

# **Shadow Banking and the Political Economy of Financial Innovation**

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## **Introduction**

This article examines the lessons the phenomenon of shadow banking poses to students of political economy today. I do this by focusing on the role of the shadow banking system in the global financial crisis, and inquiring into the role that financial innovation and securitisation in particular, play in the financialised capitalism of today. My major premise here is that in retrospect, the global financial meltdown was peculiar in its dynamics. Although it was quickly diagnosed as a credit crunch and a financial crisis, it was not triggered by a collapse of an overvalued market, like for instance, the dotcom crash of 2001. Similarly, while it quickly matured into an international banking crisis, it did not involve a classical bank run which remains an anachronism in the age of deposit insurance guaranteed by the state. Finally and perhaps most peculiarly, although chronologically the crisis signalled the end of the credit boom of 2002-07 and was even interpreted as the collapse of a super-bubble (Soros 2008), the global crisis was not driven by investor mania or irrational speculation by market participants.

Instead, the crisis of 2007-09 was triggered by the inability to value assets and execute over-the-counter (OTC) transactions with highly complex, tailor-made financial instruments created by the financial industry through the practice of securitisation (transforming illiquid loans into financial securities). In 2007, the scale of this web of financial innovation was captured by Paul McCulley who argued that ‘the growth of the shadow banking system, which operated legally yet entirely outside the regulatory realm ‘drove one of the biggest lending booms in history, and collapsed into one of the most crushing financial crises we’ve ever seen’ (McCulley 2009). Shadow banking is an unfortunate term because it brings rather pejorative connotations into a concept that describes a vital part of the global financial system today. Yet the term has stuck, as

McCulley's focus on the complex, opaque and under-reported world of private financial innovation and credit creation spurred a wave of further studies of the phenomenon of the shadow banking system.

The literature that has developed in the academic and policy world since McCulley's first mention of shadow banking has yielded some startling revelations. Over the past three or four decades, banks and other financial institutions have developed what amounts to a parallel financial universe. Today, behind the facade of any major banking conglomerate, there is a plethora of entities, transactions and quasi-legal cells, many of which are 'orphaned' from the visible part of the bank by complex legal and financial operations, yet which have become absolutely integral to the functioning of our banks. These practices and cells of credit creation include the rather obscure entities such as special purpose entities (SPEs) or special investment vehicles (SIVs)<sup>1</sup>, structures of collateralised debt obligations (CDOs) and asset-backed commercial paper (ABCP),<sup>2</sup> as well as more established institutions, such as hedge funds, money market funds and government sponsored financial institutions like the US mortgage giants, Fannie Mae and Freddie Mac. And although some leading authors on the topic suggest that shadow banking is a very American phenomenon (Pozsar et al 2010; Mehrling et al 2013), recent data shows that shadow banking is geographically and functionally diverse, and while partly affected by the crisis of 2007-09, the system has continued to evolve and grow in scope in Europe and the emerging markets in the wake of the global crisis.

An emergent mainstream view in the academic and policy literature on shadow banking traces its origins to the phenomenon of regulatory arbitrage. At a broader level, the practice of securitisation is also conventionally defined in rather narrow terms, as a form of arbitrage in finance. Engaging with some of the key strands of analysis in this tradition, in this article I demonstrate the limitations of the regulatory arbitrage explanations of shadow banking and the practice securitisation more generally. I show that thriving on complexity and opacity the shadow banking system has evolved as a largely undetected yet vital 'infrastructure of the infrastructure' of the economy driven by search for high quality assets, to paraphrase Cerny (1996). In this

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<sup>1</sup> SIVs can either be affiliated with a single banking institution, or obtain support from multiple institutions. Adrian and Ashcraft (2012) report that since 2008, SIVs have stopped operating.

<sup>2</sup> Commercial paper collateralized by a specific pool of financial assets. The bankruptcy remoteness of all of these entities implies that the collateral backing the ABCP is exempt from the potential bankruptcy of the institution that provides the backup lines of credit and liquidity (Adrian and Ashcraft 2012).

process, the institutions and practices of financial innovation augmented the shadow banking system into a distinct financial-legal space, defined by concentration of values, opaque liability and ownership structures, and high degree of complexity. The most fundamental feature of this financial-legal space is that is founded on and driven by, securitised debt.

Seen in this context, the crisis of 2007-09 was not a crisis caused by market euphoria, irrationality or speculation, as is often assumed. It was instead, a crisis of the over-crowded financial channels bridging the present and the future, which have become congested because of the massive concentration of financial values generated, yet not sustained, through the shadow banking system. Drawing on the tradition of financial Keynesianism, the socio-legal studies of finance and early scholarship in institutional economics, in what follows I show that the crisis of 2007-09 was not only a crisis of the shadow banking system, but can also be understood as the first system-wide crisis of financial capitalism based in futurity.

