
Three Facets of Liquidity Illusion: Financial Innovation and the Credit Crunch

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Abstract:

This article identifies the phenomenon of liquidity illusion as the key element that has disguised the systemic fragilities which have precipitated the global credit crunch. At the core of phenomenon of liquidity illusion lies the spiral of private financial innovation and risk-trading processes underpinning it. The paper identifies three intertwined levels where liquidity illusions have led to systemic implosions: macroeconomic, market-centred, and international. Today's facets of liquidity illusion stem, just as Keynes observed some seventy years ago, from the trade-off between individual choices and perceptions of financial players, and aggregate outcomes of these actions in a wider context. The article analyses this trade-off in the context of the continuing global credit crisis.

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Introduction

In the summer of 2007, a contagious liquidity meltdown hit the world markets. Sparked by the sub-prime mortgage fiasco in the USA, financial panic and tumbling asset values did not only destabilise the American financial system, but have also shaken the European and Asian markets. Over the course of the following eighteen months, a contagious financial crisis has been transformed into a recession that increasingly becomes world-wide. Some analysts evaluate the losses related to the global credit crunch at around \$2 trillion (Roubini 2008). The casualty count from the global credit crunch has included high-profile firms like Bear Sterns, Lehman Brothers and AIG insurance firms in the US, Northern Rock and Lloyds (HBOS) in the UK, several European banks, companies in the real economy, the entire banking system of Iceland and crucially, growing numbers of people who have lost or are on the brink of losing their homes and jobs.

The crisis prompted unprecedented emergency measures by the public authorities in the USA, Japan, the EU, and later Canada, Australia, the UK and emerging markets. The sheer scale of monetary injections by the central banks over the course of the crisis is unprecedented in economic history, as are the levels of interest rates that currently are at their historical lows. As the financial meltdown approaches its second anniversary and as newly revealed bank losses and defaults in the non-financial sectors prompt fears a global depression, sceptics warn that more strains are hidden in complex pyramids of credit around the world. In turn, the insiders of the securitisation market – for many years the largest source of funding for mortgages and consumer credit – have come to believe that the industry may not recover its levels of trade until 2011-2012 (van Duyn 2009).

Financial crises are always costly for those involved; they tend to expose errors of both policy-making and financial practice. In this, the global credit crunch is not a unique event. It has unmasked the American sub-

prime mortgage industry as a scam; it has revealed that many high-ranking financial institutions have been entangled in complex chains of dubious debts and even Ponzi schemes;² and it has also shown that the public authorities have lost track of the real effects of financial deregulation. At the same time, while investor herding, exuberance, speculation and the gap between regulatory oversight and the spiral of private financial innovation have been present in most outbreaks of financial volatility during the past twenty years, the global credit crunch has brought up two perplexing issues concerning the nature of today's finance in particular.

The first puzzle is the apparent shock of the event. In the summer of 2007, falling market values seemed to have caught many market players and observers by surprise. For instance, a lawyer for Mr Cioffi, one of the managers of the crippled Bear Sterns fund has argued: "the credit crisis took everyone by surprise, including the Fed and the Treasury. Dozens of the largest financial institutions in the world have lost over \$300 billion to date on the same investments."³ While treating the crisis as a 'surprise' and shock may well be a trick of a skilled lawyer defending two financiers against the nine-count indictment with conspiracy, securities and wire fraud, treating the crisis as a 'surprise' does not make much sense outside the courtroom. Indeed, the risks unleashed and accentuated by the securitisation process, as well as the fragility of the US mortgage market and the economy as a whole had been noted repeatedly by many commentators long

² The latest and largest of such schemes, the 'investment' funds set up by Bernard Madoff and Alen Stanford, are believed to have cost investors world-wide some \$ 8billion each. Along with thousands of individual investors and pensioners, the Madoff's Ponzi pyramid has fleeced well-established banks like BNP Paribas, HSBC, Banco Santander and RBS. Both Madoff and Stanford are currently under investigation for fraud.

³ Kelly, K., 2008, "US Prosecutors to Focus on bear managers' email", *Wall Street Journal Europe*, 20-22 June, p. 15.

before the turmoil began in the summer of 2007. For instance, as William White of the BIS observed, “... the opacity and complexity of the financial system today shrouds in secrecy who finally bears the risks, and increases the likelihood of operational problems. More broadly, the reliance of banks in many countries on revenues from dealing with the household sector, already heavily indebted, could in the future prove a source of financial vulnerability...these exposures might also have increased over time in response to successive episodes of monetary easing and associated credit expansion” (White 2006b: 5-6).

The second puzzle of the global credit meltdown relates to its diagnosis. Most analysts concur that at the epicentre of the meltdown has been the fall of the sub-prime mortgage industry in the US and a subsequent systemic liquidity and credit crunch. Such a consensus is quite baffling, since only a few months prior to the implosion of August 2007, financial commentators left and right cited ‘excess global liquidity’ and even ‘liquidity glut’ washing across global markets (Bernanke 2005, 2008; Guha 2007; Bini Smaghi 2007). In November 2006 for instance, Raghuram Rajan of the IMF noted that:

“The mismatch between unabated global desired savings and lower realized investment, between the amounts available for finance and the flow of hard assets to absorb it, has led to a liquidity glut which has pushed long term real interest rates the world over lower.”

Analysing the forces behind the global glut of excess liquidity, he suggested that it is chiefly driven by “foreign central bank purchases of U.S. assets [that] reflect the savings investment imbalance in their own countries” (Rajan 2006: 5-7).⁴ In its publications at the

time, the IMF warned against the inflation-related dangers of excess global liquidity. So how could this global glut of 'excess liquidity' possibly evaporate overnight?

In this article I argue that the key puzzle of the 2007 - 2009 crisis, and the reason so many warnings about the impending collapse had been ignored, stems from an important, yet overlooked, role of liquidity and its dynamics in the contemporary financial system. More specifically, I argue that it is the phenomenon of liquidity illusion that had precipitated the continuing financial turmoil and subsequent recession.

Originally identified by Keynes, liquidity illusions have been behind many financial euphorias and bubbles throughout history, but it is during the past two decades that illusions of liquidity have become a central element of financial crises around the world. The BIS Committee on the Global Financial System has defined liquidity illusion as a situation in which markets underprice liquidity and financial institutions underestimate liquidity risks (CGFS 2001: 2). Essentially, the illusion of liquidity is a false sense of optimism a financial actor (be that company, fund manager or a government) has over the safety and resilience of her portfolio, and/or market as a whole. In periods of economic upturn and optimism, investors eagerly expand their credit lines, often underestimating risks in the belief that their investment structures are safe and liquid. Yet when across the board, financial institutions share optimistic expectations and stretch their portfolios too far, the system as a whole becomes progressively illiquid and therefore, fragile (Nesvetailova 2007). When distress hits the market, credit lines that had been advanced only a short while ago cannot be closed without losses; contagion - often involving asset deflation - spreads through the market, leading up to insolvencies and a systemic breakdown.

