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CHECK AGAINST  
DELIVERY

## Global Liquidity

### Introduction

It is a pleasure to be in London and an honour to speak in Drapers' Hall.

This magnificent building was for centuries where merchants met to trade cloth. During the 15th and 16th centuries, the Drapers' Company was one of the most important City companies. It had extensive powers to regulate the woollen cloth trade in the City of London—setting the standard measure by which all cloth was sold and controlling its sale at fairs held in the City. Dealers could only sell cloth to a freeman of the Company and, as their portraits on these walls attest, it was a very profitable monopoly for those on the inside. It was, however, decidedly less advantageous for those on the outside, and so the stranglehold of the Drapers' Company eventually eroded.

By the 17th century, the trade began to move out of the City and the companies' powers of regulation declined. Eventually, freed from the restrictions of the guilds, a highly competitive, global textiles industry became one of the foundations of the British Empire. While wool had been a tidy little earner, textiles helped deliver a century of unprecedented prosperity.

There is an analogy to London's position in global finance. The City re-established its pre-eminence following the deregulation of the closed shop of British finance in the mid-1980s. The subsequent reduction of capital controls, first across advanced and then emerging economies, spurred an explosion of cross-border capital flows. In an era when trade expanded sevenfold, capital flows would increase more than thirty times.

Today, the City is the centre of global finance, and its fortunes are tied to cycles in the global economy, and more particularly to large, sometimes abrupt, fluctuations in cross-border financial flows.

This is my subject today: how global liquidity cycles affect financial stability and economic growth, and what policy can do about it.<sup>1</sup>

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<sup>1</sup> This speech draws heavily on the forthcoming report, "Global Liquidity – Concept, Measurement and Policy Implications," prepared by a group of the Committee on the Global Financial System chaired by Jean-Pierre Landau of the Bank of France.

Over the past five years, global liquidity has swung wildly from the exuberant surge that fed a cavalier “search for yield” during the Great Moderation to the severe retreat that prompted the desperate “rush for shelter” in the aftermath of Lehman. In response to the massive monetary and fiscal policy stimulus unleashed following that debacle, liquidity flooded back, boosting asset prices and bolstering growth across the globe.

Now the cycle is again turning. The ongoing deleveraging of the European banking system is reducing global liquidity, with cross-border credit being pulled from many emerging markets and some U.S.-dollar asset classes. Market-making activity is becoming thinner, and private financing is slowing across the world.

The volatility of global liquidity in recent years underscores the value of the structural and cyclical policies that can dampen these cycles and channel the flows to their most productive uses.

### **Defining Global Liquidity**

Global liquidity is an amorphous concept. The Usual Suspect for any event or dynamic too complicated to explain, global liquidity is the Keyser Söze of international finance. It has no agreed definition and, as a consequence, there has been no coherent policy approach to tame its more violent tendencies.

At its core, liquidity represents the ease with which financial institutions, households and businesses can obtain financing.<sup>2</sup>

Global liquidity cannot be understood by simply summing domestic measures of financial conditions. The international components of liquidity (such as cross-border lending) will affect market and macroeconomic outcomes in recipient countries, and can have a disproportionately large role in fluctuations in financial stability.

To capture all the dimensions of global liquidity requires a combination of price and quantity measures. Price indicators, such as the general level of interest rates or credit spreads, provide information about the conditions under which liquidity is provided, while quantity measures, such as credit aggregates, show the degree to which such conditions translate into the build-up of risks.

### **Official Liquidity**

Overall levels of global liquidity are the product of the levels of official and private liquidity and the complex interactions between the two.

Official liquidity is funding that is unconditionally available to settle claims through monetary authorities. It can only be created by central banks. Core official liquidity is base money, or the sum of currency in circulation and funds held by financial institutions at the central bank.

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<sup>2</sup> For present purposes, it is important to distinguish between funding and market liquidity. Market liquidity is the ability to trade an asset or financial instrument at short notice with little impact on its price. Funding liquidity refers to the ability to raise cash either through the sale of an asset or by borrowing. These concepts of liquidity are closely interlinked.

Official liquidity has traditionally been small relative to economic activity. Before the financial crisis, it was about 5 per cent of GDP in the United Kingdom and the United States. In recent years, the central banks of the crisis economies have roughly tripled base money to offset the retreat in private liquidity.

