REMARKS AT THE JOINT IMF – SWISS CENTRAL BANK CONFERENCE

June 2011

I want to thank Philipp, the Swiss National Bank and the IMF for the opportunity to address this Conference. It is a special privilege to do so under the Chairmanship of Governor Subbarao, for whom I have enormous respect and admiration.

I will focus on two specific spillovers, which, I think, are posing increasingly difficult challenges to policymakers: financial integration, first, and, second, the dynamics of global inflation. I would emphasize that my remarks are purely personal to the point of being, sometimes, bordering on irresponsibility.

financial globalization

Looking at spillovers and interdependence, a good starting point is financial globalization. The recent trend, over the last decade, can be described as a process of financial integration which is both getting deeper and still very incomplete and unequal. That duality has significant implications on international transmission channels and policy spillovers.

The growth in gross capital flows - and subsequent international exposures - provides the most significant measure of financial globalization. The numbers are striking. As reported in a recent paper by Claudio Borio gross flows rose from around 5 percent of world GDP in 1998 to over 20 percent in 2007. The bulk of this expansion reflected flows between advanced economies, Cross border exposures have followed a similar path. Outstanding stock of banks foreign claims grew threefold to 34 trillions in 2007.

At the same time, financial integration has remained incomplete, meaning that financial deepening is unequal both across countries and asset classes. Across countries, it is an obvious fact that capital account regimes differ, some totally open, others remaining closed, with a whole range of intermediate situations.

At a deeper level, asymmetries in financial development persist between countries, reflecting both differences in preferences and insitutional capacities . Imperfect financial integration creates a paradox: international capital mobility is higher, in some cases, than domestic. That is, there is greater substitutability between some domestic and international assets than between domestic assets themselves. This means that exchange rates have to absorb a disproportionate share of international financial shocks, which, in turn, aggravates the dilemma confronting monetary policies.

There are also incompleteness in asset classes. I believe there is a lot of truth in the so called "asset shortage" theory, which posits that safe and liquid assets - or , more generally, stores of value - are globally undersupplied and asymmetrically distributed around the world. It provides an explanation for the recurrence of asset bubbles and the global maturity transformation role played by some advanced economies, in particular the

US. There is no reason to think that this shortage of safe and liquid assets will disappear or even diminish. One consequence of the crisis has been to cast doubts on the ability of some assets, up to now considered as riskless, to serve as reliable stores of value. In addition, to the extent that public debt is perceived as the ultimate safe and liquid asset, questions about sustainability in many countries may further aggravate real or perceived asset shortages.

Looking at consequences, greater financial integration naturally brings increased sensitivity of capital flows to differences in interest rates and perceived risk premia. In some circumstances, therefore, push factors can play a dominant role as capital flows drivers. Current financial conditions may exacerbate those effects. Interest rates in all three major currencies areas are very close to zero and, in some of them, expected to stay there for the foreseeable future. This means that expectations and risk premia are the sole drivers behind capital flows and exchange rate movements. Basically, we live in a world of multiple equilibria. Carry trades provide a good example. As long as exchange rates expectations are stable, carry trades will develop based on very small (expected) interest rates differential. Small shifts in risk perception or exchange rate expectations, however, could lead to major portfolio rebalancing and capital flows reversals,.

Another consequence relates to international liquidity. To get a sense of the transformation which have occurred, it is useful to contrast two stylized versions of the past and the present, what could be called the old and the new world.

The old world predates the era of strong capital mobility. What mattered then was *net* capital flows. International liquidity mainly referred to instruments available to settle payments between monetary authorities. It was publicly created by reserve currencies. There was a so called "Triffin dilemma" borne out of the an intrinsic contradiction between the demand for global liquidity and the implications on the financial soundness of the issuing country. And there were also asymmetries between reserve currencies and others. Reserve accumulation took place solely as an aside to exchange rates management. Many analysts still refer to this framework when they talk about global liquidity.

