"Global Financial Surveillance and the Quest for Financial Stability"

Morris Goldstein
Dennis Weatherstone Senior Fellow
Peterson Institute for International Economics, Washington DC

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I. Introduction

Good afternoon. Let me begin by thanking the Banco de Espana and the World Bank for inviting me to participate in this conference.

I will divide the rest of my remarks into four parts. First, since title of this conference carries the qualifier – "back to basics" – I want to highlight two basic challenges of regulation and supervision where I still think we have a lot of work to do – namely, controlling currency mismatch and discouraging excessive leverage. Second, in addressing the links between monetary policy and financial stability, I want to suggest that this crisis should drive home the message that is high time for central banks and regulatory authorities to abandon the view that neither one of them should be responsible for indentifying and pricking asset-price bubbles. Third, when analyzing cross- border spillovers, I want to make a plug for a of disaggregated indicators to act as a complement to the more traditional aggregate indicators and multipliers. And forth and finally, I want to suggest that while there are many analytical challenges surrounding the design of early warning systems, the bigger problem – particularly for the international financial

institutions – is how to design a workable procedure for blowing the whistle in public when they identify significant sources of systemic risk.

II. Back to basics: currency mismatch and excessive leverage

If you look at the big emerging-market crises of the fifteen years or so, you see a striking regularity: practically all of them were made very costly by the pre-crisis presence of large currency mismatches. By currency mismatch, I mean a situation where assets and liabilities are denominated in different currencies such that an entity's net worth and/or net income is sensitive to changes in the exchange rate.[1] On that definition, we had large currency mismatches in the Mexican peso crisis of 1994-95, in the Asian financial crisis of 1997-98, in the Russian financial crisis of 1998, in the Argentinian crisis of 2001-2002, in the Brazilian crisis of 2001-2002, in the Turkish crises of 2000-2002, -- and most recently, in the ongoing financial crisis in Eastern Europe.

When liabilities denominated in foreign currency are small, the depreciation of the local currency that often occurs in a crisis is less of a problem because it induces an improvement in competitiveness and acts as a spur to net exports. But when foreign-currency liabilities are sizeable, negative balance sheet effects quickly transform currency depreciation into a contractionary force; indeed, currency mismatches are the leading explanation for why emerging-market currency crises have been associated with such sizeable negative output effects. Currency mismatching almost always makes crisis management more difficult: it constrains the willingness of the monetary authority to reduce interest rates in a recession, and unless the monetary authorities have ample reserves and are willing to use them in a crisis, it can induce a credit crunch since the local lender of last resort may not have sufficient resources to lend to mismatched banks

[1] See Goldstein and Turner (2004).

and corporates. In this connection, witness the need for some emerging economies to turn to the US Federal Reserve in this crisis for dollar liquidity.

After earlier emerging-market financial crises, much ado was made about the IMF providing enhanced surveillance of balance-sheet mismatches. Yet we saw the same kind of vulnerabilities grow unchecked in a group of Eastern European economies in the run-up to this crisis: double-digit current-account deficits, extremely rapid credit growth, large-scale foreign borrowing by entities with little foreign-currency revenue, and low perceived currency risk – in some cases based on the (erroneous) assumption that the currency regime ensured fixity of exchange rates forever. Using the Goldstein-Turner measure of aggregate effective currency mismatch, we see a marked increase in currency mismatch in Estonia, Hungary, Latvia, Lithuania, and Romania in the 2006-2008 period; the mismatch in Latvia is extremely large – on the par with some of worst excesses in earlier severe emerging-market crises.

Clearly, regulation and supervision are not doing enough to discourage currency mismatching. We are not reflecting enough in our capital charges the message from uncovered interest rate parity that when an entity borrows in a low interest foreign currency, he or she is facing a higher risk that repayment will be made in a currency that has appreciated relative to when the borrowing was undertaken. We are not paying enough attention in our supervisory practices to the fact that foreign currency loans to borrowers without a ready source of foreign exchange earnings are more risky than those to borrowers with foreign currency earnings; a foreign-currency mortgage for a homeowner carries greater currency risk than a foreign-currency loan to an exporter.

And we are not putting enough of a public spotlight on rapidly growing currency mismatches before they unravel.