As the term itself suggests, the problem of liquidity illusion is difficult to diagnose accurately and in time. In the words of Andrew Crockett, liquidity itself is an

elusive concept; “it is easier to recognise it than define” (2008: 14). The notion of liquidity centres on the dynamic interplay between the processes of financial deregulation and innovation and subjective factors, such as confidence and expectations, which are not easily modelled or measured in a dynamic context. Still, it is notable that in the wake of the series of crises of the past decade, some strands of research in finance have identified the complex issue of liquidity as a key element of systemic risk in finance generally (Bies 2002; Bird and Milne 1999; Bisignano 1999; Chang and Velasco 1998, 1999; Goldfrain and Valdes 1997; Mishkin 1999; Pettis 2001, 2003; Persaud 2002; Alexander et al. 2006). The discussion however, has been mostly confined to academic circles, and up until very recently⁵ no policy forum has addressed the problem comprehensively.

There can be identified at least two reasons behind this. First, as noted above, in the decades following the end of the Bretton Woods regime of financial regulation, liquidity management – once a priority for any central bank – has become a marginal concern for monetary and financial authorities: deregulated and self-governed financial systems were assumed to fulfil liquidity-balancing functions by themselves (Nesvetailova 2008). Second, the apparent gap between theoretical inquiry and economic policy has arisen because the nature and behaviour of liquidity today are incredibly complex, overlapping several layers of the activity in the financial markets and macroeconomy as a whole. Understanding these issues in the context of deregulated and privatised credit system requires a qualitatively new approach to the financial system and its risk channels. While the ongoing financial meltdown has initiated some long-needed inquiries into these issues (Borio 2008), the crisis does not seem to have shaken the basic paradigms of the

⁵ Notable exceptions are: Banque de France (2008), Bracke and Fidora (2008) and BIS (2008).

field of academic finance and economics (e.g. Tatom 2008; Ondo-Ndang and Scialom 2008).

In what follows, I identify and analyse some systemic implications of liquidity illusion at three inter-dependent levels: macroeconomic; market-centred and international. Although at their core, liquidity illusions tend to originate in the progressive underestimation of risks that parallels the process of financial innovation and credit expansion, in various contexts the illusions of liquidity manifest themselves in a particular manner. In the context of a national economic system (the level of macroeconomy), illusions of liquidity tend to originate in the fading distinction between ‘money’ and ‘near-money,’ the trend which - although perceived as benign in ‘good’ economic times - can result in a payments breakdown during distress or a financial crisis.

At the institutional level (comprising a segment of, or a financial market as a whole), illusions of liquidity tend to reflect the controversial, yet ever-present trade-off between the perceived financial health and liquidity of individual companies, and the liquidity and robustness of the system as a whole. While it has become a convention to assume that liquidity of individual companies is synonymous with liquidity of the financial system as a whole, in a dynamic environment of the credit system today that is not the case. As the global credit crunch has shown, this confusion had been a key misconceived principle of the soft-touch approach to financial regulation in Anglo-Saxon capitalism for the last thirty years. Finally, at the level of the global economy, the illusion of liquidity tends to result from firstly, the lack of a consensual approach to understanding and managing international liquidity; and secondly, from the still poor understanding of the complex credit interdependencies that shape the global financial system. Both challenges are amplified by the sheer obscurity of today’s financial flows and credit structures, heavily determined by the process of financial innovation and credit expansion.

Liquidity and Liquidity Illusion

Liquidity has been described as the ‘dark matter’ or an ‘Achilles heel’ of finance. Why is liquidity such a problematic issue? Financial literature offers several answers to this question (Cohen and Shin 2003; Fernandez 1999; Grossman and Miller 1988; O’Hara 2004; Hicks 1962; Aglietta 1996). Despite their methodological differences, existing analyses tend to agree that the difficulty of understanding liquidity lies primarily in the multiplicity and continuing mutation of its meanings and roles. Liquidity is a fluid, multi-dimensional concept, overlapping several layers of functionality and meaning. Depending on the context, it describes several concepts: it is a quality, or a property of a product (or a market); it is a quantity of ‘money’ or ‘credit’ available in the system; and it is the ease or likelihood, or sometimes speed, with which transactions can be completed in a given market without destabilising the major price trends. Liquidity therefore, is highly complex notion: it has quantitative, qualitative, spatial and temporal components.

This range of meanings, in turn, entails that ‘liquidity’ implies different things to different people in different times and contexts. An additional challenge to understanding the nature and functions of liquidity lies in the fact that over time, especially with the worldwide escalation of financial innovation in the post-1973 period, the concept of liquidity has been transformed. As one official has put it, “liquidity clearly ain’t what it used to be. But it is much less clear what such a statement means, still less whether that is a ‘good’ or a ‘bad’ thing” (Smout 2001). Indeed, the task of adjudicating between the four dimensions of liquidity and their intricate combinations is complicated by the effects of the economic cycle. Specifically, during ‘good times’, the four facets of liquidity – the quantity and quality of assets, the ease of completing the transactions, and the activity of the markets – tend to be

conflated, giving rise to the multi-faceted phenomenon of the ‘illusion of liquidity.’

At the heart of the problem of liquidity illusions lies the perception that financial conditions and specifically, the liquidity of an asset, portfolio, market or even the economic system as a whole, is more robust than it is in reality. While the two key dimensions of the liquidity conundrum – quantitative and qualitative - are tightly inter-related, the specific ramifications of liquidity illusions vary, depending on the context, yet at all major levels of financial activity - macroeconomic, institutional (firm- or market- specific), or international, illusions of liquidity are dangerous developments, entailing a multitude of systemic risks to financial and political-economic stability.

At the same time, as this article aims to show below, each of the three facets of the liquidity illusion relates to a specific set of elements of systemic risk: the creation and supply of liquidity in the financial market; its functions in an open economy; and its behaviour in the international context. In this instance, a major analytical peril to understanding the nature and roles of liquidity today stems from the gap between scholarly analyses of the dynamics of systemic risk, and the principles that inform the current paradigm of financial regulation and supervision. Indeed, while scholars have noted the fact that the way in which liquidity is generated in liberalised financial systems makes financial markets exposed to the dynamics of systemic risk (e.g., Aglietta 1996), the continuing global credit meltdown has demonstrated that this process remains poorly understood within the existing framework of financial governance.

Conventional economic analysis evaluates liquidity relying on a combination of several indicators: the bid-ask spread (which gauges the price trend in the market, i.e., the ease with which transactions are undertaken), and the volume of transactions being completed (which measures the depth, or resilience of the market). Liquidity of an institution is evaluated by corresponding

ratios for measuring the safety of assets or quality of loans in the portfolio. The problem with these measures is that they are only adequate for gauging markets and institutions during 'good' times (Persaud 2007). In the downward spiral of a financial cycle they offer insufficient indicators of the state of the system as a whole and thus can propagate financial fragility further. Indeed, amidst the global meltdown, the common method of 'mark-to-market' approach to risk valuation used by financial institutions during the securitisation boom has been debunked as 'mark to myth to 'mark to make-believe' model (Turner 2008). Moreover, these conventional indicators are useful only as long as one assumes that a given market is a closed system: neither bid-ask spreads nor the volume of trades reflect the aggregate outcome of the deteriorating quality of portfolios of companies comprising the market, especially if it is tightly interconnected with other market segments.

