The Crisis of Invented Money: 
Liquidity Illusion and the 
Global Credit Meltdown

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In this Article I argue that the global credit crunch of 2007-2009 is the result of the multifaceted phenomenon of liquidity illusion. Fundamentally, the problem of liquidity illusion derives from the hollow conceptualization of "liquidity" in mainstream financial theory and practice. Represented most recently by the market completion theory, this paradigm has led to a widespread misunderstanding of the dynamics of the relationship between the process of financial innovation and the liquidity of the financial system. In order to unpack the political economy of liquidity illusion from other factors in the lead-up to the global credit crunch, this Article builds upon Hyman Minsky’s vision of financial innovation and crisis. Challenging mainstream views of the liquidity-enhancing process of financial innovation, I identify the three pillars of liquidity illusion in the recent 2002-2007 bout of securitization: a) the paradigm of self-regulating finance; b) the role of Ponzi finance; and c) the function of private authority, namely credit rating agencies.

* Department of International Politics, City University London. I am grateful to Ronen Palan, Christine Desan, Roy Kreitner, Randall Wray, Assaf Likovski, Ronen Shamir, Bruce Carruthers, Michael Zakim, Richard Sylla and all the participants of the conference on Money Matters: The Law, Economics and Politics of Currency, held by the Cegla Center at Tel Aviv University in January 2009 for their valuable feedback and comments on earlier versions of this Article. All usual disclaimers apply.
INTRODUCTION

The global financial meltdown of 2007-2009, or what has also become known as the global credit crunch, has been complex in character and development. Several overlapping layers of financial and economic activity have combined to internationalize the consequences of the epicenter of the implosion, the U.S. subprime mortgage market, transforming what appeared to be a financial market failure into a structural recession on a global scale. A crisis so complex in nature and unprecedented in scope has attracted much academic attention. Reflecting the complexity of the crisis itself, emerging theorizations of the credit crunch stress the different dimensions of the crisis and its origins.

To date, the most prominent explanations for the global credit crunch are based on both structural and cyclical theories of finance and the economy. Structural explanations tend to focus on the underlying macroeconomic conditions and political-economic origins of the crisis. The latter include, first, the peculiar position of the United States as the world’s largest debtor and the need for the American economy to finance its enormous internal and external deficits. Second, structural readings of the crisis also emphasize that the deep roots of the crisis lie in the global macroeconomic imbalances that have been sustained from the late 1990s up until today. This problem is also known as "the global savings, or liquidity glut" hypothesis. It suggests that the decade of 1999-2009 was marked by a profound change in the global structure of capital flows, in which Asian and other emerging markets were transformed into the net exporters of funds, a process that led to the inflation of capital and asset markets in the now net importers of capital — the advanced capitalist countries that have been the key recipients of these funds.

1 As this Article goes to press (May 2009), the global financial crisis has been transformed into a “Great Recession.” Prognoses about the severity of the continuing crisis diverge. While some analysts believe that the financial markets may start recovering only in 2012, others argue that the global recession may ease as early as 2010. Unfortunately, it is impossible to predict the timing of the recovery accurately, and therefore, the global credit crunch will be referred to in this Article as "the crisis of 2007-2009."


While cyclical theories of the global meltdown do not reject the role of macroeconomic imbalances in facilitating asset inflation and mis-pricing of risk, they place greater emphasis on particular conjectural and human factors that have accentuated the most recent cycle of economic expansion. Namely, these views maintain, the recent bout of securitization and re-securitization was aggravated by the increased opaqueness of the new financial practices and products, while the very process of financial investment has suffered from a range of human failures, such as investor exuberance and herd behavior, the incompetence of regulatory institutions and supervisors, sheer greed, and even fraud. Here, another group of theories emphasizes the inadequacy of existing regulatory norms and paradigms of financial governance. The regulatory norms and institutions, it is argued, have not kept pace with the rapid advances of financial innovation in its most recent guise — the spiral of securitization and re-securitization.

It is my contention in this Article that although both streams of theorization detect the major aspects of the origins of the credit crunch, they offer only superficial perspectives on the global meltdown. Structural accounts based on the liquidity glut hypothesis divert attention away from the process of private financial innovation that had been driving the global financial system into an increasingly fragile state. Cyclical theories, while recognizing the dangers of some of the new financial practices, time the crisis to a particular practice of securitization and re-securitization that defined the most recent credit boom. Therefore they do not delve into the longer-running historical and political factors that made obscure financial practices sustainable and acceptable for a relatively long time.

And yet these are the questions that continue to linger, even as feeble hopes of recovery and an easing of the recession spread across world markets. Why has the practice of uncontrolled financial experimentation


that drove the chain of re-securitization been sustained for so long? Why is that that the actual products, which now are known as "toxic" waste, were invented and actively traded by most financial institutions during the period 2002-2007, and even longer?

Aiming to answer these questions, in this Article I inquire into the contentious role of 'liquidity' in the global meltdown. Conceptually and politically, the dilemma of liquidity captures many causes, both structural and cyclical, of the global credit crunch. Fundamentally, the role of liquidity in the global crisis concerns the process of financial innovation and credit expansion. Specifically, I argue that the crisis is the outcome of the multifaceted illusion of liquidity that has pervaded the markets and economic systems over the past few decades. The securitization boom of 2002-2007 was driven by the axiomatic notion that financial innovation "completes the market" and enhances liquidity. To the contrary, however, what the global financial meltdown has revealed is that financial innovation — by stretching the frontier of liquidity further away from the public realm and into the terrain of private credit — has made the financial system as a whole progressively illiquid and fragile.

