

Liquidity Illusions in the Global Financial Architecture

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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 have not only destabilised the US financial system, but have also shaken the European and Asian markets. The crisis prompted unprecedented emergency measures by the central banks in the USA, Japan, EU, and later Canada, Australia and the UK: in only a few days in mid-August, the world's central banks have injected more than \$240 billion into the financial markets; in the USA, the Federal Reserve cut the discount rate by half a percent to 5.75% from 6.25%. At the time of writing, the turbulence in financial markets seems to have eased, and market indices appear to have stabilised. Yet some observers warn that more strains are hidden in complex pyramids of credit around the world, and that the crisis is far from over.

A brief look at the emerging analyses of the crisis of the summer 2007 brings out two perplexing issues. The first puzzle is the very shock of the crisis: the market turbulence caught many regulators and observers by surprise. This is odd, given that the fragility of the US mortgage market had been noted repeatedly by many commentators during the past several years. The second puzzle is the diagnosis of the crisis - most observers recognise that at the epicentre of the turbulence has been a 'systemic liquidity crunch.' Such a consensus appears confusing, since only a few weeks prior to the week global markets tumbled, many financial commentators cited excess liquidity and even

'liquidity glut' washing across global markets. The IMF, for instance, warned against the inflation-related dangers of excess global liquidity, as emerging markets have accumulated vast volumes of foreign exchange reserves. Equity funds were able to raise inordinate amount of credit from financial institutions desperate for borrowers. How could possibly this glut of 'excess liquidity' evaporate so quickly, to require an additional 240 billion dollars of central banks' funds?

This essay contends that both of these puzzles stem from the important, but often overlooked, phenomenon of the so-called *illusion of liquidity*. Originally formulated by Keynes, the problem of liquidity illusions has been common to many financial markets throughout history, but it is during the past two decades that illusions of liquidity have become a central trigger of financial crises around the world. Essentially, the illusion of liquidity is a false sense of optimism a financial unit has over the safety and resilience of her portfolio. In periods of economic upturn and optimism, investors eagerly expand their credit lines, often underestimating the risk in the belief that their investment structures are safe and liquid. Yet when agents across the board share this sense of optimism and stretch their portfolios too far, the system as a whole becomes progressively illiquid and fragile. When distress hits the market, credit lines that were advanced only a short while ago cannot be closed without losses; contagion, which may involve asset deflation, spreads through the market, often ending up with a systemic collapse.

As the term itself suggests, the problem of liquidity illusions is difficult to diagnose accurately and in time. It 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. Still, it is notable that in the wake of the series of crises of the past decade, some research on financial regulation and innovation has identified the complex issue of liquidity as a key component of systemic risk in financial markets today (Bies 2002; Bird and Milne 1999; Bisignano 1999; Chang and Velasco 1998, 1999; Goldfrain and Valdes 1997; Mishkin 1999; Persaud 2002; Alexander et al. 2006). Much of the discussion however, remains confined to academic circles, and so far, no policy framework has addressed the problem comprehensively.

As this essay contends, part of the reason for this gap between financial theory and policy is the fact that the nature and behaviour of liquidity today are incredibly complex, overlapping several layers of financial and macroeconomic activity. Understanding these issues in the context of deregulated credit of today requires a qualitatively new approach to the financial system and financial risk, and a corresponding, targeted regulatory framework. In what follows, this essay analyses the systemic implications of the liquidity illusions at three inter-dependent levels: macroeconomic; institutional and international. The paper shows that although generally, liquidity illusions stem from the processes of financial innovation, at each of them is manifested in different manner. At the macroeconomic level, illusions of liquidity are reflected in the blurring line between ‘money’ and ‘near-money’ the phenomenon which, although benign in ‘good’ economic times, can result in a payments breakdown and a financial when ‘good times’ end. At the institutional level, illusions of liquidity blur the distinction between the financial health and liquidity of individual companies and the liquidity and robustness of the system as a whole. Finally, at the international level, illusions of liquidity are often caused by a lack of a consensual definition of liquidity and the opacity, and even obscurity of today’s financial flows and credit structures.

As this essay observes, although the literature on liquidity is growing, and some shifts towards better understanding of liquidity risks have been prompted by the BIS-centered policy processes, there is little guidance, much less agreement, on how to tackle the multi-dimensional problem of liquidity illusion. Existing and recently advanced regulatory norms formulated under the umbrella of new international financial architecture (NIFA), such as Basel II, do not capture the variety of liquidity-centred systemic threats associated with the contemporary credit system and thus offer insufficient tools of crisis prevention. A more comprehensive answer to liquidity dilemmas today lies in the nature and politics of financial innovation more generally.

Liquidity: The Dark Side of Finance

Liquidity is often dubbed a ‘dark side’ or an ‘Achilles heel’ of today’s finance. Why is liquidity such a problematic issue? Financial literature offers many 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 what liquidity is lies primarily in the multiplicity of its meanings and functions. At the very least, ‘liquidity’ denotes three things: it is a quality, or a property of a product (or a market); it is a quantity of ‘money’ available in the system, and it is the ease by which transactions can be completed in a given market. This range of meanings, in turn, entails that ‘liquidity’ implies different things to different people in different times and contexts. An additional challenge to understand what liquidity is and how it behaves is obscured by the fact that over time, especially with the worldwide escalation of financial innovation in the post-1973 period, the nature of liquidity has changed. As one official of the Bank of England 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).

