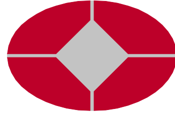

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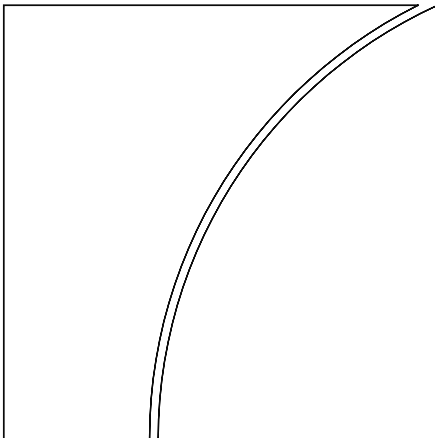

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Long-term finance: can emerging capital markets help?

Proceedings of the Bank of Russia – Bank for International Settlements high level seminar in Moscow, 18–20 July 2013

Monetary and Economic Department

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Foreword

Jaime Caruana

The seminar aimed to expand and complement the G20 discussions on topics related to capital flows, which are particularly important for central banks. Chairman Ignatiev and Governor Nabiullina from the Bank of Russia took great personal interest in the seminar and shaped the topics to address key emerging market issues.

We addressed three broad topics: The first was how best to respond to volatile capital flows. The second topic is what can be done to finance long-term projects; and the third one how to develop domestic capital markets in emerging economies. In order to motivate the discussion, we asked academic experts to prepare short papers on each topic, and we publish them in this volume. The central bank Governors and Deputy Governors had lively discussions on each subject.

The first session highlighted that the capital flows we see differ in many respects from the idealised textbook case. The main risk is, however, the sudden reversal of capital flows. This risk can be mitigated in three ways. One, solid macroeconomic policies, most importantly sustainable fiscal positions and low inflation, are the basis for ensuring proper capital allocation. Exchange rate flexibility is also part of such a macroeconomic policy mix. Two, to strengthen the resilience of the financial system active macroprudential policies might also be necessary. Three, to enhance fundamentals structural reforms that increase productivity and reduce distortions may be needed. These three main elements may not be enough on some occasions; therefore it is worthwhile to discuss in what extraordinary circumstances and for how long direct capital flow management may be necessary.

The second discussion examined the links between the current regulatory reforms and sustainable long-term finance. Of course, short-run difficulties may arise. For instance, there seems to be pressure in the banking industry to achieve Basel III capital ratios faster than the official timetable – and there has been some concern that this might reduce the supply of bank lending in certain areas. However, the main lesson from the financial crisis is that only well capitalised banks are able to provide lending on a sustainable basis.

The third and final topic considered developing capital markets in emerging markets. The development of local capital markets depends on many other policies, and often depends on the development of an efficient local banking industry. Indeed, there seem to be synergies between capital markets and banks.

Discussions at the seminar illustrated well the interdependence of economic policies. Monetary policy is but one of these policies. While central banks can play a highly useful role in managing capital flows, at the same time governments must implement the regulatory reform, undertake structural reforms and vigorously maintain fiscal sustainability to enable stable long-term growth. Currently, the main risk seems to be overburdening central banks: the success in controlling inflation should not mean that central banks have the magic solution to meet all policy objectives.

Programme

Friday, 19 July 2013

09:30–09:40	**Opening remarks** **Mrs Elvira Nabiullina**, Governor, Bank of Russia **Mr Jaime Caruana**, General Manager, Bank for International Settlements
09:40–11:00	**SESSION I: "Managing the Volatility of Capital Flows and Exchange Rates"** Chairman: **Mr Stephen Cecchetti**, Economic Adviser – Head, Monetary and Economic Department, Bank for International Settlements Speakers: **Mr Eswar Prasad**, Professor, Cornell University **Mr Erdem Basci**, Governor, Central Bank of Turkey **Mr Sergey Shvetsov**, Deputy Governor, Bank of Russia Discussion
11:10–11:20	Group photo and coffee break
11:20–12:30	**SESSION II: "Role of the Financial System and its Interactions with the Real Economy"** Chairman: **Mrs Nadezhda Ivanova**, Deputy Governor – Director, General Economic Department, Bank of Russia Speakers: **Mr Jean-Pierre Landau,** Professor, Institute of Political Studies **Mr Thomas Jordan**, Chairman, Governing Board, Swiss National Bank Discussion
12:30–13:30	**Lunch**

13:30–14:40	**SESSION III: "Infrastructure of the Local Financial Markets"**
	Chairman: **Mr Vladimir Chistyukhin,** Director, Financial Stability Department, Bank of Russia
	Speakers: **Ms Liliana Rojas-Suarez,** Senior Fellow, Center for Global Development **Mr Hernando Vargas,** Deputy Governor, Bank of the Republic of Colombia
	Discussion
14:40–14:50	**Closing remarks**
	Mrs Nadezhda Ivanova, Deputy Governor – Director, General Economic Department, Bank of Russia **Mr Jaime Caruana,** General Manager, Bank for International Settlements

List of participants

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Müller Madis	Bank of Estonia	Deputy Governor
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Vargas Hernando	Bank of the Republic of Colombia	Deputy Governor
Vujcic Boris	Croatian National Bank	Governor
Zhou Xiaochuan	People's Bank of China	Governor

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Managing Capital Flow Volatility[1]

Eswar Prasad[2]

Abstract

This note discusses the challenges that emerging markets face in managing capital flow volatility. The note lays out a conceptual framework for evaluating deviations from a first-best world in which capital flows have desirable characteristics, and then categorises the reasons that might explain these deviations.

Keywords: Capital flow volatility, policy spillovers, monetary policy

JEL classification: E5, E6, F4

1 This note is based on remarks made by the author at the BIS-Bank of Russia High-Level Seminar held in Moscow on 19 July 2013. The remarks are to some extent based on the research summarised in: M Ayhan Kose, Eswar S Prasad, Kenneth Rogoff and Shang-Jin Wei, "Financial globalization: a reappraisal", *IMF Staff Papers* 56(1), 2009, pp 8–62.