Confusions, or more accurately, delusions, about liquidity conditions at a given market often arise because a major symptom of a liquidity crunch is the disappearance of buyers and sellers from the market in times of stress. Indeed, this is precisely what has been happening in the global fallout from the American sub-prime fiasco, when inter-bank markets and markets for exotic asset-backed securities (ABSs) came to a standstill. By a fallacy of composition, many observers tend to conclude that 'liquidity' denotes the volume and/or the ease (or velocity) of financial transactions. To a large extent, this is a mistaken belief that had led regulators and market watchdogs to misread many important crisis signals. As explained above, the notion of 'liquidity' is not confined to the ease and volumes of trades; it also describes the quality of assets in a given market, and crucially, a system of markets. Here, one of the most important lessons to be drawn from the past three decades of financial crises is the recognition that the fluidity, or velocity of financial circulation – the key products of financial deregulation and the liberalisation

of credit – are not synonymous with liquidity of the system as such (Warburton 2000: 91). This particular argument, while increasingly recognised by market observers (e.g. Tett 2008, 2009; Guha 2009) has not, as yet, found resonance in mainstream economic studies of finance or finance policy circles.

On the contrary, most interpretations of the post-1971 financial evolution hold that with the globalisation of markets and removal of capital controls across borders, the liquidity of the global financial system has increased exponentially. As these studies maintain, two key factors underpinned such an expansion. First, it was the growing volume of ‘international liquidity’ in the form of dollar-linked reserves within member states of the Bretton Woods regime. This process started well before the collapse of the fixed exchange rate arrangement in 1971, and was further fuelled by the establishment of the Euromarket and the expansion of the domestic money system in the member states which paralleled, yet exceeded, the gold standard volume of liquidity (Kindleberger 1970: 211; Spero 1982: 40). In this period, the loans issued by American banks to the Euromarket expanded the availability of world reserves, netting complex inter-linkages between private and official liquidity (Parboni 1980: 44-45; Burn 1999). Second, since the early 1970s, the spiral of private financial innovation facilitated both by the globalisation of markets and by the rapid IT advance into the finance sector, is believed to have increased the overall liquidity of the global financial system:

“...in almost all cases, additional liquidity is created through secondary markets in financial instruments. With derivatives markets being able to satisfy private liquidity demands even in the face of possible losses on cash positions, there is little incentive for capital to flow out of cash positions and into productive investments” (Watson 1999: 67).

Interestingly, the continuing financial meltdown - centred on the liquidity and credit crunch and the risks

accentuated by unregulated financial innovation - does not appear to have undermined these views. As an IMF study has observed in October 2007:

“At least part of the increase in global liquidity and the associated decrease in risk premium is likely the result of a structural, and possibly enduring, component related to improvements in the liquidity of financial markets. These improvements are a result of financial globalization; financial innovation, such as securitization and the growth of derivatives markets; and increased market participation. Even in the context of the recent market turmoil, these improvements do not appear to have been completely reversed” (De Nicolo and Wiegand 2007: 37).

The major problem of these and similar readings of liquidity-enhancing forces of financial globalisation is that they tend to overlook, or misread, the effects of private financial innovation on the stability of the financial system as whole. While the volumes and types of securities being traded have indeed reached unprecedented volumes, the expansion of trade and extraordinary sophistication of financial products are not synonymous with greater liquidity of the global financial system as such. In fact, the very belief that the proliferation of financial derivatives and securitisation techniques has enhanced global liquidity has been the core illusion driving the sub-prime bubble in the USA, and the latest bout of securitisation. This delusion is a major reason the world markets were shaken by the sub-prime crisis in the summer of 2007 (Nesvetailova 2008).

The origins of liquidity illusions are many. Partly, they lie in the sheer complexity, and obscurity of deregulated and privatised credit. Historically, in the liberalised financial system, financial innovation has driven credit structures far beyond the gaze of regulatory authorities, blurring the line between ‘money’ and ‘near-money’ in the process (Levy-Garboua and Weumuller 1979).

Crucially, financial innovation has also altered the institutional organisation of the global credit system. At present almost half of all global lending is siphoned off through tax havens and offshore financial centres (Palan 2004; Palan et al. 2009). In such an environment, it is extraordinarily difficult to identify and price the variety of risks accurately. As the global credit crunch - partly fuelled by evaporation of confidence across the system and the heightened problem of 'counterparty' risk - demonstrates there is plainly no certain way of knowing when highly complex pyramids of credit reach critical proportions.

The globalisation of private financial markets compounds the challenge of discerning the liquidity dynamics. For instance, in the wake of the Bretton Woods collapse, the emergence of new forms of financial intermediation and a wide variety of risk-managing financial techniques have led many analysts to assume that issues of the adequacy of international liquidity have become obsolete in the regime of deregulated and privatised credit. Essentially, deregulated financial systems were presupposed to fulfill liquidity-balancing functions by themselves, and liquidity management has become a marginal concern for monetary and financial authorities. Particularly in the low inflationary environment, the expansion of private international credit markets have led commentators to conclude that 'the concept of international liquidity has lost its strategic significance for the conduct of macroeconomic policy' (in Horne and Nahm 2000). The scarcity of IPE literature focused on liquidity-related issues reflects this assumption: while in the debates about the consequences of the Bretton Woods collapse some IPE scholars have raised concerns about international liquidity and liquidity provision (Kindleberger 1970; Cohen 1998), during the past two decades analyses of liquidity have come to be dominated by highly technical studies of financial risk originating in the field of mainstream finance and economics (e.g., Diamond and Dybvig 1983;

Holmström and Tirole 1998; Diamond and Rajan 2005).

It was in the wake of the crisis wave of the late 1990s that the role of liquidity – or more accurately, illiquidity – has re-emerged in the literature as a key factor of systemic fragility in national, regional and international financial systems (Bookstaber 2000; Chang and Velasco 1998, 1999; Dymski 2003; Kregel 2001; Mishkin 1999; Pettis 2001, 2003; Nesvetailova 2006). In several cases – most scandalously, during the LTCM fiasco in 1998 and during the credit crisis of 2007-2008 – a liquidity crunch brought the international financial system to a brink of a systemic collapse. In all of the implosions, under the effect of bad news or financial contagion, credit that had been ostensibly plentiful only a short while ago, suddenly dried up, entrapping individual corporations, national governments and even regional payment systems into a chain of illiquidity and indebtedness. And although the circumstances of each of the crises differed significantly, I believe that it is the phenomenon of liquidity illusion that, by disguising regulatory complacency, investor exuberance and self-fulfilling market dynamics, in conjunction with other factors, precipitated the crises.

Focusing on the circumstances of the continuing credit crunch, below I identify three tiers at which liquidity illusions have systemic implications for financial stability: a) at the level of a macroeconomy; b) in the context of institutional interactions in the financial market; and c) at the level of international policy coordination. The three levels of analysis correspond to three distinct roles of liquidity in the economy: its function in the payment system; the liquidity of the financial markets; and liquidity of the global economy.

The Illusion of Macro-liquidity: National Economy and the Payment Mechanism

The first level at which liquidity illusions arise relates to its quantitative dimension and, specifically, to the

settlement or funding function liquidity performs in an economy. In this context, the concept of liquidity is best understood by what several studies have recently identified as ‘macro-liquidity’ (Tarun 2005; OECD/World Bank/IMF 2008; Carney 2008); or “the quantity of liquid assets held by households and firms” (Bini Smaghi 2007). As Bini Smaghi explains, this quantitative concept of liquidity reflects, for the most part, portfolio decisions by economic agents in relation to prevailing monetary and financial conditions; these conditions in turn, reflect fiscal and monetary policy environment. In a very basic sense therefore, the concept of macro-liquidity reflects the general availability of savings in an economic system.