Distinguishing between the three dimensions of liquidity is a challenge, complicated by the fact that during ‘good times’, the three dimensions of liquidity – the quantity and quality of assets, and the ease of transactions – tend to be conflated, which can entrap investors and regulators alike into illusions of liquidity. All three dimensions of the liquidity problem are tightly inter-related; they all centre on the processes of financial innovation; all three entail systemic consequences and pose immense regulatory challenges. Incorporating quantitative, qualitative and temporal dimensions of the problem, each of the three aspects relates to a specific set of elements of systemic risk: the creation and supply of liquidity; its functions in an open economy; and its behaviour in the international context. Here, although it is widely recognised now that the way in which liquidity is generated in liberalised financial systems makes financial markets vulnerable to the externalities that feed on the dynamics of systemic risk (Aglietta 1996), this problem remains poorly understood by the existing methods of liquidity regulation and management.

Conventional economic analysis evaluates liquidity by 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 of the market). Liquidity of an institution is measured by corresponding ratios for a safety of assets or quality of loans in the portfolio. But these measures 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 condition of the system as a whole. 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 systemic outcome of the deteriorating quality of portfolios of companies comprising the market, especially if it is tightly interconnected with other market segments.

What gives rise to confusions, or delusions, about liquidity conditions at a given market is the fact that a liquidity crunch is often manifested by the disappearance of buyers and sellers from the market. By a common fallacy, many observers tend to conclude that liquidity denotes the volume and/or the ease (or velocity) of financial transactions. However, this is a mistaken belief that has led regulators and market watchdogs to mis-read many crisis signals. 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, or a system of markets. Here, one of the most important lessons from the past decade of 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* (cf. Warburton 2000). This particular argument, although being continuously reiterated by many post-Keynesian scholars, has not been articulated into any policy measure in the aftermath of the crises of the 1990s. Yet it is the main reason why the markets were shaken by the sub-prime crisis in the summer of 2007.

The origins of liquidity illusions are many. Partly, confusions, and illusions, about liquidity and its behaviour are caused by the sheer complexity, and obscurity of deregulated finance and credit. In the deregulated financial system, financial innovation

continuously drives credit structures far beyond the lens of regulatory authorities, thereby blurring the line between ‘money’ and ‘near-money’ (Levy-Garboua and Weumuller 1979). Moreover, at present almost half of all global lending is siphoned off through tax havens and offshore financial centres, and we simply do not know when highly complex pyramids of credit reach critical proportions. The internationalisation of markets makes the challenge of discerning liquidity dynamics even more difficult. For instance, in the wake of the Bretton Woods collapse, the emergence of new forms of financial intermediation and a wide variety of financial products 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, liberalised markets were assumed to fulfil liquidity-balancing functions by themselves, and liquidity management has become a marginal concern for monetary and financial authorities. Particularly in the low inflationary period of the past two decades, the growth of private international credit markets have led many 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).

However as the series of devastating financial crises over the past two decades showed, liquidity has been at the epicentre of destabilising breakdowns in national, regional and international payment systems (Chang and Velasco 1998, 1999; Kregel 2001; Mshkin 1999; Pettis 2001, 2003). In several cases - most scandalously, during the LTCM fiasco in 1998 and in August 2007 - 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 payments systems into a chain of illiquidity and insolvency. And although the circumstances of each of the crises differed significantly, this essay contends that it is the phenomenon of liquidity illusions that caused regulatory complacency, investor exuberance and self-fulfilling market dynamics that in conjunction with other factors, precipitated the crises. In what follows, this essay identifies three levels at which liquidity illusions have systemic role for financial stability: a) at the level

of a macroeconomy; b) in the context of institutional interaction in finance; and c) at the level of international policy coordination.

National economy: the role liquidity in the funding mechanism

The first level at which liquidity problems arise relates to its settlement, or funding, function in a macroeconomy. Fundamentally, it centres on its proximity to money and on the question of how liquidity is created in an economic system. In its pure form, 'liquidity' denotes assets which in their properties are closest to cash: along with banknotes, other components of the so-called M0 aggregate bring low returns, but are highly liquid: they either are cash, or can be converted into means of payment almost instantaneously (e.g., Minsky 1982: 9). This narrow understanding of liquidity is remarkably straightforward, it helps explain many financial crises need to be resolved by a lender of last resort when the preceding investment booms have stretched credit too far. But this narrow reading raises a two-fold dilemma.

On the one hand, finance in today's capitalism is increasingly disassociated from cash and pure 'money:' credit and debit cards, cyber cash and even mobile phones are crowding out banknotes and coins from the everyday economy. 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. Actually, 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, but with the question of facility in the exchanging of future for present purchasing power. Hence it appears that notions of absolute liquidity and 'cash' became anachronistic a long while ago; they bar the way to a true understanding of the modern credit system (Smith 1935: 640). In this way, in today's financial markets funding liquidity 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 government securities (Borio 2000, 2004).

On the other hand however, while it is easy to assume that in today's deregulated financial markets, everything can be bought and sold at any moment; 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, new 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 temporarily offer credit to the market and, by increasing the number of players on both sides, contribute to a sense of greater market liquidity (Wolf 2007). In the meantime, banks remain 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 liquidity crunch situation when central banks have to inject additional funds into the financial system that only a short while ago seemed perfectly ‘liquid’.