2 Cornell University and Brookings Institution.

In this note, I briefly discuss a framework for confronting the challenges to emerging market policymakers posed by capital flow volatility. The note covers three aspects. First, what capital flows might look like in an ideal frictionless world with well functioning markets, why the existing situation diverges from that scenario, and how to make progress in terms of framing the problems that might enable progress towards solutions.

In principle, from the point of view of theory, capital flow volatility is not a bad thing. In fact, theory tells us that capital flows should be volatile. They should be volatile from the aspect of offsetting domestic business cycle conditions. If an economy is in fact sharing risk with the rest of the world, then it should receive capital inflows when it is performing poorly. When the economy is doing very well, it should not be receiving as many inflows. The problem, of course, is that capital flows are very volatile and they are volatile in exactly the wrong direction. Flows tend to be procyclical rather than countercyclical.

One needs a benchmark to think about two issues – first, how would capital flows look in an ideal world, and second, how to measure excessive rather than conventional volatility. I will consider these issues mainly from the vantage point of policymakers in emerging markets.

An ideal world with capital account openness should have the following features. First, relatively stable capital flows that have the right sort of characteristics. In some of my research, I have argued that while money is important when it comes to capital inflows received by emerging markets, the indirect collateral benefits that come with the money – technological expertise, expertise in corporate governance, the ability to deepen financial markets. – are just as important as the money itself, if not more so.

Second, in an ideal world capital flows would be driven mainly by macroeconomic fundamentals, such as output growth, employment productivity and interest rates. Third, capital flows should cushion domestic business cycle conditions, as referred to earlier. This implies that net inflows should be countercyclical. Fourth, capital flows would be mediated through a relatively well regulated environment, for both domestic and international financial markets. And fifth, from the perspective of emerging markets, there would be relatively well functioning policies in the advanced economies.

Measured against this set of criteria, where do things stand? In fact, there has been some progress. If one examines the nature of capital flows into emerging market economies, over time the characteristics have become much better.

What led many emerging markets into crisis in the 1980s and 1990s, of course, was the fact that a lot of the money coming in was in the form of short-term foreign currency-denominated debt. And debt, as is well known, is not the ideal type of flow, especially when it is of relatively short maturity and denominated in foreign currencies. Not only does it bear a lot of risks, it does not have many of the indirect benefits I referred to earlier.

Over the last decade, there has been a dramatic shift in the external balance sheets of emerging markets. Foreign direct investment now accounts on average for more than 50% of the external liabilities of emerging markets. Adding in portfolio equity raises the share to about 60%. That is a fundamental shift that has not only made capital relatively more stable, but has the right sort of risk-sharing characteristics.

In other words, when an economy is not doing so well from a cyclical perspective, and if the exchange rate depreciates as it should, then direct investors and portfolio investors from abroad share in the losses in addition to the domestic investors. Of course, one should not make too much of this distinction. After all, many emerging markets have also been beset by highly volatile capital inflows in the form of portfolio equity inflows. But still, even those inflows don't make these economies vulnerable to the sort of very painful crisis that emerging markets were subject to in the past due to their previous dependence on debt. So there has been progress on that front as well.

Unfortunately, that's where the progress largely ends. Capital flows to emerging markets still tend to be largely procyclical. Third, if one looks at whether these capital flows have been driven by macroeconomic fundamentals, it seems to be the case that there is a considerable divergence, at least in the short run, between what one might think of as core long-term macro fundamentals and very short-term fundamentals that are still very much driven by market sentiments. These are constantly in flux, difficult to pin down clearly and not easily influenced by shifts in policies.

And of course, with financial market regulation, there has been progress but probably not enough to buffer emerging markets effectively. Additionally, from the point of view of the emerging markets, advanced economy policies have become a source of risk rather than a source of stability in the world economy.

Having set out a benchmark and having characterised the discrepancies between this benchmark and the way things are, one needs to think about policy solutions. But before doing so, it necessary to reflect on what the sources of failures are relative to this benchmark.

I would suggest that there are three types of failures. One is market failures. The second is policy failures. And the third is institutional failures. The distinction among these three types of failures is not as clear as I suggest below, but the coarse typology still has its uses.

Market failures are in a sense the easiest for academic economists, at least, to pin down. These failures can occur, for instance, when there is herding behaviour because of information asymmetries in markets or because of the way incentives are set up for investment managers in financial institutions. Those are issues that we can relatively easily grapple with and where at least we understand what needs to be done, even if it's very difficult to actually implement those changes given the enormous pushback from those who have an interest in maintaining the status quo and not changing regulatory regimes.

Then there is the issue of policy failures. Undisciplined macroeconomic policies and inconsistent or ineffectual financial regulatory policies can heighten the risks associated with volatile capital flows. Here again, the solutions are not difficult to discern, even if they are not straightforward to implement. One can think about specific types of policies, say, financial regulatory policies, which could in fact make capital flows, once they enter an economy, flow to productive uses. Macroprudential requirements are essentially a device for trying to direct capital inflows into the most productive channels and helping domestic investors attain the benefits of risk-sharing through capital outflows that help them diversify their portfolios.

Here again, it is a little harder but one can think about specific policies that improve the benefit-cost trade-off from capital flows. The policy issues are not just about regulatory policies but also about getting macro policies right, about getting

financial markets working much better, both by encouraging financial market development and by making sure there is adequate regulatory capacity, and getting fiscal policy right.

The third source of the discrepancies between theory and reality is the crux of the matter. I label this third category as institutional failures, which in turn have two dimensions – domestic and international.

