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The International Monetary and Financial System: Its Achilles Heel and What to do about it*

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Abstract

This essay argues that the Achilles heel of the international monetary and financial system is that it amplifies the "excess financial elasticity" of domestic policy regimes, ie it exacerbates their inability to prevent the build-up of financial imbalances, or outsize financial cycles, that lead to serious financial crises and macroeconomic dislocations. This excess financial elasticity view contrasts sharply with two more popular ones, which stress the failure of the system to prevent disruptive current account imbalances and its tendency to generate a structural shortage of safe assets – the "excess saving" and "excess demand for safe assets" views, respectively. In particular, the excess financial elasticity view highlights financial rather than current account imbalances and a persistent expansionary rather than contractionary bias in the system. The failure to adjust domestic policy regimes and their international interaction raises a number of risks: entrenching instability in the global system; returning to the modern-day equivalent of the divisive competitive devaluations of the interwar years; and, ultimately, triggering an epoch-defining seismic rupture in policy regimes, back to an era of trade and financial protectionism and, possibly, stagnation combined with inflation.

JEL codes: E40, E43, E44, E50, E52, F30, F40

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Introduction[2]

One of the perennial questions in economics is how to design international monetary and financial arrangements that facilitate the achievement of sustained, non-inflationary and balanced growth. Today, as in the past, this is top of the agenda of international cooperative efforts, most notably in the context of the G20**.**

Any such efforts call for an understanding of the weaknesses of existing arrangements. Without a consensus over the diagnosis, progress will remain difficult. In the past, conflicts of interest aside, disagreements over analytical frameworks have often thwarted cooperative steps (eg Cooper (1989), Volcker and Gyohten (1992), James (1996), Borio and Toniolo (2008)). To be sure, consensus over the *wrong* diagnosis could be at least as dangerous as no consensus at all. Many observers, for instance, have argued that previous cooperative mechanisms have undermined, rather than promoted, economic well-being. Think, for instance, of the now widespread condemnation of the gold standard (eg Temin (1989), Eichengreen (1992)), once heralded as the source of economic prosperity (eg Cunliffe Committee (1918), Gallarotti (1995)).[3] Or recall the mixed, if not outright negative, evaluation of some of the more episodic cooperative efforts in the 1980s (eg Bryant (1987), Feldstein (1988), Meltzer and Fand (1989), Truman (2003)). Even so, there is no way to avoid asking the question and providing an answer.

In this essay I shall argue that the Achilles heel of the *present-day* international monetary and financial system (IMFS) is that it *amplifies* a key weakness of domestic monetary and financial regimes – their "excess financial elasticity". By "excess financial elasticity"[4] I mean their inability to prevent the build-up of *financial* imbalances, in the form of unsustainable credit and asset price booms that overstretch balance sheets, thereby leading to serious (systemic) banking crises and macroeconomic dislocations (Borio and Disyatat (2011)). This could also be referred to as the failure to tame the "procyclicality" of the financial system (Borio et al (2001), BIS (2008), FSF (2009), G20 (2009), FSB-BIS-IMF (2011)) or the financial cycle (Borio (2013a,b)). One manifestation of this failure is the simultaneous build-up of financial imbalances, often financed across borders. Another is overly accommodative aggregate monetary conditions for the global economy (McKinnon (2010), Hofmann and Bogdanova (2012), Taylor (2013a)).

This view differs substantially from others that have gained currency. The most influential one in policy circles is that the arrangements are unable to contain *current account* imbalances. This is the main focus of G20 efforts. Often, this view is coupled with concerns that the asymmetry of adjustment between creditor and debtor countries imparts a *deflationary* or *contractionary* bias to the system: debtors

[2] I would like to thank Ben Cohen, Bob McCauley, Harold James, Maury Obstfeld, Hyun Shin and Phil Wooldridge for helpful comments and suggestions, and Bilyana Bogdanova, Koon Goh and Michela Scatigna for excellent statistical support. The views expressed are my own and not necessarily those of the BIS.

[3] For a very useful collection of essays on the gold standard and a comprehensive bibliography, see Eichengreen and Flandreau (1997).

[4] This is the same concept that in previous work with Piti Disyatat we called "excess elasticity" (Borio and Disyatat (2011)). We have decided to add the qualifier "financial" in order to avoid ambiguities and characterise it better.

have to retrench while creditors are under no pressure to reduce their surpluses – a view already strongly advocated by Keynes (1941).[5] The second view argues that the IMFS magnifies a *shortage of safe assets*, notably by encouraging a strong precautionary demand for foreign exchange reserves (eg Fahri et al (2011), Landau (2013)). This shortage, in turn, is exacerbated by the dominant role of the US dollar as an international currency. Just like its alternative, this view stresses potential deflationary forces, as countries are induced to build up precautionary balances. This perspective, too, ends up highlighting the role of current accounts, although it places considerably more emphasis on the sustainability of domestic fiscal positions: it regards the public sector as the only one capable of producing safe assets in sufficient quantities. One can refer to these two views as the "excess saving" and "excess demand for safe assets" views, respectively.

The contrast with the "excess financial elasticity" view is apparent. By highlighting financial imbalances, the excess financial elasticity view stresses the role of the capital, rather than the current, account. And by highlighting the failure to prevent their build-up, it identifies an expansionary, not a deflationary, bias in the system. That said, because the unwinding of financial imbalances results in major contractions in output, the horizon is critical: a persistent expansionary bias paradoxically induces a deflationary outcome. And because that unwinding typically causes havoc in fiscal positions (eg Reinhart and Rogoff (2009)), their sustainability is also crucial.

If the Achilles heel of the present-day IMFS is its excess financial elasticity, what can be done about it? The first step is to keep *one's own* house in order. This means putting in place adequate anchors in *individual* jurisdictions. In turn, this calls for adjustments to a broad set of policies, including monetary, prudential and fiscal ones. The second step is to keep the *global* village in order. This means putting in place adequate anchors on the *interaction* of domestic policy regimes, in effect internalising the externalities of individual countries' policies. While some progress has been made with respect to the first step, it has proved much harder and elusive with respect to the second.

The essay is structured as follows: The first section explores the Achilles heel of the IMFS, considering the limitations of domestic policy regimes and how international arrangements amplify them. The second discusses briefly the excess saving and excess demand for safe assets views. While it notes their limitations, the intention is not to provide a systematic critique; rather, it is to highlight differences in analysis and policy recommendations relative to the excess financial elasticity view. The third section elaborates on the necessary adjustments to policy frameworks and on the risks of failing to implement them.

[5] In other cases, the notion of asymmetry is invoked to criticise the unique role of the United States in the system, because of the privileged role of the US dollar as the dominant international currency – sometimes referred to as the "exorbitant privilege" (eg Padoa-Schioppa (2010), Eichengreen (2011)).

I. The excess financial elasticity view

Weaknesses in domestic policy regimes

The excess financial elasticity in individual economies *when considered in isolation* arises from a mixture of limitations in economic agents' behaviour and in policy regimes. Take each in turn.

As argued extensively elsewhere (eg Borio et al (2001)), the limitations in economic agents' behaviour, which are the ultimate root of the excess financial elasticity, fall into three categories: perceptions of value and risk, incentives to take on risk, and powerful feedback mechanisms.

Perceptions of value and risk are loosely anchored and highly procyclical: they tend to fall during booms and to reverse course sharply only during busts. The procyclical behaviour of estimates of probabilities of default, loss given default, volatilities and correlations is a concrete manifestation of this pattern. And the impact of these perceptions on risk-taking is amplified by agents' natural tendency to take on more risk as their perceived wealth increases: lower perceptions of risk validate higher asset prices, which in turn encourage further risk-taking. A concrete manifestation of these forces is financial institutions' widespread use of Value-at-Risk methodologies: as asset prices rise, volatilities decline, releasing risk-budgets and encouraging further position-taking.