The challenge of recognising periods and critical junctures of such illusions of liquidity in time is highly complex, and tends to be most difficult during an upturn in the financial market, when greater appetite for risk and optimism about the future blur the line between the function of money as a means of payment and the greater availability of credit instruments to financial operators. This problem was recently tackled by Claudio Borio, a chief economist at the BIS. In his insightful study of the behaviour of financial markets, which closely parallels Keynesian notions of the ‘illusion of liquidity’, he advanced the notion of *artificial liquidity* as a useful gauge of financial fragility. During the period of a market upturn, for example, in the dotcom euphoria of the late 1990s, markets often appear ‘artificially liquid’: financial players willingly expand their investments, and the sense of optimism contributes to the belief that the new investments are safe, profitable and liquid. Yet paradoxically, he argues, liquidity may be perceived as highest precisely when it is most vulnerable. “The *illusion of permanent market liquidity* is probably the most insidious threat to liquidity itself. Markets are *expected* to be liquid, loans are *known* not to be” (Borio 2000: 45; 2004).

At the level of a national economy, one crucial policy implication of liquidity illusions is the issue of the control over the supply of money and credit. Financial innovation weakens the ability of central banks and other financial regulators to govern the process of credit expansion. This has not only posed an intellectual challenge to

neoclassical models of finance and crisis; it has also cast doubt on the validity of the underlying paradigm of monetary economics, and hence, the role of central banking. The neoclassical model sees low inflation as a key precondition for investor confidence in the economy, and hence, for stable growth. Thus keeping prices low has been the ruling principle of economic theory and central bank policy since the hyperinflationary 1970s. However, financial innovation, the securitisation of finance and the fragmentation of risk among newly emerging financial institutions, have provoked serious disagreements between key central bankers as to the effects that financial innovation and in particular, derivative products, have on the economic stability.

At least three inter-related mutations within the monetarist consensus can be observed. First, in key capitalist economies, the centrality of orthodox monetarist objectives is being gradually replaced, or complimented, by the aims of financial stability (Crockett 1997, Borio and White 2004; Borio et al 2004; Large 2005; Roubini 2006). Second, increasingly, the controversial role of anti-inflationary monetary policy in influencing the credit cycle is recognised as a contributing factor to the state of financial fragility and often, as a propagator of a financial crisis itself. As the BIS for instance, warns, the current monetarist drive may aggravate, rather than mediate, the instability rooted in asset price volatility or speculative nature of financial markets:

“... the very shift from high to a low inflation environment could have exacerbated risks, by clouding the distinction between nominal and real variables. For example, some of the overly exuberant equity valuations and over-indebtedness may well have been the result of mistaking nominal for real declines in interest rates...[W]ith short-term price pressures under control, policy rates may fail to rise sufficiently promptly to restrain the build-up of financial and associated real imbalances in the economy. Paradoxically, the credibility of anti-inflation commitment can thus cloud the picture of the risks facing the economy” (Crockett 2003: 3; 4).

Third, the so called new macroprudential framework of financial regulation increasingly turns to the issue of systemic risk and its regulation (White 2006a, 2006b; Borio et al. 2003). Which brings us to the second level of the problem of liquidity illusions: its institutional dynamics.

Liquidity and the Institutional Context

The second level at which liquidity illusions have systemic ramifications is tightly related to the first. It centres on the trade-off between the liquidity of an institution and the liquidity of the system it operates in. Originally identified by Keynes, the problem was later addressed by Hyman Minsky, and is currently mentioned as one of the most perplexing consequences of financial deregulation and the privatisation of financial risk. As Keynes, Minsky, and many of their followers understood, liquidity of an individual portfolio or an institution is not synonymous with liquidity of the financial system as such. In fact, there is a trade-off between individual and systemic liquidity.

As Keynes observed, in times of economic optimism and market expansion, “the fact that each individual investor flatters himself that his commitment is ‘liquid’ calms his nerves and makes him much more willing to run a risk” (1936: 160). In periods of economic boom and upturn, financial innovation allows for a greater complexity and diversity of financial products and risk-management techniques; yet in parallel, it is also setting up the conditions for a financial crisis:

“...optimism contributes to the underestimation of risk, overextension of credit, excessive increases in asset prices, overinvestment in physical capital and, in some cases, overly buoyant consumer expenditures. Eventually, when more realistic expectations emerge, the imbalances built up in the boom need to be unwound, sometimes causing significant disruption to both the financial system and the real economy” (BIS 2000/2001: 123).

Therefore, as Keynes famously wrote, “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 liquidity illusion, Minsky’s financial fragility hypothesis probably offers the most profound understanding of this trade-off. It contends that in an environment of deregulated credit, financial institutions are keen to exploit new investment techniques

and profit opportunities. As financial innovations gain ground, he argues, 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. That is, even though the amount of money does not change, the liquidity of the community decreases when government debt is replaced by private debts in the portfolios of commercial banks. Also, when nonfinancial corporations replace cash with government bonds and then government bonds with debts of bond houses, liquidity decreases. Such a pyramiding of liquid assets implies that the risks to the economy increase, for insolvency or even temporary illiquidity of a key nonbank organization can have a chain reaction and affect the solvency or illiquidity of many organizations” (Minsky 1986: 173).

Particularly in an environment where short term interest rates are lower than the level of long-term interest rates, “one can make on the carry¹ by financing positions...in long-term financial assets by short-term, presumably liquid, debts” (Minsky 1986: 211). 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 so-called Ponzi finance becomes the major mode of raising new finance for economic units . The result of this financial expansion is a progressively illiquid state of the market as a whole.