First, on the domestic front, the critical issue is the balance of policies. Most central bankers now face multiple, and indeed expanding, mandates. I view this as a real failure at the institutional level within countries. The problem is that monetary policy has become the be-all and end-all in terms of where policy measures ought to be. In the advanced economies, in particular, a lot needs to be done in the area of fiscal policy and structural policies, but instead the relatively easy crutch of monetary policies is what policymakers are relying on both to prevent financial meltdown and to support growth.

So I view this, in a sense, as an institutional failure. It's not that monetary policy is getting it wrong, but monetary policy is hemmed in by the configuration of other policies. And this requires change at the institutional level, in order to get the mix of policies right.

The second aspect is the institutional framework at the international level. The difficult reality is that, with increasing financial integration, there are going to be spillovers of policy measures from the advanced economies to the emerging markets, and indeed the other way around as well. There is at present no good governance mechanism in place to cope with these spillovers. Asking central banks to take on an additional mandate to look at the spillover effects of their policies seems logical but would make an already complicated life for these institutions even more complicated.

But ultimately there is little choice but to confront these issues, by thinking more formally both about spillover effects and about the governance structure of international institutions, whose legitimacy has to be rebuilt if they are to be effective at helping solve collective action problems related to macroeconomic policies.

The lack of effective global governance has major implications for capital flows. Emerging markets feel that they have to accumulate more reserves, which forces them to buy advanced economy debt as safe assets that provide a layer of protection from volatile capital flows. The reality of the financial crisis in particular, and indeed even before, is that the demand for safe assets for emerging markets has been rising. In the aftermath of the financial crisis, conventional norms of reserve adequacy have gone out of the window. The sense that more reserves are only good despite the costs they entail is creeping more and more into the minds of emerging market policymakers.

At the same time that demand for safe assets is rising, the availability of such assets has declined considerably. It is now clear that not all euro zone bonds are exactly the same in terms of their default risk and other characteristics. Moreover, countries like Japan and Switzerland are in fact demanding safe assets right now rather than supplying them. The private sector demand for safe assets has gone up, perhaps for the right reasons, but this is coming on top of rising sovereign demand. And indeed, a small group of advanced economies have become the major providers of safe assets, the United States, of course, being the prime example. This is not a tenable situation, where the institutional setup in the international arena

leaves emerging markets feeling that they don't have any recourse to a safety net other than self-insurance through reserve accumulation.

Solutions such as capital controls can create a buffer in the short term, but ultimately it will be necessary to get a good grasp on the underlying mix between these three types of failures and not try to use one set of policies that may end up misdiagnosing the real problem. When the relevant failures are really domestic policy failures, they need to be confronted as such rather than viewing the problem as being an external one that needs to be dealt with through a mechanism like capital controls. Ultimately, unless the domestic and foreign institutional weaknesses are fixed, both the domestic policy measures as well as measures to improve the functioning of financial markets, while necessary, might end up being futile.

Deleveraging, long-term finance and the G20 agenda

Remarks at the BIS-Bank of Russia Seminar Moscow, July 2013

Jean-Pierre Landau

Promoting long-term finance is a major policy objective that sits at the core of the current G20 agenda. In the coming decade, the world will need considerable investments in infrastructure, energy production and public utilities. There are good reasons to fear that current financing structures may not be up to the challenge and that finance could act as a constraint on long-term projects, rather than as an engine and support.

The policy debate encompasses many dimensions, some of them very difficult and controversial. The causes and implications of "short termism" in financial markets are extensively discussed, as well as the necessary reforms in incentives and corporate governance (Kay (2011)). There is no consensus on whether recent regulatory changes – Basel III and Solvency II, in particular – will penalise long-term investors.

A detailed discussion of those questions is well beyond the scope of this short paper. Rather, this note presents some remarks on two specific issues: first on the current process of deleveraging at work in some advanced economies; and, second, on the role that financial innovation may play in fostering long-term finance and investment.

Deleveraging and investment

One may start with a puzzle. Current financial conditions are exceptionally favourable to investment. Even after recent increases, real interest rates remain historically low and most estimates put term premiums at negative levels. Profit shares in GDP stand at record highs in many advanced and emerging economies. Still, investment rates are down by 2 to 4 points of GDP as compared to 2009. And, most significantly, corporates are hoarding cash in unprecedented amounts: about USD 2.8 trillion in Japan, USD 1 trillion in Europe and USD 1.5 trillion in the United States. The value of cash held by British companies is larger than the value of their plant and machinery (Kay (2011)). It is very much a mystery why firms would need to accumulate such stocks of "dead money" – to use the words of then Bank of Canada Governor Mark Carney.

According to one dominant explanation, advanced economies are experiencing a "balance sheet recession" (Koo (2009)), in which the private sector's absolute priority consists in reducing its debt and consolidating its balance sheet. Such behaviour – when saving is exclusively allocated to debt reduction – will inhibit investment until sufficient deleveraging has occurred. However, the facts do not

fully support this narrative. Corporates are actually issuing new debt – including high yield – in significant amounts, and they are using an important part of the proceeds (around two thirds) either to retire existing debt or to make payouts to equity holders via dividends and share buybacks (Stein (2013)). So, while financial intermediaries are truly deleveraging, non-financial corporates, as a whole, are simultaneously issuing debt and hoarding cash, behaviour that is symptomatic of a very strong preference for liquidity.

One way to make sense of these trends is to conclude that they result from an unusually high level of overall uncertainty; and that uncertainty may be produced (in part) by the deleveraging process itself.

Most analyses take a deterministic view of deleveraging. It is viewed as a predetermined process with a fixed, and reasonably well known, endpoint. Historical experience and precedents are used as benchmarks and references to assess the acceptable level of debt and leverage; and to conclude, in most advanced economies, that the process has barely started.

