

**Procyclicality; old and new policy challenges**

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Procyclicality of private flows have – since the 1970's – played a major role in developing country business cycles. Those large swings of private capital markets have made domestic macroeconomic policies in emerging economies very pro-cyclical, with reduced policy space for autonomous macro-policies (Ocampo and Griffith-Jones 2006).

Capital account cycles, their domestic financial multipliers and their impact on asset prices have thus become major determinants of growth volatility, especially in those developing economies integrated to a larger extent in international financial markets (Prasad et al, 2003). Indeed, the costs of financial volatility for economic growth are massive. Eichengreen (2004) estimated that income of developing countries was 25% lower during the last quarter century due to currency and banking crises.

Although pro-cyclicality is inherent in financial markets, liberalisation (both of the capital account and of the domestic financial system) clearly exposed developing countries more to such pro-cyclical swings; the lag and/or inappropriateness<sup>1</sup> of regulation and supervision further increased these risks. As Stiglitz (2002) insightfully put it, exposure to financial market risks replaced Keynesian automatic stabilizers with automatic destabilisers.

In the last two or three years, the problem of pro-cyclicality of flows has apparently become less important, as flows seem, at present, more stable and especially as many emerging economies have both increased their levels of foreign exchange reserves and reduced their debt ratios, making them less vulnerable to reversals of private flows; this is particularly true in Asia. As a consequence, their need for – and dependence on – private flows has fallen.

However, there are new risks. At one level, the uncertainties posed by the risk of an abrupt unravelling of global imbalances, or of sharply rising oil prices, may drastically change the prospect for developing economies. More broadly, increased dependence of developing countries on export-led strategies and on current high commodity prices may have created more vulnerability to trade cycles; the interaction between large trade and capital account changes could pose new sources of vulnerability. This could lead to a return of pro-cyclicality of flows, precisely at a time when developing countries could need such flows most.

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<sup>1</sup> Indeed, there is serious concern that Basle II may increase rather than diminish, pro-cyclicality (Griffith-Jones et al, 2003)

At another level, completely new sources of potential pro-cyclicality have emerged, particularly related to the explosive growth of derivatives worldwide. Fairly recently, derivatives have become increasingly important in developing economies; they are being used both as instruments for companies and others to hedge risk and for international hedge funds and investment banks to speculate, for example, via the “carry trade”. Large parts of these derivatives markets are either not regulated (as they operate in the OTC market and off-shore) or if they are regulated, such regulation that exists takes no consideration of derivatives’ macro-economic impact on variables, such as capital flows and exchange rates, where their impact may often be pro-cyclical. Nor have they fully incorporated the risks that derivatives may pose in situations of stress, when they can add to system risk.

As analysed in more detail empirically in Dodd and Griffith-Jones, 2006, pro-cyclical effects from derivatives can result even from “passive speculation” when large corporations (usually foreign investors) have net foreign exchange exposure; this is because their income is in pesos (e.g. telecoms or engineering companies) but a large part of their debt and other liabilities is in dollars or euros. When pressure on the currency to depreciate emerges, these companies rapidly hedge their net foreign exchange exposure and in a self-fulfilling way contribute to the depreciation of the currency. Derivatives here both undermine the traditional hierarchy of volatility (which assumes that foreign direct investment is more stable than other flows) and seem to have a pro-cyclical impact on the exchange rate. Regulatory measures could be taken to avoid such passive speculation, for example, by ensuring that large corporations with significant net foreign exchange exposure are fully hedged. This could have positive effects both at the firm level and macro-economically. But currently, such regulatory measures seem not to be taken.

More open speculation occurs when international hedge funds (HF) and investment banks (IB) – normally based off-shore – speculate on developing country currencies via the carry trade. A recent example (see Dodd and Griffith-Jones, op cit) is the carry trade between the Chilean peso and the Brazilian real; where the basic idea of the strategy was to capture the substantial differential between Chilean and Brazilian interest rates via use of derivatives assuming that these two currencies are highly correlated, which they were for a period. However, when the peso started to strengthen vis-à-vis the real (for example, because the price of copper shot up), HFs and IBs rapidly

unwound their positions and thus exacerbated further the strengthening of the peso well beyond what was warranted by changes in fundamentals. One could therefore argue that the impact on exchange rates of this behaviour can be pro-cyclical and harmful to the real economy.

A problem with regulating such transactions is that they occur off-shore and using non-deliverable forwards. Developing countries would seem unable on their own to regulate this; they would at least require collaboration with US and European regulators, and ideally some internationally coordinated regulation. Further research and discussions with regulators and policy-makers seems important. It should be key to try to introduce counter-cyclical elements in such policy discussion and research.