In addition to their monopoly on the creation of official liquidity, central banks employ various facilities to *redistribute* liquidity in their domestic markets. During periods of stress, repo facilities take in liquidity from risk-averse private institutions and re-offer it (against good collateral) to other private institutions.

It is in this way that the European Central Bank (ECB) has prevented the most severe effects of the shortages in funding liquidity plaguing European banks. Partly as a result of the scale of concerns about counterparty risk, the ECB's balance sheet has risen from 13 to about 20 per cent of GDP since the start of the crisis. Although unprecedented, the combination of the ECB's bold moves and €4 trillion in unencumbered collateral at European banks should ensure that there is no European equivalent of Lehman.

However, measures that avoid disaster are not necessarily sufficient to promote recovery.

There are also various ways public authorities can provide the private sector with access to official liquidity in foreign currency—the most traditional of which is drawing on foreign exchange reserves. More recently, central banks have added bilateral swap lines to their arsenals. In the extreme, these resources could be supplemented by conditional loans from the International Monetary Fund (IMF).

### ***Private Liquidity***

Overall global liquidity conditions are the result of complex interactions among several factors, including macroeconomic policies (such as the monetary policy stance and exchange rate regime), microprudential regulations (such as capital and liquidity rules), financial market innovation and risk appetite.

A key determinant is the financial sector's willingness to provide cross-border financing. This can take the form of direct lending, the provision of market liquidity by banks to securities markets through market making, or funding liquidity to other financial institutions through repos. The conditions under which these intermediaries can fund their own balance sheets, in turn, depend on the willingness of other private sector participants to provide funding or market liquidity.

These interrelationships and changes in risk appetite mean private liquidity is highly cyclical. In good times, when economic volatility is low, risk appetite and leverage increase. The resulting easing in financial conditions promotes a surge in private liquidity with greater maturity and currency mismatches at financial institutions, compressed risk premia, faster credit growth in the real economy, and marked run-ups in asset prices. Higher asset prices in turn further promote funding liquidity as the cycle progresses.

These dynamics can be particularly pronounced if expectations develop of prolonged periods of unusually low interest rates. Moreover, some of the policy responses intended to mitigate the effects of liquidity shortages can themselves affect the patterns of capital flows, the prices of financial assets and, reflexively,

the creation of further global liquidity. For example, the massive, predictable reserve buildup by Asian central banks has dampened longer-term interest rates, promoted carry trades and fed global liquidity creation. Efforts by some to self-insure have made the system as a whole more vulnerable.

When the cycle reverses, deleveraging amplifies the downswing. During periods of heightened economic uncertainty—such as we are currently experiencing—sharp declines in risk appetite reduce funding liquidity, forcing market participants to sell riskier assets to raise liquidity. Such fire sales can lead to a generalized decline in asset prices, which further raises investors' funding liquidity risk through margin calls. In the extreme, widespread uncertainty about the viability of banks can lead to a total drying up of private funding, with significant adverse effects on the financial system and the broader economy.

Global liquidity is intensely procyclical, with the complacency fostered by periods of excessive global liquidity contributing to the buildup of large mismatches across currencies, maturities and countries. History suggests that the greater the reliance on cross-border liquidity, the more extreme these cycles can be, and the larger the disruption when they turn.

### **Recent Developments in Global Liquidity**

With increasing financial integration, the impact of global liquidity on domestic financial and economic conditions is growing.<sup>3</sup> The recent Irish experience demonstrates how it can amplify the cyclical dynamics of *domestic* credit and asset prices. Direct cross-border flows of bank credit to Irish non-financial corporations increased at about a 40 per cent annual rate during the three years leading up to the crisis.<sup>4</sup> Together with strong lending from domestic sources, these cross-border flows led to sharp increases in private domestic debt and unsustainable growth in house prices and housing sector activity.

The Irish experience was not unique. Globally, cross-border bank credit (particularly interbank funding) grew rapidly between 2003 and 2007, reaching annual rates of 20 per cent by the eve of the crisis. This surge fed the buildup of large currency mismatches, particularly for European banks in U.S. dollars. After the onset of the crisis, cross-border interbank lending fell sharply, reducing funding liquidity, forcing asset fire sales and further reducing overall private liquidity.