In fact, deleveraging is far from deterministic. Its dynamics and outcome are heavily path-dependent. Depending on how it is managed, the total loss in the economy may be very different. Deleveraging is first and foremost a coordination problem (Buiter and Rabati (2012)). Deleveraging by one agent creates externalities for others. For instance, when households deleverage, firms are worse off and may have to shrink their own balance sheets. Deleveraging by banks imposes financing constraints on non-financial agents. In the light of these externalities, the distinction between credit supply and demand constraints seems rather moot. Supply constraints in one part of the economy translate into weak credit demand in another one. Orderly deleveraging necessitates that many entities adopt mutually consistent adjustment paths towards a new equilibrium of lower debt. That may prove very challenging.

In particular, it remains difficult to define an optimal path between two opposite strategies for the financial sector: first, a very rapid balance sheet adjustment, with possible significant credit contraction and output losses in the short run; and, second, a more progressive adjustment, implying some "forbearance", with no immediate shock but an important risk of misallocation of resources, prolonged economic stagnation and the progressive zombification of the financial sector. The costs of that second strategy are well known, illustrated as they are by Japan's experience during its "lost decade": delayed recognition of losses perpetuates inefficient production structures and, ultimately, lowers total factor productivity and growth itself. There is no such factual reference for the first strategy. The balance of costs and benefits may depend on how fast growth would recover following abrupt deleveraging by the banking sector. Intuitively, the benefits are higher if banks have a lower share in financial intermediation and if other sources of demand (including fiscal policy) are dynamic. Most likely, the optimal path scenario lies somewhere in between these two opposite "corner" strategies.

Because the path is indeterminate and the total amount of losses endogenous, deleveraging generates its own uncertainty. In turn, uncertainty pushes the banks to deleverage ever more aggressively as the quality of their loan portfolios deteriorates. This circular – and reciprocal – relationship between deleveraging and uncertainty creates a negative spiral – one in which many advanced economies, especially in Europe, are currently trapped.

Public authorities can help in many ways to reduce uncertainty and coordinate expectations around the equilibrium they desire.

Financial regulation has been thoroughly reformed following the crisis, with Basel III bringing the most significant changes to capital and liquidity requirements. Studies concur on its significant long-term benefits but diverge on the short run, depending on assumptions made about the transition process. To avoid unintended effects, it was decided to set ambitious targets and give the banks a long phase-in time. In fact, that decision has opened the prospect of a period with no precise references to guide markets on the appropriate levels for capital requirements and leverage. This may have created a possible "race to the top", making the whole process less certain and more disorderly.

To reduce that uncertainty, regulators need to express a view (and give guidance) on the appropriate path and approaches for deleveraging in the financial sector. In a sense, they face a problem identical to the one confronted by central banks when they practise flexible inflation targeting. And they need to adopt the same mindset. "Flexible capital targeting" would involve taking a view on the appropriate path towards a new equilibrium. As central bankers know, there is a trade-off. Getting back to target too quickly would incur significant output losses and costs. On the other hand, waiting too long runs the risk of endangering the credibility of the ultimate objective. That trade-off was left unexplored in the regulatory field. There would be huge benefits in making the regulators' preferences more explicit and transparent.

Expressing a view might not be a sufficient condition for lending to restart. It may also be necessary to eliminate uncertainty on future regulatory developments. Prudential regimes are in a constant state of flux. Now that the foundations of a new regime for capital and liquidity have been solidly established, regulators could consider a moratorium on any further changes for some time. That would not prevent discussions and consideration of new measures and improvements to be introduced in the following period. It would, however, allow lenders and borrowers to take a break from second-guessing the shape of possible forthcoming regulatory changes when making their decisions.

Financial innovation and long-term finance

Long-term finance raises two different economic issues: first, the natural reluctance of investors to irrevocably commit resources over the long run and their subsequent preference for liquid financial instruments; and, second, the intrinsic difficulty of assessing (and pricing) risk over very long horizons. Obviously those two problems are related: the higher the future uncertainty, the greater the preference for short-term (liquid) investments. The central point this paper will make, however, is that there may be advantages in dealing separately with each of these issues through distinct and specific financial instruments. That would call for some reorientation of the process of financial innovation that has taken place over the last two decades.

Long-term investment carries a great number of different, often interrelated, risks: legal geopolitical, technological and economic. Assessing and pricing those risks remains extremely problematic. Elevated or volatile risk premiums can act as significant impediments to long-term finance. Markets and governments have developed instruments and techniques to deal with – or circumvent – those

difficulties. Project finance allocates and assigns cash flows deriving from specific investments to servicing the debt and providing returns to equity investors. Another approach, currently prominent in policy debates, aims at leveraging the public sector's (assumed) capacity for taking on long-term risks through public participation or guarantees, in effect mutualising part of the risk. The rationale is obvious: part of the benefits of some long-term projects (such as infrastructure or energy security) accrue to society as a whole; some risks may be uninsurable; and some are linked to actions by public authorities themselves; so that their participation, through the commitment of resources, creates a proper incentive structure that will make the project work (provided time inconsistency issues can be legally and institutionally resolved).

This approach has been extensively discussed and explored in various working groups. The EU Commission has proposed a long-term investment fund for Europe based on such principles. Suffice it to say that the current debt situation of public entities in advanced economies will severely restrict their capacity for taking on new risks in the next decade. New commitments will have to be weighed against other expenditures and choices will be very constrained.

For those reasons, there might be room for a different approach, based on a reorientation of financial innovation, to make it more conducive to long-term finance. The thoughts presented in this paper are very preliminary and tentative.

Financial innovation during the last decade was about sharing risk in liquid markets. It was characterised by the development of (derivative) instruments that, implicitly or explicitly, mixed maturity transformation and risk-sharing. That was the guiding principle behind securitisation, both plain vanilla and structured. The technique relied on the existence of deep and liquid markets for all sorts of financial instruments (although, crucially, without product standardisation). For their part, investors were required to dynamically manage exposures over long periods.