From these premises, I first examine the concept of liquidity in the context of a wider historical process of demonetized financialization. Second, challenging mainstream conceptualizations of liquidity as a property of financial markets, I draw on the scholarship of Hyman Minsky in order to illustrate that the credit crunch was caused by the multifaceted illusion of liquidity, built upon the hollow notion of liquidity itself, and supported by the paradigm and practice of self-regulating finance. Third, and finally, I identify and analyze the role of three key mechanisms that sustained the illusion of liquidity during 2002-2007: the paradigm of self-regulating finance; the role of Ponzi investment structures in the credit boom; and the function of private authority structure — credit ratings agencies — in legitimizing the spiral of bad debts.

I. "LIQUIDITY" AND DEMONETIZED FINANCIALIZATION

According to most chronicles, the global financial meltdown started as a liquidity crunch in several segments of the financial market. Indeed, although the problems of the U.S. subprime industry became apparent already in 2006, when the first wave of mortgage defaults hit lending institutions, it was the inability to value several asset tranches\(^7\) "due to complete evaporation of

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\(^7\) The term "tranche" (orig. French) denotes a part or a slice of something. In
liquidity," cited by BNP Paribas on the 9th of August 2007,\(^8\) that started off the liquidity seizure that soon paralyzed the global financial system. In the months that followed, liquidity vanquished both from individual segments of the international markets, pushing institutions such as Fannie, Freddie and Lehman Brothers into bankruptcy, and from wholesale financial markets, precipitating bank runs, national economic crises and, ultimately, a global recession. Yet at the same time, the paradox of the current crisis, and the place of liquidity in its emergent theorizations, is that while most accounts concur that the global meltdown has been centered on, or at least, started off as, liquidity drainage from the markets, there is no real consensus as to what the concept of "liquidity" actually implies.

I find that there are two interrelated explanations for this. First, the very concept of liquidity has always been contentious, encapsulating qualitative, quantitative, inter-temporal, spatial, political and social dynamics of finance and credit.\(^9\) Second, up until the credit crunch of 2007-2009, few studies have inquired closely into the notion and behavior of liquidity. The only field where liquidity has been a subject of analysis, although spotty,\(^10\) is contemporary economics and finance. Even here however, there is a remarkable rift between studies of liquidity in the first half of the twentieth century, and more technical approaches to the concept that have dominated the field in the wake of the collapse of the Bretton Woods system.

More specifically, the earlier political-economic conceptualizations of liquidity, while emphasizing its evasive and multidimensional character,\(^11\) viewed liquidity as necessarily a twofold concept. In these readings, "liquidity" is a property of an asset that, while conditioned by the market context is intimately related to the notion of money: liquidity is "an asset’s


capability over time of being realized in the form of funds available for immediate consumption or reinvestment — proximately in the form of money.\textsuperscript{12}

More recent studies of liquidity as a financial category have moved away from associating liquidity with notions of money or cash, instead stressing the link between market liquidity and risk.\textsuperscript{13} This shift paralleled the greater trend of the financialization of the economy and the rise of private financial markets to an unprecedented position in the economic system. With the place of cash and "money pure" diminishing in the hierarchy of credit instruments, it is the general state or vibrancy, of the financial market, that has been assumed to be synonymous with liquidity of the economic system as a whole. I contend that the reasons behind this change in the analytical approaches to liquidity are to be found in the financial developments of the post-1971 era. Specifically, the privatization of financial and economic risks and the denationalization of money have shifted the process of liquidity creation away from the public sphere of political economy, and into the realm of private financial markets.\textsuperscript{14}

The policies of financial deregulation and liberalization reinforced this tendency, thereby institutionalizing "liquidity" firmly as a category and instrument of the market and its pricing mechanism. As a result, analyses of finance in the macroeconomy over the past few decades have commonly assumed "liquidity" as no longer primarily a property of assets, but rather as an indicator of the general state and vitality of a financial market. As one web-based financial dictionary suggests, for instance, liquidity describes "a high level of trading activity, allowing buying and selling with minimum price disturbance. Also, a market characterized by the ability to buy and sell with relative ease."\textsuperscript{15} Another recent classification of liquidity distinguishes

\begin{thebibliography}{15}
\bibitem{12} Steven Lippman & John McCall, \textit{An Operational Measure of Liquidity}, 46 \textit{Am. Econ. Rev.} 43 (1986) (citing Jack Hirshleifer, \textit{Liquidity, Uncertainty and the Accumulation of Assets} (Ctr. for Operations Research and Econometrics, Discussion Paper No. 6810)) (at the same time, the authors note, liquidity is a concept notoriously imprecise and thus hard to measure).
\end{thebibliography}
between an asset’s market liquidity (i.e., the ease with which it is traded) and traders’ funding liquidity (i.e., the ease with which they can obtain funding).\textsuperscript{16}

The result of these transformations — both analytical and market-based — is that in most contemporary readings, the connection between the notions of “money” and “liquidity” has waned. Instead, “liquidity” has been presumed to relate to the complex mechanism of financial transactions, which take place in the markets and confront a variety of risks. This way of understanding liquidity, while appropriate for analyses of the dynamics in a given financial market, is delimited. By situating the category of liquidity in the context of the private credit system, it obscures its two-fold, public/private dimension. Instead as this Article contends, viewing liquidity as a category that necessarily denotes both the quality of the financial transaction (speed, volume, bid-ask spread) and the content of that transaction (what precisely is being traded?), helps reveal the underlying tension between the private realm of the financial market and the public realm of the monetary sphere, and consequently, understand the nature of financial crisis better.

