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REVIVED BRETTON WOODS END GAME: DIRECT INVESTMENT, RISING REAL WAGES AND THE ABSORPTION OF EXCESS LABOR IN THE PERIPHERY

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Revived Bretton Woods End Game: Direct Investment, Rising Real Wages and the Absorption of Excess Labor in the Periphery*.

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A consistent quality of Guillermo Calvo's work is his success in making simple models useful in understanding complicated problems. Specifically, in several collected papers (Calvo, 1996) he has addressed the real effects of policy reforms. The motivation for these papers has been the volatility of economic activity and the size and persistence of current account imbalances associated with trade and monetary reform programs in Latin America.

Calvo's 1987 JMCB paper, for example, shows that a temporary policy reform can generate a pattern of current account imbalances associated with an anticipated crisis or regime change. His 1989 IER paper provides a framework for evaluating policies in the absence of international capital mobility. In thinking about the current account imbalances and official financing that now dominate the international monetary system, our view is that similar forces are now at work.

Our objective in this paper is to build on Guillermo's insights in order to understand better the development policies in Asia that we believe are driving current accounts and other important macroeconomic relationships around the world. We focus on the economic relationship between the United States and Asia, characterized in our view by government policies that will shape *real* economic outcomes throughout the world for many years.

In a series of papers we have argued that the current international monetary system can be understood as a reemergence of the Bretton Woods system. In this system, the center is comprised of industrial countries with integrated capital markets and floating exchange rates. An economically important periphery comprises capital account countries (Latin America) that also allow free capital movements and allow their exchange rates to float. The periphery also comprises an increasingly ascendant set of trade account countries (Asia) that fix undervalued exchange rates and are willing to generate official capital flows needed to finance the consequent current account surpluses and net private capital inflows.

Guillermo's work has focused on the Latin American experience and, in particular, on how monetary policies have influenced real outcomes. In this paper, we focus on the Asian experience, but we have our eye fixed mainly on China, the center of the rapidly flowering Asian group. The key regional difference is the lack of integration of Asian credit markets with international markets. Intuition and Calvo (1989) suggest that the real effects of monetary policies are magnified by such limited capital mobility, and we will lean heavily on this enhanced policy potency.

The blunt policy instrument used by the trade account region is an undervalued exchange rate that is maintained by capital controls, domestic financial repression and official intervention. This policy is used during a transition until the periphery country graduates to the center. The challenge is to explain how these policies generate current accounts, growth rates and relative prices that resemble those observed today and then to project

these variables into the future. In particular we are interested in the nature of the crisis or policy regime change associated with the end game.

Monetary policies and real effects

We start with a brief reminder of the important mechanisms in the Calvo model. The government-generated distortion in the model is a temporary monetary reform that reduces the rate of inflation from its steady state level for an interval T. During this interval real "cash in advance" money holdings rise because of the fundamental monetary distortion that money balances pay no interest. So for the interval T, consumption is reduced relative to the first best path and residents of the country acquire net claims on the rest of the world through a trade account surplus.

Since we know that the consumption distortion is constant, we don't know what consumption relative to income will be but we know it will be constant over T and that a stock of net claims on nonresidents is accumulated over T. After T, consumption will rise because real money holdings are reduced once again in the inflation resulting from the collapse of the new policy. To satisfy the intertemporal budget constraint, excess consumption after T must be equal to interest payments received from the rest of the world. The equilibrium change in consumption is that which just balances the optimal response to the change in the return on money balances before and after T.

This model is wonderful for its simplicity and for the lessons it teaches. With characteristic modesty Guillermo states in the introduction that it is "surprisingly difficult" to work out the real sector dynamics associated with a policy-induced crisis. In the following pages we will destroy the elegance of the model and probably some or all of its intuitive appeal. But our objective is the same, that is, to better understand the real effects of a monetary regime that has a known end point.

Export led growth

The temporary policy reform in our thought experiment[1] is a distortion in the real exchange rate, the domestic real interest rate, and the supply of domestic credit to the private sector for an interval over which a pool of unemployed labor is absorbed into the industrial sector of the economy. In the Calvo model the crisis comes when the government exhausts an initial stock of reserves. In our framework,[2] the "crisis" for this policy regime comes when the stock of unemployed workers is exhausted. Whether or not the regime change involves a crisis as conventionally understood remains to be seen.

In the Calvo model, the government wants to make a constant real transfer to households that is beyond its means. In the process it exhausts an initial stock of wealth. In our

[1] In the pecking order of academic constructs, a "thought experiment" is a step-child of a "framework", which is itself an in-law of a "model".
[2] See, we have already given our ramblings a promotion.

framework, the government wants to transfer a number of workers per year to the industrial sector and will do so until the unemployed pool is exhausted.

