong, and it inevitably does, the diagnosis is that it led to depreciation of the domestic currency, as any temporary gains in competitiveness were quickly dissipated by inflation. Ultimately the failed nostrum of devaluation leads to greater macroeconomic uncertainty and less investment.

I will proceed to advance the new and provocative thesis that the two approaches to sound money are functionally indistinguishable and in fact they are both wrong. Instead of setting the prices right, they set them wrong. They create a trade-bias in the economy that leads developing countries to misallocate resources systematically, at great cost to growth and to the detriment of development. In the process they also change the distribution of income in favor of the wealthy.

In what follows the focus on Mexico and the December 1994

devaluation of the peso will provide the real-world motivation for the rest of the paper. The discussion on Mexico applies equally well to the economy of any other developing country that has opened the capital account and afforded to residents unrestricted access to foreign exchange. These characteristics qualify as future "peso fiascos" most overindebted countries of the Third World that are under stabilization and structural adjustment programs.

Next the issue is generalized by focusing on the adverse effects on growth that devaluations and excessive trade bias may have for developing countries. The empirical evidence is from panel data for eighty countries, covering the period 1970-1985.

THE MEXICAN PESO FIASCO: WELFARE FOR THE WEALTHY

There have been two (largely complementary) views of serious observers on what went wrong with the peso. The one is the fundamentals story, and the other the story of the onslaught of foreign speculative capital.

The fundamentals story has certain merit. There has been a persistent current account deficit -- the difference between what Mexico takes in from exports and what it pays out for imports and for servicing the foreign debt. By the end of 1994 it had grown to 7.6 percent of GDP. Liberalization of a repressed economy was bound to contribute to the deficit. Dismantling of long-standing restrictions on imports, reducing tariffs and opening up the economy into a world-market system drove imports up. The consumerist drive is reflected in the decrease in the rate of personal savings from 15 percent of GDP in 1988 to 7.4 percent in 1994. How was the Mexican penchant for consuming more and saving less financed? Enter the second story, the flood of foreign finance.

The net foreign capital streaming into Mexico in 1994 rose to $30 billion. Little of that was in equity capital of corporate investment in plants and equipment. And little was in long-term government debt, which actually had been drastically reduced from its pre-crisis peaks. Some of the foreign capital went to plug the trade deficit. This is what Keynes had called transactions demand

for foreign exchange.

Keynes distinguished also a second motive for dealing in foreign exchange -- speculation. Most of the capital streaming into Mexico represented an excessive inflow of short-term financial and portfolio capital that fit the speculative motive. Thus the second story focuses on the lemming-like march of multinational banks and mutual funds bearing loans to emerging markets. This supply side of the Mexican crisis also has merit.

But the import binge cannot explain the total debacle, and the supply of foreign financial capital was certainly not forced on non-consenting adults and on unwilling Mexican clients. What has been left out of both stories is the demand side. It is Keynes' third motive for holding foreign exchange, the precautionary demand.

The financial integration aspect of the liberalization agenda included the comprehensive deregulation of financial institutions and the abolition of restrictions on capital movements and exchange transactions. Opening up the capital market sounds like a good idea, and in many cases it is. But a premature opening, as in the case of Mexico (and most other "emerging markets"), can signal a catastrophe that waits to happen: asymmetric financial integration. The word in emphasis has nothing to do with the size or the wealth of the U.S. economy. It refers to the status of the dollar as a reserve currency, a hard currency, as opposed to the peso that is soft.

Hard currencies are treated as a store of value internationally. This quality is based on "reputation," which means that there is a credible commitment to stability of relative hard-currency prices (towards other hard currencies, or say, gold). The soft currency, in contrast, is expected to devalue in a free currency-market since it lacks reputation as a safe haven. Under these conditions, and with international financial intermediation present, there is an asymmetric demand from Mexicans to hold dollars as a store of value -- a demand not offset by Americans holding pesos as an asset. This asymmetry tends to increase the price of the dollar in Mexico -- to depreciate the peso. This will encourage currency substitution, a flight from the peso, which will precipitate further depreciation. Expectations of devaluation feed unto themselves to become self-fulfilling prophesies. The fault is not with the peso as such. In

free currency markets, without restrictions on foreign exchange, devaluation of the soft currency is inevitable and it becomes a political economy bubble: a set of reinforcing expectations. This gradual devaluation scenario represents closely the present situation of the peso when the exchange rate is allowed to float freely. Devaluation shall also occur if the exchange rate is fixed, the regime that held in Mexico before the crisis.