That one-dimensional conceptualization of liquidity, in turn, has produced several interrelated assumptions that have shaped finance theory and policy in the run-up to the global credit crunch. Importantly, all of the developments are related to the process of demonetized financialization noted above. The first trend has evolved in parallel to the expansion of the global credit system. On the one hand, most economies today have become less and less "monetized": the share of M1 aggregate, or "narrow money" (cash and currency deposits in circulation), has been declining in the overall money supply in all major economies over the past few decades. On the other hand, the globalization of private financial markets has been paralleled by an exponential growth of derivative financial instruments. In June 2008, for instance, the notional amount of outstanding over-the-counter (OTC) derivatives was $648 trillion, which is about 13 times the world’s GDP.\textsuperscript{17} The expansion of the credit system and the accumulation of financial wealth, or financialization, therefore have been progressively abstracted from the dynamics of productivity, trade, real economic growth and, crucially for


\textsuperscript{17} Monetary & Econ. Dep’t, Bank for Int’l Settlements, OTC Derivatives Market Activity in the Second Half of 2008, 10 tbl.4 (May 2009); Duncan Wigan, Financialisation and Derivatives: Constructing an Artifice of Indifference, 13 COMPETITION & CHANGE 157, 158 (2009).
understanding liquidity today, from the developments in the sphere of state-backed, or high-powered money.

Second, analytically, mainstream finance theory and practice supported and guided these trends, by embedding the new credit system in a paradigm of "scientific finance." In this vision, the key function of the financial system as a whole is no longer intermediation between savers and borrowers as such; that role has been assigned to only one sector of the financial system, commercial banking. Rather, the ultimate aim of the financial system today is to manage and optimize risk, in a three-step manner. First, by identifying and pricing risks (for instance, by pooling a bunch of subprime mortgages from several mortgage lenders); second, by parceling it into specific financial vehicles (like tranches of mortgages, or structured financial products), and third, by redistributing the risk to those who are deemed most able and willing to hold it (i.e., by selling it off to third and fourth parties, often institutions specializing in trading these particular products, or placing them off the balance sheet, as happened with many highly risky securitization products).18

This complex chain of financial innovation is known in mainstream finance theory as the process of "market completion." In the context of the subprime market, for instance, risk-optimizing and market-creating financial innovation has been seen as key to enhancing social welfare more generally:

The subprime market provides a market-opening and —completing opportunity . . . . The subprime market allows funding to those who would otherwise not be homeowners. By pricing the risks of different types of credit quality, prime lenders can target some applicants who otherwise might not be qualified . . . . The prime mortgage market allows all borrowers meeting a particular threshold to be qualified . . . . Adding a subprime market provides a welfare gain, even to applicants able to qualify in a prime-only market. Those applicants obtain a welfare gain by having more choices and flexibility.19

Ultimately, as Alan Greenspan envisioned, "financial innovation will slow as we approach the world in which financial markets are complete in the sense that all financial risks can be effectively transferred to those most

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18 For a useful analysis of the implications of this theory in the aftermath of the credit crunch, see Jan Toporowski, It's Not About Regulation . . . (Danish Inst Int'l Studies, Working Paper No. 2009:08, 2009).

19 Peter Chinloy & Mancy MacDonald, Subprime Lenders and Mortgage Market Completion, 30 J. REAL EST. FIN. & ECON. 153, 163-64 (2005).
willing to bear them." Financial innovation therefore, by relying on scientific approaches to risk management and calculative practices, is believed to create new facilities for risk optimization and thus complete the system of the market. As the theory holds, securitization, for instance, transforms previously un-priced and typically illiquid assets — such as real estate, car or student loans, or subprime mortgages — into tradable and liquid financial securities, thereby optimizing risks and enhancing the liquidity of the financial system as a whole. According to Alan Greenspan, this process — reaching far beyond the subprime market — symbolized "a new paradigm of active credit management."  

Third, this process of demonetized financialization has been underpinned by institutional and operational advances in financial innovation. In addition to the structural shift towards the ‘originate and distribute’ model of banking, there has been a remarkable rise of hedge funds, the sophistication of offshore financial centers and techniques, the expansion of the so-called shadow banking industry; the spread of new methods of risk management and trade, such as value-at-risk (VAR) models, all leading to the extraordinary growth of variety and complexity of financial products themselves.  

What is striking about the wave of financial innovation that defined the last two decades of the global financial system is that many newly created products of risk-management became so specialized and tailor-made that they were never traded in free markets. Indeed, as Gillian Tett writes, in 2006 and early 2007, no less than $450 billion worth of "collateralized debt obligations of asset-backed securities" (CDOs of ABSs) was created. Yet instead of being traded, as the paradigm of active credit risk management would imply, most of them were sold to banks’ off-balance-sheet entities such as Structured Investment Vehicles (SIVs) — or simply left on the books. Generally, she argues, a set of innovations that were supposed to create freer markets and complete the system of risk optimization actually produced an opaque world in which risk was becoming highly concentrated; worryingly, in ways almost nobody understood. Officials at Standard & Poor’s admit that by 2006, it could take "a whole weekend" for computers to perform the calculations needed to assess the risks of complex CDOs.

