Capital controls: what have we learned?

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My job here is to give a perspective from academia on the role of capital controls. This is a bit intimidating, since one of the most prominent contributors to the academic literature is Governor De Gregorio. Still, I will plunge in like a brave soldier.

My main objective is to draw some conclusions from both the theoretical and empirical literature on capital controls. Before I begin, however, I have to deliver a warning. There are problems with the literature that are unavoidable, and I think in the end the theoretical and empirical literature is inconclusive.

1. The literature has come up with a number of reasons why capital controls are an optimal, or at least a welfare-improving, second-best policy. The problem is that it might be too easy to come up with these rationales for capital controls. After all, the typical model says that a planner can achieve optimal allocations, but we know in practice that an economy left to a central planner does not allocate resources efficiently. Our models have difficulty capturing the power of the market to achieve desirable allocations of resources.

2. The empirical literature tends to find that capital controls have weak effects on capital flows. However, the empirical literature is plagued by a problem that is common to almost all analysis of macroeconomic policies. Policies are implemented in response to economic conditions. Even the best policies don't completely cure economic problems, so the problems will persist even after the implementation of the policy. We then tend to find that economic policies are followed by bad economic outcomes. It is hard to measure the impact of the policies on improving those outcomes.

For example, controls on capital inflows are usually implemented when policymakers find a trend of high and increasing inflows. It is almost impossible to measure what would have happened in the absence of controls. We tend to find no relation between the introduction of controls and the pace of inflows, but I don't think we can conclude that capital controls are ineffective in slowing down inflows.

Theory

I offer now a few observations on the theory that justifies capital controls. I will focus on policies that impose barriers to capital inflows. I should say that policies that limit capital outflows often act like those to limit inflows, since foreign investors will be more reluctant to bring money into a country if they think they will have trouble getting it out.

In their recent survey, Magud et al. (2011) offer four potential objectives of capital controls:

1. Reduce the volume of capital flows.

2. Alter the composition of capital flows toward longer maturities.

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3. Reduce real exchange rate pressures.

4. Allow for a more independent monetary policy.

But why should these be objectives of policy? I would like to take what I would call a modern macroeconomic view: policies should be implemented in response to market distortions. Precisely what market distortions are we concerned with?

I lump them into two categories. First are distortions in capital markets. Second are other macro distortions that lead to currency misalignments.

Capital market distortions

These distortions are what lead to the objective of reducing inflows or altering their composition. Here is a short list of distortions the literature has focused on:

1. Bubbles or waves of optimism. Here the concern is that inflows are not always driven by market fundamentals but instead by some sort of emotions that sweep through financial markets. It's difficult for a neoclassical economist to accept that these exist, but it is also difficult to deny they exist. If flows are driven by this type of market behavior, it is easy to understand why policymakers might want to limit capital inflows. Just one example is the problem of irreversibility of projects. Once entrepreneurs receive funds to start a project, there may be an inefficient waste if funds are withdrawn by lenders on a whim.

2. We can all recite in our sleep the dozen reasons why financial institutions might take on excessive risk, and leave it to governments to bail them out. Smaller countries might have particular problems bailing out the financial system. The case of Iceland should make my point clear. Imposing prudential regulations on the local financial system may be hopeless if the rest of the world is not following the same rules. Capital controls might be a sensible way of dealing with the problem. Controls at least limit the size of the mess that the government will have to clean up.

3. Borrowers and lenders might not take into account aggregate demand or real exchange rate externalities. When there is an unexpected slowdown in the economy, or an unexpected real depreciation, wary lenders might reduce new lending and contract external balances. That might be sensible from an individual standpoint. But as each lender calls in loans, investment projects and/or consumption decline. This leads to a contraction in demand, and potentially a weakening of the currency as well. This in turn has spillover effects on other loans. When the loans are made, these spillover effects are not internalized by either borrower or lender – it is an externality. Although this problem arises even in a closed economy, it is particularly an issue in small open economies that borrow in foreign currency. Policies that limit foreign lending, maybe especially loans denominated in foreign currency, may be an optimal response to this distortion.

Currency misalignments

A second rationale for capital controls arises when there is a reason to control currency fluctuations. In a world of perfect, unfettered capital mobility, policymakers can only influence exchange rates to the extent that they devote monetary policy to their exchange rate target.

Effective capital controls allow policymakers to influence exchange rates through sterilized intervention. To the extent that sterilized intervention is available as a policy instrument, monetary policy can be devoted to other targets such as inflation or the output gap.

Is there a rationale for targeting the exchange rate? Most definitely (see Engel, 2009, 2011). A disastrous myth that many economists share is that somehow freely floating exchange

rates will enhance overall economic efficiency and lead to better allocations. This surely is not necessarily true in a world of slow adjustment of nominal wages and prices.

When exchange rates fluctuate, they influence relative prices and wages across countries because nominal wages and prices don't adjust as fast as exchange rates move. Of course, if foreign exchange markets are gripped by bubbles or waves of optimism, exchange rate movements can be distortionary.