The variant of exchange rate policy that held before the 1994 devaluation focused on the stability of the peso as policy objective. The fixed exchange rate had to hold against the tide of peso-asset-holders in Mexico who wanted to hedge their wealth against future depreciations of the currency by buying dollars. This was done by offsetting this precautionary demand through increasing the supply of speculative short-term capital that the banking system borrowed in the international market. The dollars of the Central Bank were thrown into the market to flush out pesos, thus providing for currency substitution without disturbing the equilibrium of the foreign exchange at 3.5 pesos to the dollar. When the dam burst on December 20 the diagnosis was that the exchange rate had appreciated.

The new thesis being proposed is that with free currency markets and unrestricted access to foreign exchange the precautionary and the speculative functions of money become the tail that wags the dog of the transactions demand for money. Over and above the demand for dollars to pay for imports and for servicing the debt, there is also dollar demand as an asset to substitute for peso-asset-holding as an attempt to pre-empt the expected depreciation of the domestic currency. There is a reverse Gresham's law, in which the good currency, the dollar, drives out the bad. The absence of exchange restrictions that leads to currency substitution in effect constitutes a form of insurance that protects against capital losses peso-asset holders, mostly the wealthy and those who can afford to hold liquid assets. It is an indexation for the well-off against future currency depreciation. Free currency markets in developing countries provide welfare relief for the wealthy whether the exchange rate is fixed, flexible or pegged -- only that with the fixed exchange rate the windfall becomes more generous, courtesy of the Central Bank that supports the price of the peso.

Blaming the crisis on the appreciation of the peso in the past, or for that matter on its depreciation now, is no more convincing than the drunk driver's complaint on smashing up his car that the roads are unsafe. Both depreciation and appreciation are the symptoms of the same disease: currency substitution away from the soft peso.

A PARABLE OF SYSTEMATIC MISALLOCATION OF RESOURCES

There are winners and losers when there is unrestricted access to foreign exchange in soft-currency countries. But the more important question is how currency substitution, which relates to financial flows, is transmitted to the real economy and how it translates into prospects for economic growth.

In answering this question it helps to distinguish between tradables (T) and nontradables (N) -- commodities that enter the current account of a country as exports and imports and those that do not. The distinction is in part only an issue of the physical characteristics of a commodity, say wheat versus haircuts. In great part it becomes a question of what a country can afford to pay for in foreign currency. The distinction becomes immaterial for hard currencies, as is the case with most developed countries. But it becomes hugely important for developing countries that have soft currency. One way of understanding this is to compare a DC and an LDC along the continuum of possibilities for transforming nontradable output, or the resources that produced it, into tradables. To enhance the intuition suppose both countries are overindebted, e.g., the United States and Mexico. With the peso being a soft currency and the Mexican debt being denominated in dollars (because the peso is soft currency), Mexico cannot service its foreign debt from the proceeds of producing nontradables. These are traded in pesos. It has instead to shift resources away from the nontradable sector to produce tradable output to procure the dollars for servicing the debt. In the U.S., on the other hand, the debt is serviced in dollars whether the output produced consists of tradables or nontradables.

A parable can help enhance understanding of the process that leads from currency substitution to resource misallocation in developing countries[1] . Consider an equilibrium situation where a bundle of resources produces T and N, measured so that one unit of each is worth $1. Entrepreneurs should be normally indifferent between producing one unit of the former or one of the latter. But in the case of Mexico the soft currency may be devalued and it becomes risky for entrepreneurs to produce (or hold) one unit of N that could not be converted for later spending into $1. Expressed in another way, entrepreneurs are attracted to producing T because that is the only way they can acquire $1 they wish to hold for asset purposes. Production then is biased excessively toward T, despite the fact that the relative productivities of the bundle of resources have remained unchanged. This represents misallocation of resources that produces inefficiency and output losses. It originated in free currency markets setting prices wrong, not right, for the soft peso. This dilemma does not exist with the developed countries that have hard currency. For their entrepreneurs $1 of T will always be worth $1 of N in hard currency, contrary to the soft currency case where the expectation of devaluation becomes a self-fulfilling prophecy.