Accordingly, the illusion of liquidity originates in behaviour of political-economic agents who tend to assume that greater availability of ‘savings’ or credit facilities in an economic system can sustain the expansion of private credit lines and financial innovations indefinitely. Fundamentally, the illusion of macro-liquidity, or the availability of credit and thus funding for economic transactions, concerns the way liquidity is generated in a given economy and the way it relates to the dynamics in the ‘real’ economy - production, trade and services. In effect, therefore, the funding- or settlement function of liquidity in a political-economic context is associated with the contemporary functions of ‘money’ and specifically, the role of credit in settling transactions within and across markets. The illusive behaviour of this pool of savings (macro-liquidity), and its link to micro- or market, liquidity (Warsh 2007), centres on the functional proximity between ‘liquidity’ as a pool of credit and ‘money’ as means of settlement.

In this instance, it is important to stress that notwithstanding the analytical assumptions of key theories of money and credit, financial systems today encompass several layers of the credit system, various types of financial markets, and are intertwined through a highly sophisticated web of technological networks

and mechanisms of coordination. This complex network of domestic and cross-border systems has evolved significantly over recent years. As a result, according to Timothy Geithner (2008), “the operation and importantly, the safety of the global payment and settlement infrastructure requires that system operators, financial institutions, and service providers have a robust understanding of payment and settlement risks, and that they manage those risks effectively.” Crucially, as he acknowledged in the midst of the credit crunch, the increased interdependencies among the systems change the nature of risks within the global infrastructure, posing new challenges for effective risk management (Geithner 2008: iii).

The relationship between risk and liquidity is one of the many policy dilemmas that the credit crunch has brought to the fore. It is also one of the origins of liquidity illusions. In the run-up to the meltdown of 2007, observers often pointed out that the abundant supply of global liquidity had driven down the price of risk and interest rates, facilitating greater market turnover, velocity of trades, and the availability and variety of financial products. Low interest rates in turn, have prompted investors to take on more risks in order to meet required rates of return. Seeking higher yields, financial institutions advanced financial innovations, thereby stretching the frontier of liquidity further (Guha 2007; Bervas 2008).

But such a process of yield-searching and the spiral of financial innovation, permeated by private firms on the basis of an assumption of abundant savings at the level of macroeconomy can only be sustained as long as the conditions supporting the boom - such as the level of interest rates, market turnover and general economic climate – persist. When the process is threatened or interrupted, the chain of credit expansion breaks down, while the mechanisms that had stretched the liquidity frontier during the boom require quick refinancing and demand payment at a much shorter notice. In the financialised capitalism of today, it is the dynamics

within the financial markets are a central factor that shape the evolution of the credit spiral and affect the operation of the payment system as a whole.

For example, a peak in market trading can impair the functioning of linked payment and settlement systems if the total volume of transactions to be settled were to exceed the operational capacity of the systems. Similarly, a significant change in trading volumes or increased volatility may also disrupt the functioning of payment and settlement systems. This, a BIS study notes, would be particularly true if the market liquidity of financial instruments used by those systems for risk management purposes decreased or accurate price information became unavailable. Indeed, when prices start to fluctuate sharply, sudden margin calls might be required by one or more key clearing centres. This could, in turn, magnify the existing liquidity difficulties. The tight interdependencies between the payments and settlements systems can also amplify these risks (CPSS 2008: 35). In the end, therefore, when the financial cycle turns, transactions that were based on conditional liquidity of the markets during the period of economic boom need to be converted into absolute liquidity as determined by the macroeconomic context.

In its absolute form, in turn, 'liquidity' denotes assets which in their properties are closest to cash (e.g., Minsky 1982: 9). As Tobin (1989: 42) argued, an absolutely 'liquid' asset is one "whose full present value can be realized, i.e., turned into purchasing power over goods and services, immediately" (cited in Carruthers and Stinchcombe 1999: 356). Other concepts of absolute liquidity include the notions of 'high-powered' money and 'base-money': "currency and deposits held at the central bank by financial institutions forming the payments system—is the most liquid form of purchasing power and means of settlement of economic transactions (IMF 2005: 12-14). These rather straightforward conceptualisations of macro-liquidity help explain why many financial crises need to be resolved by a monetary injection.

Two examples from the global credit crisis seem pertinent in this instance. The first comes from Iceland. During 2000-2007, the country's banking sector had been active in attracting foreign capital; yet the Icelandic central bank, unlike its counterparties in the USA, UK or the EU was in no position to guarantee the liabilities of the commercial banking system. In late September-early October 2008, as a result of the tightening of global inter-bank markets, the three major Icelandic banks⁶ went bankrupt and were nationalised, thus putting the entire financial and economic system of the country on the brink of collapse (Burgess et al. 2008).

In hindsight, the Icelandic financial crisis was precipitated by a combination of factors, the peculiar structure of the country's financial regulation key among them, yet the lack of liquidity was an innate component of each of these precipitating factors. Internationally, Iceland was illiquid due to the wide gulf between the available volume of the foreign exchange reserves and the size of foreign exchange exposures of illiquid and de facto insolvent commercial banks. The problems in the banking system, in turn, originated in the overvalued housing sector with over-indebted homeowners. As Buiters and Silber (2008)⁷ pointed out several months before the crisis erupted, with the 900% ratio of the banking system to the GDP, the Icelandic authorities were in no position to come up with the necessary capital to restore solvency to the banking sector.

With many UK banks, local authorities and individual savers encountering losses in their high-earning accounts in Iceland banks, the bankruptcy was internationalised into the UK and Europe, prompting Iceland to approach the IMF for a rescue loan. Amidst the political dispute and economic losses inflicted by

⁶ Kaupthing, Landsbaki and Glitnir, later known as Islandsbanki.

⁷ The authors had been writing about the impending financial collapse of the country for more than a year.

the Icelandic crisis, observers reported that while the overall amount being claimed by the UK and the Netherlands governments was unclear, it may have been close to 100% of the Icelandic GDP; total losses to Icesave - the country's internet-based bank⁸ - may have exceeded the Icelandic GDP.

The second recent case of an illiquidity-driven funding crisis – paralleling the developments in Iceland - comes from the UK itself. Although specific details surrounding the stressful days late-September-early October 2008 are hard to locate, anecdotal evidence and several reports suggest that during the first week of October 2008, the effects of the global credit crunch on the UK economy and the banking system became so severe that the entire payments system of the country faced a threat of a breakdown. As carefully worded by Mervyn King, the governor of the Bank of England:

“In the second half of September, companies and non-bank financial institutions accelerated their withdrawal from even short-term funding of banks, and banks increasingly lost confidence in the safety of lending to each other. Funding costs rose sharply and for many institutions it was possible to borrow only overnight. Credit to the real economy almost stopped flowing. In financial markets, confidence in others fell to a point where investors sought refuge in government instruments such as US Treasury Bills, which at one point yielded a negative return. Central banks around the world were providing enormous amounts of liquidity to some institutions while at the same time taking large deposits from others. Eventually, on 6 and 7 October even overnight funding started to dry up” (King 2008: 2).

⁸ The rates offered by Icesave, an internet-based bank, on savings accounts exceeded the rates in the UK banks by about 50%. As a result, many local authorities, public institutions such as universities and individual savers who had invested in Icesave suffered tremendous losses as a result of the bank's bankruptcy. A harsh political dispute between the UK and Iceland ensued.

