

Commentary: Global Liquidity: Public and Private

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I would to thank the organizers for the kind invitation to discuss a paper on an issue that has figured prominently in BIS thinking: global liquidity. Jean-Pierre Landau has written a very rich and wide-ranging contribution, keying off a 2011 report by the Committee on the Global Financial System (CGFS), which he admirably chaired, and which in turn partly drew on BIS research. Not surprisingly, there is a lot with which I agree in what he says. As discussant, I will highlight some of these areas, and, as is my duty, offer a complementary personal perspective and note a few points of possible disagreement.

Three Takeaways from My Presentation

First, liquidity is *unobservable*: we can only measure it indirectly; we can only see its *footprints*. Which footprints matter most depends on the question. If we care about financial instability and its major macroeconomic dislocations, then it is the behavior of credit, jointly with that of property prices, that is the critical footprint.

Second, to my mind, the Achilles' heel of the international monetary and financial system (IMFS), is not so much, paraphrasing Jean-Pierre, the risk of a "structural excess demand for safe assets," as he seems to suggest, but its "excess elasticity" (Borio and Disyatat 2011). By "excess elasticity" I mean its inability to prevent liquidity-fueled

buildups of financial imbalances in the form of unsustainable credit and asset price booms (“financial imbalances”), thereby amplifying weaknesses in domestic policy regimes. This concept of elasticity has a long tradition in economics, especially in the context of credit creation. Think of an elastic band, which you can stretch out further but at some point snaps back with a vengeance.

Third, I would focus more on prevention than crisis management, i.e., on restraining liquidity surges rather than on offsetting their collapse, such as through safety nets. This, in turn, calls for a broad set of adjustments to monetary, prudential and fiscal policies, both nationally and internationally.

My remarks are structured as follows. At the cost of some inevitable oversimplification, I will summarize Jean-Pierre’s argument. I will then provide some personal reflections on the definition, measurement and drivers of global liquidity, on the diagnosis of the challenges global liquidity poses and on possible cures.

I. Jean-Pierre’s Argument: Definition, Diagnosis and Cure

Definition

Jean-Pierre, drawing on the CGFS report, identifies liquidity with “ease of financing.” He goes on to make a distinction between private liquidity, which is created by banks and other financial institutions, and official liquidity, defined as “funding that is unconditionally available to settle claims through monetary authorities,” and which only a central bank can create. He then identifies global liquidity with the cross-border, foreign currency aspects of liquidity. Examples include cross-border or foreign currency credit or foreign exchange reserves.

Diagnosis

Jean-Pierre’s diagnosis can be summarized in two propositions.

First proposition: There are disruptive cycles in liquidity. Ebbs and flows in private global liquidity amplify disruptive financial booms and busts that lead to systemic financial crises and derail the real

economy. Here, Jean-Pierre highlights the self-reinforcing interaction between risk taking, on one hand, and liquidity, on the other, as well as the limited insulation properties of exchange rate flexibility.

Second proposition: The operation of the IMFS raises the risk of a “structural excess demand for safe assets”—my terminology (Jean-Pierre prefers to talk about a “shortage of safe assets”). The inevitably limited availability of official foreign currency liquidity facilities adds to the precautionary financial-crisis-driven unwelcome scramble for foreign currency reserves; i.e., there is too much self-insurance. This, in turn, exacerbates the risk of a “global shortage of safe assets” generated by the financial crisis (because of doubts about the safety of most privately produced assets) and creates a new “Triffin dilemma.” On one hand, sovereign debt in the jurisdictions issuing international currencies *has to grow* to meet the demand for safe assets so as to avoid potentially very damaging outcomes: the adjustment to that excess demand could take place through contraction of private liquidity and deflation. On the other hand, because public debt is already very high, those very increases could undermine the sovereign’s creditworthiness, so that its liabilities would no longer be safe. This would exacerbate the excess demand for safe assets.

Cure

When considering the appropriate policy response, Jean-Pierre focuses on the international aspects of the problem.

As regards prevention, he argues that policymakers should rely mainly on regulation and supervision, notably on macroprudential tools. They may also resort to capital management measures if the need arises. But, Jean-Pierre rightly stresses, in doing so they should beware of fragmenting the global financial system. By contrast, Jean-Pierre dismisses monetary policy cooperation as a means of addressing unwanted spillovers.

As regards crisis management, he sees some scope for improving international liquidity safety nets, based on the time-honored distinction between the idiosyncratic and systematic shocks that can hit countries. In turn, this would mitigate the safe-asset-shortage problem.