Economic agents' *incentives* are inadequate to restrain risk-taking sufficiently during booms. The key problem is the wedge between individual rationality and desirable aggregate outcomes. Notions such as "prisoner's dilemma", "coordination failures" and "herding" spring to mind. For instance, is it reasonable to expect a bank manager to adopt less procyclical measures of risk on the grounds that if others also adopted them a crisis might be less likely? Or to expect him/her to trade off a sure loss of market share in a boom against the distant hope of regaining it in a future potential slump? As Charles Prince, Citigroup's Chief Executive Officer, notoriously put it just a month before the financial crisis broke out: "As long as the music is playing, you've got to get up and dance" (quoted in *Financial Times*, 9 July 2007).

No doubt, short horizons play a key role in these two sources of procyclicality. For instance, short horizons for risk measurement – varying from a few days for market instruments to roughly a year for non-traded loans – make it more natural to extrapolate current conditions; this downplays the tendency for measures to revert to their long-term averages.[6] And these short horizons may themselves be the outcome of ways to address the inevitable principal-agent problems between those that provide funds and those that deploy them. The frequent benchmarking and monitoring of performance is one such example.

Finally, there are *powerful feedback mechanisms* between the loosely anchored perceptions and incentives to take on risk, on the one hand, and liquidity constraints, on the other. As perceptions of risk decline, asset values surge and incentives to take on risk grow, so financing constraints become looser: external

[6] Frankel and Froot (1990) find that foreign exchange traders' expectations have precisely this property: mean reversion kicks in only at longer horizons.

funding becomes cheaper and more ample (funding liquidity), and selling assets becomes easier and less expensive (market liquidity). Consequently, as the financial boom proceeds, it feeds on itself, sowing the seeds of its subsequent demise.[7, 8]

While the root causes of this excess financial elasticity lie in the behaviour of economic agents, policy regimes critically influence it. The regimes determine how far the previous forces can interact and reinforce each other. Specifically, the excess financial elasticity is amplified by the coexistence of liberalised financial systems with monetary regimes that focus on near-term inflation control. Liberalised financial systems weaken financing constraints, thereby providing more room for the build-up of financial imbalances. Indeed, the link between financial liberalisation and subsequent credit and asset price booms is well documented.[9] Monetary policy regimes focused on near-term inflation control provide less resistance to the build-up of the imbalances: the authorities have no incentive to tighten policy as long as inflation remains low and stable. It is no coincidence that the build-up of financial imbalances is all the more likely following major positive supply-side developments: these put downward pressure on inflation while at the same time providing fertile ground for financial booms, as they justify the initial optimistic expectations – a source of what Kindleberger (2000) called the initial "displacement".

The outcome of the combination of these forces is outsize financial cycles. Financial booms fuelled by aggressive risk-taking overstretch balance sheets, mask the build-up of vulnerabilities in the financial system and the real economy and sow the seeds of subsequent busts. As discussed in detail elsewhere (Borio (2013a)), these financial cycles have a number of properties: they are best characterised by the joint behaviour of private sector credit and property prices; are much longer than the traditional business cycle; have peaks that are often associated with

[7] This observation points to a special characteristic of the financial sector relative to other sectors of the economy (Borio and Crockett (2000)). In other sectors, increases in supply tend to reduce the corresponding prices. For example, as more cars are produced, their price will tend to fall. The adjustment in the price will naturally tend to equilibrate the market. In the financial sector this is not necessarily the case, at least in the short run. Given the critical role that the sector plays in the economy and the positive feedback mechanisms at work, increases in the supply of funds (eg credit) will, up to a point, create their own demand by making financing terms more attractive, boosting asset prices and hence aggregate demand. In a sense, a greater supply of funding liquidity ultimately generates additional demand for itself.

[8] The combination of these forces gives rise to the "paradox of financial instability" (Borio and Drehmann (2010)): the financial system looks strongest precisely when it is most vulnerable. Credit growth and asset prices are unusually strong, leverage measured at market prices is artificially low, and risk premia and volatilities sag to rock-bottom levels precisely when risk is at its highest. What looks like low risk is, in fact, a sign of aggressive risk-taking. The recent crisis has simply confirmed this once more. Put differently, markets see risk as falling in booms and rising only in busts. But it is better to think of it as rising in booms, when the financial imbalances develop, and materialising in busts, when their consequences are revealed.

[9] One additional policy choice concerns the existence of a safety net, which leads to perceptions of official support in the event individual institutions, or the financial system as a whole, runs into trouble – the notorious "moral hazard" problem. This also applies in an international context, although there the constraints are tighter, owing to the political economy of cross-country transfers. There is no question that official support can increase the excess elasticity of the financial system (eg Borio et al (2001)). That said, it is not its root cause. Historically, safety nets emerged *in response to* the instability of the financial system (eg Giannini (2011)). Moreover, because perceptions of risk tend to be muted during financial booms, the perceived official subsidy moves *countercyclically*: it tends to decline during booms and to spike during busts.

banking crises; and their bust phases usher in balance sheet recessions, which tend to be deeper, to generate permanent output losses and to usher in slow and weak recoveries.

Weaknesses in their international interaction

The IMFS amplifies these weaknesses in two ways: through the interaction of *financial regimes*, in the form of mobile financial capital across currencies and borders, and through the interaction of *monetary policy regimes*, in the form of spillovers from monetary policy decisions.

The essence of the interaction of financial regimes is twofold.

For one, it adds an external source of finance that boosts further domestic financial booms. In fact, almost by definition, external funding is the marginal funding source. There is ample empirical evidence consistent with this role. In particular, the cross-border component of credit tends to outgrow the purely domestic one during financial booms, especially those that precede serious financial strains (Borio et al (2011), Avdjiev et al (2012)). This typically holds for the direct component – in the form of lending granted directly to non-financial borrowers by banks located abroad – and for the indirect one – resulting from domestic banks' borrowing abroad and in turn on-lending to non-financial borrowers.

The reasons for this regularity are not yet fully clear. One may simply be the natural tendency for wholesale funding to gain ground as credit booms unfold, which is then reflected in rising loan-to-deposit ratios. But, no doubt, more global forces influencing credit supply conditions are also at work (eg Borio and Disyatat (2011), CGFS (2011), Shin (2012), Rey (2013)). After all, in an integrated financial world, risk perceptions and attitudes are transmitted across asset classes through arbitrage and are embodied in risk premia. This explains, for instance, why proxies for the global price of risk, such as the popular VIX, are closely correlated with the global pricing of assets as well as with capital and credit flows (Bruno and Shin (2014), Rey (2013)) – what Rey has termed the "global financial cycle".

In addition, the interaction of financial regimes can make exchange rates subject to overshooting. The reasons are exactly the same as those that explain overshooting of asset prices in the domestic context: loosely anchored perceptions of value and risk, incentives, and their interaction with financing constraints, underpinned by short horizons. In the foreign exchange market, this takes a number of specific forms. One example is the widespread use of carry-trade and momentum trading strategies, aimed at exploiting the forward premium (eg Gyntelberg and Schrimpf (2011), Burnside et al (2012), Menkhoff et al (2012)). Another comprises the strong wealth effects linked to the appreciation of the currency, which encourage borrowers to take on more risk as the value of their foreign currency liabilities declines (eg Bruno and Shin (2014)).[10]

[10] Another factor increasing the excess financial elasticity in an international context is the huge size asymmetry between countries, institutions and markets. For instance, very small adjustments in the portfolios of institutions from large economies can result in enormous changes in relation to the size of the economy and markets in recipient economies. This inevitably makes it much harder for recipient countries to insulate themselves from those adjustments and heightens the misalignments of incentives between the players involved.