Today, for instance, according to the BIS, the face value of outstanding derivative positions on over-the-counter markets is some \$400 trillion. These instruments give investors a claim on a large chunk of assets, with only a small downpayment. When asset prices rise, speculators can then borrow against their increased wealth, helping to drive prices even higher (*The Economist*, 19th July 2007).

The danger inherent in this process of credit expansion, is that once the system comes under stress, the newly opened credit lines will not be closed in time, and investor

¹ The term “carry trade” describes a transaction where you borrow and pay interest in order to buy something else that has higher interest. In currency markets, carry trade is a strategy where an investor borrows in a foreign country with lower interest rates than their home country and invests the funds in their domestic market, usually in fixed-income securities. More recently, given the low level of interest rates in most capitalist economies, ‘carry trades’ involve transactions in which loans are raised with the central bank on favourable terms and used to purchase high-yielding securities like bond. This type of raising liquidity has become an attractive way for banks to make a profit on maturity spreads (Heise et al 2005: 25).

herding will quickly translate individual illiquidity into a systemic crisis. Here, the institutional dimension of liquidity reveals its self-fulfilling component. In times of distress, the combination of falling asset prices and the erosion of creditworthiness push financiers to liquidate their positions. ‘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). While this process may be rational at the micro level, it adds to macro pressures on asset prices which in turn, trigger the initial 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. Since many companies use similar analytical tools to model their price and risk exposures, the risk of precipitous price changes in the face of ‘crowded trades’ increases. In these circumstances, the escalation of credit concerns exacerbates the defensive behaviour of investors, all of which acts to reinforce adverse market dynamics at the systemic level. As risks unfold through the system, a financial crisis ensues (CRMPG, 27 July 2005; Eatwell 2002).

The institutional dimension of liquidity illusions also reveals its paradoxical role in the economic system. One of such paradoxes is that the ability to exit from an investment by selling a financial asset is also a necessary foundation for investment itself, and the course of the instability that can undermine investment, output, and employment (Alexander et al. 2006: 7- 8). Another paradox of liquidity implies, as Mayer argues, that the systemic danger of financial innovation is not that the debtors will not be able to pay, as orthodox economy theory holds. The danger is that the creditors will not be able to do without the payments. The added loans required by diversification come out of what could have been a liquidity reserve. In most instances—Long Term Capital Management was an aberration – 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).

The institutional manifestations of liquidity illusions have been noted by a number of market practitioners and financial regulators (e.g. Bisignano 1999; Bookstaber 2000; Borio and Lowe 2002; Chang and Velasco 1999; Detragiache and Spilimbergo, 2001, Persaud 2002), yet it remains unclear what is the best way to gauge and tame

illiquidity at a systemic level, or how to enforce measures of crisis prevention. For instance, while the analytical distinction between liquidity and solvency crises is clear enough, in practice the distinction is difficult to draw even in hindsight. On the one hand, the central banks, when confronted with systemic threats brought on by excessive speculation, have to accommodate the market's need for monetary base and provide the needed liquidity (Savona 2002: 181; Ferguson 2003: 8). On the other hand, the presence of a lender of last resort raises a threat of moral hazard: if financial mistakes were mainly committed by the private sector, why should public authorities rescue the failing institutions? Only in the few days in August 2007, for instance, responding to market turbulence, the central banks of the US, Germany, Canada, Australia, Japan and the EU injected more than 240 billion of dollars in order to tame liquidity contagion across markets. But many analysts believe that this was an unnecessary overreaction: the crisis, just as the boom of 'artificial liquidity' that preceded it, was caused mostly by over-leveraged hedge funds, and these private institutions should not be rescued by public funds. These institutions operate outside the frame of public policy; systemically, they are an 'outgrowth' of the banking system, and thus should really be allowed to go bust and pick up the costs of their exuberance. Moreover, rescuing private firms with public money implies that while the actions of central banks may help alleviate current pressures on the markets, in the longer run, the bust, when it comes, is as hard to control as the boom that preceded it (*The Economist*, 19 July 2007).

There is much more to today's institutional manifestations of the Keynesian paradox of liquidity. 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) notes, 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 missed blessing" (1987: 115-116). Deepening international financial imbalances heighten this problem:

“If the overseas demand for US dollar assets were to slow markedly, the US dollar would depreciate, world interest rates would rise, and the prices of a number of classes of financial and real assets would weaken...an extended period of slow growth could ensue, reinforced and lengthened by an erosion of the capital of financial institutions and other market participants that would sharply curtail their willingness to supply credit” (Knight, 6 September 2005).²

Stretching the Keynesian notion to the global system of markets, we 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. For example, 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 its one of its main purposes: new instruments, and new buyers for these instruments, add to a sense of increased liquidity in the global system.

However the existence of a wider market and a wider range of credit products is not synonymous with greater liquidity of the financial system as such. In fact, the perception of greater liquidity often helps disguise fragilities in the underlying markets and economies. During the period of 2001-2007 for instance, the securitisation of loans and the growth of new markets for credit risk has contributed to the wide-spread illusion of abundant liquidity sloshing across the world markets, and a belief in greater resilience of the global financial system. Yet as Roubini notes, 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’ disguised a long-seating fragility of the US economy³ (Roubini 2007).

² As a viable alternative to the increasingly obsolete, and often plainly dangerous, monetarist anchor, Crockett proposes to use measures of financial imbalances that contain useful information about the future course of the economy.