Moving to the new world, with increasing degree of financial opening and integration, what matter are gross flows. International liquidity is to a large extent, privately created, through cross border leverage and maturity transformation. Interbank markets play a crucial role in this process. The more capital markets become integrated at the short end, the more international liquidity is provided by the private sector. In this world, to the extent there is a Triffin dilemma, it can be related to the asset shortage and the issuance of public debt. In this world, too, the relevant asymmetry may not be between reserve and non reserve currencies but, rather, between less financially developed and more financially developped national economies.

This is the world we now live in.

Because privately created, international liquidity is subject, like domestic liquidity, to aggregate supply and demand shocks. Such shocks occur when financial institutions leverage – or deleverage – their positions towards non residents. Liquidity, therefore is largely endogenous and depends on the behavior and risk appetite willingness of private financial institutions

liquidity shocks can have huge spillover effects. Those have been apparent, for instance, during the period which followed Lehman's failure. Output and trade fell across the world with astonishing simultaneity. It seemed natural to assume, at the time, that “traditional” forms of contagion- through goods or capital markets - were at work. Policy makers were looking to trade finance as a major channel. However, contagion takes time and cannot fully account for the exceptional synchronization in the drop of output. With hindsight, the phenomenon may best be seen as a global liquidity shock. Net supply of liquidity dried up at the same time everywhere in the world. International banks faced a sudden and ample shortage of dollars. Firms started to hoard liquidity. Investment and, for a part, production, came abruptly to a halt.

Let mention two specific policy implications

First, there is a good case for having, at the global level, a more coordinated approach to financial stability. To quote the very appropriate formula by Obstfeld, we should look at the world as a single financial system. Capital markets are global, and so should be the macroprudential measures taken to achieve greater stability. This, in my view, is the main rationale behind the work on so called " capital flows management measures". They should best be seen in a framework of global financial stability. It is commonly accepted that such measures do not impact the volume of flows, only their composition. But in a financial stability perspective, composition matters. Those measures should not be seen, or devised, therefore, as macroeconomic tools, substituting to others in the adjustment process. Rather, they can be part of a continuum of instruments deployed to implement macroprudential policies. To achieve that objective, It is essential that they are developed in a consistent fashion both at the domestic and international level.

A second policy implication relates to foreign exchange reserves accumulation.

The facts are well known. At the end of 2009, reserves had risen to 14% of global GDP and 8% of gross international exposures, doubling from their level in 2000 ; over half the worldwide reserve holdings are held by only five countries. Emerging market holdings amount to 32% of their GDP. If anything, the crisis seems to have led to an acceleration in the rhythm of reserve accumulation.

This evolution has motivated a new wave of studies aimed as assessing reserve adequacy, mostly based on some form of cost benefit analysis. The standard argument is that reserves are costly, that they lead to resources misallocation and often are accumulated through exchange rate manipulation. There are a lot of truth in those assertions. But there are also limits to any quantification , let alone, normalization in the level of reserves.

In a sense, countries face the same dilemma as financial institutions when deciding on their appropriate liquidity position. There is a trade off between the costs and benefits. For private financial institutions, there may be a tendency to underestimate liquidity needs in

normal times, with the expectation that the lender of last resort will bail them out if and when a shortage occurs. For countries, the bias goes in the other direction. With no international lender of last resort, precaution motives will lead to what looks as over accumulation of liquidity, but is, in fact, a rational response to a fundamental uncertainty

Yet, the size of reserves has significant spillover effects and systemic implications for the world economy.

In terms of allocation: A huge share of gross international exposures is in the hands of official entities. Reserve holders already are dominant players in key asset markets. This takes us far away from the canonical model of free, atomistic and competitive global capital market.

In terms of stability. Movements of even small fractions of reserves could trigger enormous shifts in asset prices and exchange rates which would negatively affect reserves holders themselves. To quote Obstfeld, again : " to think that the international financial system will necessarily be more stable simply because all countries have more foreign exchange reserves is to subscribe to a fallacy of composition". The same author notes rightly that reserves are not "outside liquidity" in the sense that they can't protect their holders against a systemic symmetric shock which would affect all of them at the same time. That could explain the strong desire of countries with important levels of reserve and floating exchange rates nevertheless to gain access, when the crisis stroke, either to IMF facilities and/ or central banks swaps.