The possibility of an imminent breakdown of the UK's payment system prompted the government to set up a COBRA-style committee on the economic crisis (Winnett and Simpson 2008). Over the weekend of October 4-5, 2008, the Committee drafted a rescue plan for the country that later became known as the Brown-Darling bank recapitalisation plan, and over the course of the following weeks, was emulated by most countries affected by the credit crunch.

As historically unprecedented amounts of central bank liquidity were offered to commercial banks around the world, it became clear that despite the sophistication of financial techniques of managing risks today, a liquidity crisis in one institution (e.g., Northern Rock or Lehman Brothers) or a market segment (e.g., inter-bank or OTC markets) can not only translate into a classic bank run, but jeopardise the functioning of the clearing, payments and funding mechanisms of an advanced, financialised economy. One implication of this reading of macro-liquidity dynamics and risks it entails is that underlying the wide spectrum of liquidity today is the purchasing power of credit. This makes liquidity a key category in the political economy of finance, highlighting the role of the state in defining the properties of the complex hierarchy of credit instruments (Bell 2001). This link between the liquidity of financial instruments and the role of the sovereign power in defining key monetary and financial categories has been somewhat obscured and even forgotten in the decade of financial deregulation and the privatisation of financial risks. At the same time, this rather narrow reading of liquidity raises a two-fold problem.

On the one hand, contemporary finance is increasingly disassociated from cash and pure 'money:' credit and debit cards, cyber cash and even mobile phones are rapidly crowding out banknotes and coins from the everyday economy. Indeed, the very notion of 'cash' has mutated into a myriad of roles and functions that various financial instruments perform in the economic system (Kurtzman 1993; Guttman 2002). So although it

is still the banking system that provides means of payment to a national economy, 'liquidity' today encompasses a wide array of instruments of credit generally. Interestingly in this instance, some critics argue that 'liquidity' has never been confined to cash. In fact, back in 1935 one observer noted, correctly, that the ongoing process of financial evolution ensures that the whole matter of liquidity has to do with not with proximity to cash as such, but with the question of facility in the exchanging of future for present purchasing power. Hence not only had the notions of 'absolute liquidity' and 'cash' become anachronistic a long while ago; but in fact, they bar the way to a true understanding of the modern credit system (Smith 1935: 640). In this sense, the concept of funding liquidity is helpful since it implies command not only over cash and deposits, but also over other instruments that can be used to meet margin calls and settle transactions, commonly high-quality government bonds (Borio 2000, 2004).

Similarly, Warburton (2000: 94) argues, extended credit facilities, such as overdrafts, credit cards and loans, represent additional purchasing power, but not additional liquidity. In the meantime, banks remain to be the ultimate providers of liquidity: their liabilities are the legal means of payment in an economy, and this fact comes to the fore in any situation of a liquidity crunch when central banks have to inject additional funds into the financial system that only a short while ago seemed perfectly 'liquid'. Therefore, the process of private financial innovation, while stretching the frontier of liquidity during periods of economic expansion, does not enhance the liquidity base of a macroeconomy. Instead, by expanding the purchasing power of new financial instruments - the turnover of which is critically determined by market conditions, economic confidence and investor sentiments- it creates the illusion of abundant liquidity in the system, thus contributing to financial fragility.

On the other hand, however, the continuing global financial crisis demonstrates that while in the midst of an economic boom and a bull market it is easy to assume that everything can be bought and sold instantaneously, and believe that the liquidity of the market is infinite, once credit evaporates “borrowers are flung back into uncomfortably old-fashioned world in which they are totally dependent on their bankers for support” (Kaufman 1998: 362). Many commentators stress that although the process of financial innovation does stretch the functions of credit, private financial intermediaries such as investment and hedge funds do not create liquidity. Since they are not able to create means of payment in a macroeconomic context, these intermediaries merely offer credit to the market temporarily and, by increasing the number of players on both sides, contribute to a sense of greater market liquidity (Wolf 2007). This observation takes us to the next level of liquidity illusion: the financial market.

Financial Market: Liquidity Illusion in the Institutional Context

The second – inter-related - level at which liquidity illusions have systemic ramifications for financial stability is tightly related to the first and corresponds to the qualitative side of liquidity. Unlike the more quantitative dimension of liquidity in the macroeconomic context, the notion of micro- or market liquidity denotes, broadly, the easiness with which financial and real assets can be purchased and sold (Bini Smaghi 2007; Crockett 2008; Brunnermeier 2008: 22). Encompassing an array of liquidity risks a financial institution faces in the markets, the illusion of market liquidity is a problem best captured when one conceives of a financial market not as a mere price-setting platform/mechanism mediating the supply and demand for a given asset, but as of social institutions, governed by a complex set of behavioural and psychological processes. With these premises, the second facet of the

illusion of liquidity centres on the trade-off between the liquidity of an institution and the liquidity of the market system the institution operates in.

Originally identified by Keynes, the problem of the so-called ‘paradox of liquidity’ was later addressed by Hyman Minsky, and remains one of the most perplexing consequences of financial deregulation and the privatisation of financial risk. As Keynes, Minsky their followers understood, liquidity of an individual institution is not synonymous with liquidity of the financial system as such. By fallacy of composition, there is a trade-off between individual and systemic liquidity. As Keynes famously put it: “of all the maxims of orthodox finance none, surely, is more anti-social than the fetish of liquidity, the doctrine that it is a positive virtue on the part of investment institutions to concentrate their holdings of “liquid” securities. It forgets that there is no such thing as liquidity of investment for the community as a whole” (Keynes 1936, in O’Hara 2004: 2).

Among the scholars who attempted to advance Keynes’ original notion of the liquidity paradox, Minsky’s financial fragility hypothesis probably offers the most fertile analytical framework. According to Minsky, in an environment of deregulated credit financial institutions are keen to exploit new investment techniques and profit opportunities. As financial innovations gain ground, he continued, the velocity of money increases. The availability of new credit raises confidence and profits, increasing the volume of debt-financed investment (Wolfson 1994: 17). Yet as Minsky warned, “every institutional innovation which results in both new ways to finance business and new substitutes for cash decreases the liquidity of the economy” (Minsky 1986: 173, emphasis added). When arbitrage is possible, speculators make easy profits “by financing positions...in long-term financial assets by short-term, presumably liquid, debts” (Minsky 1986: 211).

During good times, complacency and optimism about one’s positions in the market contribute to heavier

reliance on leverage and in Minsky's framework, to a situation where the Ponzi principle becomes the major mode of raising new finance for economic units. According to Minsky, the result of this financial expansion is a progressively illiquid state of the market as a whole. In the run-up to the global credit crunch, the face value of outstanding derivative positions on over-the-counter (OTC) markets is some \$600 trillion. These instruments typically give investors a claim on a large chunk of assets, with only a small down-payment. When asset prices rise, speculators can then borrow against their increased wealth, helping to drive prices even higher (The Economist, 19th July 2007, data from the BIS).

The bull market made it possible to make large profits on trading complex, tailor-made instruments, such as OTC derivatives, and contributed to the belief in abundant and infinite liquidity of the financial system as a whole. Yet when the markets for these complex and infrequently traded products dried up in the autumn of 2007, it became impossible to find a price for these complex products, and liquidity crunch has spread across the world markets. According to the Asian Development Bank, as of March 2009, financial assets worldwide may have fallen by \$50 trillion (Tett 2009). Thus while the basic premise of securitisation had been the idea that by pricing newly invented products the financial market in fact makes them into liquid assets, the credit crunch have exposed the fallacy of this argument.