II. My Assessment: Definition, Measurement and Drivers of Liquidity

The definition of liquidity as “ease of financing” is surely broadly right. More precisely, I would define liquidity as the ease with which perceptions of value can be turned into purchasing power (Borio 2009). These perceptions can be as transparently intangible as when they relate to future income and cash flows, or as deceptively tangible as when they are embodied in the value of assets, be they financial or real. This notion is common to all variants of “liquidity”: think of “funding liquidity as the ease with which one can raise cash, and of “market liquidity” as the ease with which one can sell assets.

I would nuance Jean-Pierre’s analysis in one important respect. I would stress that liquidity is an unobservable condition of the system, a property of its general equilibrium, and that is not embodied in any specific asset. It is misleading to identify, say, official liquidity with specific forms of funding or foreign exchange reserves.

The implication for measurement is that all we can see are the “footprints” of liquidity. One such footprint comprises indicators of *risk perceptions and tolerance*, such as the popular VIX, which captures implied volatility in the equity market (e.g., Bruno and Shin 2012; and Rey, in this volume). Another footprint comprises the *terms and conditions* at which funding is granted, or assets are bought and sold, such as the cost of funding, collateral terms, bid-ask spreads, and so on. Yet another, important, footprint comprises the volume and price *consequences* of those terms, notably the behavior of credit and asset prices.

The key challenge in all this is to avoid getting lost; to make sure one does not miss the wood for the trees. The answer is that what to look for depends on the question. In particular, if the focus is on identifying the risk of financial meltdowns with serious macroeconomic damage, at the BIS we have found that *the* critical footprint is the *joint* behavior of credit and property prices. This is the best real-time signal of the buildup of systemic and macroeconomic risks (Borio and Drehmann 2009). And it is also the best single joint indicator of disruptive “financial cycles” (Drehmann et al. 2012; Borio 2012).

What about “global” liquidity? There is a narrow definition, which Jean-Pierre adopts. This refers to the *international* dimension of liquidity conditions, be it across currencies, such as the use of currencies outside country of issue, or across borders, as reflected, importantly, in *gross*, not on net, capital flows (Borio and Disyatat 2011). There is also a broader definition, which refers to *aggregate* liquidity conditions across currencies and countries.

What aspect to focus on, again, depends on the question. For example, it is true that foreign currency and cross-border credit tends to outpace domestic credit during unsustainable credit booms (e.g., Borio et al. 2011; Avdjiev et al. 2012; and Lane 2013). But its relevance should be seen within the context of the total credit expansion and associated vulnerabilities. Likewise, growth in *global* international credit may be rather slow in the aggregate. But this may reflect asynchronous financial cycles across countries, as some deleverage during busts and others leverage up during booms. As a result, it can mask significant vulnerabilities (e.g., Caruana 2013).

What about the drivers of liquidity, so critical for diagnosis and cure? There are private-sector drivers. The key one here is private agents’ *loosely anchored* perceptions of value and risk as well as their risk tolerance or appetite, both of which fluctuate over booms and busts, as Jean-Pierre rightly notes. And there are public-sector drivers, which reflect policymakers’ choices. Policymakers set the terms—price and nonprice terms—at which they provide funding and transact assets, which is largely what central banks do. They place restrictions on economic agents, which is largely what prudential regulation does. And, last but not least, they determine the degree of *fiscal capacity* and hence the *ultimate* liquidity backstop, which is what fiscal policy does.

Concerning the role of fiscal policy, Jean-Pierre rightly highlights that the solvency of the state is the ultimate precondition for monetary, financial and macroeconomic stability. In the long run, I would add, a state that is not creditworthy faces default or the debasement of the value of its currency or, most likely, both.¹ The implication is that while *technically* unlimited, the liquidity central banks supply is *far from all-powerful*. When financial stress emerges, it can at best

provide short-term relief, including to its own sovereign. This fundamental point is often forgotten in some policy discussions.