22 Viral Acharya & Philipp Schnabi, How Banks Played the Leverage Game, in RESTORING FINANCIAL STABILITY 83 (Viral Acharya & Matthew Richardson eds., 2009); TETT, supra note 4. For analysis of the ORD model see the discussion infra Section III.A.  
23 Gillian Tett, Lost Through Destructive Creation, FIN. TIMES, Mar. 15, 2009,
What does the combination of the three trends imply for our attempt to conceptualize "liquidity" in the context of the crisis? It appears that most existing analytical and policy frameworks of the global financial system have been based on a strong and relatively straightforward assumption, positing "liquidity" as, fundamentally, a property of the market or an institution, rather than a quality of assets as such. At the level of financial institutions themselves, the axiom that financial innovation and engineering have the capacity to liquefy any type of asset — or more accurately, debt — has resulted in the now mainstream notion of liquidity as not being an attribute of assets per se. And although some recent analyses have drawn a distinction between market and systemic liquidity,24 or between search and funding liquidity,25 in the Anglo-Saxon economies, it is the concept of market liquidity — describing the depth of markets for the sale or loan of assets or the hedging of risks that underlie those assets — that has come to inform most recent frameworks of financial governance.26 Here, in turn, liquidity is most commonly understood as the "confidence" of the markets, able and willing to trade at a given point in time at a prevailing price level.27

This conceptualization of liquidity, in turn, has produced a sequence of analytical fallacies which, this Article contends, are the root cause of the global credit crunch. The first fallacy is the assumption that it is the market-making capacity of financial intermediaries to identify, price and trade new financial products that creates and distributes liquidity in the markets. Second is the view that the general market trade and turnover is synonymous with market liquidity. The third and corresponding fallacy is the notion that market liquidity itself — when multiplied across many markets — ultimately is synonymous with the liquidity (and financial robustness) of the economic system as a whole. Altogether, this chain of reasoning has been underpinned by the notion that financial innovation, in its various forms, ultimately enhances the liquidity of the financial system as a whole.

http://www.ft.com (search "Lost Through Destructive Creation"; then follow hyperlink).


27 Warsh, supra note 13.
This misunderstanding, I believe, originates in a hollow notion of liquidity itself and, consequently, in the flawed vision — academic but also political — of the dynamics of the relationship between private financial innovation and the liquidity and resilience of the financial system generally. From these premises, in this Article I challenge the core assumption of the market completion theory of financial innovation. In what follows, I suggest an alternative reading of liquidity in the systemic context of financial innovation. It is informed by Hyman Minsky’s theorization of the financial innovation process, which argues that despite the institutional varieties and continuing mutation of capitalism, there is an inevitable conflict between financial innovation, economic stability and full employment.

II. INVENTING MONEY? MINSKY, FINANCIAL INNOVATION AND CRISIS

According to Minsky, financial innovation is a product of “good” economic times. And in a highly financialized economy, there is always an inherent, and inevitable, tradeoff between financial innovation and economic stability. Especially in the economies with liberalized credit systems governed by monetary policies targeting low inflation rates, financial innovation thrives because of the underestimation of risks and the ability of financial institutions to emit debt. During these tranquil periods, financial institutions are keen to exploit new investment techniques and profit opportunities. As profit-seeking financiers design and reinvent “new” forms of money, they substitute for money in their portfolios, and financial techniques for various types of activity.28 Overall, this process leads to a buildup of a hierarchy of liquid assets, and, in Minsky’s own words, there emerges “an elaborate network of financial commitments... whose viability depends upon the ability of units to borrow at rates that are consistent with the underlying profitability of capital assets.”29

The ability of various economic agents to raise debt as their major source of finance, in turn, instead of enhancing global liquidity, stretches the spectrum of liquidity further away from what Minsky deemed was its absolute form: state-backed monetary instruments, or high-powered monetary base.30 The crucial difference between the two types of liquidity lies in their redeemability

28 HYMAN MINSKY, STABILIZING AN UNSTABLE ECONOMY 199 (2d ed. 2008).
29 Id. at 244.
and reciprocity. While privately created credit instruments are liquid only as long as market participants deem them tradable, the state-administered liquidity, by virtue of a sovereign monetary power, provides the ultimate guarantee that the credit instruments in question will be redeemed. In Minsky’s vision, the process of private credit creation produces a complex hierarchy of financial commitments whose viability and liquidity depends upon the belief — and the reinforcement of belief by performance — that refinancing of short-term debts will be available. Ultimately, this spiral accentuates the dichotomy between the public (state-powered) and private (market-based) facets of liquidity. This conflict between the two facets of liquidity renders the financial system progressively illiquid and, therefore, fragile. As Minsky warned, in this speculation-driven, increasingly complex web of debt claims, there is ample potential for contagion and crisis.

It was this potential for fragility and contagion, concentrated in complex pyramids of privately issued debt instruments, which spread the crisis of 1929-1933. Today, Minsky’s analysis again helps explain why financial innovation, or demonetized financialization, has made the financial system as a whole progressively illiquid and precipitated the global credit crunch. Here, it is interesting that while many academics and commentators have noted the dangers of the analytical fallacies of the market completion theory, the assumption about the liquidity-enhancing effects of financial market-makers has never been seriously challenged until the turmoil of 2007-2009. Yet these fallacies, as I argue below, constituted the multidimensional illusion of liquidity that, other crisis explanations notwithstanding, encapsulates the causes of the global credit crunch.