Logically, important efforts were devoted to making trading more efficient, including at high frequency; and regulation focused on ensuring transparency and to raising the efficiency of pricing and valuation as well. The objective was that risk could be constantly assessed, priced and, if necessary, adjusted. Therefore, risk had to be traded, and traded safely. Liquidity and risk became closely entangled.

That model has several important consequences, not all favourable to long termism.

First, for the investor, liquidity and fundamental performance risks cannot be distinguished on the basis of market prices, since both are closely mingled in a single instrument. So, if the total amount of risk per unit of capital is capped by risk management practices (VaR for instance) and if liquidity risk increases (or is expected to potentially increase), very little is left to cover fundamental risk.

Second, expertise for dealing with non-liquid assets may have shrunk amongst asset managers, as a premium is set on the ability to trade profitably and efficiently.

Third, the coexistence of deep market liquidity and ultra-efficient trading technology changes the incentives and horizons. Significant resources are invested in improving the performance of (very) short-term arbitrage rather than assessing the probability distribution of cash flows over very long-term horizons for complex projects. The behavioural shift is spectacular: the mean duration of equity holdings by US investors was around seven years in 1940, remained approximately constant up to the middle of the 1970s, and then dropped continuously to reach a low of seven months in 2007 (Haldane (2010)). Warren Buffet does remain an exception!

Finally, the crisis has revealed that a system built on those principles is prone to fragility and sudden stops. Recent research (Dang et al (2012)) has shown that an asset's liquidity depends on its information sensitivity. Liquidity disruptions occur when an asset, previously considered as information-insensitive, suddenly becomes sensitive. Information asymmetries appear that impede trading and reduce liquidity. Instruments designed for risk-sharing are obviously more likely to become information-sensitive in many states of the world.

Indeed, one can think of a sort of trilemma between some main characteristics of financial instruments: the ability to do maturity transformation (provide liquidity); the capacity for transferring risk; and utility as a reliable store of value (meaning the absence or virtual absence of valuation risk). No existing instruments can simultaneously fulfil those three functions. As an attempt to solve that trilemma, recent (structured) securitisation techniques ended up by failing on every front.

Equities provide an apt illustration of the trilemma. Over the last 150 years, equities have served as support for sharing long-term risk while, at the same time, providing instant liquidity. For investors, the flip side to such benefits is the potential for significant changes in the valuation of their portfolios. Not all investors are willing to face that possibility. In addition, recent regulatory reforms have made it more costly to hold equities by significantly raising the amount of capital needed to cover their volatility risk.

The future may lie, therefore, in a greater distinction between managing risk on one hand and doing maturity transformation on the other. One should not assume one single instrument will fulfil both these roles, or that the same intermediaries will be equipped to undertake these two different activities. Rather than holding a portfolio of complex assets (equities or securitised products), investors would decide on a (variable) mix of two specialised instruments: one providing safe maturity transformation over very long horizons, the other providing exposure to specific risks on projects, sectors or whole economies.

Making long-term maturity transformation absolutely safe should therefore become one aim of financial innovation. Following the crisis, there are widespread – and legitimate – doubts about the private sector's ability to create and issue such safe assets. And that may be a prerequisite for long-term investment finance. The technologies do exist, however. Safe assets can be manufactured by arranging seniority of claims on future cash flows (the principle behind tranching); they can be produced by backing them with tangible assets. The problem to be solved is to ensure the full integrity of the process, which has formerly been distorted by badly aligned incentives. Some kind of public intervention in the certification and rating phase may prove necessary. The ability of the financial system to transform a large pool of low-quality claims (and collateral) into a smaller one of higher quality may be the key to the development of long-term finance.

Once this problem is solved, it is likely that long-term investors will willingly take on more specific or idiosyncratic long-term risks. That may require additional innovation such as, for instance, the ability to write very long-term derivative contracts representing the risks attached to specific projects. Large quantities of collateral may be needed to face margin calls over long periods of time (another reason for developing safe assets). Risks may have to be segmented into different components: macro- and project-specific. At least for the first category, the creation of "macro markets", as advocated by Shiller (1999), would bring valuable improvements.

Such developments are already under way. Triggered in part by regulatory and accounting changes, some long-term investors (pension funds and sovereign funds) have shifted away from equities to a mix of (safe) debt and alternative investments, therefore concentrating asset allocation at the two extremes of the risk-return spectrum. This may well be the direction in which long-term finance is heading.

References

Athanasoulis, S, R Shiller, and E van Wincoop (1999): "Macro markets and financial security", *Federal Reserve Bank of New York Economic Policy Review*, April.

W Buiter and R Rabati (2012): "Debt of nations", *Global Perspectives & Solutions*, Citibank, November.

Dang, T, G Gorton and B Holmstrom (2012): *Ignorance, debt and financial crises*, Yale University.

Gennaioli, N, A Shleifer and R Vishny (2010): "Neglected risks, financial innovation, and financial fragility", *NBER Working Paper*, no 16068.

Group of Thirty (2013): "Long-term finance and economic growth", Working Group on Long-term Finance.

Haldane, A (2010): "Patience and finance", speech to the Oxford China Business Forum, Beijing, September.

International Monetary Fund (2011): "Long-term investors and their asset allocation: where are they now?", *Global Financial Stability Report*, Chapter 2, September.

Kay, J (2012): "The Kay review of equity markets and long-term decision making".

Koo, R (2009): *The Holy Grail of macro economics: lessons from Japan's great recession*, John Wiley & Sons.

Landau J-P (2013): "Macroprudential rebalancing", Vox EU, April, http://www.voxeu.org/article/macroprudential-rebalancing.

Stein, J (2013): "Overheating in credit markets: origins, measurement, and policy responses", speech at research symposium sponsored by the Federal Reserve Bank of St Louis, St Louis, Missouri, February.