Indeed, the consequences of the securitisation process for systemic liquidity cannot be more controversial. On the one hand, securitisation is a technique of converging assets that would serve as collateral for a bank loan into securities which are more liquid and can be traded at a lower cost than the underlying assets (Steinherr 2000: 291). Such 'bundling up' and re-selling of loans has liquidity creation as one of its main purposes: new instruments, and new buyers for these instruments, add to a sense of increased liquidity in the global system.

On the other hand however, the perception of greater liquidity often helps disguise fragilities in the underlying markets and economies. During the boom of 2002-2007 for instance, the securitisation of loans and the growth of new markets for credit risk contributed to the wide-spread illusion of abundant liquidity sloshing across the world markets, and a shared belief in greater resilience of the global financial system. But at the same time, the availability of easy credit helped many potentially distressed corporations to refinance their debts, or do out-of-court restructuring plans, and thus contributed to stupendous levels of leveraging of the household sector. In fact therefore, the perceived 'slosh of liquidity' driven by financial innovation and the notion of abundant savings in the world economy, has only obscured a deep-seating fragility of the US economy⁹ (Roubini 2007).

The continuing financial meltdown has also shown that Keynes' liquidity paradox has been especially accentuated by the thriving industry of financial innovation, underpinned by the 'soft-touch' regulatory paradigm which targets risks on the institution-by-institution basis. In the self-regulating credit system of Anglo-Saxon economies, dynamics of market liquidity are self-fulfilling. In times of economic boom, financial innovations stretch the frontier of liquidity, the process being driven by shared confidence and participation of market players; once distress sets in, the trend reverses itself, and 'liquidity' that had been conditioned by expectations, collective behaviour and economic climate turns out be a long chain of indebtedness. As one of the chief executives of Citibank reportedly has foreseen: "When the music stops, in terms of liquidity, things will be complicated. But as long as the music is playing, you've got to get up and dance"¹⁰ (cited in

⁹ Roubini notes that corporate defaults have been kept at a much lower levels (0.6%) than justified by current corporate financial fundamentals (2.5%) .

¹⁰ Nakamoto, M. and D. Wighton, 2007, Bullish Citigroup is 'Still Dancing' to the Beat of the Buy-out boom", FT, July 10.

Soros 2008: 84). In another admission, the mechanism of creating market liquidity is acknowledged to be entirely reversible in periods of stress: “when you are wrong, there is almost unlimited liquidity in the market. This unlimited liquidity will disappear if you, like everyone else, are trying to cut the same position” (in Smout 2001).

A massive sell-off adds to aggregate pressures on asset prices which in turn, trigger the evaporation of market liquidity for one or more classes of assets. The evaporation of asset liquidity aggravates both market and credit risk and undermines balance sheet liquidity for some institutions. And because financial institutions rely on similar analytical techniques to model their risks, individual decisions of managers to ‘exit’ the market for a given asset quickly translate into a general market collapse, eroding the market liquidity in the process (CRMPG, 27 July 2005; Eatwell 2002).

In other words, the relationship between the liquidity of a company and the liquidity of the market is a vicious circle. The sense - or illusion - of abundant systemic liquidity that had been sustained by booked profits in the good times becomes a pro-cyclical factor that translates market illiquidity into illiquidity and subsequently, insolvency of individual corporations, eventually seizing up the flow of credit across the system. Which is what happens in most financial crises and continues to unravel at the time of writing. This process is further exacerbated by the quality of assets in question. While in the boom complex assets are assumed to be liquid, in times of crisis, they simply become distressed debts. According to Gillian Tett (2009), in 2006- early 2007, around \$450bn worth of ‘CDO of ABSs’ were produced. Instead of being traded, most of these obscure products were sold off to bank’s own off-balance sheet entities, or simply left on the books. Since most institutions had no market price for them, they valued them on the basis of abstract theoretical models or the ratings issued by the credit ratings agencies.

This process of financial innovation gets interrupted in periods of market distress. When investors are similar in reacting to information, in valuing and managing risks, and are reducing their risk exposures simultaneously, finding a buyer is almost impossible. In the words of Avinash Persaud, the liquidity to sell disappears down a 'black hole' (Persaud 2002; Lagana et al 2006). Or put differently, "the actions of individual market players to conserve liquidity, while individually fully rational, can collectively have the effect of reducing liquidity in the markets as a whole" (Crockett 2008: 14).

The global credit crunch has exposed another facet of the liquidity paradox. As Mayer argues, the systemic danger emanating from financial innovation is not that the debtors will not be able to pay, as orthodox economic theory holds. The danger, rather, is that the creditors will not be able to do without the payments. During an upturn, the added loans required by diversification come out of what could have been a liquidity reserve. In most instances,¹¹ lenders are more highly leveraged than borrowers. Because of that leverage, they are likely to be regarded as less creditworthy in the markets if they have to replace a missed payment (Mayer 1999).

There is much more to today's institutional manifestations of the Keynesian paradox of liquidity. Another controversial consequence of financial innovation today and specifically, of the emergence of new risk management instruments, is that while making various tiers of the global credit system more interdependent, this process has also fragmented the global financial market. The deregulation of finance and the invention of new products and practices, while prompting greater synchronisation and tighter correlations between markets, also segregates credit, and therefore, liquidity risk. This so-called 'cutting and dicing' of credit risk leads many players and observers

¹¹ Mayer notes that Long Term Capital Management was an aberration.

to assume that since there is a greater diversity of financial institutions able to bear the risk, the financial system as a whole is more robust (Warsh 2007). But ultimately, segmentation reduces systemic liquidity by narrowing the market that is interested in the instrument. That is particularly true for periods of distress: to the extent that the markets for these instruments are correlated, segmentation can encourage exponentiating price movements as investors facing a loss in one sector hasten to protect against future losses by dynamic hedging (Mayer 1999).

Some analysts have suggested that the greater variety of instruments and markets, with high degrees of inter-linkages, in fact enhances systemic liquidity, by separating the risk-bearing and investing roles - an outcome never envisioned by Keynes and his contemporaries (O'Hara 2004). The continuing financial meltdown and its repercussions for the real economy however cast serious doubts on this proposition: not only has the fallout from the US sub-prime crisis affected very remote markets in Europe and Asia, but the global credit crunch in turn, has given rise to a global recession, with consumer markets, trade and employment being squeezed by the drying up of credit lines.

The global financial crisis has also demonstrated that the trade-off between individual and systemic liquidity exists not only in the context of a given market, but also across various segments of the global financial system. Rather disturbingly, 'illusions of liquidity' permeate in the international economic relations. As Bryant (1987) noted, in order to maintain financial exchange in the global economy, individual creditors need the illusion that their cross-border and cross-currency claims are liquid and negotiable. Here, "illusion is an appropriate term because, for the international as well as for domestic aspects, the individual creditor can have liquidity but the world as a whole (and often, even particular nations) cannot. Here as elsewhere, liquidity is a mixed blessing" (1987: 115-116). Stretching the

notion of the liquidity paradox to the global system of markets, one may argue that while every individual market is assumed to be liquid, the global financial system, with its complex array of instruments and markets, is progressively less so. In this instance, the global financial meltdown has brought up the third important dimension of the liquidity conundrum: its nature and dynamics at the level of the global economy.