"Stability is always destabilizing," Hyman Minsky famously stated in his financial instability hypothesis. Amidst the ostensible rehabilitation of his name, it is this message from his scholarship that seems to attract most commentaries on the credit crunch. According to Minsky (and many others), "good" times breed complacency, exuberance and optimism about one’s position in the market, which leads to heavier reliance on leverage and underestimation of risks. Indeed, as stated famously by Citi’s Chuck Norries: "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."31 Most observers concur that the major factor in the global credit crisis has been the progressive underestimation, or misunderstanding of risks, by financial

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agents, based, in turn, on the general sense of stability, economic prosperity and optimistic forecasts that pervaded North Atlantic economies and financial markets.

Regardless of their intellectual and policy affiliations, most commentators on the credit crunch have recognized the tendency to underestimate the risks in a bearish market or a bubble. However, the political significance of this problem has been viewed differently by different observers. Henk Paulson for instance, believes that its root cause was the liquidity glut coming from the emerging markets: “Superabundant savings from fast-growing emerging nations . . . put downward pressure on risks and yield spreads everywhere . . . This laid the seeds of the credit bubble that extends far beyond the U.S. subprime mortgage market and now has burst with devastating consequences . . . .”32

Economists analyzing the crisis do recognize the role of a liquidity crunch in the first stage of the crisis (August 2007-September 2008), notably, again, drawing the link between the supply of capital from abroad and the housing bubble in North America:

The creation of new securities facilitated the large capital inflows from abroad . . . . The trend towards the "originate and distribute model" . . . ultimately led to a decline in lending standards. Financial innovation that had supposedly made the banking system more stable by transferring risk to those most able to bear it led to an unprecedented credit expansion that helped feed the boom in housing prices.33

The Bank for International Settlements (BIS) went perhaps furthest in analyzing the repercussions of this collective underestimation of risks for liquidity and admits that, essentially, this phenomenon constitutes an illusion of liquidity, or a situation in which markets under-price liquidity and financial institutions underestimate liquidity risks.34 In other words, the illusion of liquidity is understood as a false sense of optimism that a financial actor (be it a company, fund manager or a government) has over the safety and resilience of her portfolio, and/or of the market as a whole. As the

credit crunch revealed, this illusion can have very real, and destructive, social, economic and political consequences. In that sense, many emergent theories of the global credit crunch appear to have strong Minskan undertones, as now commonplace references to a "Minsky" moment in finance or the "crisis of Ponzi finance" suggest.

And yet, once we consider the contentious issue of "liquidity" in the crisis, it appears that only a fragmented, and highly selective, version of the Minskyan theory of finance resonates in current readings of the meltdown. While noting the risk effects of the general macroeconomic environment and investor expectations, most mainstream analysts of the crisis overlook the core of Minsky’s framework. Very few of them, indeed, cast a critical eye over the very ability of private financial intermediaries to stretch the frontier of private liquidity, ultimately accentuating financial fragility in the system and thus increasing the scope for a structural financial collapse and economic crisis.

According to Minsky, the web of debt-driven financial innovations has a twofold effect on the system’s liquidity. On the one hand, as financial innovations gain ground, the velocity of money increases. Yet on the other hand, 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." The latest bout of securitization, therefore, propelled by the belief that institutional techniques of parceling debts, creating new products and opening up new markets create additional and plentiful liquidity, in fact drove the financial system into a structurally illiquid, and crisis-prone, state. At a broader level, securitization has produced an incredibly complex and obscure hierarchy of credit instruments, whose liquidity was assumed but never guaranteed. As one risk manager confessed in the wake of the crisis: "The possibility that liquidity could suddenly dry up was always a topic high on our list but we could only see more liquidity coming into the market — not going out of it."

A notable outcome of the credit crunch is that it seems to have boosted the importance of liquidity in the hierarchy of concerns of some policymaking bodies. Yet most ensuing discussions of liquidity in the crisis,

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36 Editorial, Confessions of a Risk Manager, ECONOMIST, Aug.9, 2008, at 68.
37 Most notably the BIS, the European Central Bank (ECB), the Financial Stability Forum (FSF) and the IMF. Occasional studies on "liquidity" have been published by other central banks in the wake of the crisis. The Bank of England, for instance, noted in October 2008 that liquidity regulation "can play an important role in
by focusing on the problem of valuations and risk mis-pricing, have diagnosed the evaporation of liquidity as a result of market failure rather than a systemic tendency. None of the studies, indeed, makes the connection between the trend of demonetized financialization and its liquidity-decreasing effects. Yet the evidence of these latter is abundant. For instance, in October 2008, the Bank of England documented a depletion of sterling liquid assets relative to total asset holdings of the UK banking sector, stating that:

The ongoing turmoil has revealed that, during more benign periods, some banks sought to reduce the opportunity cost of holding liquid assets by substituting traditional liquid assets such as highly rated government bonds with highly rated structured credit products. This has been part of a longer-term decline in banks’ holdings of liquid assets in the United Kingdom, which has been replicated in other countries.38

In this instance, one important question continues to linger. If the participants of the credit boom themselves have admitted that some of the foundations of their innovative techniques were shaky, and if a whole body of scholarship in heterodox political economy explains the dangers of financial euphoria and innovations, how could the illusion of liquidity and wealth have been sustained over such a prolonged period of time, leading people like Alan Greenspan to celebrate "the new era in credit risk management"? The answer, as this Article details below, lies in three political-economic pillars of the liquidity illusion: the paradigm of a self-regulating financial system; Ponzi-type finance, prominent in a climate of deregulated credit and thriving financial innovation; and, finally, a structure of authority, able to legitimize the newly created financial products and thus assure their marketability (credit rating agencies in the case of the current crisis). Together, the three elements helped sustain the illusion of infinite liquidity during 2002-2007.