² M. Knight, general manager of the BIS, “Challenges to financial stability in the current global macroeconomic environment”, 6 September 2005, speech at the IMF.

³ Roubini notes that corporate defaults have been kept at a much lower levels (0.6%) than justified by current corporate financial fundamentals (2.5%) .

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 financial markets and the invention of new products and practices, while prompting greater synchronisation and tighter correlations between markets, also *segments* credit, and therefore, liquidity risk. This so-called 'cutting and dicing' of credit risk leads many players and observers 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 liquidity* by narrowing the market that is interested in the instrument. And to the extent that the markets for these instruments are correlated, segmentation can encourage exponentiating price movements as participants showing a loss in one sector hasten to protect against future losses by "dynamic hedging" (Mayer 1999).

Some analysts suggest that 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). Yet the continuing strains from the liquidity crunch of the summer of 2007 cast doubt on this proposition: the fiasco of the subprime markets in the US has affected very remote markets in Europe and Asia, where liquidity vanished overnight, despite the sophisticated models of risk management employed by investment institutions. Indeed, although hedge funds are assumed to have dispersed credit risk, during the crisis it emerged that the risk in fact has been concentrated in their prime brokers, such as Morgan Stanley, Bear Sterns and Goldman Sachs (Egan 2007).

Therefore, it appears that the contemporary structure and functions of financial markets disguise fragilities associated with the build-up of liquidity illusions. Particularly during good times, the institutional trade-off between individual and systemic liquidity is easily overlooked. In times of stress however, the dichotomy leads to liquidity and credit crunches played out at various institutional levels and contexts, both within a given market, and across a system of markets. When diagnosed correctly and on time, financial policymakers and regulators may help stave off the systemic threat of financial fragility and thus avert a bigger financial meltdown. Though often, as the

current meltdown in the market shows, even the most decisive action by the central bank does not alleviate the threat of a bigger structural disruption to the financial sector and the real economy; it merely postpones it.

Liquidity and the international financial system

This observation brings us to the third problematic dimension of liquidity illusions today, and that is, the challenge of financial governance, in the international context. Resolving systemic liquidity crises typically requires a monetary intervention by public authorities. Only in some cases, LTCM most notably, was the crisis settled by a consortium of private creditors. The use of public funds to alleviate the mistakes of the private financial sector is highly controversial, both economically and socially. In theory, the distinction between liquidity and solvency crises is quite straightforward: when potentially solvent firms face a liquidity shortfall a monetary injection and help them overcome temporary problems and restore their position in the market; when firms are insolvent, they require more drastic fiscal restructuring measures, typically involving a bankruptcy procedure. Bailing these firms out is economically unreasonable: not only do they face a shortage of credit; they are also economically bankrupt. Central bank intervention to inject liquidity to an illiquid company or a sector of the market would simply bring prices of assets back to their fundamentals. Bailing out insolvent firms would encourage irresponsible behaviour and further risk taking (Rajan 2007).

But as regulators struggle to muddle through the subprime mess in the USA, it appears that despite the relatively straightforward theoretical distinction between illiquidity and insolvency, in reality this distinction is hard to draw. While many experts have diagnosed the crisis of the summer 2007 as a contagious liquidity crunch, some sceptics insist that the malaise was caused by a deeper credit and solvency problems and thus the actions of the central banks will offer only a temporary relief (Roubini 2007; Persaud 2007; Plender 2007).

Financial innovation and the distribution of risks in contemporary markets complicate regulatory dilemmas facing central banks today. Rajan (2007) has identified three problems that emanate from the self-fulfilling character of liquidity, and which are

particularly hard to mitigate in today's complex markets. First, by providing liquidity freely, as happened for instance, in the summer of 2007, the central bank alters the price of liquidity, thus rewarding the reckless and harming the cautious. Second, if central bank's actions induce expectations of continued liquidity, moral hazard prevails and market participants will adopt strategies that rely excessively on it. As such strategies build on each other they will eventually overwhelm the abilities of even the most deep-pocketed interventionist central bank. Therefore, he concludes, "even from the perspective of moral hazard, the distinction between liquidity infusions and recapitalisations is really fuzzy."

Furthermore, the blurry line between illiquidity and insolvency, and the dilemmas of liquidity illusions at different levels itself, are only one manifestation of a bigger problem. And that is the problem is incredibly opacity and obscurity of today's credit system. Despite moves to greater transparency and openness promoted by international financial regulators, and the so-called information glut, one is baffled by the growth of opaque markets for credit risk transfer, such as credit derivatives, structured financial instruments, OTC derivatives, and offshore finance. As a result of a massive world-wide wave of financial innovation, "nobody knows where risk has ended up, which is why confidence and liquidity drained away in the first place" (Plender 2007). With such a multitude of financial instruments and markets, the meaning and functions of liquidity have been stretched, while both monetary theory and public policy tools to mitigate these developments – interest rates, monetary targets, open market operations - have largely remained the same.

In fact, there is little consensus, least so at the international level, about what exactly liquidity is today, and what is the best way to gauge its dynamics. In this respect, a more comprehensive policy response to the dilemmas and illusions of liquidity is hampered by the fact that in contrast to new rules on capital requirements for individual institutions, there is currently little international guidance on liquidity (Salvatore 2002). Although different studies have registered the growth in global liquidity over the past few

years,⁴ the policy implications of the expanding pool of global liquidity remain contradictory.