The interaction of *monetary* regimes spreads easy monetary conditions from core economies to the rest of the world and hence heightens the risk of build-up of financial imbalances. This operates through two mechanisms.

First, it operates indirectly, through resistance to exchange rate appreciation. This may reflect concerns with the loss of competitiveness or with the possible reversal of the surge in capital flows and demand for domestic currency assets. As a result, monetary authorities keep interest rates lower than would otherwise be the case and/or intervene in the foreign exchange market and invest the proceeds in reserve currency assets, putting downward pressure on foreign bond yields.

Second, it operates directly, since the domain of international currencies extends well beyond their national jurisdiction. This is especially the case for the US dollar, which bulks large among reserve currencies. As much as USD 7 trillion in credit is granted to non-US residents. This outsize external role means that changes in the monetary policy stance of the Federal Reserve have a substantial influence on financial conditions elsewhere.

What does this all mean for the influence of the exchange rate arrangements on the excess financial elasticity of the system? Opinions on this differ, but my sense is that the arrangements are of secondary importance. Relative to a fixed exchange rate system, greater flexibility ultimately does introduce a sense of two-way risk and does increase the room for manoeuvre for monetary authorities in recipient economies. But the threat and reality of prolonged overshooting, together with its perceived costs, mean that these benefits are either muted or only partly exploited by policymakers.

Historical record

The historical record is broadly consistent with the excess financial elasticity hypothesis. Consider, in turn, the relationship between the financial cycle and policy regimes; the development of financial imbalances before and after the Great Financial Crisis; and the global monetary policy stance.

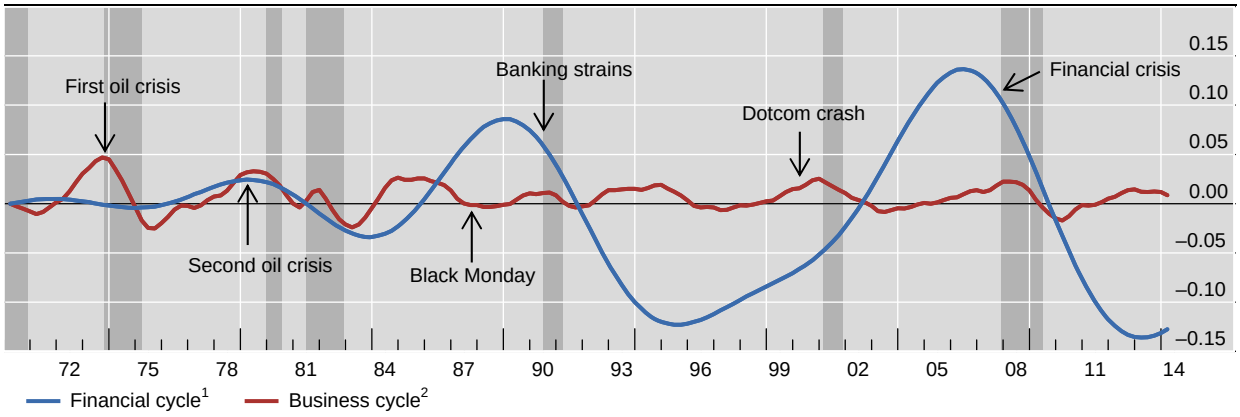
First, the amplitude and duration of financial cycles have grown substantially since policy regimes have become more supportive, starting around the early to mid-1980s, owing to financial liberalisation and the establishment of credible anti-inflation regimes (Drehmann et al (2012)). Moreover, the amplitude of the financial cycles has grown further since the early 1990s, coinciding with the major string of positive supply-side developments linked to China and former communist regimes joining the world trade system.

Graph 1 illustrates this for the United States, although other countries could have been chosen too. The blue line traces the financial cycle obtained by combining credit and property prices and applying a statistical filter that targets frequencies between 8 and 30 years. The graph shows that both the duration and amplitude of the financial cycle have grown since the mid-1980s.[11] Moreover, and importantly, the graph also indicates that the financial cycle is much longer than the traditional business cycle (red line) – a point to which I shall return below. As

[11] This is also the case if one relies on the Burns and Mitchell's (1946) turning-point approach, not shown in the graph for simplicity – see Drehmann et al (2012) for a discussion.

conceived and measured by policymakers and economists, the business cycle has a duration of up to eight years. By contrast, that of the financial cycle since the early 1980s has been between 16 to 20 years. It is a medium-term process.

The financial and business cycles in the United States Graph 1



[1] The financial cycle as measured by frequency-based (bandpass) filters capturing medium-term cycles in real credit, the credit-to-GDP ratio and real house prices. [2] The business cycle as measured by a frequency-based (bandpass) filter capturing fluctuations in real GDP over a period from one to eight years.

Source: update of Drehmann et al (2012).

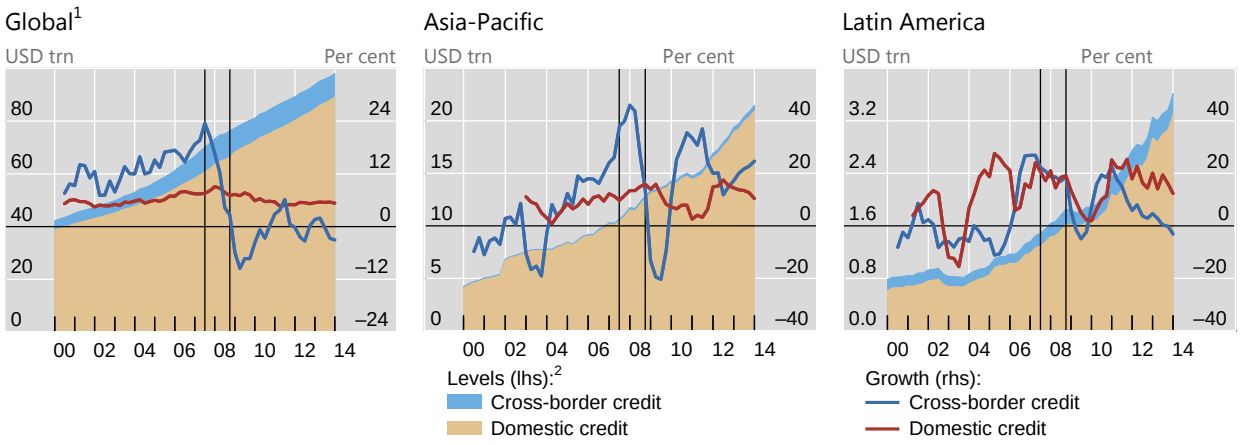
Second, financial imbalances have been prominent in the global economy both before and after the Great Financial Crisis, although some differences stand out. Pre-crisis, the imbalances built mainly in some large advanced economies, notably in the United States, the United Kingdom and Spain and parts of the euro area. Because of the size of the economies, this was also reflected in the growth of aggregate cross-border credit, which reached historical highs in relation to world GDP (Graph 2, left-hand panel). Post-crisis, by contrast, as those economies experienced a financial bust and/or their banks retrenched, aggregate cross-border credit slowed down substantially (same graph). Even as that happened, however, several emerging market economies, together with a number of advanced economies less affected by the crisis,[12] have seen signs of a build-up of financial imbalances that are eerily reminiscent of those seen in advanced economies most affected by it. Typical symptoms have included very strong credit growth, in excess of GDP growth, booming property prices (Graph 3) and, once more in several cases, an outsize role of external credit (Graph 2, centre and right-hand panels).[13]

[12] The experience of these advanced economies has varied. In some cases, such as Switzerland, both credit and property prices continued to boom. In others, the expansion of credit persisted but slowed down, so that the trend in the credit-to-GDP ratio caught up with the actual ratio, even as property prices rose further after a pause. The boost to commodity prices induced by China's credit-fuelled post-crisis expansion played a key role. For a further discussion, see BIS (2014).