Towards strong and stable capital markets in emerging market economies

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Abstract

This paper identifies and discusses the conditions needed for achieving strong and stable capital markets in emerging market economies, which at present remain illiquid and underdeveloped. These conditions can be grouped into four interrelated and complementary pillars: macroeconomic stability, sound banking systems, high institutional quality and an adequate regulatory and supervisory framework. Failure to strengthen any of these pillars will weaken the others. The paper also emphasises that the inability of emerging markets to issue safe assets imposes a major constraint on the resilience of their local capital markets to external shocks.

Keywords: Capital markets, emerging markets, financial stability, financial development

JEL classification: G18, G2, G3, O16

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The benefits of deep capital markets in emerging market economies are well known. In addition to supporting efficient allocation of resources by complementing banks' financial intermediation role, they can increase economic agents' capacity to manage financial risks and their resilience in the face of unexpected shocks. Moreover, deep capital markets foster firms' financial integrity through market discipline and the need to comply with internationally accepted standards on accounting practices, transparency and governance, among others. In spite of these benefits, however, capital markets in most emerging economies remain thin and underdeveloped. Developing these markets is not an easy task, as it involves a large number of players and institutions, as well as complex building blocks, to ensure the efficiency and safety of their operations.

This paper focuses on the necessary conditions for the development of strong and stable capital markets in emerging market economies. The paper argues that such conditions can be grouped into four pillars: *macroeconomic stability*, *sound banking systems*, *high institutional quality* and an *adequate regulatory and supervisory framework*. The four pillars are interrelated and complementary: the eruption of fragilities in any one of them weakens the effectiveness of the others. This implies that all four pillars are equally important. Hence, the paper's emphasis on issues related to regulation solely reflects the usefulness of this pillar to exemplify its interrelationships with the other three. A brief discussion on the desirability of developing local derivatives markets is also included in the section on regulation. The paper ends with a reflection about a long-term constraint to the resilience of emerging economies' local capital markets to external shocks: these countries' limitations with regard to issuing *safe assets.*

The first pillar of capital market development: sustained macroeconomic stability

It is amply acknowledged that capital markets cannot develop in unstable economies. Indeed, in a large number of economic/financial crisis episodes in emerging market economies, capital market activity contracted dramatically and, in some cases, practically disappeared (the Latin American debt crisis of the 1980s is a good example). Macroeconomic weaknesses are reflected in asset prices and, if serious enough, can result in the drying-up of a number of asset markets.

While volatility of financial variables, such as interest rates and exchange rates, encourages the development of a number of financial products, a problem emerges when the volatility of these variables is so large that it creates uncertainty about the *direction of the rules of the game.* For example, excessively high and volatile real interest rates are perceived by investors as unsustainable and, therefore, induce uncertainty about possible changes in the rules of the game, such as government interventions to modify the exchange rate *regime* or to impose new forms of taxation and controls. In turn, this uncertainty reduces incentives to invest in local capital markets, since it adversely affects the expected profitability of long-term projects. Moreover, significant macroeconomic instability, reflected in excessive asset price volatility, generates incentives to use derivatives for speculative, rather than hedging, purposes.

The problem of excessive volatility is particularly important for institutional investors, especially pension funds. Managers of well run pension funds would not

be interested in maintaining in their portfolios a significant proportion of assets with highly volatile prices, since these assets are associated with a higher probability of default.

Finally, macroeconomic stability is the foundation for sustainable economic growth and, therefore, for increases in private saving ratios.[2] This, in turn, raises the potential domestic demand for capital market instruments.

Sound banking systems: a must for the development of capital markets

In spite of its central importance, this is perhaps the least understood pillar of capital market development in emerging market economies. In particular, there are some misconceptions regarding the capacity of local corporate bond markets to substitute for bank lending to meet firms' financing needs in periods of financial stress. My view is that *deep capital markets and sound banking systems are complements, and cannot be substitutes*. In emerging markets, at times of banking difficulties, when credit contracts sharply, capital markets, including corporate bond markets, will most likely also shrink significantly.

There are a number of reasons explaining the complementarity between sound banking systems and deep capital markets:

First, sound banks provide the sources of liquidity needed by capital markets. For example, broker-dealers play an active role in dynamic capital markets by trading securities for their own account, or on behalf of their customers. To undertake their activities, brokers hold securities in inventories, which at times may be quite large. These inventories are financed through banks' credit lines. Therefore, if banks' credit dries up following financial disturbances, the provision of liquidity needed for the adequate functioning of capital markets would be disrupted.

Second, consider the development of local corporate bond markets. In a nascent market, in order for investors to trust their long-term funds to local bond issuers , they need to be confident that these borrowers are already able to meet the repayment standards established by sound banks and their supervisors. In other words, because it is the business of sound banks to assess borrowers' repayment capabilities by, for example, adequate monitoring of their cash flows, firms' credit performance sends a signal to potential investors interested in bonds issued by these companies. If, however, the banking system is not strong, this signal is worthless.

Third, during the process of capital market development, bank deposits are an important investment option for institutional investors, such as incipient private pension funds. This would not be a sensible choice in the context of a highly fragile banking system.

[2] While the debate regarding the causality relationship between savings and growth is still open, most experts favour a causality running from economic growth to savings. A seminal paper in this area is C Carroll and D Weil, "Saving and growth: a reinterpretation", *Carnegie-Rochester Conference Series on Public Policy*, no 40, 1994, pp 133–93.

Fourth, after cash, bank deposits are the most liquid assets in many emerging market and developing economies. Thus, given their high liquidity, bank deposits can provide an *exit* option to investors interested in *entering* into local capital markets, where riskier and less liquid assets are traded.