But even if foreign exchange markets are efficient, the fluctuations of exchange rates don't lead to efficient movements in international wages and prices. Take the example of the huge appreciation of the dollar when Lehman Brothers failed. Maybe this was justified in financial markets by risk or liquidity considerations. But it also was a windfall gain for German manufacturers at the expense of American firms. What is the efficiency rationale for that? It only had an effect on relative prices because euro prices and wages in Germany and dollar prices and wages in the US could not adjust as fast as the exchange rate.

The counterargument to this is to give examples where the exchange rate moves in the right direction. Greece would benefit from a real devaluation, and that could be achieved quickly if they could have a nominal depreciation.

But in almost every case where you can point to a nominal exchange rate that moved in the right direction in response to a shock, you cannot make the case that it moved the right amount. Nominal exchange rates are influenced by expectations of the future, including expectations of monetary policy and financial market conditions, and influenced by risk, all in ways that don't lead to optimal changes in international relative prices and wages.

So, controlling exchange rates might be a legitimate activity, given the distortion of sticky wages and prices. Capital controls allow sterilized intervention to have an effect.

Some caveats: Unfettered capital flows might deliver better outcomes than a controlled regime, even taking into consideration the flaws in capital markets. At least three reasons may be cited:

- International flows will, in an ideal world, move capital to its most productive use.
- International investors might impose more market discipline on local economies, driving out inefficient firms in favor of better organized and managed companies.
- International inflows might spur development of local capital markets.

Furthermore, controlled exchange rates might be more misaligned than uncontrolled exchange rates. It is difficult to determine an optimal exchange rate level.

Lurking behind all of these reservations is the concern that capital controls might be implemented to serve some political purpose, or for the gain of the policymakers' friends, family and political supporters. A hands-off policy is obviously much more transparent.

Empirical literature

Here are five "facts" from the empirical literature:

1. Controls on capital flows are not effective in limiting the size of flows. This is highlighted most recently in the paper by Forbes and Warnock (2011) that examines a large cross-country panel of data. The data have gross flows – inflows and outflows – rather than just net flows. And they have the gross flows demarcated by whether the owner of the capital is a foreigner or a local resident. The authors find no evidence that the degree of capital flows has any influence on the size of flows from foreigners during extreme episodes – episodes of capital surges (when

foreigners bring large amounts of money into a country) or episodes of stops (when they take money out.)

This is consistent with a long line of literature, including the paper by De Gregorio et al. (2000), that finds little effect of capital controls on the size of flows.

However, this finding is subject to the caveat I raised initially on measuring the effects of any policy.

2. However, there is evidence that controls can tilt the composition of flows. De Gregorio et al. (2000) find that Chilean controls changed the composition of flows toward longer maturities. This finding is confirmed in the recent study by IMF researchers Ostry et al. (2011) The meta-study of Magud et al. (2011) finds this to be a robust outcome over many empirical studies. Ostry et al. also find that the currency composition of flows can be effectively altered by policies that discourage borrowing in foreign currencies.

3. Ostry et al. (2011) find that countries with capital controls rebounded more quickly from the financial crisis than those that did not have controls. They examined the change in economic growth from 2004–07 to 2008–09, and found that countries with capital controls did better. This finding holds up even when capital controls are instrumented with a binary variable that measures whether a country had a BIT (bilateral investment treaty) with the US – countries with BITs tended to have fewer capital controls.

   Still, we have to wonder whether these findings are capturing the effects of capital controls per se, or other features of economies that adopted capital controls.

4. Chinn and Ito (2006) find that allowing capital inflows does speed the development of local financial markets, especially local equity markets. But there is a threshold effect – this works only in countries that score highly in measures of bureaucratic quality and law and order. Again, the question we need to worry about is whether the openness of capital markets is more a proxy for other conditions with the economy that allow for development of financial markets.

5. There is mixed evidence on the question of whether capital controls actually allow countries to control real exchange rates and have more independent monetary policy, though the meta-study of Magud et al. tends to favor this conclusion. It is appropriate again to emphasize the limitations of the empirical studies on the effectiveness of capital controls:

   - It is very hard to separate the effects of capital controls from the conditions that led the controls to be imposed. It is also hard to separate out, in a cross-country study, the presence of capital controls from other features of the economies of countries that tend to adopt capital controls.
   - At the very best, we have not gotten far on the question of whether capital controls actually benefit the economy, in the short run and especially the long run. Also, we have essentially no evidence on the relative benefits of capital controls versus other policies to deal with the distortions that I mentioned.

Final thoughts

One major concern that all countries face now is the stability of our financial institutions. We are seeing once again in Europe, as we did in the US and other countries in 2008, that governments are the ultimate insurers of our financial system. If governments are to provide

this insurance, the cost must be regulation to ensure financial institutions do not follow policies that lead to excessive risk.

Emerging markets are in an especially bad position. They do not have the resources to bail out the financial system if there is a collapse in their own countries. But they cannot unilaterally impose higher standards than the richest, most financially developed, countries. Unilateral risk management policies may not be effective, as global financial institutions might find ways to disguise the risk to the emerging market's financial system.

But worse, if the regulations are effective, capital might flow away from those countries that impose the regulations, even if they are productive economies deserving of inflows.

The emerging markets have a strong interest in how banking and financial regulations are being pursued in the US, Europe and other major financial markets. It's important to make their voices heard.

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