Although central banks stepped into the breach with a host of facilities, the damage to both confidence and broader funding was severe. Given the scale of the deleveraging process in the real economy, the change in central bank liquidity (base money) in the United States, United Kingdom and euro area has covered only about 70 per cent of the decline in private credit from its pre-crisis peak.

Other cross-border credit cycles illustrate how vulnerabilities can arise in environments like the present. Recall that in the late 1990s, the Japanese

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<sup>3</sup> Gross cross-border capital inflows rose from less than 5 per cent of global GDP in the mid-1980s to about 20 per cent before the financial crisis.

<sup>4</sup> By 2008, the sum of direct cross-border lending and cross-border sources of bank funding accounted for more than half of total bank credit to non-banks in Ireland.

banking system, undercapitalised and determined to delever, triggered the reversal of the capital inflows that had helped fuel the Asian boom.

## **The Impact of European Deleveraging on Global Liquidity**

Current difficulties in the European banking sector should be seen in this light. Stresses there could trigger sharp swings in global liquidity, with consequences across financial systems and economies.

Funding conditions in Europe have tightened markedly in recent months as a result of rising concerns over sovereign risk. The 3-month EURIBOR-OIS spread has more than tripled and bank access to longer-term unsecured financing has been sporadic at best. The retreat of cross-border flows has been the determining factor. For example, U.S. money market funds have sharply reduced their exposures to European banks. As a result, U.S.-dollar funding pressures have been particularly acute, prompting the ECB to extend its U.S.-dollar liquidity facilities.

The deterioration in funding markets in Europe has had important spillover effects on broader European financial conditions. Lending standards for businesses and households have tightened significantly and, partially as a consequence, economic momentum has slowed. Indeed, despite the major steps taken in recent weeks by European authorities, the Bank of Canada now expects the euro area to experience at least a brief recession as a result.

The effects are not limited to Europe. Global financial conditions have tightened significantly. Market-making activity has decreased, with U.S. primary dealer inventories of corporate bonds down about 40 per cent since April to a level of about one-quarter of their pre-crisis peak. More importantly, relative to levels over the previous two years, new issuance volumes have fallen by about 80 per cent in the U.S. high-yield market, and roughly 25 per cent in investment-grade corporate markets over the past three months.

As global liquidity recedes, volatility is increasing and activity falling. The effect on the real economy will soon be felt.

## **Policy Implications**

Authorities are closely monitoring these developments and will act if necessary to offset them.<sup>5</sup> In the absence of decisive actions to address the underlying sovereign problems, there are several alternatives to mitigate the effects.

The first is to limit the scale of deleveraging itself. The severity of the downturn will depend in part on *how* European banks delever. The new requirement to raise core Tier 1 capital to 9 per cent by next June can be met through a combination of retained earnings, capital increases and asset sales. In the extreme, if only asset sales were used, up to €2.5 trillion of disposals would be required in coming months. Based on last year's earnings and assuming no dividends are paid, the lower bound for asset sales would be €1.4 trillion.

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<sup>5</sup> The recent communiqué of G-20 Finance Ministers and Central Bank Governors committed the G-20 to continued efforts to assess developments in global liquidity conditions (15 October 2011).

These will likely be concentrated in non-core businesses—notably in emerging markets and in U.S. dollars. Perhaps not surprisingly, in recent months, capital flows to emerging markets have slowed and, in some cases, reversed. Anticipation of this trend, combined with a generalised decrease in risk appetite, could further feed this dynamic. Now may be a time for Asian authorities to draw on official reserves to offset the withdrawal of private liquidity.

The advantage for European banks of selling U.S.-dollar assets is obvious. Doing so would reduce the funding currency mismatch that has plagued them for the past several years. Non-European creditors are seeing opportunities in structured products, trade and project finance, as well as conventional corporate lending facilities. This will displace new credit creation in the United States.

One way European authorities could reduce these spillovers is to require European banks to meet at least part of their requirements by raising private capital, including high-trigger contingent capital. The latter would limit the dilution of existing shareholders, while providing a loss absorbing cushion. The current situation is ideally suited for this instrument since the capital is being raised for an extreme tail event (losses on highly rated sovereign debt)—the public nature of which would involve no risk of regulatory forbearance.