It is interesting to note that the complementarity between sound banking systems and deep capital markets has implications for banking regulation. The need for strong banks in order to develop capital markets underlines the desire to implement adequate banking regulations and supervisory practices. This includes the adoption (and, when necessary, adaptation to local conditions) of capital requirement recommendations advanced by the Basel Committee on Banking Supervision (BCBS). In turn, deep capital markets can guide banking supervisors to assess the *true* value of reported capital. This is particularly important under the new BCBS capital recommendations, given the emphasis on common equity as a central component of Tier 1 capital.

The third pillar: a solid institutional framework

Evidence shows that robust institutions complement the role of regulations aimed to promote capital market development (see below). Indeed, *regulations cannot be effective if they lack the support of a solid institutional framework that protects the rights of investors and creditors*. In equity markets, this means shareholders' voting rights to exert control over boards. In bond markets, bondholders have the right to claim their collateral in case of firms' failures.

A strong institutional framework that protects investors' and creditors' rights includes adequate mechanisms to enforce contracts and the rule of law.[3] In turn, this requires: (i) a capable and independent judicial system, free of political pressures; (ii) legal processes that support the prompt implementation of regulations; (iii) transparency in government policies; and (iv) an adequate bankruptcy law. Unfortunately, the quality of institutions in most emerging markets lags significantly that of advanced economies.

To the extent that creditors' rights are inappropriate, lack transparency or are not credible, investors, domestic and foreign, will be discouraged from investing in local corporate liabilities. As stated in the *Doing Business* report by the World Bank, South Asia, the Middle East and North Africa, and Latin America are the regions that have undertaken the least number of reforms to make it easier to resolve firms' insolvencies. Not surprisingly, capital markets in these regions remain thin and underdeveloped.

The need for all four pillars discussed in this paper to function adequately is again highlighted in the context of the discussion of an appropriate bankruptcy law. *In countries with economic instabilities, weak judicial systems and/or fragile banking systems, even a well designed bankruptcy law will not allow for the orderly restructuring of a firm in distress, nor a change in management that can enable the firm to continue operating as a going concern*. Instead, in many emerging market and developing economies, when a company is facing severe financial difficulties

[3] In particular, weak contract enforcement increases counterparty risk of default and limits participation in bond markets.

creditors' preferred option is to liquidate the firm, even at fire sale prices, and distribute the proceeds, often under the advice of external auditors. The reason for this choice is that creditors assign a very low probability to the recovery of their investment, even in the long run, be it because they do not trust the macroeconomic management of the country or the rulings of the courts, or because they fear a sudden change in the institutional *rules of the game*. That is, failure to strengthen the four pillars presented here can result in an abrupt liquidation of firms in distress, without an adequate assessment of the present value of the firms' assets.

Adequate regulation and supervision: the fourth pillar of capital market development

As mentioned above, a central point advanced in this paper is that regulations lose their effectiveness if there are weaknesses in any of the three other pillars of capital market development. For example, *regulations cannot create incentives for investors to place their funds in local capital markets in the context of a highly unstable economy. Likewise, regulations cannot be credible if the institutions that determine their implementation are weak. Finally, no capital market regulation can ensure the availability of liquidity provided by sound banks.*

There is significant consensus in a number of areas defining what constitutes adequate regulation for efficient and sound capital markets (but there are also controversial issues – see below). A first area of consensus is that capital market regulations should enhance and complement the role of market discipline, to minimise systemic risks, ensure competition and efficiency of markets, and protect investors. The challenge is for the regulatory framework to generate the right incentives among market players to achieve these goals. These are precisely the main objectives of the International Organization of Securities Commission's (IOSCO) principles. Some of the key IOSCO principles call for: (i) comprehensive enforcement powers and independence of regulators and supervisors (from political pressures); (ii) the implementation of information-sharing mechanisms that would allow regulators to share relevant information with their domestic and foreign counterparts on a timely basis; (iii) the requirement for transparency of information by securities issuers and institutional investors; (iv) the absence of discrimination among classes of investors, including minority stockholders and foreign investors; (v) the establishment of minimum capital requirements and other prudential regulations for financial intermediaries in accordance with the risks they take; and (vi) adequate supervisory oversight for hedge funds and their managers.

There is also a consensus that the foundation for an effective regulatory framework lies in the development and strengthening of appropriate corporate governance. Although advanced economies are by no means free from corporate governance deficiencies (as demonstrated by events during the recent global financial crisis), this problem is widespread among emerging market economies, and difficulties at the firm level quickly turn into a systemic problem. Broadly speaking, the provision and transparency of information is at the core of the recommendations for adequate corporate governance, especially when dealing with the responsibilities of members of boards of directors. That is why some of the key OECD principles to guide regulatory improvements in this area include recommendations for the dissemination of key corporate information, such as

financial statements, property and governance structure. Explicit responsibilities for members of boards of directors are also part of these recommendations.

A third area of consensus is the implementation of the Financial Stability Board's recommendations to improve the safety and transparency of OTC derivatives markets, by promoting standardisation of OTC derivatives contracts, central clearing of standardised derivative products, and increased trading on exchanges or electronic platforms. Evidence from the global financial crisis supports this recommendation. During that period, many OTC derivatives markets in emerging economies dried up, but exchange-traded products proved more resilient. The examples of Brazil and Mexico are cases in point. On expectations of continuous appreciation of their local currencies, during the pre-crisis period some corporations in these countries expanded their off-balance sheet foreign exchange exposures through derivatives contracts arranged with international banks (selling foreign exchange options in the offshore market). The sharp currency depreciation observed in Brazil and Mexico after the collapse of Lehman Brothers resulted in huge derivatives losses (around $4 billion in Mexico and over $20 billion in Brazil).[4] To a large extent, these developments surprised local authorities, who since then have strengthened their supervisory practices.[5]