Liquidity Illusion and the International Financial System

The two preceding sections of this article have noted that at the core of the problem of illusion of liquidity, both at the micro- and macro- levels, lies the spiral of private financial innovation and its consequences for the range of risks within and across markets, and in the economic system as a whole. The article has also noted that in the period of 2002-2007, the perception of abundant and infinite liquidity at the global level originated in the rather widespread belief that financial innovation and sophistication of risk-managing techniques ultimately enhances global liquidity, thus making the financial system more robust and resilient to shocks (e.g. Greenspan 2005).

But considering the level of integration of the financial markets into the complex system of credit, and especially in light of the wide range of meanings the concept of liquidity entails today, an important set of questions arises: what is global liquidity? How is it related to developments in national financial and credit systems? And what has been the role of global liquidity in the continuing financial meltdown?

In this respect, the key question about the concept of liquidity at the global level relates to the challenge of analysing the conditions and the structure of global liquidity. Interestingly in this instance, in contrast to new rules on capital requirements for individual institutions, there is currently little international guidance on liquidity (Salvatore 2002; FSA 2007; BIS

2008). In fact, there is little consensus, least so at the international level, about what exactly ‘global liquidity’ is today, and what is the best way to gauge its dynamics. Although different studies have registered the growth in global liquidity over the past few years,¹² the policy implications of the expanding pool of global liquidity remain contradictory and not well understood. Moreover, existing approaches to gauging global liquidity conditions do vary across international financial institutions.

The IMF, for instance, measures an economy’s liquidity by the use of narrow monetary aggregates: deposit liabilities of banks plus currency liabilities of the central bank, plus the holdings of households and the private sector (2005, Box 2.1, 13-14). Assessing global liquidity conditions, the Fund (2005) has suggested that in addition to the stock of foreign exchange reserves, global liquidity can also be gauged by the size of cross-border claims of tradable financial assets. As the IMF observed at the peak of the securitisation bubble, the sharp rise in international liquidity was a result of strong trade performance and sizable intervention.

In October 2007, relying on three indicators of excess liquidity, the IMF noted that global market liquidity has improved. According to such calculations, and rather perplexingly in the context of a global liquidity meltdown and the credit crunch, the world economy is still awash with ‘excess liquidity’, and a large chunk of it is parked in the vaults of central banks of key emerging markets¹³ (De Nicolo and Wiegand 2007).

¹² The IMF report attempts to gauge global liquidity conditions using different measures: base money (supply of central bank liquidity); broader monetary aggregates (to include household and corporate liquidity). Composite measures of liquidity include financial conditions index; whereas global liquidity is reflected in the level of international reserves (IMF 2005, Box 2.1.).

¹³ Between 1995 and 2005, the credit-to-GDP ratio has risen by 25%, broad money-to-GDP by 32%, and narrow money to GDP by no less than 55%. The unprecedented growth of liquidity has been mostly attributed to the monetary easing in the wake of the dotcom collapse (Fels 2005).

Between 2000 and 2005, emerging market economies accumulated reserves at an annual rate of \$250 billion (or 3.5% of their annual combined GDP). This was almost five times higher than the level seen in the early 1990s (Mohanty and Turner 2006: 40). China – the largest of these new sovereign creditors, has around \$2 trillion in foreign exchange reserves. This notion of growing stock of reserves of emerging economies had underpinned the so-called ‘savings glut’ hypothesis put forward by Ben Bernanke in the run-up to the credit crunch of 2007-2009. Even in the midst of the crisis, it continues to inform many policy-makers’ and analysts’ readings of the causes of the crisis - particularly in the USA– who continue to argue that the credit crisis and the subsequent recession were essentially caused by the excessive savings accumulated by China and other Asian economies. As Hank Paulson has stated in one of his last interviews as the US Treasury Secretary: “in the years leading up to the crisis, super-abundant savings from fast-growing emerging nations such as China and oil exporters - at a time of low inflation and booming trade and capital flows - put downward pressure on yields and risk spreads everywhere. This... laid the seeds of a global credit bubble that extended far beyond the US subprime mortgage market and burst with devastating consequences” (Paulson, in Guha 2009a).

There are two major reasons why such reading of the crisis origins is problematic. First, it does not capture the complex range of factors that had been driving the recent bout of credit bubbles. Second and crucially, placing the origins of the crisis on the ‘structural imbalance’ caused by the emerging markets in Asia and elsewhere, it removes the accountability for sowing the seeds of the crisis from the private financial markets and regulatory authorities in the Anglo-Saxon economies. But aside from this rather problematic political reading of the meltdown and the global recession, the paradigm of global imbalances also misconceives the very concept of global liquidity, and

its relationship to credit developments in the financial markets.

The theory of a global savings glut is based on the assumption that liquidity is a quantitative macroeconomic concept.¹⁴ Relying on that assumption, this theory first viewed global macroeconomic imbalances driven by excessive Asian savings as a major factor behind the credit boom and debt-financed economic expansion in the US (Geithner 2008). Interestingly, at the time of writing, the advocates of the global savings glut hypothesis continue to view the 'excess' savings of China and other sovereign exporters as a major source of 'unlevered liquidity' to the global economy, which, if redistributed, would mediate the persistent structural imbalance in world financial flows and help resolve the deepening global recession (Paulson 2009).

However as critics note, in reality the pool of 'excess liquidity' is much more modest than is assumed. In the case of China for instance, foreign reserves are comprised of dollars received from exports and foreign investment into China that are exchanged into renminbi. The Chinese central bank generates renminbi by printing money or by issuing bonds in the domestic market. In this process, the reserves are essentially "leveraged" using domestic "liabilities" (Das 2008). Moreover, the ready availability of China's dollar-denominated holdings – essential to the notion of liquid reserves - is also exaggerated. The dollars earned from export activities are then re-invested in foreign currency assets.¹⁵ The stock of China's liquidity reserves is thus exposed to price changes and risks affecting the value of these investments: the deteriorating quality of credit in the US leads to losses on investment through falls in

¹⁴ I am thankful to Randal Wray who has succinctly formulated this problem at a conference on the Nature of Money (Cegla Centre, Tel Aviv University, January 2009).

¹⁵ 60% are reinvested in dollar denominated US Treasury bonds, GSE paper (such as Freddie Mac and Fannie Mae debt) and other high-quality securities (Das 2008).

the market value of the debt and a weaker dollar (Das 2008). As Das argues, in this credit context, and given the size of the portfolios, it is difficult for large investors such as China to realise a large portion of these funds by liquidating their investments and converting them into the home currency without substantial losses.

A number of observers of the global credit crunch have argued that attempts to draw a linear link between the reserves of the Asian sovereign exporters and the stock of global 'real' money are misguided, in fact representing yet another facet an illusion of liquidity, this time at the global level. As Gillian Tett (2007) observes, financial innovation and technology have spun available 'real' money into an exaggerated bubble that inevitably collapsed; the reserves of key emerging markets is another dimension of what she called 'candy floss' money. The perceived abundance of liquidity and hence economic prosperity was, in reality, merely an illusion created by high levels of debt and leverage as well as the structure of global capital flows (Das 2008; Tett 2009). As the crisis has shown, the linear and purely quantitative understanding of global liquidity as determined by the stocks of hard currency reserves is flawed for two major reasons: first, it is incomplete; second, it obscures an important, yet critical role private financial innovation and credit expansion have come to play in stretching the spectrum of liquidity.