[13] Moreover, with international banks retrenching, a larger fraction of cross-border credit has taken the form of corporate securities issuance; Shin (2013) has talked about a "second phase of global liquidity" with reference to this development (see also Turner (2014) and BIS (2014)). The corresponding bigger role of asset managers relative to banks' can alter the specific dynamics of distress and amplification mechanisms (Shin (2013)). In addition, a growing fraction of emerging market securities have been issued by subsidiaries based outside the country of origin (McCauley et al (2013), Gruić and Wooldridge (2013)): to the extent that these funds are not repatriated, they do

Global bank credit aggregates, by borrower region

At constant end-Q4 2013 exchange rates — Graph 2



The vertical lines indicate the 2007 beginning of the global financial crisis and the 2008 collapse of Lehman Brothers.

[1] Aggregate for a sample of 56 reporting countries. [2] Total bank credit to non-bank borrowers (including governments), adjusted using various components of the BIS banking statistics to produce a breakdown by currency for both cross-border credit and domestic credit.

Sources: IMF, *International Financial Statistics*; BIS international banking statistics; BIS calculations.

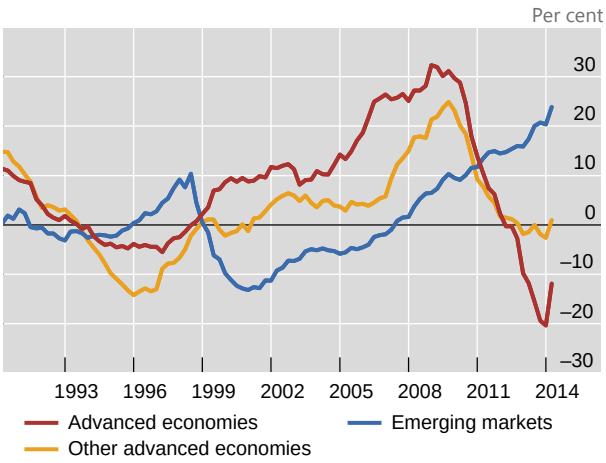
Third, a factor supporting the build-up of financial imbalances has been an unusually accommodative *global* monetary policy stance, both pre- and post-crisis, alongside strong foreign exchange accumulation (Caruana (2012b, 2013a,b), Borio (2013a,b)) (Graph 4). The top left-hand panel of Graph 4, updated from Hofmann and Bogdanova (2012), illustrates this with respect to variants of the standard Taylor rule; but a similar message would also emerge if one compared inflation-adjusted policy rates and medium-term growth estimates. Moreover, these Taylor rule benchmarks do not take into account the impact of several factors, which would suggest that the policy stance is even more accommodative than it appears. These include the impact of forward guidance concerning the future path of the policy interest rate and that of balance sheet policies, such as large-scale asset purchases, as well as the underestimation of the gap between actual output and sustainable output that tends to occur when financial imbalances build up (Borio et al (2013)).

not show up as liabilities in the international investment position (IIP) and, when they are repatriated, they are classified as FDI, not as portfolio liabilities. These can represent hidden vulnerabilities. This example again underlines the need to complement balance of payments statistics with data on the consolidated balance sheets of firms, be these banks or non-banks, and hence the relevance of the distinction between residence-based and nationality-based statistics. This issue is developed further in Borio et al (2014).

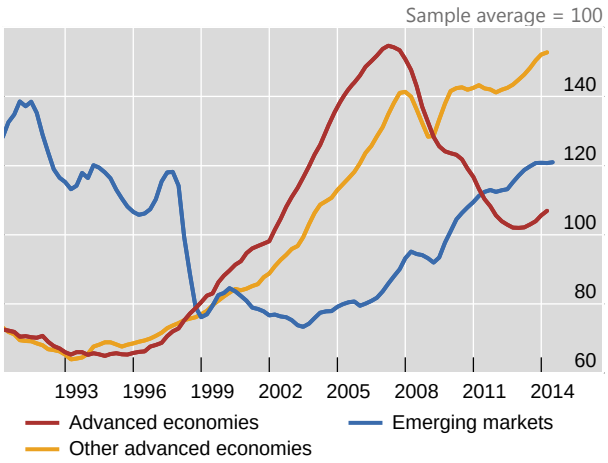
Credit gaps and property prices

Graph 3

Credit-to-GDP gaps[1]



Residential property prices[2]



Note: advanced economies = Ireland, Spain, the United States and the United Kingdom; emerging markets = Brazil, China, Hong Kong SAR, Korea, Indonesia, Singapore, Thailand and Turkey; other advanced economies = Australia, Canada, New Zealand, Norway and Sweden.

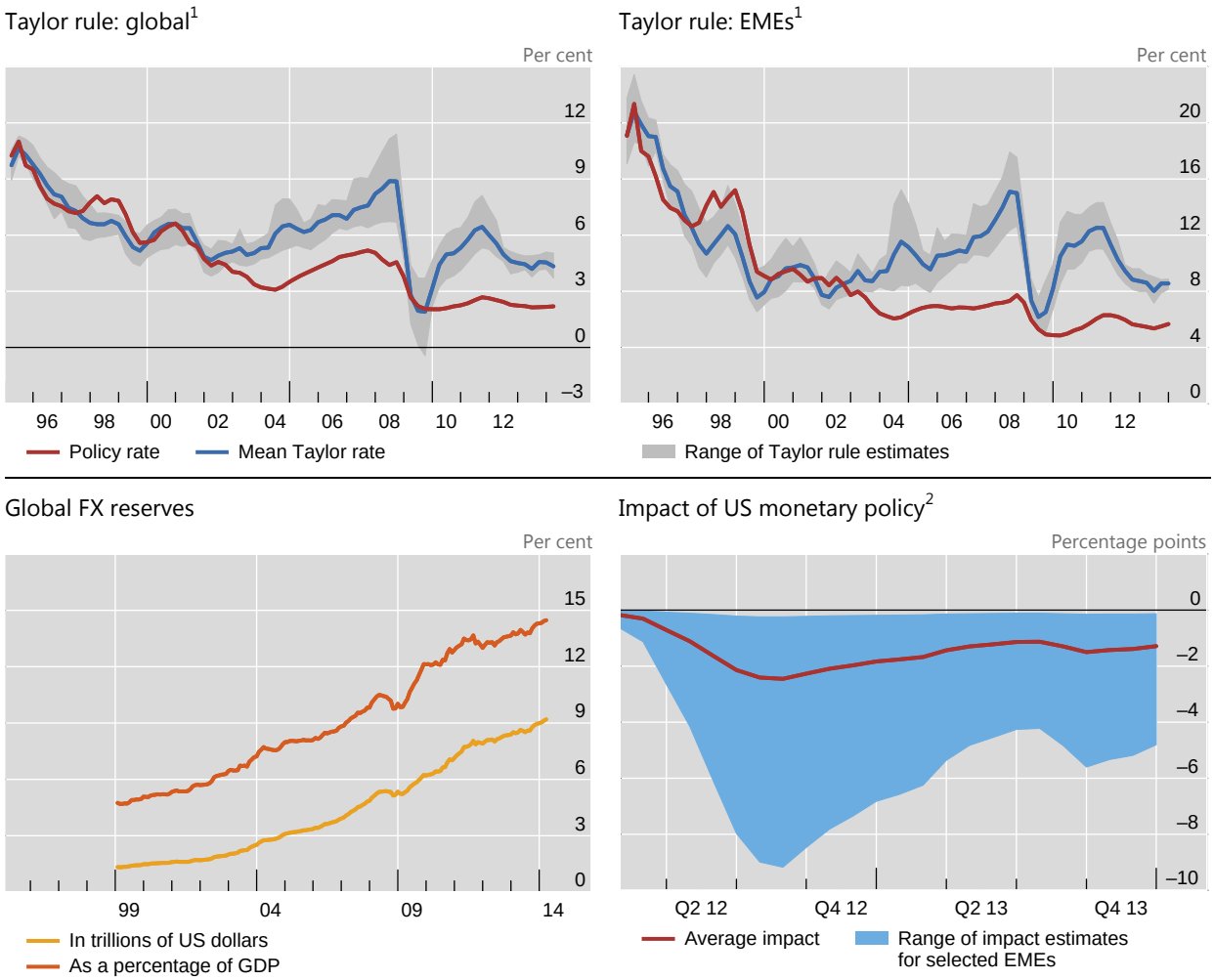
[1] The credit-to-GDP gap is the deviation from the credit-to-GDP ratio from a one-sided long-term trend. The smoothing parameter lambda is 400,000. Simple averages across countries. [2] Seasonally adjusted, quarterly averages, CPI deflated residential property price indices; simple averages across countries; definitions may differ across countries. Emerging market aggregate excluding Turkey.