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 (2005, Box 2.1, 13-14). According to such calculations, at present, the world economy is awash with 'excess liquidity', and a large chunk of it is sitting in the vaults of central banks of key emerging markets.⁵ On the other hand however, in key industrialised countries, conventional monetary aggregates are increasingly regarded as either inadequate or obsolete gauges of liquidity. In 2005, the US Federal Reserve, for instance, stopped publishing the figures for the M3 component of the money supply, stating that 'M3 does not appear to convey any additional information about economic activity that is not already embodied in M2 and has not played a role in the monetary policy process for many years' (Federal Reserve 2005).

The ECB, on the contrary, stresses that it continues to monitor M3 very closely and says that this monitoring exercise contributes to its success in maintaining economic stability and low inflation in the eurozone (de Grauwe 2007). The Bank of England in turn, attempts to develop a more thorough picture of the range of monetary quantities and prices facing economic agents (King 2002). Meanwhile, private financial innovation has caused great instability in the relationships between various measures of 'inside money' and aggregate demand (Minford 2007). Yet the vast majority of existing analytical macroeconomic models ignore the processes and effects of financial intermediation completely (Buiters 2007). With this lack of analytical tools, such a divergence of views on the role of monetary tiers and credit instruments in a national economy, it is perhaps no surprise that little effort has been made to form an international policy consensus on the macroeconomic dimensions of liquidity creation and management (Salvatore 2002).

Some economists argue that defining liquidity, in whatever terms, does not help the process of financial regulation in any way. With an infinite array of credit instruments

⁴ 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.).

⁵ 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).

in the global market, precise definitions of monetary aggregates have no practical meaning; they are mere 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 liquidity behaviour. However, as the above overview 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 funds, the initial question about the nature of the liquidity boom and the dynamics between creditors and debtors, becomes socially and politically important.

Whether the preceding boom was driven by artificial or ‘real’ liquidity, when the bubble explodes, central banks, wishing to avoid a systemic collapse, have to provide the needed money to the shrinking market. But the use of public funds for such purposes is ‘a scandal of wasted resources,’ especially if the preceding boom was driven by unregulated private financial institutions such as hedge funds. At the same time, letting hedge funds pick up the costs of their prior exuberance is also not unproblematic. Restricting the credit available to them can set off a deflationary asset spiral. Falling asset prices, in turn, may hurt the trading desks of the investment banks, as well as syndication departments and bond-sales desks. Without hedge funds to buy the bonds or loans, the risk may end up back on the banks’ balance sheet (*The Economist*, 19 August 2007) . Therefore the dilemma facing financial policymakers in the environment of deregulated credit, is that both conventional scenarios of resolving a liquidity crunch – either a monetary injection or market approach - can have destabilising consequences for the system as a whole. Furthermore, the nature of the liquidity boom is only one manifestation of a wider array of problems of opacity, risk distribution and social costs of private investments that are among the key challenges to financial architects.

Liquidity and the International Financial Architecture

Although policy challenges associated with liquidity illusions are complex, it is notable that the policy process paralleling the construction of the New International Financial Architecture (NIFA) has facilitated a concerted effort by key central bankers and

financial analysts to tackle the issue of liquidity, and in particular, its role in generating systemic risk. To date, most closely, the problems related to liquidity risks have been addressed by Basel II, a recently revised international banking accord that is intended to better address the systemic risks prevalent in modern financial markets. In Basel II, as well as in other related discussions of financial stability and monetary regulation, systemic risk relates to concerns about solvency of financial institutions, as well as failures of market liquidity and breakdowns of market infrastructure (Davis 2003). The thinking behind Basel II embodies the central principles deployed in the development of international financial regulation today.⁶ Key to the whole structure of the new banking accord, and well as other policy innovations, has been the problem of the regulation of systemic risk in finance. A significant innovation of the revised accord is the greater use of assessments of risk provided by banks' internal systems; the new norms of capitalisation are intended to shield banks from market distress and minimise the risk of a payment breakdown (Eatwell 2004).

The implementation of Basel II has not proceeded without problems,⁷ spurring a debate on the adequacy and efficacy of the new accord. What is notable about the analytical process underpinning Basel II, as well as other policy initiatives emanating from the BIS-centred forums, is that increasingly, it is being acknowledged that along with practical problems of development finance and policy implementation, global financial expansion raises much more fundamental issues concerning the very nature of finance and credit (Kapstein 2006; Knight 2005; Borio et al 2003; White 2006a, 2006b;

⁶ These are the three so-called pillars of Basel II: Pillar 1 - the determination of regulatory capital now heavily weighted toward use of banks' internal risk weighting models, as well as the views of ratings agencies; Pillar 2 - supervision; and Pillar 3 - market discipline enforced by greater disclosure of banks' financial status as well as their internal risk management procedures. Basel II retains some elements of its predecessor, Basel I, such as the general requirement for banks to hold total capital equivalent to at least 8% of their risk-weighted assets; the basic structure of the 1996 Market Risk Amendment regarding the treatment of market risk; and the definition of eligible capital.

⁷ Tests conducted to probe the possible effects of Basel II have suggested that with the introduction of new rules, some US banks could slash their capital by 31%. That alarmed regulators: the accord was meant to reduce some banks' capital cushions only marginally, but increase others'. As a result of this unintended effect, in September 2006 the four main US supervisory agencies announced that Basel II, if and when the US version ever sees daylight, will be applied only to internationally active banks.⁷ All other banks will be regulated by Basle 1A, which contains a few elements of Basel II, but retains the leverage ratio⁷ (*The Economist*, 4 November 2006).