The Political Economy Tradeoffs

There is an interesting political economy in the background. In trying to understand Asia today, it is not sensible to argue that the government's policy is to maintain an undervalued exchange rate forever. The better approach is to look behind the current exchange rate policy to see what the government is trying to accomplish. Our interpretation is that a sensible desire to absorb unproductive labor is the root of the policy choice.

We assume the government has two objectives. First it wants to move workers from an unproductive pool to produce positive marginal product in the industrial sector. The benefits are both economic and political. The real wages of workers newly absorbed into the industrial sector rise, although at the cost of keeping the overall wage of productive workers low. Moreover, the pool of potentially disruptive excess labor is reduced. This is good because it reduces the chance that they might want to be communists. The larger the size of the remaining unproductive labor pool, the greater the political cost to the government. The government wants to reduce this pool quickly, but for reasons set out below faces increasing costs per unit of time. These costs are both economic and political.

Second, the government wants the capital stock accumulated as the pool of labor is absorbed into the industrial sector to be efficient: at the end of the transition period, the capital stock should be capable, *when combined with domestic labor paid the world real wage*, of producing goods that are competitive with those produced in other countries.

This is a crucial constraint: our guess is that this objective reduces the chances that a sudden change in relative prices at the end of the transition period is likely to be optimal, notably exchange rates and asset prices.

In general, the government would like to exhaust the pool of surplus labor as quickly as possible, but the faster it moves the higher the economic and political costs. We will associate these costs below with the resistance of other countries to the rapid absorption of Asian goods because of the disruptive effects on their own labor forces. The optimal policy trajectory involves an intertemporal trade off between the costs of adjustment and the desired level of employment in the industrial sector of the economy.

The Key Role of Financial Repression

A key to our analysis is the ability of the government to repress real wages and reduce domestic consumption for an extended period of time. In the Calvo model, the consumption distortion is an unintended result of a temporary monetary policy reform.

This generates an expected one-time change in the relative price of holding money and the utility of consumption.

In our framework, we use a similar device although the government understands what it is doing. Our government represses the rate of return not just on money but on all financial assets available to households. It does this through the familiar financial repression techniques used in developing countries. Purchases of international bonds are forbidden. State owned or controlled banks provide all the claims available for domestic savers.

The government sets the interest rate on these bank liabilities and rations bank credit to the private sector:

- the growth in the foreign part of the monetary base is determined by the current account surplus plus targeted net direct investment inflows.
- the growth in domestic credit from the banking system is a residual, that is, the difference between desired money base growth, (determined by the desired rate of inflation), the growth in the demand for money and the growth in the foreign part of the base.

Domestic savings not purchased by the banking system are absorbed by sales of domestic Treasury securities to households and firms. Note that as long as the real interest rate that clears this market is not above the return on US treasury securities the government can absorb domestic savings and intermediate into foreign bonds at a profit.

It follows that domestic savings are allocated between domestic and foreign assets by government decree. Our guess is that the government's optimal strategy is to initially force a very high level of national savings and then relax this austerity program as the pool of excess labor is exhausted.

The government rations credit to the private sector by forcing the banks to buy government securities and then rations the remaining credit to the private sector at fixed lending rates. This of course sets up strong incentives for private lenders and borrowers to go offshore or to alternative domestic intermediaries. We assume that the state security apparatus is an effective counterforce to such financial innovation for the requisite amount of time.

Costs of disposal of excess labor

The pool of unproductive labor is estimated at around 200 million workers in China. Net new employment has been proceeding at a rate of 10-12 million per year recently.[3] Since it is bad to have this large pool around and since political costs are incurred by foreigners in employing (disposing of) it, this "beggar-thy-neighbor" problem in international finance is similar to any disposal problem. The challenge is to set up a sequence of

[3] This has required gross new job creation of above 20 million per year because of the destruction of jobs in the SOEs.

payoffs to the receiving country so that it will accept the political costs of the rapid restructuring of its own labor market.

In this case, the payoffs will take the form of access by foreign capital to Asian labor at a low domestic real wage relative to the world real wage. The trick is to set the real wage (real exchange rate) low enough and to gradually adjust it upward to a choke price so the excess labor pool is exhausted when the price reaches a choke price. In this problem the choke price is the expected real wage in the rest of the world.