Sources: National data; BIS calculations.

Finally, there is considerable evidence indicating that US monetary policy has a strong influence on monetary and financial conditions elsewhere, suggesting that exchange rates do not effectively insulate countries. This effect is especially powerful for bond yields (eg Obstfeld (2014)). But it emerges quite clearly in policy rates as well. For example, based on standard benchmarks, there is evidence that US policy rates have an impact on foreign policy rates beyond that of domestic conditions (Taylor (2013b), Gray (2013), Spencer (2013), Takáts (2014)). Graph 4 illustrates this point (bottom right-hand panel),[14] alongside the major accumulation of foreign exchange reserves, which to a considerable extent has been a by-product of resistance to unwelcome exchange rate appreciation.

[14] In his analysis, Obstfeld (2014) plays down the empirical significance of this effect. But his findings probably result from the technical specification of the regressions, which tends to obscure lower frequency effects.

Taylor rules and FX reserves accumulation Graph 4



[1] See Hofmann and Bogdanova (2012). [2] The component of the augmented Taylor equation driven by the shadow US policy rate when it is significant at the 5% level. Data are for Brazil, China, Colombia, the Czech Republic, Hungary, India, Indonesia, Israel, Korea, Mexico, Peru, the Philippines, Poland, Singapore (overnight rate), South Africa and Turkey.

Sources: IMF, *International Financial Statistics* and *World Economic Outlook*; *BIS Quarterly Review*, September 2012, pp 37–49.

II. Two popular alternative views

The excess financial elasticity hypothesis differs substantially from two popular alternatives: the excess saving and the excess demand for safe assets views.

The excess saving view

The excess saving view is probably the most influential paradigm in policy circles. It harks back to Keynes (1941), who advocated it strongly during the Bretton Woods negotiations (eg Steil (2013)).

This view is concerned squarely with current account imbalances and, more specifically, with the asymmetry of adjustment. While surplus countries are under no pressure to adjust, deficit countries, sooner or later, have no choice: if markets come to regard the deficit as unsustainable, they will deny access and refuse to finance it. This will cause a crisis and force the deficit country to sharply contract its aggregate demand. As a result, the global economy exhibits a deflationary or contractionary bias.[15] The remedy is to try to generate incentives for the surplus countries to allow their currency to appreciate and/or to boost their domestic demand: easier said than done. In recent years, the main large surplus countries targeted for adjustment have been China and Germany, with Germany having raised specific concerns within the euro area because countries there do not have the exchange rate safety valve (eg Goodhart and Tsomocos (2013)).

A variant of this view has linked current account imbalances with the Great Financial Crisis (eg Bernanke (2005, 2009), Economist (2009), King (2010), Krugman (2009), Wolf (2008)). According to it, an excess of saving over investment in emerging market countries, as reflected in corresponding current account surpluses, eased financial conditions in deficit countries and exerted significant downward pressure on world interest rates. As a result, this flow of saving helped fuel a credit boom and risk-taking in major advanced economies, particularly in the United States, thereby sowing the seeds of the global financial crisis. Seen from this perspective, monetary policy was simply offsetting powerful deflationary forces.

There are, of course, good reasons to be concerned about large and persistent current account imbalances. To the extent that they reflect domestic imbalances and/or unsustainable policies, they do raise first-order issues. For deficit countries, they may signal a chronic loss of competitiveness. After long periods of benign neglect, market participants may focus on them and induce sharp adjustments, including exchange rate or external crises.[16] And if banking crises break out, large current account deficits may easily increase the costs to the economy. Moreover, persistent current account imbalances, coupled with surplus countries' unwillingness to allow the exchange rate to appreciate, could generate damaging protectionist pressures and political friction. To some extent, this is what has already been happening.

[15] What follows does not discuss the equally long-standing view that, because of the disproportionate role of the US dollar as a reserve currency, this contractionary bias does not actually arise globally because the United States escapes the discipline that other deficit countries face; see, eg, Padoa-Schioppa (2010), Palais-Royal Initiative (2011) and, for overviews, James (1996) and Eichengreen (2011).

[16] Importantly, this paper's focus is on financial booms and busts and associated banking crises, which are especially disruptive for economic activity. This does not exclude the possibility that persistent current account deficits and net foreign positions may trigger exchange rate or external crises. There is a vast literature on this; see the paper by Catão and Milesi-Ferretti (2013) for a recent treatment and references. The two, of course, may be related; in particular, work by Kaminsky and Reinhart (1999) found that banking crises tended to precede exchange rate crises, suggesting a specific order of causation when the two occur. Jordà et al (2011), looking at the historical record of 14 developed countries, also find that credit growth in relation to GDP is the best single indicator of systemic banking crises, with current account imbalances having limited information content, generally in line with work at the BIS (eg Borio and Lowe (2002)). Similarly, Gourinchas and Obstfeld (2012) find a critical role of credit, alongside real currency appreciation, but based on a broader definition of crises, extended to also cover country defaults and currency crises, in both advanced and emerging market economies.

But in a world of free capital flows, a focus on current accounts is misleading. This is a world in which gross capital flows dwarf current account positions, which represent net capital flows across countries. And it is one in which changes in the value of assets and liabilities dwarf changes in current accounts in driving the net transfer of wealth across countries. In such a world it is mainly the value of gross stocks of assets and liabilities, and the imbalances that they hide, that represent the major source of vulnerability.[17]

Consider, in particular, the hypothesis that sees current account imbalances, and the excess saving they represent, as being at the origin of the financial crisis. While popular, this hypothesis is not convincing (Borio and Disyatat (2011)).[18] As argued above, the main cause of banking crises is the build-up of *financial* imbalances and their subsequent unwinding. And the relationship between this build-up and current accounts is tenuous at best. Empirically, current account deficits are not necessarily correlated with the build-up of financial imbalances (eg Hume and Sentance (2009)). In fact, some of the major and most disruptive ones in history built up and unwound in countries with current account *surpluses*. Think, for instance, of the United States ahead of the Great Depression (eg Persons (1930), Eichengreen and Mitchener (2003)), or Japan in the 1980s (Shirakawa (2011)). Indeed, in recent years an outsize financial boom has taken root in China (eg BIS (2014)). The link between current account and financial imbalances is much more nuanced. The build-up of financial imbalances, by boosting domestic expenditures relative to output, tends to reduce a current account surplus or increase a deficit. And, for much the same reasons, large and persistent current account positions are arguably better seen as a *reflection* of capital flows themselves.