Kaufman 1998). One outcome of this shift in the focus of policymakers has been greater attention to the issue of liquidity.

In their attempts to formulate a more nuanced understanding of liquidity within a financial cycle several central bankers and financial market analysts have distinguished between several types of risk associated with liquidity. The Basel committee, for instance, has identified two types of liquidity risk. First, *market liquidity risk* concerns a party's ability to liquidate a position. This depends on a number of factors, including the markets for the product, the size of the position, and the creditworthiness of the counterparty. Second, *funding liquidity risk* relates to the ability to fund a position. In addition, there is a residual category of operational risk ('other risks') that covers fraud, legal negligence, misconduct, and technology failure (Alexander et al 2006: 25).

Recent studies at the ECB has identified two corresponding types of liquidity within a financial cycle: *search liquidity* and *systemic liquidity*. While 'search liquidity' describes the behaviour of market institutions during 'good' times, systemic liquidity matters in times of stress. In 'quiet times', the liquidity premium⁸ is driven by 'search' costs: time, information, capital, funding, inventory and research costs required for a trader to locate a buyer for a 'stock' that it has recently purchased. In stress times on the other hand, liquidity premium is determined by the homogeneity of investors. Thus systemic liquidity relates to the collective behaviour of investors. If 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. As Avinash Persaud argues, the liquidity to sell disappears down a 'black hole' (Lagana et al 2006; Persaud 2002).

It appears that the shifts in understanding risks and market dynamics outlined above award greater importance to the subjectivity of investors' actions, as well as certain scepticism about the ability of existing regulatory frameworks to capture the complexity of financial risks. For instance, depending on market conditions, search (or market) and systemic liquidity may act against each other. Thus policymakers should be alert to the possibility that initiatives which seem to improve the most visible dimension of liquidity

⁸The illiquidity premium approximates the difference between the observed corporate bond yield spreads and the smaller theoretical spreads derived from default probabilities.

- market, or search, liquidity - may be doing so at the expense of systemic liquidity (Lagana et al 2006: 15). Interestingly, the reliance on concepts such as 'artificial liquidity' and 'liquidity black holes' stands in stark contrast to the precise and formulaic language of EMT and financial economics, which is a remarkable, and long-needed, shift away from the quantitative approaches to risk regulation and management.

But the causes of financial fragility are complex, and the types of risks outlined above do not reflect the full variety of risks facing financial institutions and economies. For instance, the types of liquidity risks distinguished above do not capture 'abnormal' risks facing individual firms and markets. Market turbulence and financial contagion may undermine even the best regulatory standards and risk management practices. Building confidence in the market stability in normal times helps reduce the chance of abnormal market risk (Alexander et al 2005: 25). However, both types of liquidity – market and systemic – are only partly associated with market arrangements; ultimately, they rest on the way financiers perceive and respond to risks and returns. The success of leveraged trading generates high profits, adds to market-making capacity and lulls investors into a false sense of security. Thus, as Minsky (1982, 1986) warned, stability itself is destabilising: as financial innovation unfolds, new interactions between and within, financial markets are established, affecting market and systemic liquidity. Therefore, more work needs to be done to gain a better understanding of developments that are unfolding and are challenging previously affirmed conclusions (Lagana et al 2006: 15).

First, as critics observe, while the new norms may act as a budget constraint for the risk a particular institution can take, they are less effective in setting aggregate macroprudential limits, especially if new capital can be available or if a number of financial institutions are outside the supervisory umbrella. Second, the liquidity crisis of 2007 exposed an unintended destabilising effect of the Basel II capitalization ratios. Under the Basel II accord, \$100 of AAA securitised assets requires a bank to hold 56 cents of equity to back up the debt. However, if the bank or fund holds \$100 of BBB assets, it has to hold \$4.80 of equity, which is a far more onerous proposition (Egan 2007). In turn, this greater burden of holding lower-rated assets increases pressure on ratings firms, which depend on issuers of debt for business.

Furthermore, the core Basel II recommendations on capitalisation and transparency are not a panacea from future systemic crises. In the 1990s, financial crises in emerging economies were triggered by foreign financial speculation, yet structurally, they had been precipitated by domestic factors: currency mismatches, loan concentrations, corruption, liberalisation and privatisation, under-capitalised banking systems. Basel II does not address these problems, yet most of them were easily recognised without sophisticated models of risk management (Caprio et al 2005: 243). There is a further hidden risk in mechanically applying to weak institutional environments what may be considered good regulatory practice in advanced economies (Caprio et al 2005: 241-242). While shifting credit risk might improve the health of the visible, regulated banking sector, it also pushes more risk into the unregulated world. As Raghuram Rajan explains, capital requirements do provide some buffer against insolvency, yet they provide none against illiquidity. The tendency towards progressive illiquidity of many investment structures implies that market discipline might be useful in preventing risk taking or incompetent management by specific institutions, but is less useful against booms, where market participants are themselves caught up in the frenzy (Rajan 2005: 34).

The crisis of the summer of 2007 has prompted many observers to reiterate that the hedge fund industry – one of the most opaque segments of finance today - should be brought under the same regulatory umbrella as banks. This seems to be a reasonable reaction to the crisis, especially considering that in essence, hedge funds activity may help banks bypass the official regulation. Indeed, hedge funds buy assets from a small capital base, using to large extent money borrowed from banks, against their own assets. The perceived quality of these assets determines how much money banks are willing to lend. Thus ironically, the assets that the hedge funds buy are in many cases assets that have been securitised by the banks in the first place (*Vanderstede 2007 FT*).