In each time period between now and T, the government sets a real wage in dollars. It does this by fixing the nominal dollar exchange rate. It then allows the domestic price level to rise toward a level that equates the domestic and international real wage at T. At T, the equilibrium condition is that the pool of excess labor is exhausted and the domestic wage is equal to the international wage. The lower the initial real wage the faster the pool of unemployed workers is absorbed by the industrial sector. The industrial sector is integrated with the rest of the world so, net of constrained domestic consumption, industrial output is exported. In this sense, we call this export led growth.

The Payoff to Foreign Capital

The right to supply capital to be used with the low wage labor is also allocated by the government on a project-by-project basis. The gap between the domestic and world real wage is captured by capitalists. The government can reduce the political costs to foreign governments associated with rapid export growth by allocating some of this capital to foreign direct investors in countries that allow the rapid growth of imports. In the present context, with the US absorbing much of the exports, this allocation would go to US firms. This provides an economic rent until the convergence of real wages at T, which is not competed away because entry into foreign direct investment is limited by the Chinese government.

The US direct investors are a well-financed and effective lobby to counteract the resistance to the restructuring of the US labor force away from import substitutes. The US government also benefits from the very large sales of Treasury securities. These two costs are implicitly paid by the Chinese workers accepting the low but rising real wage. Indeed, from the US balance sheet perspective, there is no real export of capital from the US to China. All is financed by forced Chinese savings, both the US current account deficit and the FDI outflow. The US balance sheet as a whole simply intermediates between low yielding Chinese deposits and high yielding FDI investments.

As time goes on …we reach the end

To keep the workers happy, the Chinese real wage rises as the government allows inflation in prices and nominal wages to generate an appreciation of the real exchange rate. If everything works out the domestic real wage converges to the world real wage just as the last worker is absorbed into the industrial economy of China.

At that point the government of China will hold a large stock of US treasury securities on which it has earned a low but positive rate of return. It will also have incurred a large stock of liabilities to domestic claimants. But at the end of the game, both of these will carry the same international interest rate. The US will hold a large stock of direct investment which pays the world equity rate after T but which has paid a much higher rate during the adjustment interval.

What drives all the facets of this policy?

The driving force is of course the assumed zero (actually negative) product of the pool of excess labor that we are associating with the outcome of a market-determined real exchange rate and allocation of domestic and international savings. This provides a free lunch that everyone can share through current Asian policies. The relevant counter-story is not literally this but the return on this same labor pool that would have been produced by an alternative policy regime. The Washington consensus is a reasonable expression of such a regime. In our view the WC has not worked all that well and we offer the following gross simplification for its failure.

The WC requires liberalization of the domestic financial system to improve private decisions about capital formation and integration of the domestic financial system with the international financial system to tap net foreign savings. Then a country can grow by importing foreign net capital and encouraging domestic demand growth. But we may have severely underestimated the difficulty in establishing an efficient domestic financial system at early stages of economic development. Indeed, it has become almost a mantra that reforms involving rule of law, bankruptcy, financial supervision, and balance sheet restructuring are the next step for countries that have embraced the WC.

These are precisely those policy interventions that face serious internal opposition. The entrenched distortions have already been capitalized and are held by entrenched interests. Politicians speak of reform but accept contributions from the existing economic structure.

Moreover, the efficient use of domestic savings is far more important than the additional net contribution of foreign savings actually captured by emerging market countries. There is always the hope that foreign savings will be more carefully invested, but so far this is just a hope.

In contrast, an undervalued real exchange rate—although a uniform, heavy, and blunt instrument—can be used to guide capital formation into export industries. There is no

need to confront finely articulated and entrenched domestic distortions and interests; the government now has an offer they cannot refuse. During the transition, the undervalued exchange rate favors capital income in the export sector, and this is a potential source of social friction. But if, as seems likely to us, the optimal path is a rising real wage, the regime should end with a whimper not a bang.

We have done some simulations with plausible rate of accumulation and returns and find that the transition to the new steady state need not imply a large continuing net transfer. So the system ends with a smooth adjustment and every one is happy. The government of China has a more productive capital stock and has managed to employ 200 million people in world wage jobs. The US owns a nice chunk of the Chinese capital stock, and has made a fine excess return during its accumulation

Conclusions

During the adjustment period, many dimensions of development are distorted in the periphery. But one thing that is not distorted is the expectation that at the end of the transition capital invested in traded-goods industries will have to compete on an equal basis with capital invested in other countries. We see no practical alternative to impose this discipline on an emerging market and at the same time accelerate the absorption of a large and politically dangerous pool of labor. The feasibility of maintaining an undervalued exchange rate through monetary policy and controls on domestic and international capital markets for a long time can, of course, be questioned. But this is an empirical question. At the moment we do not see a mechanism in the case of China for significant circumvention of their financial arrangements and regulations.

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