A second "basic" worth underlining – this time more from the experience of the advanced countries than emerging-market ones – is the danger of excessive leverage in the banking sector. In this connection, the latest issue of the Fund's Global Financial Stability Report notes that at end-2008 the ratio of tangible common equity to total assets was 3.7 percent for US banks, 2.5 percent for banks in the Euro Area, and 2.1 percent for banks in the United Kingdom -- and this is after banks in these regions have raised over $750 billion in capital during this crisis. In contrast, in the mid-1990s, this ratio of tangible common equity to total assets was more like 6 percent -- implying leverage closer to 17 than 30 or 40. By the Fund's calculation, restoring the capital ratios of the mid-1990s would imply the need for an additional $500 billion of capital for US banks, $725 billion for Euro Area banks, and $225 billion for UK banks. In a similar vein, if we did a comparison – this time over several decades -- of the share of non-borrowed liquid assets in banks' total assets, we would find that banks in the advanced countries now hold much lower shares of liquid assets than they did before.[2]

Yes, I am for making the bank capital regime less pro-cyclical. Yes, I am for imposing higher capital charges on systemically-important financial institutions – whatever they call themselves. Yes, I am for basing changes in bank capital requirements on what is happening in the macro-economy – not just what goes in an individual bank. And yes, I am for reworking Basle II to account for the demonstrated inadequacies of risk weights based on banks' internal models and on ratings from the major rating agencies.[3]

[2] See de la Torre and Ize (2009) for a fuller discussion of liquidity management.
[3] See Goldstein (2008, 2009).

But in the end I see the huge credit losses and liquidity strains experienced by banks in this crisis – as well as the massive bank recapitalization and liquidity operations undertaken by governments and central banks -- as pointing clearly to the need for much more demanding capital and liquidity requirements. That is the way to reduce excessive leverage. True, this will mean that bank assets will grow more slowly than in the run-up to this crisis and that bank profits will be a much lower share of economy-wide profits than before the crisis. But it will also mean that when banks do make lending and investment mistakes and when they face large liquidity shocks, they will have a better cushion for absorbing those losses and shocks -- without the need for such large-scale infusion of government funds. It is time to discard the presumption that banks can use high leverage to seek supra-normal rates of return and can still be good stewards for their depositors and investors.

III. Pricking Asset-Price Bubbles

In any good list of the origins of this financial crisis, a bubble in real estate prices – and the flawed official reaction to it – will surely appear. After all, sharply falling real estate prices are an integral element in the markedly lower valuations on various kinds of mortgage-backed securities – an important element in bank and non-bank credit losses; in addition, much lower real estate prices also are an important element in the record number of home foreclosures in the United States. According to the Case-Shiller composite (20-city) index of US home prices, they hit their peak in mid-2006 and have since fallen by just over 30 percent. The inventory of unsold homes in the US market

stands even today at over 11 months of new supply versus six months during normal periods.

As is well known, central banks have long been opposed to identifying and to pricking asset price bubbles. They argue that they have only the level of short-term interest rates as a policy instrument and it has to be directed at maintaining price stability, that they can't identify reliably asset price bubbles, that interest rates are too blunt an instrument to affect asset prices without doing large collateral damage to the economy, and that when asset-price bubbles do bust, easier monetary policy can usually revive the economy at relatively low cost. On top of this, at least in the US case, there was a parallel argument – put forward most vigorously by former Fed Chairman Greenspan – that bank regulators and supervisors should also not act aggressively to prick asset-price bubbles since bank loan officers were better than supervisors at evaluating their loans and since loan officers – like bank supervisors – had no comparative advantage in identifying asset-price bubbles. The end result of both central banks and regulators denying any responsibility for identifying and pricking asset price bubbles, is that when such bubbles arise and grow, they must burst on their own accord – with official action restricted to minimizing the clean-up costs.

What this financial crisis has shown is that these clean-up costs can be extremely large –even when the monetary authorities implement a very aggressive program of reducing interest rates (500 basis points in the US case). There must be a better way forward. While I don't have any magic bullets to propose, I believe there will need to be some combination of more "leaning against the wind" by central banks against at least those emerging bubbles that are linked with credit booms and more aggressive action by

supervisors when concentration risks associated with lending to the real estate sector are large and increasing.[4] In some cases, central banks may take the lead; in others, it may be supervisors that have the better policy instruments. But we should not regard as acceptable a situation where asset-price bubbles are arguably growing and both of them declare simultaneously that identifying and pricking them is not my job.

IV. Cross- Border Spillovers

An important – indeed, many would say defining – characteristic of this crisis has been its global dimension. When the crisis first broke out, their were initial expectations that its main impact could be contained within the United States and that other economies would be able to "decouple" from the crisis' effects on economic activity and on public-sector finances. Those initial expectations have proven to be unwarranted. Four examples suffice to buttress my point: (i) the contraction in economic growth in 2009 is expected to be larger in both Japan (-6.2 percent) and the Euro Area (-4.2 percent) than in the United States; (ii) projected writedowns of bank assets in 2009-2010 are expected to be greater for Euro Area banks than for US banks; and (iii) the percentage point changes in total government debt as a share of GDP from 2008-10 are expected to be larger in Ireland (41 percentage points) and Japan (30 percentage points) than in the United States (27 percentage points),while those in the United Kingdom, Spain, and Germany (21, 20, and 19 percentage points, respectively) are not much smaller than in the US; and (iv) total net private capital flows to emerging economies in 2009 are projected to be roughly a fifth of their level in 2007, while merchandise exports of Asian emerging economies fell

[4] See Goldstein (2008).

by 70 percent (on an annualized basis) during the September 2008-February 2009 period.[5]

There are of course many channels by which a crisis that originates largely in one or just a few economies can be transmitted much more widely, including via foreign trade flows, capital flows, foreign asset holdings and asset price changes, banking and securities links, and exchange market pressures. Some of these links and spillover effects have received considerable attention during the crisis – including the effects of the US recession on exports to the United States, and the impact of the banking troubles in Eastern Europe on some Western European banks with extensive lending operations in those economies.