The second line of defence involves co-operative measures to provide foreign currency liquidity. In recent years, central banks, led by the U.S. Federal Reserve, have instituted swap lines to redistribute U.S.-dollar official liquidity in order to address currency mismatches in the financial sector.<sup>6</sup>

In their first round in 2008-09, U.S.-dollar swaps proved very effective in containing currency basis swap rates and OIS funding spreads, before ultimately helping to end the period of liquidity destruction and stabilising global financial markets.

Since the intensification of the European crisis this past summer, the swap lines have been supplemented by the reintroduction of unlimited 3-month U.S.-dollar liquidity operations at the ECB, the Bank of Japan, the Bank of England and the Swiss National Bank.<sup>7</sup>

Given the close relationship between global and domestic liquidity, central banks also stand ready to activate domestic facilities, if required.<sup>8</sup>

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<sup>6</sup> These facilities have been implemented flexibly with country coverage and the liquidity amounts adjusted on a timely basis, depending on the prevailing market conditions. Importantly, they have also been designed to limit moral hazard, with access at a penalty rate to ensure that market participants return to private sources of liquidity as market conditions improve.

<sup>7</sup> These banks will offer unlimited U.S.-dollar liquidity at a fixed rate of OIS plus 100 basis points in three operations, which span year-end. These central banks were already providing 7-day unlimited U.S.-dollar liquidity and are continuing to do so.

<sup>8</sup> For example, in response to the sharp, synchronous global recession, the Bank of Canada almost doubled our balance sheet to provide the Canadian financial sector with exceptional Canadian-dollar liquidity. We stand ready to take similar steps if the international spillovers of the European situation prove severe. At this stage the limited direct links between our two financial sectors suggest that this is unlikely unless there is a more generalised reduction in risk appetite affecting global markets.

Country-specific or regional liquidity shocks may also be addressed through IMF facilities. The IMF is already playing an important role in the peripheral country programs, which could be expanded through further conventional, conditional lending if the situation required.

However, the IMF can only redistribute liquidity. It cannot lean against the retreat of private liquidity by creating official liquidity.

The final line of defence is to adjust monetary policy if the outlook for economic activity and inflation warrant. For those economies at the zero lower bound for their policy interest rate, this would likely mean the direct provision of additional official liquidity through quantitative easing, as the Bank of Japan and the Bank of England have done in recent weeks.

## **Conclusion**

In conclusion, recent history has amply demonstrated that global liquidity has an important impact on financial stability and economic growth.

Global liquidity has fluctuated wildly over the past five years, and we are on the cusp of another retrenchment. There are steps that can be taken to mitigate, but not eliminate, the negative effects of the current wave. How European banks choose to delever will determine which ones authorities around the world need to take.

Central banks remain best placed to address future surges and shortages in global liquidity. Through regular private discussions, central banks understand each others' economic outlooks and reaction functions, thus providing the context within which they can set their own policy. At our most recent G-20 meeting, we committed to redouble these efforts, beginning with improved monitoring of global liquidity conditions.

Although central bank measures can help address current volatility, such a situation is hardly ideal. Over the medium term, the continuation of such extreme liquidity cycles could ultimately threaten open capital markets and a free trading system if not better addressed.

There is a premium on improved oversight and regulations that reduce the procyclicality of global liquidity and make the system more resilient.

The G-20's financial reform agenda, once fully implemented, will dampen global private liquidity cycles. Measures that increase the resilience of financial institutions, such as the new Basel III capital and liquidity standards, will reduce the probability and frequency of a sudden liquidity shock. Measures that reduce the procyclicality of the financial system will help stabilise global liquidity flows. Key elements in this regard include countercyclical capital buffers, the implementation of more resilient financial market infrastructure, reductions in the variability of repo margins, and other macroprudential policies such as loan-to-value ratios in property markets.

Of course, the impact of the financial reforms will be weakened to the extent that new regulations divert activity to unregulated parts of the financial system. Particularly in boom periods, non-regulated institutions tend to take on an increasing share of intermediation and cross-border credit provision. This is why

enhanced supervision and regulation of shadow banking will be one of the top priorities for the Financial Stability Board in the coming months.

In this respect, we need to heed one of the lessons of this Hall: it will do no good to tightly regulate a market only to see the bulk of activity flee beyond our reach.