A discussion on the regulation of derivatives begs the question: should the development of derivative products *at the local level* be promoted in all emerging markets? As is well known, derivatives require the existence of a liquid market in their underlying products, but they also enhance the liquidity and price discovery in those underlying markets. However, derivatives themselves raise other forms of risks, and dealing with these risks requires additional infrastructure (such as adequate settlement systems for derivatives exchanges) and adequate capabilities to understand more complex risks (such as accounting practices for derivatives products on and off banks' balance sheets). Also, as the examples above illustrate, although derivatives markets are not the cause of financial crises, some derivative products can play an amplifier role in the presence of vulnerabilities in the financial system and/or the macro-economy. These considerations imply that the promotion of derivatives markets in emerging markets should depend on the degree of readiness of a country's institutions and players. In my view, in addition to the pillars for developing capital markets discussed above, pre-conditions for promoting derivative products include: (i) strong capacities for risk management, both by regulators and supervisors and by the private sector; and (ii) adequate technical capacity to monitor the linkages and risk transmission mechanisms across market segments. *Adequate surveillance systems and technical expertise to understand and oversee the transmission of risks across market segments are a major challenge in a large number of emerging markets and developing economies.* Technical cooperation from multilateral organisations, as well as bilateral arrangements with supervisory authorities from advanced economies, is greatly needed in this area.

[4] For more details, see A Jara, R Moreno and C Tovar, "The global crisis and Latin America: financial impact and policy responses", *BIS Quarterly Review*, June 2009.

[5] International coordination among supervisors and harmonisation of derivatives market regulations are essential if efforts by regulators from emerging markets are to yield the expected results. For example, Mexican regulators are concerned that the implementation of strict rules governing derivatives trading in Mexico might push local transactions to the United States, where regulators are not yet applying clearing requirements to peso-denominated interest rate swaps (so far, US regulators have put in place clearing rules for interest rate swaps in only four currencies: the US dollar, pound sterling, yen and euro, which account for the large majority of transactions).

While not a regulatory issue, there is also consensus about the need to develop a benchmark yield curve for government bonds, for the purpose of developing liquid corporate bond markets (since it supports price discovery). The experiences of some Asian countries, like Korea and Malaysia, back up this recommendation. Once more, however, the linkages between the pillars for developing sound capital markets need to be taken into account. The strategy of developing a government yield curve seems highly appropriate for countries with strong fiscal accounts (like most of the East Asian economies). Nevertheless, in countries experiencing fiscal problems, this strategy might be the source of two forms of risks. The first is that, by reflecting a country's high credit risk associated with large fiscal deficits, the resulting high yields on government bonds will translate into high yields on corporate bonds. That is, the danger is that increased government risk will be reflected in the prices of private sector liabilities. The second risk is that governments facing fiscal difficulties will be unable to successfully place long-maturity bonds and that government issuances will instead remain at the shorter end of the curve. This would constrain, rather than support, the development of long-term corporate bonds. A third risk is that, lacking a market to place long-term bonds, governments in fiscal trouble will implement policies to induce banks and institutional investors, especially pension funds, to purchase the bonds. This would reduce the soundness of both banks and capital markets. If investors' perceptions of a government's credit risk were to deteriorate, so would the quality of assets held by local banks and pension funds.

In spite of international consensus on many issues concerning regulatory practices for developing capital markets, there is still controversy with regard to a significant number of topics. For example, which restrictions on pension fund investments should remain in place and which should be eliminated? While there is no disagreement about the need to avoid excessive concentration of pension fund investments in government bonds (which occurs when strict quantitative limits on assets combine with large financing needs from the government), there is no general agreement about the desirability of allowing pension fund investments in foreign securities. Policymakers' concerns in some emerging markets are understandable. For instance, liberalising the investment rules of private pension funds in countries that have not reached macro and financial stability might exacerbate capital outflows if an adverse shock hit the economy. In my view, the sequence of liberalisation of pension fund investments followed by Chile is recommended. In that country, controls on investments in foreign securities were gradually lifted as the economic, regulatory and institutional environments gained strength.

Other controversial issues in emerging markets are: Should the government introduce or promote some form of indexation in order to foster the development of local currency bonds? Should regulation create incentives for the *local* offering of *all* types of capital market products and institutions? Moreover, should there be tax incentives for promoting investments in local capital markets? And what is the most appropriate structure of regulatory agencies? Should there be a single regulatory and supervisory agency overseeing banking and capital markets institutions? Or would *specialised* agencies be more effective? Or, should regulatory agencies specialise in *functions* rather than institutions? These and other questions await further debate and analysis.

An important constraint limiting the resilience of capital markets in emerging economies to external shocks

I cannot end this paper without stressing the importance of a long-term constraint to capital markets' resilience that affects *all* emerging market economies: these countries' inability to issue internationally recognised *safe assets*. Even if all the pillars discussed here are in place, in the presence of large uncertainties in international capital markets, investors (foreign and local) will attempt to flee to what they consider to be *safe assets;* namely, assets that maintain their liquidity in bad times. In the current international financial architecture, there are only few *safe assets* and, besides gold and silver, they are all government securities issued by countries that also issue *hard currencies* (highly liquid, internationally traded currencies). Currently, US Treasuries can be said to be the most liquid securities in the world. The experience during the global financial crisis showed that equity and bond instruments in emerging markets lost liquidity and prices collapsed. When deep external shocks occur, corporates will find themselves with fewer and more expensive sources of funding *even if local capital markets appeared to be highly liquid before the shock.*[6, 7]

[6] The experience of Israel during the global financial crisis is a case in point. The corporate bond market practically dried up for about six months following the eruption of the crisis: new issuance stopped, and the number of firms entering debt restructuring proceedings increased significantly. For more details, see OECD, *OECD Economic Surveys: Israel*, December 2011.

[7] While pension funds can potentially provide a stable source of local funding, in the presence of an adverse external shock capital market losses would be transferred to savers if local pension funds were not allowed to invest in foreign safe assets.