Returning to the more traditional sources of pro-cyclicality, which relate to private flows themselves, a key challenge is for developing countries to design and issue instruments that will reduce the impact of the intrinsically pro-cyclical nature of international capital markets on their economies, by distributing better the risk faced by developing countries throughout the cycle (Ocampo and Griffith-Jones op.cit.).

Important progress has been made by the introduction of local currency paper, increasingly bought by both local and foreign investors. This instrument can reduce currency mismatches, which is particularly valuable in crises. An interesting step forward would be for a basket of such bonds to be created and sold on the international capital markets, which would add the benefits of diversification of currency risk and thus make it more attractive to investors (Dodd and Spiegel, 2004).

GDP-linked bonds is an instrument that would have clear counter-cyclical effects on the servicing of foreign dominated debt. These bonds could be particularly beneficial to smooth debt servicing payments by linking part of the annual debt servicing of the bond to the growth of the debtor country's GDP growth, thus being lower in times of below-trend growth and higher in times of above-trend growth (Griffith-Jones and Sharma, 2006). The interest coupon would thus be based on the issuing country's rate of growth. Given the requirement for investors to hold assets that pay a positive interest rate, there would be a floor beyond which the coupon rate cannot fall.

GDP-indexed bonds could be beneficial for all countries, but especially for developing ones. They would provide two major benefits for emerging-economy

borrowers. Firstly, they stabilize government spending and limit the pro-cyclicality of fiscal pressures by requiring smaller interest payments at times of slower growth –thus providing space for higher spending or lower taxes. This runs counter to actual experience of many emerging economies, often forced to undertake fiscal retrenchment during periods of slow growth. They could also curb excessively expansionary policy in times of rapid growth. The issuance of such bonds would make it easier for governments to follow counter-cyclical fiscal policies (as Chile has done in recent years), thus allowing them to run fiscal deficits in times of slow growth and to generate fiscal surpluses in times of rapid growth. GDP linked bonds would provide a perfect complement to that type of policy. Secondly, by allowing debt service ratios to fall in times of slow or negative growth, they reduce the likelihood of very costly defaults and debt crisis.

Simulations show that the gains for emerging-economy borrowers can be substantial. Research by Borensztein and Mauro (2004) shows that, if half of Mexico's total government debt consisted of GDP-indexed bonds, it would have saved about 1.6% of GDP in interest payments during the Tequila crisis of 1995.

Financial innovation is surprisingly difficult. The main obstacle for issuing GDP-linked bonds may be that they do not yet exist. It may therefore be better if GDP-linked bonds were issued first by countries with greater credibility. These could be either developed economies or very creditworthy developing ones. The precedent of introducing collective action clauses into bonds, done first by developed countries and later followed by developing ones, shows that demonstration effects can be very effective for introducing financial innovations.

Investors are likely to receive two main benefits from the introduction of GDP linked bonds. Firstly, they would provide an opportunity for investors to take a position on countries' future growth prospects. Since growth rates across emerging markets tend to be fairly uncorrelated, a portfolio including GDP-indexed bonds for several of these economies would have the benefits of diversification, thus increasing the return/risk ratio. Second, investors would benefit from a lower frequency of defaults and financial crises, which often results in costly litigations/renegotiation and sometimes in outright large losses. The fact that risk of default would fall with such bonds should imply that any

additional premium developing countries would pay on such bonds – compared to conventional ones – should be very low.

Given current levels of high international liquidity, and strong interest in investing in developing countries' paper, this conjuncture is very favorable for developing countries to start issuing such debt on international financial markets. Growing interest and positive experience –e.g., by investors with Argentine warrants that provide an upside of debt servicing if growth is above a fixed level– further creates a propitious climate for GDP linked bonds.

On a broader level, GDP-indexed bonds can be viewed as desirable vehicles for international risk-sharing, as a way of avoiding the disruptions from formal default and as a mechanism to help smooth growth. They generate systemic benefits above those going to individual investors and issuing countries. These externalities provide a justification for public action (by multilateral or regional development banks). Multilateral or regional development banks could have a very active role as “market makers” for GDP-linked bonds, especially initially (United Nations, WESS, 2005a). These institutions could begin by developing a portfolio of loans, the repayments of which could be indexed to the growth rate of the debtor country. Once they have a portfolio of such loans to different developing countries, they could securitize them and sell them on the international capital markets. Such a portfolio of loans could be particularly attractive for private investors as it would offer them the opportunity of taking a position on the growth prospects of a number of emerging economies simultaneously, giving them diversification benefits. As correlations tend to be lower at the global level, the World Bank may be best placed to do such securitization.

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