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38 Id. at 39 chart 5.14.
III. 2002–2007: THREE PILLARS OF LIQUIDITY ILLUSION

A. The Paradigm of Self-Regulating Credit

Even in purely financial terms, the subprime lending industry was a time-bomb waiting to explode. Nevertheless, it would have played an important, yet still relatively minor role in sustaining the boom of 2002-2007, had there not been a broader international political-economic environment that supported, facilitated and encouraged a market-based approach to managing risks. This environment, in turn, resulted from a combination of historical, political and institutional developments.

First, historically, critics argue, securitization — which in practical terms meant that risky assets were removed from the balance sheets of banks — was the banking sector’s reaction to the introduction of the two Basel accords of financial regulation. The industry’s response to the new capital requirements of Basel I involved accelerating debt origination on the basis of the capacity to move assets off-balance sheet by selling them off. Simply put, holding safe and liquid assets on your balance sheet became an unprofitable business for banks. And in Minsky’s framework, in a deregulated financialized economy, the ability to raise and expand the debt chain leads to progressive illiquidity of the financial system as a whole:

To the extent that either the most liquid assets leave the banking system for the portfolios of other financial institutions or the debts of the newly grown and developed financial institutions enter the portfolios of banks, the liquidity of the banking system declines.

In that regard, according to Victoria Chick, the experience of the Basle accord illustrates the law of unintended consequences. Regulations intended to strengthen the balance sheets of banks by weighting assets on the basis of their riskiness (thus rewarding the holding of safe assets) actually ended up driving risky assets off the balance sheet. As a result of the introduction of the Basel rules, securitization was undertaken not just as a small part of bank operations when banks needed liquidity, but on such a scale as to change the entire way banks operate.

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40 Wigan, supra note 17.
41 MINSKY, supra note 28, at 174.
42 Victoria Chick, Could the Crisis at Northern Rock Have Been Predicted?, 27 CONTRIBUTIONS TO POL. ECON. 115 (2008).
Second, institutionally, at the center of this process lay a transformation of the U.S. banking system. The spread of securitization is related to the way risk has been modeled, valued and traded by banks and financial houses since the liberalization reforms were introduced in the 1980s in the United States and in other states. These reforms led to the rise of a new type of banking, now known as the "originate and distribute" (ORD) model. Under the new principle, the bank is no longer an institution focused on taking deposits and giving out loans. Instead, it is a competitive financier seeking to maximize fee and commission income from originating assets, managing those assets in off-balance-sheet affiliate structures — SIVs, underwriting the primary distribution of securities collateralized with those assets, and servicing them. Crucially in the discussion of financial fragility, the banker today has no motivation to conduct proper credit evaluation, simply because the interest and principal on the loans originated will be repaid not to the bank itself, but to the final buyers of the collateralized assets.

The adoption of the ORD model of risk-trading has underpinned a phenomenal rise in commission fees and income from capital-market-related activities for banks. According to one estimate, between 2004 and 2006, earnings from derivatives trading and capital-market-related activities at the top ten global investment banks rose by almost two-thirds, from $55 billion in 2004 to $90 billion in 2006. As a reflection of these changes, the profits from the sales and trading operations were not only growing, but also assuming a greater share of the investment banks’ revenues (over 90 percent for the Americas, over 80 percent for Europe, the Middle East and Africa, and just over 40 percent for Asia and the Pacific region).

The concern with creating new markets for their products prompted financial institutions — both in the official banking sector and in the so-called shadow banking system — to embark on a spiral of financial engineering, unprecedented in its scope and sophistication. The resulting

44 KREGEL, MINSKY’S CUSHIONS, supra note 43, at 5.
series of financial innovations created a sense of the abundant and infinite liquidity of the subprime-related financial markets, and of financial wealth being created and spread around. With regard to liquidity, a particular emphasis within the Basel II accord — based on the presumption of a liquid market, thus delegating it to individual institutions to manage their portfolio of risks effectively — proved critical, and fatal, in the lead-up to the global credit crunch. Specifically, the parameters of international financial governance were shaped by regulatory developments in the private sphere: when Basel I proved ineffective, the solution was thought to be private risk management tools. It is this reliance on private regulatory technique and risk-optimizing tools that, as I detail below, produced the two other pillars of the liquidity myth of 2002-2007: the Ponzi mode of finance and an authority structure for validating the products of financial innovation.