The intuition behind the parable is simple. Distortions inherent in free currency markets lead to systematic depreciation of soft currencies of developing countries -- to high nominal exchange rates. Devaluation of the exchange rate leads to increased exports. But not all exports are a bargain to produce compared to the alternative of producing nontradables. For instance, some countries without a climatic or resource advantage in producing grapes are known to export wine. Other countries graduate from being exporters of sugar and copra to exporting their teak forests, and on to systematically exporting nurses and doctors, while they remain underdeveloped all the same. If this happens, it may represent competitive-devaluation trade as opposed to comparative-advantage trade. Competitive-devaluation trade is misallocating resources against nontradables at great cost to growth and to the detriment of development.

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[1] I am indebted to Alan Winters for this formulation of the parable.

THE EMPIRICAL EVIDENCE ON EXCHANGE RATE PARITY AND DEVELOPMENT OUTCOMES

I have finished a book under the title "Exchange Rate Parity for Trade and Development: Theory, Tests, and Case Studies," (New York and London: Cambridge University Press, 1995, forthcoming). It re-examines some of the conventional wisdom of the Washington consensus, especially with respect to "setting the prices right" for trade and development. It so turns out that when there is market failure, even more so when markets are "incomplete" (i.e., they "do not span time, space, and uncertainty"), the market-clearing price where supply is equal to demand does not produce Pareto-optimum outcomes. Government intervention and rationing become necessary in these cases. To make things worse, there is no presumption that government intervention will be successful.

This section abstracts one part of my book that relates to the dynamics between real and nominal exchange rates under free currency markets in developing countries. It is intended to provide a test and quantification of the losses in GDP and welfare in developing countries when the price of T becomes "too high" by means, as an example, of devaluation-induced high nominal exchange rates (NER).

The theoretical framework is an adaptation of the Australian model that distinguishes T and N.[2] In a non-Hicksian world where the two are not perfect substitutes, the production of N can become a binding constraint for economic development. This situation arises when the prices of T are "high" relative to those of N, with resources moving "excessively" from the latter to the former. The operational framework of the research utilizes purchasing power parity data. Micro-ICP (International Comparisons Project)[3] data provide price information for a complete set of outputs of an economy, appropriately normalized by the international prices of the same commodities. Data from international trade statistics are used to define T ("tradeds") and N on a country-by-country basis. The ratio of the prices of the two is an index of the real exchange rate (RER). The meaning of "setting the prices right" is precisely

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[2] Salter (1959), Corden (1977), Corden and Neary (1982).

[3] Kravis, Heston and Summers (1982).

setting this RER at its equilibrium value. Although the index computed cannot be used to measure the deviation of the RER from its equilibrium value, it can clearly tell whether one country has higher prices of tradables relative to nontradables than another -- i.e., it has a more undervalued RER, always in relative terms. An example appears in Table 1, that ranks 33 countries by the value of their RER index in 1985. Cursory examination suggests that developing countries are crowded at the top of the table, having relatively high prices of T.

Regression analysis reveals that the value of the RER index is negatively related to the rate of growth of real GDP per capita (Table 2). The result remains valid when the research is extended within the "endogenous growth" framework to include other explanatory variables that have featured in the literature, such as the ratio of investment and of government consumption in GDP, school enrolment ratios, and so on.[4] The other variables are dominated by the RER variable.

How are such empirical results to be explained? This is the primordial question for economists: If it works in practice, does it also work in theory?