The reason for the limited information content of current accounts in this context is simple (Borio and Disyatat (2011)). By construction, current accounts and the *net* capital flows they represent reveal little about financing. They capture changes in net claims on a country arising from trade in real goods and services and hence net resource flows. But they exclude the underlying changes in *gross* flows and their contributions to existing *stocks*, including all the transactions involving trade in financial assets, which make up the bulk of cross-border financial activity. As such, current accounts tell us little about the role a country plays in international borrowing, lending and financial intermediation, about the degree to which its real investments are financed from abroad, and about the impact of cross-border capital flows on domestic financial conditions.[19, 20]

[17] The importance of understanding global financial intermediation and its tenuous link to current accounts was a key theme in Kindleberger (1965) and Despres et al (1966). More recently, several observers have again highlighted the need to focus on the whole balance sheet of national economies and the corresponding gross flow and stock positions, albeit typically from a purely residence (balance-of-payments) perspective (Lane and Milesi-Ferretti (2008), Obstfeld (2010, 2012)).

[18] Borio and Disyatat (2011) provide a detailed critique of the excess saving view of the financial crisis, including a discussion of the determination of the interest rate.

[19] Moreover, in assessing global financing patterns, it is sometimes important to move away from the residence principle, which underlies the balance of payments and IIP statistics, to a perspective that consolidates operations of individual firms across borders. After all, it is these firms that are the relevant decision units. This has been a key motivation behind the enhancements to the BIS international banking statistics agreed in 2011-12 (CGFS (2012), BIS (2011, Chapter VI)) and has

All this matters greatly for policy prescriptions. Proponents of the excess saving view typically argue that surplus countries have room to expand aggregate demand and should do so in order to help rebalance the world. But whether expanding aggregate demand is a sensible prescription or not surely depends on domestic conditions.[21] Quite apart from whether the country is close to full employment or not, which could generate inflationary pressures, and whether its fiscal position is sustainable or not, the key issue from the present perspective is whether the expansion could generate or exacerbate financial vulnerabilities. If so, the remedy could be worse than the illness. For example, in the 1980s, Japan came under great pressure to expand its aggregate demand in order to reduce its large current account surplus. The subsequent policies no doubt helped fuel the build-up of financial imbalances that ushered in an extremely costly financial bust (eg Shirakawa (2011)).

At a deeper level, all this reflects the failure to make a sufficiently clear distinction between *saving* and *financing*. As a matter of identities, saving, a national-accounts concept, is simply income (output) not consumed; financing, a cash-flow concept, is access to purchasing power in the form of an accepted settlement medium (money), including through borrowing. Spending of any form, whether on pre-existing real or financial assets, or on goods and services for investment or consumption purposes, requires financing, not saving. In a closed economy, saving is not a pre-requisite for investment, but materialises only once investment takes place if the necessary financing is available. In an open economy, by construction, a current account deficit somewhere must be matched by a surplus elsewhere. But countries running current-account surpluses are *not* financing those running current-account deficits. The underlying consumption and investment expenditures that generate those positions may be financed in a myriad of ways, both domestically and externally. And what is true of expenditure flows is, a fortiori, true of the financing of the stock of real and financial assets.

The excess demand for safe assets view

The view that the Achilles heel of the international monetary and financial system is a chronic excess demand for safe assets has a number of strands. The most relevant in the present context focuses on another asymmetry: that between countries that issue international currencies, eligible for official reserve holdings, and those that do not. Those reserve assets should be as safe as possible, as they are used as a source

proved again quite useful in understanding the vulnerabilities ahead of the Great Financial Crisis (eg Borio and Disyatat (2011), McGuire and Von Peter (2009)), having proved quite valuable in the past (eg McGuire and Wooldridge (2005)). But it is a point that has also been stressed for quite some time in the vast literature on multinational companies (eg Dunning (2008), Leinert (2004)).

[20] This, of course, is also true of previous historical periods of high capital mobility. For instance, a lot of attention has been paid to the reparations question, and the associated transfer problem, as a source of economic crises in the interwar years (eg Keynes (1929) and Ohlin (1929)). Borio et al (2014), however, highlight how unsustainable gross capital flows into Germany played a key role in the financial crisis there. In important respects, the experience was not that different from that seen in recent years.

[21] To varying degrees, both at the G20 and European Union level, there is a recognition that whether current account surpluses/deficits are a problem and require action depends in part on the factors behind them (eg G20 (2011)). That said, both approaches still play down the role of financial imbalances relative to that of current account imbalances.

of liquidity (eg Fahri et al (2011), Landau (2013)). Only few countries, however, can produce them and, among them, the United States reigns supreme, given the US dollar's outsize international role.

The chronic excess demand arises for several reasons. First, emerging market economies are growing much faster than those issuing international currencies and have a comparative disadvantage in producing safe assets. Second, financial crises generate a demand for self-insurance, ie for high holdings of foreign currency reserves, not least as the international provision of emergency liquidity assistance is limited. This is so for both economic reasons (eg moral hazard concerns) and political reasons, ie the unwillingness to put domestic taxpayers at risk. Third, from a long-term perspective, the soundness of fiscal positions in countries issuing international currencies is in doubt, not least owing to the aging of their population – a deficiency exacerbated by the large deterioration in fiscal positions associated with the financial crisis.

The result is a new version of the Triffin (1960) dilemma. On the one hand, sovereign debt in the jurisdictions issuing international currencies has to grow to meet the demand for safe assets. On the other hand, because public debt is already very high, those very increases could undermine the sovereign's creditworthiness, making the corresponding liabilities unsafe. This, in turn, exacerbates the excess demand for safe assets.

What are the consequences of this excess demand? On balance, proponents of this view tend to argue that they result in a contractionary bias. One strand sees this arising from the implications of the excess demand for current accounts. In an effort to self-insure, countries may depress domestic demand to accumulate reserves – a form of precautionary saving. Another variant highlights how if the price of the safe assets cannot rise sufficiently – its yield fall enough – because of the zero lower bound constraint, output will drop (eg Caballero and Farhi (2013)). In yet other variants, the reduction in the yield on safe assets can result in "bubbles" (Caballero (2007)).[22] The volatility they generate is argued to raise precautionary saving.

On the surface, the story is quite appealing. It appears consistent with the strong accumulation of foreign exchange reserves by emerging market economies and the safe haven flows into US Treasury securities, which have helped to drive their price down. And it seems vindicated by the attempts to manufacture high-rated assets through financial engineering ahead of the crisis (risk-tranching technologies) (eg Caballero (2010), Bernanke et al (2011), Bertaut et al (2011)).

And yet, it is open to both conceptual and empirical objections.

Conceptually, a story about an excess demand for safe assets should be a story about gross flows and stocks. As noted above, financial assets and liabilities are linked to financing flows. But in the aggregate, as a matter of identities, there need be no link between the creation of assets and liabilities and saving behaviour. And

[22] Note, however, that in the formal models these bubbles are efficient and actually improve welfare: they are a mechanism to generate stores of value (raising the price of assets) where there is a shortage. The inability to pledge safe assets lowers the equilibrium real interest rate and raises the price of assets, driving a wedge between this interest rate and the higher marginal return on capital. These (fully anticipated or rational) equilibrium bubbles are a far cry from the disruptive ones policymakers care about.

yet, all formal models of the excess demand for safe assets are about net flows, current accounts and saving/investment imbalances. Take, for instance, the case of foreign exchange reserves. By construction, reserves are accumulated through official sector purchases of liquid assets denominated in foreign currency: this is a gross, not a net, capital flow that can occur regardless of the current account position.[23]

This also makes clear just how misleading it is to argue, as is commonly done, that countries need to generate a current account surplus, and hence contract domestic demand, to accumulate reserves. Why would they wish to do so if they could simply accumulate reserves by buying them in the market? Presumably, they would have such an incentive only if they wanted to avoid inducing a depreciation of their currency through those purchases. This might be a valid consideration if the country faced an exchange rate crisis or excessive inflation. But it would be self-defeating otherwise if the main concern was supporting growth and hence external competitiveness (see below). In that case, the country would be more than happy to accept a depreciation of the currency, or to limit appreciation pressures. In the process, it would buy "self-insurance" without sacrificing growth.