Global inflation dynamics

One thing is sure. the great moderation is over and, as a consequence, globalization does not help, but rather complicates the task of Central Banks in the pursuit of price stability.

Beyond that obvious fact, it is proving very difficult to identify, let alone quantify and measure the multiple spillovers between our domestic policies while significant structural changes are occurring in the world economy and financial markets.

Part of the interactions come from the nexus of capital flows and exchange rates. Part stems from the impact of commodity prices.At a deeper level, in each country, domestic inflation seems increasingly dependant on the combined effect of all monetary policies around the world – the so called global monetary stance.
i
There are new feedback loops between monetary policies, global demand, commodity prices and inflation. that we may not yet fully understand or on which we don't yet fully agree. An increasing number of prices are both goods and asset prices: exchange rates, housing and now commodities and there might be a question as to how they perform this dual role.

One important issue relates to the impact of monetary policies on commodity prices. We can think of two channels, one direct, one more indirect. The first is uncontroversial. To the extent that they influence global demand, monetary policies also impact the demand for commodities, hence their price. In the short run, where commodity supply may be highly inelastic, this creates a powerful transmission mechanism and worsen the output - inflation trade off in proportions we may not have fully measured or internalized.

the indirect channel is more debated and subject to uncertainty because it is dependant on the " financial " nature of commodity prices. While it is clear that commodities are becoming an asset class in itself, there is no agreement as to whether this has any significant impact on their price dynamic. Questions include the formation of future prices, their relationship with spot prices, the degree of correlation between commodity prices and with other asset classes. Then, of course, the channels trough which monetary policies directly influence those asset prices are themselves very complex. They involved so called risk taking and "search for yield " and still subject to a lot of uncertainty and analysis.

At this stage, we have to rely on judgment. My own feeling is that increased interconnectedness , both through financial and commodities markets, has created interactions and dynamics which, under current circumstances, introduce a significant upward bias in the inflation level . There are externalities which we don't fully grasp. Or, put differently, Inflation has become a global public "bad", (the contrary of a public good) to which everybody contributes without fully paying the price. So, not surprisingly, it is becoming oversupplied

There are some theoretical response to that problem, not many of which, however, are fully feasible or even advisable :

The first can be summarized as the "put your house in order" paradigm: a combination of adequate domestic policies and floating exchange rates. It is strongly advocated in many advanced countries but much less popular in emerging economies. Fear of floating arises from nominal domestic price rigidities and the feeling that global capital markets are far from efficient . This feeling has been somehow vindicated by the crisis. UIP does not hold and we see carry trades take place on a wide scale. On the other hand, it is also clear that strategies aimed at durably preventing real exchange rate adjustments when warranted by fundamentals are both self defeating and creating a lot of negative externalities.

a second approach would be to have a Global Anchor for monetary policies, for instance by tying their exchange rates to a predetermined unit of value. There is definitely some nostalgia and yearning for that solution in academic and some policy circles. But, as we all know, this leaves open two crucial questions : what would be the appropriate global monetary stance; and how to deal with adjustments in relative prices, a process that, if impeded, could be very penalizing in a period of deep structural changes and divergences in economic cycles.

The solution, obviously, cannot lie in a change in monetary regimes. Monetary policy should only be conducted with domestic objectives in mind. Indeed, when Central Banks are independent, they are legally obliged to do so. This is true for all countries, whether

small or large, including those with reserve currencies. The world has enormously benefited from two decades of price stability resulting from monetary regimes based on Central bank independence and a focus on internal price stability. Other monetary frameworks where external objectives are allowed to influence monetary decisions have generally produced very bad results and increased instability.

Ultimately, therefore, only a better and more precise knowledge of all the interactions at work will allow us to factor in precisely the evolving transmissions channels into the framework of policy making. There has to be some evolutions of minds: taking imported inflation as an input to monetary policy is natural. It is less natural to think that domestic decisions may have an impact on that same imported inflation. (grateful to JPF for this insight) This is why it is so important that the agenda for research be pursued and developed and that the policy dialogue be pursued.

.