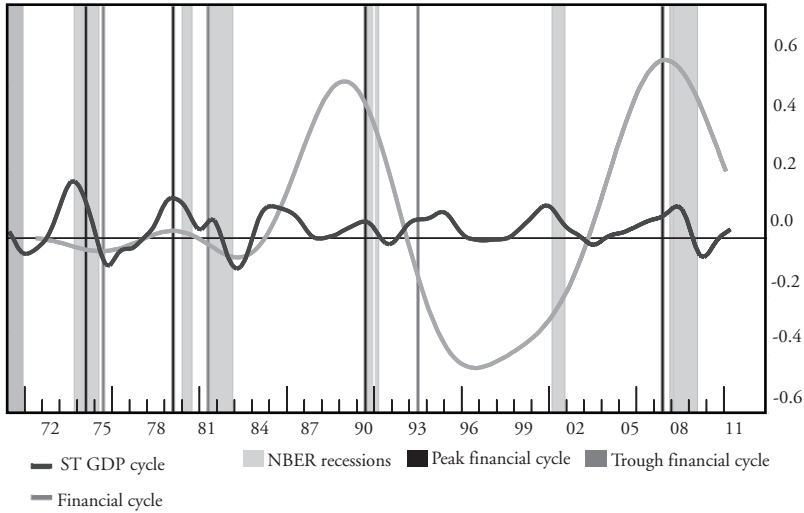
III. My Assessment: Diagnosis

I very much agree with Jean-Pierre's first proposition, i.e., the destabilizing feedback between liquidity and risk perceptions at the heart of financial booms and busts. By contrast, I have considerable doubts about the second, i.e., his discussion of safe asset shortages. I believe it overplays the role of the *precautionary* demand for foreign currency reserves at the expense of the *interaction of monetary policy reaction functions*; and that it overplays the risk of a structural *demand-induced* shortage of safe assets at the expense of the risk of a progressive decline in their (private *and* public sector) *supply, as creditworthiness slides* over successive financial busts that follow booms, i.e., over successive financial cycles.

This is why I say that the Achilles' heel of the international monetary and financial system is not so much the risk of a structural "*excess demand for safe assets*," as Jean-Pierre might say, but its "*excess elasticity*," i.e., the inability of policy regimes in place—monetary, prudential and fiscal—to prevent successive financial boom and bust cycles. The main symptom is the greater amplitude of credit and property price financial booms and busts since the mid-1980s—financial cycles that last much longer than traditional business cycles (16-20 rather than eight years), as documented in BIS research (Drehmann et al. 2012).

As an illustration, Chart 1 shows this for the United States. The chart plots the traditional business cycle (black line) and the financial cycle (gray line) as measured through band-pass filters as well as peaks and troughs (vertical lines). The financial cycle is identified by combining the behavior of credit, property prices and the ratio of private sector credit to GDP. The difference in duration is obvious. The chart also clearly indicates that financial cycles have doubled in length since the early and mid-1980s and that they have become especially virulent since the early 1990s.

Chart 1
The Financial and Business Cycles in the United States



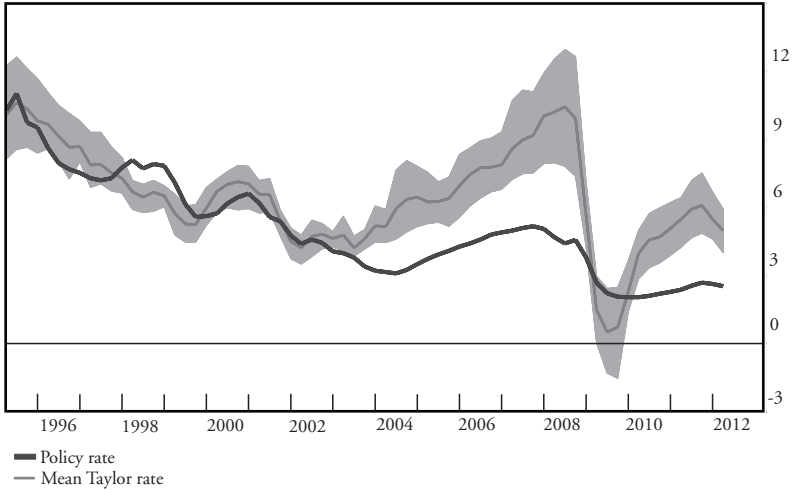
Note: Black and gray bars indicate peaks and troughs of the combined cycle using the turning-point method. The frequency-based cycle (gray line) is the average of the medium-term cycle in credit, the credit-to-GDP ratio and house prices (frequency based filters). The short- term GDP cycle (black line) is the cycle identified by the traditional short-term frequency filter used to measure the business cycle. The amplitudes of the black and gray lines are not directly comparable.
Source: Drehmann et al. (2012).

What Is the Role of Policy in This Excess Elasticity?

Domestically, policy regimes have paid insufficient attention to the need to restrain financial booms (see below).