Empirically, upon closer examination, the evidence is not that convincing. For one, strong demand for safe assets in the run-up to the Great Financial Crisis should have led to a widening, not a narrowing, of the spread between safe and risky assets. Associating this demand for safe assets with a search for yield is misleading, since higher demand for safety points to higher, not lower, risk aversion or risk perceptions.[24] More importantly, the accumulation of foreign exchange reserves that has taken place since the 1997 Asian crisis has only partially reflected self-insurance considerations. Self-insurance was no doubt a key motivation in the aftermath of that crisis and it may be a side-benefit of *any* reserve accumulation. But, as argued above, since at least the mid-2000s the main motivation has been resisting currency appreciation to support competitiveness and growth, ie reserves have increased as a by-product of exchange rate and monetary policies. In fact, many non-emerging market economies, including some that are well-known for issuing internationally safe assets, have done exactly the same; Switzerland is the most obvious example.[25, 26]

[23] The only exception would be the acquisition of foreign currency assets as the counterpart of a direct provision of a service/sale of an asset. But this is not how reserves are generally increased.

[24] One possible way of reconciling the two would be to assume heterogeneous investors, so that a higher precautionary demand for safe assets by some induces higher risk-taking by others. Under some conditions, this could conceivably result in a narrowing of the spread.

[25] Arguably, there is nothing new about the importance of this mechanism. In fact, McKinnon (1993) regards it as the main channel through which easy US monetary policy spread to the rest of the world in the post-Bretton Woods era.

[26] Moreover, reserve managers in large surplus countries, such as China and Japan, never bought the AAA-rated private label mortgage securities that were at the epicentre of the crisis; see Table 1 in Ma and McCauley (2013).

III. Way forward, progress and risks

Necessary adjustments to policy regimes

If the excess financial elasticity view is correct, what adjustments to policy regimes are called for? There is a need to strengthen safeguards both domestically and internationally; after all, as Taylor (2013) has reminded us, better domestic policy reduces unwelcome international spillovers.[27] And there is a need to adjust a broad set of policies, including prudential, monetary and fiscal ones: financial cycles are simply too powerful to be left to one type of policy alone. The objective is to tame the procyclicality of the financial system and disruptive financial cycles.

The adjustments to domestic policy regimes have been discussed in more detail elsewhere (eg Borio (2013a,b), Caruana (2010, 2012b)). Here, a short summary should suffice.

During financial booms the key is to build up buffers to create the necessary policy room for manoeuvre to address the bust and to restrain the boom in the first place. For prudential policy this means strengthening its macroprudential (systemic) orientation based on a sound microprudential foundation.[28] For monetary policy it means leaning against the build-up of financial imbalances even if near-term inflation remains low and stable. And for prudential policy it means recognising the hugely flattering effect that financial booms have on the fiscal accounts, because of the overestimation of potential output and growth (Borio et al (2013)), the revenue-rich nature of financial booms (compositional effects) and the hidden swelling of contingent liabilities needed to address the bust.

During financial busts the key is to address head-on the debt-overhang/asset quality nexus to improve the overall quality of balance sheets, thereby improving overall creditworthiness at the root. For prudential policy, this means using it aggressively to repair financial sector balance sheets. For fiscal policy, it means using any available fiscal space – or indeed creating that space – to support the repair of private sector balance sheets while avoiding a sovereign crisis. These two sets of measures would reduce the risk of overburdening monetary policy and make it easier to limit the degree and length of accommodation, which can generate unwelcome domestic and international side effects.

The result of all this would be more symmetrical policies as between financial booms and busts, thereby avoiding the progressive loss of room for manoeuvre – monetary, fiscal and prudential – over time. Such a holistic strategy would, in turn, go a long way towards addressing any potential risk of shortage of safe assets by

[27] Taylor (2013a) formalises this point based on traditional macroeconomic models, which do not allow for the possibility of financial booms and busts. But the reasoning can be generalised to other analytical frameworks as well.

[28] The evidence on balance suggests that while macroprudential tools no doubt can strengthen the resilience of the financial system, their effectiveness in restraining financial booms varies across them and is more uncertain. See, for instance, Lim et al (2011), Claessens et al (2013) and Kuttner and Shim (2013).

safeguarding the creditworthiness of private and public sector balance sheets (see also below).

What to do internationally? The priority is to strengthen cooperation in the three policy areas so as to better internalise the externalities involved. But, as always, the obstacles loom even larger than in the domestic context. At a minimum, there is a need for a better appreciation of the negative spillovers involved, along the lines discussed above.

Importantly, in contrast to prevailing views, greater cooperation does *not* involve violating national mandates, although it is often argued that it does. Rather, it calls for an understanding that unadjusted policies result in spillover effects that, sooner or later, will come back to haunt individual economies, like a boomerang. What it calls for, therefore, is "enlightened self-interest". The analogy here is with the shift in perspective from a microprudential to a macroprudential perspective in national regulation and supervision. From a macroprudential viewpoint, it is now recognised that focusing on the safety and soundness of individual institutions, considered on a *standalone* (microprudential) basis, is not sufficient to ensure that the system as a whole is safe: correlations of exposures and interlinkages matter a lot for the assessment of risks and the calibration of a policy response. And what is true of individual financial institutions in a financial system is also true of individual countries in the global economy. Paraphrasing Padoa-Schioppa (2008), putting one's own house in order may be necessary, but is not sufficient, for the global village to be in order.[29]

Progress and risks

Judged on this basis, progress has been uneven but, on balance, has been falling short of the mark (Borio (2013b)).

Progress has advanced further in domestic policy regimes, but has varied considerably across areas. Prudential policy is furthest ahead. Basel III, in particular, has greatly strengthened capital and liquidity standards and also adopted a macroprudential perspective to address the procyclicality of the financial system. The best example is the adoption of a countercyclical capital buffer for banks. And this step has been part of a much broader trend to put in place fully-fledged macroprudential frameworks in national jurisdictions – a goal strongly supported by the G20 (FSB-BIS-IMF (2011)). Monetary policy has shifted somewhat. It is now generally recognised that price stability is no guarantee of financial stability, and a number of central banks have been adjusting their frameworks to incorporate the option of tightening during booms. A key element has been to lengthen policy horizons. That said, no consensus exists as yet on the desirability of such adjustments and "pulling the trigger" has not proved easy (eg BIS (2014)). Moreover, the side effects of prolonged and aggressive easing after the bust remain controversial. Fiscal policy is probably furthest behind. So far, there is little recognition of the need to incorporate the impact of the financial cycle in

[29] Similarly, enlightened self-interest would still leave unexploited benefits, owing to the externalities involved (eg Rajan (2014)). The point here is simply that, realistically, enlightened self-interest would, by itself, represent a major step forward.

assessments of fiscal sustainability or to explore the limitations of expansionary fiscal policy in balance sheet recessions.

Progress has been much more limited in international arrangements. To be sure, as Basel III indicates, despite difficulties, the long tradition of cooperative decisions in prudential regulation and supervision has continued. Indeed, Basel III's countercyclical capital buffer for the first time has implemented arrangements explicitly designed to deal with cross-border regulatory arbitrage when tackling credit booms – a model that could also be extended to other macroprudential tools (Borio et al (2011)). But efforts to ensure the sustainability of fiscal positions and international monetary policy cooperation have lagged behind.

A fundamental problem is that the main shortcoming of the IMFS is still perceived to be its inability to prevent large current account imbalances. This is, for instance, the major focus of the G20 deliberations. In fact, the term "imbalances" is often just shorthand for "current account" imbalances. Financial imbalances continue to play a peripheral role at best. Admittedly, they can and are considered in the context of discussions of "global liquidity". These have become a regular element of exchanges of view both at the G20 and at meetings of the Committee on the Global Financial System (CGFS) at the BIS. But they do not receive the attention and urgency they deserve.