B. Ponzi Finance

From its very start, the credit crunch has been described as the crisis of Ponzi finance. The increasingly popular use of the term, as well as the collapses of the financial pyramids of Bernie Madoff and Alan Stanford, has put Minsky’s scholarship at the center of crisis commentary. Minsky himself used the category of "Ponzi finance" to describe a condition of acute financial fragility, in which an economic agent can pay his debts and interest only by borrowing anew. For Minsky, "Ponzi" is a method of financing old debt with new debt. In Minsky’s original taxonomy, Ponzi finance is a phase in the evolution of a financial cycle, which develops after a conservative financing strategy (hedge finance) turns into a riskier one (speculative) and then into Ponzi. This process of transformation denotes the spiral of financial innovation and the progressive underestimation of risk by financial agents, particularly during periods of economic optimism.

On the one hand, the global credit crunch, which is marked by a whole series of institutional transformations in banking and finance, is a classic crisis of Ponzi finance. As noted above, in the post-Basel spiral of financial innovation, driven by the aggressive search for profits and desire to outperform your competitors, prudent "old style" banking was derided as boring and conservative, while the proactive risk-takers were considered sophisticated, innovative and shrewd. As long as this market atmosphere was supported by the belief in robust economic fundamentals, the under-valuation of risks, especially the liquidity risk, the aggressive

46 Wigan, supra note 17.
expansion of new borrowings and, in many cases, the use of quasi-legal investment techniques and outright swindling flourished.

On the other hand, when analyzing the workings of the Ponzi principle today, one should not forget that, in essence, Ponzi finance is a pyramid scheme, typically — as the allusion to the fraudster Carlo Ponzi implies — containing an element of deception or fraud. The charges against Bernie Madoff and Alan Stanford, as well as a series of money fraud investigations launched by the FBI in the wake of the crisis, illustrate the degree to which financial innovation has helped disguise outright fraud and swindling. What is more worrying, however, is that in the expansion of the subprime lending in the United States, Ponzi-type operations reached an industrial scale.47

In hindsight, the subprime industry was a giant Ponzi scheme. First, the practice of providing people with uncertain credit histories, no prospects of higher incomes and often no jobs with 100 percent (or sometimes higher) mortgages was itself a deception on a very large scale. From the very start, it was clear that many of those subprime borrowers would be unable to pay their mortgages if, or rather when, the interest rates on their loans rose. Any Ponzi scheme can thrive only as long as it attracts new participants. In the United States, subprime lending was justifiable only by the belief that the rising values of property would suffice to repay the loans, and, as in any Ponzi scheme, this belief proved to be self-fulfilling. According to Jan Kregel,48 once the bottom layer of properties was inflated through the creation of massive demand, the entire U.S. housing market entered a bubble phase. Housing markets, however, are notoriously cyclical. It was this fact, along with the actual terms of the subprime loans, which the scores of financial advisers who sold the products forgot to mention to their clients.

Second, the terms of borrowing and the conditions for repayment appear, in retrospect, to have been the key block in the Ponzi pyramid of subprime loans. Ponzi-type methods employed by lending institutions included large pre-payment penalties and low ‘teaser’ rates that reset at much higher rates, knowingly inducing borrowers to agree to loan terms that they would not be able to meet.49

The reasons why the subprime industry flourished for such a prolonged

47 Stephanie Kirchgaessner & Hal Weitzman, FBI Eyes Big Business in Mortgage Fraud Probe, FIN. TIMES, June 20, 2008, available at http://www.ft.com (search "FBI Eyes Big Business in Mortgage Fraud Probe"; then follow hyperlink).
49 REGEL MINSKY’S CUSHIONS, supra note 43, at 14, notes that borrowers were often lured into taking a mortgage on their new home without being told that they would be unable to pre-pay it or change the terms of the mortgage, and that their interest repayments after the initial ‘teaser’ periods would be up to 6% higher than the
period go beyond economics. On the one hand, subprime lending mushroomed in the United States (and to a lesser extent in other Anglo-Saxon countries such as the UK, Australia and New Zealand) due to historically low interest rates in the 1990s and 2000s that presented ample opportunities for borrowers. On the other hand, low interest rates were available in many other regions — notably in continental Europe and Japan — which avoided the spread of similar Ponzi schemes on the back of their own subprime sectors. To me, this suggests that the Ponzi pyramid of subprime finance and the related securitization boom were shaped by the political climate in the Anglo-Saxon economies and, correspondingly, by the benign and ill-informed view of financial and monetary authorities on the risks posed by the expanding bubble of artificial liquidity. In fact, the boom of housing finance and related securitization markets was celebrated by many officials on both sides of the Atlantic, since the political benefits of making housing more affordable to those who could never afford to own their own home were high indeed.

C. Validating Bad Debts: The Role of Credit Rating Agencies

No matter how exuberant, canny or short-sighted financial strategists might be, illusions of prosperity, including the liquidity illusion, can only be sustained over extended periods of time if there is some credibility to new instruments. In other words, something or someone was needed to sustain the collective belief in the liquidity of what were, in essence, bundles of bad debts, and to make the complex structures of IOUs "worth — or seem to be worth — more than the sum of its parts." That someone, Lowenstein50 writes, was the credit rating agency.