Within the RER framework, observations of relatively high prices of tradables (RER undervaluation) can be generated through aggressive devaluation of the NER that increases the price of exports and import-substitutes relative to the price of nontradables, both expressed in units of national currency per international dollar. Such NER policies can lead to overshooting the comparative advantage of a country by extending the range of tradability to commodities that are produced at "high" resource cost relative to nontrables. This bias toward trade can lead to exporting (or import-substituting) commodities that may earn (or save) foreign exchange in the short run, but they can compromise the prospects of self-sustained growth in the future. If this happens, it may represent non-comparative-advantage trade. No country can become rich with competitive devaluation trade. Such trade simply misallocates resources against nontradables, which may explain the negative relationship between the RER and the real rate of growth

[4] For convenient summaries cf. Levine and Renelt (1992), Romer (1994), Solow (1994), Pack (1994).

in GDP.

The intuitive explanation offered above can be fleshed out into two analytical components. First, it implies that there is an inherent distortion in free currency markets that makes LDCs have high RER. Second, this distortion leads LDCs to a systematic misallocation of resources. If so, this line of reasoning leads to another paradox. It implies that it is undervaluation of the NER -- or wanton depreciation of the home currency -- that causally relates to low rates of growth. Conventional wisdom, on the contrary, sees the problem as NER overvaluation -- which is considered both endemic among LDCs and responsible for inferior development outcomes. The two views can be reconciled if the NER and RER, while covariant, do not fully correspond: setting the one at an equilibrium value does not necessarily imply equilibrium for the other. In fact, the parable of resource misallocation that was mentioned earlier makes an even stronger statement. Allowing the NER to find its equilibrium value in a free currency market leads to a high (undervalued) RER that systematically misallocates resources in LDCs in favor of excessive tradable production. Moreover, this situation of "incompleteness" in the foreign exchange market is systematically related to the level of underdevelopment. This argument for market incompleteness in foreign exchange is symmetrical to the economics-of-information approach to credit markets;[5] only that the origins in this case lie with issues of reputation.

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5 Cf. Stiglitz and Weiss (1981), Floro and Yotopoulos (1991).

SUMMARY AND IMPLICATIONS FOR THE WASHINGTON CONSENSUS AND FOR THE PESO

The devaluation of the peso has been dissected by scholars and policy makers in terms of weak fundamentals and by resorting to the rapaciousness of international bankers who pressed their credits on hapless Mexico. While there is some merit in each of the propositions, taken together they are deficient in providing a convincing story. The drama of the peso without the demand side is like Hamlet without the Prince. Short-term financial and portfolio capital flooded the country because there was a huge demand by peso-asset holders to currency-substitute into dollars and thus index their wealth against inflation and future peso devaluations. In free currency markets with unrestricted foreign exchange transactions devaluation becomes a sequential self-fulfilling prophecy. It is bound to transpire, whether or not it is temporarily arrested through draconian fiscal and monetary policies and the inflow of foreign capital.

The tendency of soft currencies of developing countries to devalue under free currency markets is due to asymmetry in reputation. The benefits from currency substitution accrue to the upper strata in the distribution of income because there reside the liquid assets that are being hedged. The costs, on the other hand, permeate the economy through systematic misallocation of resources. The remedy for asymmetric reputation lies down the road as development occurs and the fundamentals of the economy improve. Financial integration, therefore, should be the last act in a slow and deliberate process of sequential liberalization.

The most direct way of dealing with depreciation of the domestic currency that is induced by reputation deficit is to control the nominal exchange rate. Foreign exchange restrictions are inevitable, and these involve some control of trade also. This may sound like turning the clock back. But premature liberalization in LDCs amounts to adopting summer-daylight-saving-time in the middle of financial winter. The "dirty little secret" in international economics is that the costs of intervention are commonly much lower than the people who talk about these issues would have one believe. They can certainly not explain the difference between Brazil and South Korea. Perceptive scholars and policy makers are

cautiously promoting the view that the evidence does not add up to a case that free-trade is unquestionably good for development.[6] At the end it turns out that the redistribution gains, the rectangles, are greater than the efficiency gains, the triangles. In the specific case of incomplete markets, as the one discussed in foreign exchange discussed above, the triangles totally disappear.

Intervention in incomplete markets in developing countries can provide an immediate payoff in terms of growth. The big caveat, of course, is that the success of intervention depends on the agent of intervention. Good Governance, therefore, is a basic ingredient for economic development.[7]

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6 For example see Edwards (1993), Bruno (1994).