The consequences of the sub-prime meltdown have seen some attempts towards a better understanding of the processes of financial innovation and the levels and behaviour of liquidity (BIS 2008; Banque de France 2008). One important result of these efforts is a more concerted approach towards understanding the levels, context and types of liquidity and associated risks today. For example, compared to the notion of liquidity as a function, and property of an asset or a market dominant in the run-up to the credit crunch, the crisis appears to be facilitating a consensus that differentiates between market and funding liquidity, and between

trading and asset liquidity (Warsh 2007; Banque de France 2008).

Yet it is also notable that the longer-term lessons policy-makers tend to draw out from the continuing turmoil remain quite superficial, being confined to a review of some of the negative consequences of financial innovation for market liquidity and risk distribution. As such, they do not delve into concrete regulatory implications of the liquidity conundrum at the global level; neither do they raise a concern about the core principles of supervision and governance of the processes of financial innovation.

Some economists argue that defining liquidity, in whatever terms, is likely to be a wasted effort, and would not help the task of financial regulation in any substantial way. With an infinite array of credit instruments in the global market, precise definitions of monetary aggregates have no practical meaning; they merely are nominal indicators (Buiter 2007). This may very well be so: conventional monetary targets cannot capture the whole variety of credit instruments, and from this angle, the focus of regulation should not be monetary terminology as such, but rather, a variety of risks associated with credit and liquidity dynamics in the financial cycle. However, as the above analysis shows, even the most intricate networks of credit can collapse, and when they do, they require regulatory response. If that action, monetary or fiscal, involves the use of public resources, the original question about the nature of the liquidity boom and the dynamics between creditors and debtors, becomes a sensitive socio-political issue.

At the same time, it is clear that the illusions and dilemmas of liquidity are only one manifestation of a wider range of problems associated with the opacity of markets, distribution of risks and social costs of private financial innovation that are among the key challenges to financial architects. Two interrelated issues are worth noting here, both of which centre on the phenomenon of liquidity illusion in a systemic and dynamic context.

The first issue concerns the impact of existing regulatory paradigm on systemic liquidity. One of the important post-1990s reflections on the sustainability of systemic liquidity suggests that diversity of trades and therefore, a heterogeneity of market participants, are essential for the overall liquidity of the system (Persaud 2002; Persaud and Nugée 2007). In this light, the fact that many financial institutions use broadly similar analytical tools to model price changes in response to external shocks - such as mark-to-market model of booking profits - heightens the risk of sharp price swings in the face of crowded trades. Until now, the paradigm of global financial architecture has relied on the 'bottom-up' approach to financial supervision, i.e., on delegating the task of risk management to individual institutions. However given the trade-offs between private and systemic risks analysed above, and especially in light of the lessons from the global credit crunch, it is clear that focusing on the individual risks run by institutions is not sufficient to reduce systemic risk. At best, "this is an extremely costly way to promote systemic safety; at worst, it may actually be counterproductive" (Persaud and Nugée 2007: 318; Aglietta and Rigot 2008). The dominant soft-touch approach to financial regulation is in fact, aggravating the homogeneity of financiers' behaviour (Alexander et al. 2006). Disturbingly, this idea is not being confronted in the policy debate that has ensued in the aftermath of the credit meltdown.

The second problem relates to the behaviour of systemic liquidity in the course of a financial cycle. Specifically, it concerns companies' accounting practices. It is difficult to overestimate the role of liquidity illusion in this process. Since the early 1990s, corporations have replaced the so-called 'historical cost' accounting rules with 'fair value' accounting rules. According to the so-called 'mark-to-market' principle, under both US and international accounting rules assets of major corporations have to be stated at their market worth on their balance sheets. This fair value accounting principle

suits companies well in the good times, when asset values are rising: they can book that increase in value as ‘profit’ even if they have not sold the assets in question. But fair value accounting also creates volatility in companies’ balance sheets. Especially when good times end and the market trend reverses, losses have to be booked.¹⁶ Thus in a credit crisis, when liquidity strains of individual companies critically depend of the assumed liquidity of the market as a whole, the potential for a crisis is enormous. If the market for an asset, or a class of assets, seizes up, or loses its buyers and sellers and thus one key pillar of liquidity, then balance sheet values collapse ‘in an inverse Ponzi related accounting crisis that can spiral out of control’ leading to insolvency (TJN 2008: 116; also Cooper and Folkerts-Landau 2005: 4).

These thoughts flag bigger policy challenges. First, at the systemic level, the paradox of liquidity requires a fundamental reconsideration of the way the interaction between individual choices of investors and the aggregate consequences of their actions is being understood within the global paradigm of financial governance. John Eatwell (2002) has praised the construction of “macroprudential indicators” (MPIs) proposed by the IMF aimed to assess the “health and stability of the financial system”. MPIs are designed to include both aggregated microprudential indicators of the health of individual financial institutions and macroeconomic variables associated with the state of the financial system. But Eatwell also noted that even with this remarkable shift, there has been no attempt to link the microeconomic risk-taking to the risk created by the inter-actions of firms, or Keynesian ‘beauty contest’. As he argues, “just adding up micro data won’t do. The whole is not just greater, but behaves very differently from the sum of the parts” (Eatwell 2002: 9).

¹⁶ This is why such substantial provisions have had to be made on the accounts of so many banks during the first half of 2008.

Taking into consideration the above, it appears that sceptics may well prove to be correct, and the credit crunch of 2007-2009 may only be the first phase of a bigger, structural economic meltdown at the core of which had been the multi-faceted problem of the illusion of liquidity.

Conclusion

In this article, I identified the problem of 'liquidity illusion' as one of the major factors precipitating the build-up of systemic risks in various tiers of the global financial system. Three intertwined levels where liquidity illusions have led to systemic financial implosions and complicate the political response to the financial crisis have been analysed: macroeconomic, market-centred, and international. All three dimensions of liquidity illusions have been present in the ongoing global credit meltdown. All three pose immense analytical and policy challenges to scholars of global finance and financial regulators.

At the core of liquidity illusion, I have argued, lies the spiral of private financial innovation and risk-trading processes underpinning it. Today's facets of liquidity illusion stem, just as Keynes observed some seventy years ago, from the trade-off between individual choices and perceptions of financial players, and collective outcomes of these choices in a systemic context. Continuing strains in the global financial market, and the globalising recession highlight among other things, the degree to which financial innovation and the expansion of secondary markets complicate policy response to distress and crisis.

One conclusion that follows from the above implies that the dominant approach to financial regulation and innovation, as well as the structure and functions of financial markets, have disguised the tendency of the system to become progressively illiquid during periods of economic optimism. As the continuing crisis shows, the wide-spread illusion of liquidity has obscured the

deep-seated systemic fragility, which in turn has its roots in competitive financial innovation, the institutional design of financial regulation, and the politics of Anglo-Saxon finance.

Furthermore, although the ongoing financial meltdown has heightened regulators' concerns about the state of the innovation-driven financial markets, many officials are on record confessing that they have lost a sense of what liquidity, or even financial stability itself, is today. Due to the very nature of the spiral of financial innovation in the global age, this interaction is not easily modelled or mathematised, and there is a limit to the explanatory or predictive power of any abstract model, as the current credit crunch or indeed, any of the crises of the past 20 years, shows. Overall therefore, the analysis of the problem of liquidity illusions and its implications presented in this paper suggest that a more comprehensive answer to the dilemmas of liquidity today lies in the nature and politics of financial innovation more generally, a task that requires an overhaul of many principles of the existing paradigms of financial practice and governance.

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