But there are a host of other non-trivial international spillover effects that require a system of quite disaggregated indicators to capture. As it turns out, I have recently been studying some of the spillover effects of the US crisis on nine Asian economies.[6] In that context, let me offer a few examples that illustrate why I think a better system of disaggregated indicators would be helpful.

It is common to link severe economic downturns in large advanced economies with a decline in primary commodity prices, with implied adverse effects on many primary-producing economies. But in Asia, some of the most adverse trade and growth effects of this crisis have fallen on exporters of high value added manufactures (e.g., motor vehicles and electronics), such as Singapore and Korea; not only do these goods have high income elasticities of demand but they are also affected severely by disruptions in financing.[7] The spillover effects on these economies will not be well captured simply by their exports

[5] See IMF (2009a, 2009b).
[6] See Goldstein and Xie (2009).
[7] See IMF (2009c).

to the US as a share of GDP; one needs a more disaggregated indicator. Similarly, some other economies in Asia – like the Philippines and Vietnam-- depend heavily on migrant remittances, which have also been hurt by crises and recessions abroad. Here, traditional aggregate indicators of merchandise trade will not capture these effects. On the asset holding side, exposure to US subprime securities is quite different than exposure to US equities, and it could be the latter – not the former – that is more relevant in helping to explain the cross-country pattern of spillover effects. If one wants to know which economies would be most vulnerable to declines in the debt of Fannie and Freddie, then one needs disaggregated data on foreign holdings of US agency securities – not simply total holdings of US assets. While traditional measures of real exchange rate over-valuation may be helpful in identifying which economies may experience a currency crash as a result of a generalized increase in risk aversion generated by a crisis abroad, it will not be possible to gauge the contractionary effects of such a currency crash without also having a measure of the economy's currency mismatch, that is, it is the product of the two – currency overvaluation and currency mismatch – rather than either alone, that will be most useful in capturing the growth effects of the crisis. In a similar vein, "common lender" effects imply that even economies that do not have direct lending exposure to troubled Eastern European banks could be adversely affected by the second-round pullback effects of the European banks that do have such heavy direct exposure; yet these second-round lending effects will not be revealed by aggregate figures on bank lending to Eastern Europe as a share of GDP.[8] In sum, if we are to get a better picture of the international spillover effects of crises in the large advanced economies, we will need

[8] Goldstein, Kaminsky, and Reinhart (2000) discuss how to measure "common lender" effects and why such effects can be an important source of cross-country contagion of financial crises.

a system of disaggregated indicators to go along with the usual more aggregate indicators and multipliers.

V. Early Warnings and the IFIs

It seems that whenever there is a major financial crisis, there are cries for a strengthened early warning system and almost always requests for the IFIs – and particularly the IMF – to do more. This crisis is no different. Perhaps the only nuance is that this time the Financial Stability Forum – now upgraded to a Financial Stability Board following the last G-20 Summit – is also being asked to co-lead the early warning efforts.

On the early-warning front, some progress has and is being made; at the same time, at least one major challenge looms ahead.

On the positive side of the ledger, I think we now have pretty good evidence that early-warning models of currency, banking, and debt crises for emerging economies can deliver value-added; that is, the conditional probability of crises – conditional on signals from these models – is significantly higher than the unconditional probability of crises.[9] In addition and more recently, researchers are getting a much better handle on how to identify "systemic risk" at the level of individual financial institutions in the advanced economies. In this connection, the IMF's most recent Global Financial Stability Report (IMF 2009b) finds, among other things: that indicators of leverage and stock market performance have been helpful in identifying large financial institutions that later required intervention; that a contingent claims approach based on the volatility of equity prices, an approach using equity options prices, and approaches employing conditional correlations are useful in inferring interdependence among financial institutions; and that

[9] See, for example, Borensztein, Patillo, and Berg (2004) and Goldstein, Kaminsky, and Reinhart (2000).

several new techniques are promising in projecting common distress within a group of financial institutions.

But what remains very challenging is to figure out how best to motivate authorities to take corrective action once early warnings of systemic risk have been delivered in private without any apparent effect. For this reason, I am favor of a proposal made in Brunnermeir et al (2009), namely, that the Managing Director of the Fund and the head of the Financial Stability Board should be given the authority to offer a joint public warning about systemic risk when they feel that circumstances are serious enough to warrant it.

Let me stop there.

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