7 For further discussion see Yotopoulos (1995), Chapters 3 and 9-11.

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Table 1. A preview of the relationship between growth and real exchange rate

	RER 1	RER 2
Test 1. All countries; 1970, 1975, 1980, 1985		
Coefficient	-0.021	-0.024
T-statstic	-2.708	-2.947
Constant	0.040	0.068
Standard error of Y est.	0.025	0.024
Number of observations	123	123
Adjusted R^2	0.049	0.139
Test 2. All countries; 1980, 1985		
Coefficient	-0.025	-0.021
T-statstic	-2.720	-2.051
Constant	0.040	0.042
Standard error of Y est.	0.024	0.024
Number of observations	86	86
Adjusted R^2	0.070	0.064
Test 3. All countries; 1985		
Coefficient	-0.031	-0.022
T-statstic	-3.290	-1.963
Constant	0.051	0.033
Standard error of Y est.	0.019	0.017
Number of observations	37	37
Adjusted R^2	0.214	0.322
Test 4. All countries; 1980		
Coefficient	-0.021	-0.021
T-statstic	-1.270	-1.165
Constant	0.032	0.045
Standard error of Y est.	0.027	0.028
Number of observations	49	49
Adjusted R^2	0.013	0.000

Continued on next page

	RER 1	RER 2
Test 5. All countries; 1970, 1975		
Coefficient	-0.023	-0.034
T-statstic	-1.995	-2.533
Constant	0.056	0.096
Standard error of Y est.	0.023	0.022
Number of observations	37	37
Adjusted R^2	0.076	0.123
Test 6. Low and middle income countries; 1970, 1975, 1980, 1985		
Coefficient	-0.019	-0.025
T-statstic	-1.851	-2.416
Constant	0.035	0.073
Standard error of Y est.	0.030	0.029
Number of observations	74	74
Adjusted R^2	0.032	0.112

Source: Yotopoulos (1995), Chapter 7, Tables 7.1 to 7.6.

Note:
The dependent variable is annual rate of growth of real per capita GDP for a five-year period, centered on the year of observation.
RER is defined as the ratio of relative prices of tradables to nontradables appropriately normalized by international prices and aggregated using expenditure weights.
RER 1 reports the coefficient of the simple regression.
RER 2 reports the coefficient of the RER after controlling for time (the slow-down of growth in the 1980s), DC-LDC status, and trade regime.

Table 1. Countries ranked by the value of the RER index, 1985.

Country	RER	Country	RER
Ethiopia	1.967	Kenya	1.070
Rwanda	1.962	Morocco	1.069
Pakistan	1.747	Norway	1.013
Malawi	1.713	Netherlands	1.009
Sri Lanka	1.546	Turkey	0.998
Yugoslavia	1.542	Denmark	0.980
Greece	1.417	Australia	0.969
Ivory Coast	1.329	Belgium	0.963
Portugal	1.230	Jamaica	0.949
New Zealand	1.208	Sweden	0.933
Nigeria	1.196	Canada	0.928
Thailand	1.193	Japan	0.923
Hungary	1.192	Ireland	0.918
Egypt	1.186	Finland	0.879
India	1.178	Italy	0.831
Germany	1.155	Poland	0.829
France	1.095		

Source: Yotopoulos (1995), Chapter 6, Table 6.2.
Source: Chapter 7, Table 7.1

ABSTRACT

An inherent distortion exists in free currency markets that makes developing countries systematically misallocate resources. The devaluation of the Mexican peso of December 1994 ia presented as the inevitable outcome of "asymmetric reputation" between a developing country's soft currency, the peso, and a reserve currency, the dollar. In the face of asymmetric reputation a liberalized foreign exchange regime leads to redistribution of wealth (in favor of the holders of liquid peso-assets) and to misallocation of resources (bias towards the production of tradables). The misallocation case is made intuitively (although it has also been made theoretically elsewhere) and it is supported by a synopsis of the empirical evidence from panel data of about 80 countries for the period 1970-1985.