Internationally, two factors have exacerbated this.² First, the interaction of *financial* regimes: mobile financial capital across currencies and borders adds an important external (marginal) source of finance—recall the outsize role of external credit in unsustainable credit booms noted above—and induces overshooting in exchange rates, through familiar channels. In fact, these channels are analogous to those that result in unsustainable asset price booms in a domestic context. Second, the interaction of *monetary* regimes spreads easy monetary conditions from core economies to the rest of the world, thereby increasing the risk of unsustainable financial imbalances. It does so *directly*, because currency areas extend beyond national jurisdictions. Think, in particular, of the huge international role of the U.S. dollar. Policy in international-currency countries has a more direct influence on financial

Chart 2
Global Taylor Rule In Percent



Note: The Taylor rates are calculated as $i = r^* + p^* + 1.5(p - p^*) + 1.0y$, where p is a measure of inflation, y is a measure of the output gap, p^* is the inflation target and r^* is the long-run level of the real interest rate.

Source: Hoffmann and Bogdanova (2012).

conditions elsewhere. More importantly, it does so *indirectly*, through resistance to exchange rate appreciation, i.e., through the interplay of policy reaction functions.³ Policymakers in the rest of the world keep policy rates lower than otherwise and/or intervene and accumulate foreign currency reserves. Importantly, this accumulation is *not* precautionary but the *byproduct* of those policies.

I would suggest that this has been true both pre-crisis and, despite policy adjustments, *post-crisis* (Caruana 2012b, 2013a,b; Borio 2013). The global (aggregate) monetary policy stance appears too accommodative judged on the basis of traditional benchmarks. Chart 2, 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.⁴ At the same time, several (including large) emerging market economies and also quite a number of advanced economies less affected by the crisis (especially commodity exporters) have been struggling with the buildup of financial imbalances eerily reminiscent of those seen pre-crisis in advanced economies most affected by it.

The bottom line is that there is a risk of *yet another round* of deterioration in private and public sector creditworthiness and of a further loss in policy room for maneuver. This would occur if the financial busts materialized again and fed back on the countries most affected by the previous crisis—a kind of boomerang effect.

IV. My Assessment: Cure

In order to better address these liquidity-fueled financial booms and busts, I would argue that it is necessary to adjust policy regimes (Borio 2012, 2013; Caruana 2010, 2012b). There is a need to strengthen safeguards both domestically *and* internationally; after all, better domestic policy reduces unwelcome international spillovers. And there is a need to adjust a broad set of policies, including prudential, monetary and fiscal; financial cycles are simply too powerful to be left to one type of policy alone. While with significant overlaps, these suggestions differ somewhat from Jean-Pierre's, who does not discuss domestic adjustments and proposes a different mix and emphasis.

What To Do Domestically?

During financial booms the key is to build up buffers to create the necessary policy room for maneuver 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. For monetary policy it means leaning against the buildup of financial imbalances even if near-term inflation remains low and stable. And for prudential policy it means recognizing 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 at the root overall creditworthiness. 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 of maneuver over time—monetary, fiscal and prudential. Such a holistic strategy would, in turn, go a long way toward addressing any *potential* risk of shortage of safe assets. As of now, I do not see any, at least in the sense outlined in Jean-Pierre’s paper.

What to do internationally? The priority is to strengthen cooperation in the three policy areas so as to better internalize the externalities involved. Here I disagree with Jean-Pierre concerning monetary policy. Despite the obvious difficulties, a better appreciation of the negative spillovers and associated consequences for one’s own economy, based on closer exchanges of information and discussions, is both feasible and desirable. Call it, if you wish, “enlightened self-interest.” This is no different, in fact, from what has been inspiring cooperation in the financial regulatory and supervisory area, as Jaime Caruana stressed last year at this very event. None of this is in any way inconsistent with national mandates.

The bottom line is deceptively simple. In a highly globalized world, in all policy areas keeping one’s own house in order is necessary but not sufficient to address our common challenges.

Endnotes

¹Another way of putting this is by making a finer distinction between nominal liquidity—the ease with which perceptions of value can be turned into nominal purchasing power—and real liquidity—the ease with which they can be turned into real purchasing power. Central banks have technical control over the former, but not the latter.

²Caruana (2012a) analyses in detail the multifaceted nature of global spillovers.

³For a discussion of the limited insulation properties of exchange rate flexibility, see Borio et al. (2011) and for a formalization of some of these channels, see Bruno and Shin (2013).

⁴In addition, these Taylor rule ranges exclude the impact of several factors that would result in easier conditions: large-scale asset purchases and extraordinary liquidity support, forward guidance, and the flattering effect financial booms on estimates of sustainable, or potential, output. On this last point, see Borio et al. (2013).

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