Although rating agencies have existed for decades, it is with the rise of self-regulating finance that they assumed a new niche of private authority in the markets and, in the words of Timothy Sinclair, became the "new masters of capital." As he explains, the liberalization of the financial markets and the general reorientation of finance towards risk optimization have increased the importance of investigation, calculation and analysis mechanisms in the financial market. As capital markets have displaced bank lending, and as the valuation mechanisms and trust implicit in the older systems have broken

down, ratings have increasingly become the norm of the price mechanism of the market.51

In the age of "scientific" finance and securitization, when information is a key to managing risks and structures of knowledge are essential for market turnover and, in some readings, market liquidity,52 rating agencies have acquired unprecedented power. The functioning of the market and the tradability (synonymous for many with 'liquidity') of mortgage-based securities fundamentally depended on the ratings they acquired. Here, two complex processes were at work: first, regulatory avoidance, manipulation of legal ownership of assets, and "creative accounting"; and second, the technique of layering securitization structures. Credit rating agencies were pivotal to both.

First, from the very beginning of the securitization boom, a central objective in ensuring the marketability of securitized debt has been to enable the rating agencies to grade the credit risk of the assets in isolation from the credit risk of the entity that originated the assets. Rating agencies demanded legal opinions that the securitized assets represented a so-called "true sale" and were outside the estate of the originator in the event the originator went bankrupt.53 Such separation was absolutely essential for the stamp of approval that the risk was redistributed and taken away from the originator's books. This role was played by scores of offshore Special Purpose Vehicles (SPVs) set up specifically as sham operations to isolate the originator from the product they sold. Once the assets were isolated from the insolvency risk of the originator, there was no additional credit risk analysis required from the purchaser.

Risk analysis, however, was required from the credit rating agencies, and it is in this task that they failed most miserably. Again, as Lowenstein explains,54 in the euphoric climate of 2006, the Moody’s analyst had, on average, a day to process the credit data from the bank. The analyst was evaluating not the mortgages, but rather the bonds issued by the SPV. The SPV would purchase the mortgages. Thereafter, monthly payments from the homeowners would go to the SPV. The SPV would finance itself by selling bonds. The question for Moody’s was whether the inflow of mortgage checks would cover the outgoing payments to bondholders. For the bank, the key to the deal was obtaining an

54 Lowenstein, supra note 50.
AAA rating — without which the deal would not be profitable. The secret to making a subprime loan into an "AAA" asset lay in the innovative technique of layering various types of assets according to their seniority. The highest-rated bonds would have priority on the cash received from mortgage holders until they were fully paid, then the next tier of bonds, then the next and so on. The bonds at the bottom of the pile — the "equity" tranch — got the highest interest rate, but would absorb the first losses in case of defaults.55

Therefore, the securitization boom of 2002-2007 was built upon one grand illusion — the illusion of liquidity. Financial agents and engineers, relying on techniques of scientific finance, "created" the markets for what was, essentially, bad quality debt. The existing regulatory paradigm supported this practice, assuming an infinitely liquid (due to the advance of financial innovation) market. Mainstream finance theory, in turn, guided this process, arguing that this new approach to managing risks enhances market liquidity and the financial robustness of the economy. Politicians reaped the benefits of this process, partly by capitalizing on the contribution of the financial sector to the economy, partly by advocating the social welfare gains of new, "democratized" finance. Like most illusions, however, the illusion of liquidity eventually came to a destructive end.56

IV. CONCLUSION: THE CRISIS OF THE PROGRESSIVELY ILLIQUID FINANCIAL SYSTEM

My aim in this Article has been to offer an alternative reading of the global credit meltdown. Specifically, I have suggested that, emergent theories of the credit crunch notwithstanding, at the heart of the crisis lay the problem of the illusion of liquidity. As I have explained, fundamentally, liquidity illusion derives from the contentious nature of liquidity in the context of demonetized financialization. Theoretically and politically, the development of the post-1971 financial system moved the category of "liquidity" away from its earlier associations with being a property of assets and the nature of money. In the contemporary financial system, targeted first and foremost at


56 For a more detailed analysis of liquidity illusion in the credit crunch, see ANASTASIA NESVETAILOVA, GLOBAL MELTDOWN: THE GREAT LIQUIDITY ILLUSION AND THE CREDIT CRUNCH (forthcoming 2010).
processing and managing risk, liquidity has been assumed to be a category of the market, rather than assets. This hollowed understanding of liquidity, in turn, has led to a flawed assumption that the process of financial innovation, or market completion, enhances the liquidity and robustness of the financial system as a whole.

I have argued here that this mode of theorizations and, crucially, the political products of this paradigm have institutionalized the illusion of liquidity that lies at the center of the credit crunch. Advancing a Minskyan understanding of financial instability and innovation, this Article specified and examined the three pillars of liquidity illusion in the context of the 2002-2007 credit boom: the paradigm of self-regulating finance; the role of Ponzi finance; and the structure of private authority (CRAs) in the recent bout of securitization.

An odd outcome of the continuing crisis is that the name of Hyman Minsky — long an outsider to mainstream finance and economics — seems to have been rehabilitated in the emergent analyses of the crisis. Commentators speak about a "Minsky moment" in the financial system, repeat his wise observation that "stability is always destabilizing," and have even noted the element of Ponzi pyramids in the recent bout of securitization. Very few of these commentators, however, have gone deeper into the scholarly legacy of Minsky to confront what I believe is the essence of his political economy, namely, his profound and contentious observation that just as financial innovation marks any period of economic optimism and tranquility, it inevitably drives the system towards the brink of a crisis. The mechanism that produces such a tendency centers on the myth of liquidity-creating financial innovation. It is disappointing that amidst emerging critique of self-regulating finance and attempts to gain a better understanding of liquidity itself, this part of Minsky’s message seems to have been ignored.