Looking ahead, what are the risks that arise if policy fails to adjust? I would highlight three: the risk of entrenching instability in the system; that of a return to disruptive competitive devaluations analogous to those of the interwar years; and that of an epoch-defining change for the worse in policy regimes. Let me explain.

The risk of entrenching instability reflects a new form of time inconsistency, more insidious than the more familiar one in the context of inflation. Policies that are too timid in leaning against financial booms but that are then too aggressive and persistent in leaning against financial busts may end up leaving the authorities without any ammunition left over successive financial and business cycles (Borio (2013a,b)).

The symptoms that this risk may be materialising are not hard to find. Central banks keep exploring the outer limits of monetary measures, fiscal positions are on an unsustainable long-term path in several jurisdictions,[30] and resistance to the implementation of tougher capital and liquidity prudential standards for banks has been fierce. Moreover, looking ahead, troubling signs of the build-up of financial imbalances in several countries less affected by the Great Financial Crisis point to the risk of disruptive financial busts. And these might occur before the advanced economies most affected by it are completely out of the woods and have restored the necessary policy room for manoeuvre (BIS (2014)).

With specific reference to interest rates, this time inconsistency could manifest itself in the form of a debt trap (Borio and Disyatat (2014), BIS (2014)). Accordingly, asymmetric monetary policy responses over successive business and financial cycles would contribute to financial crises and very long-lasting effects on output and growth while at the same time encouraging the build-up in debt (Graph 5). This, in turn, would make it hard to raise interest rates without causing large economic

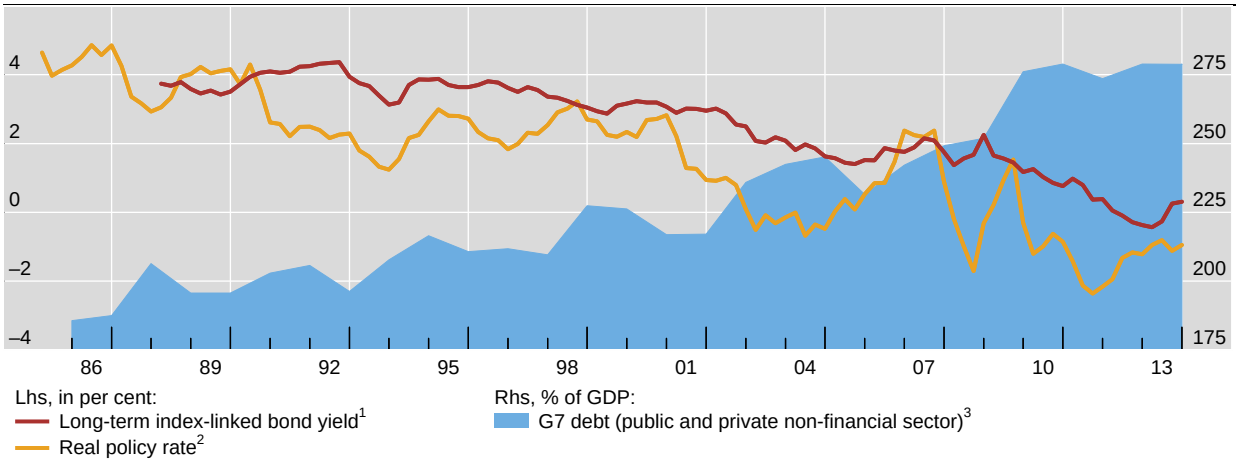
[30] For a discussion of debt levels and sustainability, see Cecchetti et al (2010) and Cottarelli (2013).

damage. From this perspective, interest rates would then be self-validating and not necessarily equilibrium or "natural" ones.[31]

In such an environment, the risk of resorting to competitive depreciations is never far away. Indeed, despite relative buoyancy in emerging market economies post-crisis, worryingly, the term "currency wars" has been all too often on policymakers' lips. The G7 has sought to contain the risk by differentiating between legitimate and illegitimate depreciations: legitimate ones occur as a by-product of seeking to achieve domestic non-inflationary growth; illegitimate ones reflect efforts to target the exchange rate as a means of gaining competitiveness, and hence have a more explicit "beggar-thy-neighbour" character. But the line between the two is a fuzzy one. And the political environment would become more hostile and divisive were the economic situation to deteriorate further at some point.

Low interest rates in a time of debt

Graph 5



1 From 1998; simple average of France, the United Kingdom and the United States; otherwise only the United Kingdom. 2 Weighted averages for G7 economies based on 2005 GDP and PPP exchange rates. 3 Sum across G7 countries converted to USD at market exchange rates.

Sources: IMF; national data; BIS estimates.

But the ultimate risk is that of yet another epoch-defining change in the underlying economic regimes that hold the best promise of long-term prosperity, viz a global economy that is integrated in real and financial terms underpinned by monetary regimes that deliver long-lasting price stability. As historians such as Niall Ferguson (2010) and Harold James (2001) keep reminding us, such disruptive changes often occur quite abruptly and when least expected. This is how the first globalisation wave ended in the 1930s.

So far, institutional setups have proved remarkably resilient to the huge shock of the Great Financial Crisis and its tumultuous aftermath. But could institutional setups withstand yet another shock? There are troubling signs that globalisation may be in retreat – signs of growing financial and trade protectionism, as states struggle to come to grips with the de facto loss of sovereignty. Meanwhile, the consensus on the merits of price stability is fraying at the edges. And as memories

[31] See, in particular, Borio and Disyatat (2014) for an elaboration of the argument.

of the costs of inflation fade, the temptation to get rid of the huge debt burdens through a combination of inflation and financial repression grows. Looking back at the historical record, it is tempting to say "what goes around, comes around".

Conclusion

Every historical period has been marked by debates about the proper design of the international monetary and financial system. Today, as in the past, the debate is proceeding unabated. And today, as in the past, the stakes are high.

In this essay I have argued that the Achilles heel of that system is that it amplifies the "excess financial elasticity" of domestic monetary and financial regimes, ie it exacerbates their inability to prevent the build-up of financial imbalances, or outsize financial cycles, that lead to serious financial crises and macroeconomic dislocations. This view contrasts sharply with others that, so far, have received more attention. To varying degrees, these emphasise the failure of the system to prevent disruptive current account imbalances and its tendency to generate a structural shortage of safe assets – the "excess saving" and "excess demand for safe assets" views, respectively.

If this analysis is correct, making progress calls for broad-based adjustments to domestic policy regimes and to their international interaction, impinging on monetary, financial and fiscal policies. The essence of the adjustment is to put in place policies that are more symmetric across the boom and bust phases of financial cycles. These policies would lean more deliberately against booms and ease less aggressively and persistently during busts. By so doing, they would reduce the likelihood and intensity of disruptive financial busts and avoid the current expansionary bias policies – an expansionary bias that, paradoxically, over time heightens the probability of major contractions and stagnation.

Progress so far has been uneven but, on balance, has fallen short of the mark. It has advanced most in the prudential field, less in the monetary field and least in the fiscal field. And it has proved especially elusive as regards international cooperation, except in the area of prudential regulation and supervision. A key obstacle is the continued focus on current account imbalances as opposed to financial imbalances. Incorporating financial factors systematically in the evaluation and design of policies remains a major challenge.

The risks of failing to implement the necessary policy adjustments should not be underestimated. They include entrenching instability in the global system, returning to the modern equivalent of the divisive competitive devaluations of the interwar years and, ultimately, triggering an epoch-defining seismic rupture in policy regimes, back to an era of trade and financial protectionism and, possibly, stagnation combined with inflation. Developing a consensus on the diagnosis would be a first, small step in the right direction.

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