However, the problems of systemic liquidity presents a challenge to the idea of a closer regulation of the hedge fund industry. As noted above, hedge funds are able to stretch credit and temporarily offer liquidity, but unlike banks, ultimately, they do not create means of payment. Thus beyond the short term, their liquidity-creating function in the systemic context is nothing but an illusion. How can such an illusion be addressed by

Basel II capitalisation norms, is unclear. Furthermore, Richard Bookstaber notes that although hedge funds certainly tend to be the most concentrated repository of both leverage and innovative instruments, the best approach to regulation, however, is not to try to regulate the hedge funds directly: they are too disparate in their strategies and domicile. Instead, he suggests to attack the problem directly, by targeting bank and investment banks, and aiming to contain the use of leverage and the complexity of the markets through restricting the race of new derivative instruments (Bookstaber 2007).

There are more, mostly hidden, difficulties in regulating liquidity risks and systemic consequences of liquidity illusions. First, at present almost all trading in loans and credit derivatives takes place in private deals, over-the-counter, and not on regulated exchanges. The hedge fund industry alone is believed to account for at least one-third of these operations. This makes it much harder to monitor financial flows between these institutions, let alone control them in a crisis. While the raised awareness of liquidity risks has been central to Basel II, the new accord mainly targets the banking system. The other pillars of the global financial system- non-bank financial institutions, offshore centres - remain outside the reach of new rules. As W. White of the BIS has 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).

Second, in the context of continual private credit expansion, the recently attained improvements in corporate balance sheets offer little solace: traditional balance sheet analysis may not just fail to warn of the onset of a financial bubble; it may disguise its formation. Far from being a tool to identify financial bubbles, balance sheet analysis may in fact be an integral part of their formation, providing a method to rationalise their inflation, and in the down-cycle, their deflation (Cooper and Folkerts-Landau 2005: 4). Hence sceptics may be correct, and the liquidity crunch of the summer of 2007 may be the first sign of a bigger structural meltdown.

Therefore, it seems that despite the growing awareness of the role, and different types of liquidity in generating systemic threats and crises, new regulatory framework is still unable to offer a comprehensive solution to the dilemmas of liquidity. In this instance, 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 absolutely crucial to the overall liquidity of the system (Persaud 2002; Persaud and Nugée 2007). However, the fact that many financial institutions use broadly similar analytical tools to model price changes in response to external shocks heightens the risk of sharp price swings in the face of crowded trades. As Alexander et al (2006) explain, the current approach to financial regulation is in fact, aggravating the homogeneity of financiers' behaviour.

Financial innovation and the expansion of secondary markets complicate policy response to distress and crisis. In the past, the strength of the financial system has been its capacity to restructure troubled but viable companies and countries. Such restructurings typically occurred through groups of primary creditors motivated by a major financial interest in the outcome. Since such primary creditors now use the credit default swap market to dispose of their credit exposures, future restructurings may be much more difficult (CRMPG 2005). In this instance, Persaud and Nugée (2007) note that the conventional approach to supervision has been, and remains today, 'bottom-up'. That is, supervision is conducted on an institution by institution basis, relying on the assumption that by supervising and protecting individual institutions, the financial system as a whole is made more robust:

“derivatives have permitted the unbundling of financial risks. Therefore individual financial instruments can be analysed in terms of their common underlying risk factors, and risks can be managed on a portfolio basis... the sophisticated risk-management approaches that derivatives have facilitated are being employed more widely and systematically in the banking and financial services industries” (Greenspan 2005).

However given the conflicting relationship between private and systemic risks mentioned above, and considering the complex and often unpredictable dynamics of the interaction between individual financiers' strategies and systemic outcomes, focusing on the individual risks run by institutions may not be 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). Disturbingly, the authors observe, this idea is not being confronted in the current policy debate.

This critique raises bigger policy challenges, at least at two levels. First, at a systemic level, the paradox of liquidity requires a fundamentally new approach to the understanding of the interaction between individual choices of investors and the aggregate consequences of their actions. In this regard, John Eatwell (2002) has praised the proposal by the IMF the construction of “macroprudential indicators” (MPIs) 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 notes 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, in other words, by the 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” (2002: 9).

Moreover, although financial regulators are increasingly concerned about the state of the innovation-driven financial market, many officials are on record confessing that they have lost a sense of what liquidity is today. Due to the very nature of this process 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 any of the crises of the past 20 years shows.

Conclusion

This paper has identified the problem of ‘liquidity illusions’ as one of the major factors precipitating the build-up of systemic risk in various tiers of the global financial system. The paper has identified three inter-connected levels where liquidity illusions often lead to systemic financial implosions and complicate political response to the financial crisis: national, institutional and international. Analysing the way these problems have been addressed within the debate on global financial governance, the essay has noted several

important shifts. Mainly, they are the outcome of the policy processes centred at the Bank for International Settlements, which signal a long-needed move towards a more nuanced and qualitative understanding of liquidity and its behaviour in various institutional contexts. Still however, it appears that there is little guidance, much less agreement, on how to tackle the multi-dimensional problem of liquidity illusion in the age of globalised, and privatised, credit. A complex, but critical trade-off between individual and systemic liquidity is often overlooked by existing modes of financial regulation. The analysis of the problem of liquidity illusions and its implications suggests 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 can require a fundamental overhaul of existing financial theory and practice.

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