The article is organised as follows. Section one reviews major theoretical approaches to the financial crisis of 2007-09, and explains why conventional arguments about market speculation do not explain the crisis centred on the shadow banking. Section reviews the emergent approaches to the shadow banking system and analyses its role in the crisis. Section three aims to build a theoretical framework based on the synthesis of financial Keynesianism and old Institutional economics which would allow us to conceptualise the place of securitisation and shadow banking and securitisation in the capitalism geared towards harvesting the financial future through debt.

## **1. A Rather Unusual Crisis**

By now, the accounts of the global financial crisis of 2007-09/12 have become stylised. Triggered by the collapse in the US subprime mortgage market, a liquidity crunch that started in the interbank market in August 2007 transformed into a credit crunch. By September 2008 it became a cross-border banking crisis, causing a severe economic contraction now known as The Great Recession. In Europe between 2010-12, the rescue of private banks by public authorities led to a sovereign debt crisis and near-defaults of several states. A meltdown of such magnitude (estimates put the

global costs of the crisis at around \$15 trillion<sup>3</sup>) could not but nurture a massive effort to theorise the crisis. Here, the lessons drawn from the events of 2007-09 and diagnoses of crisis causes differ significantly. To some, the crisis of 2007-09 is an outcome of multiple institutional failures, often overlapping and recurring through history. Such analyses draw against the background of other major bank-driven crises of the 20<sup>th</sup> century: Japan's 'lost decade' of the 1990s, the Scandinavian banking crisis of 1991-92 and most prominently, the Great Depression of the 1930s (Claessens et al 2010). In these parallels, references to over-confidence of investors, financial boom and bubbles, speculation as a major problem behind the collapse, recur. Micro-accounts diagnose the banking collapse of 2007-09 as a result of human and institutional failure; in particular the failure of risk pricing and valuation models used by the banks and credit rating agencies. The meltdown has also revealed the inadequate nature of control, the skewed structures of incentives, managerial incompetence across the financial industry. At the macro-level, it pointed to ineptness of governance methods and structures, starting from individual desks within a bank to Ministries of Finance and international organisations such as the Financial Stability Forum (now Financial Stability Board) and the IMF, both of which had to undergo reform and critical self-assessment in light of crisis (e.g., IEO 2010).

To others, the crisis is a symptom of deep seated structural problems of capitalism dependent on finance, controlled by a handful of big banks, and driven by debt-induced consumption. These theorisation are based on arguments about global imbalances (Obstfeld and Rogoff 2009; Schwartz 2009) as well as the deep-rooted disjuncture between the so-called 'real' economy and the financial sphere which had been brewing in the Anglo-Saxon capitalism since the end of Fordism-Keynesianism (Hay 2013; Wade 2008). Notwithstanding the differences between the two sets of approaches however, the divide between the institutional and structural critiques of the meltdown is somewhat over-emphasized. In fact, both micro- and macro-perspectives interpret the crisis as fundamentally, a symptom of a disequilibrium or imbalance in the economic system, either at a specific market level, or in a more global setting, as a result of the gulf between the stagnant real economy and over-inflated financial sector.

Indeed, despite their apparent doctrinal and methodological differences, competing theories of the global financial crisis share one common assumption. Namely, an implicit conception of an economy as a balanced system. Conceiving such balance either as price

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<sup>3</sup> Yoon, A., 2012, "Total Global Losses from Financial Crisis: \$15 trillion", WSI blog, 1 October 2012.

equilibrium in a given market, a sectorial balance or a model of sustainable growth, ostensibly competing economic theories tend to diagnose the crisis as a breakdown or a deviation from such equilibrium or a balance point. The implications of such thinking are reflected in the policy and governance responses to the crisis: most crisis management programmes and post-crisis reforms aim at restoring the state of pre-crisis equilibrium or at finding a new level of equilibrium. More radical reform proposals call for a restructuring of financial capitalism and often become a cause for civil society movements such as Occupy Wall Street.

Forming the bulk of the literature on the political economy of the global crisis, these theorisations tend to overlook one major point which makes the crisis of 2007-09 a rather unique moment in financial history (Samman 2012; 2014). Despite historical parallels with earlier banking and financial crises, recurring references to the exuberance of traders, the greed of the bankers, and notwithstanding regulators' stated intentions to curb short-term speculation (EC 2011), the credit crisis of 2007-09 did not centre by an over-inflated market for financial assets. To appreciate why, one needs to engage with the mechanisms of pricing and valuation of financial products that have been at the credit boom of 2002-07 and its collapse.

Most analysts concur that in the most fundamental way, the crisis was a crisis of liquidity: the presumed liquidity of the new assets (financial securities created out of pools of illiquid loans); and the presumed liquidity of the market in which these financial securities were traded. In the event, it was the *absence* of a functioning system of market pricing for complex securities that triggered the crisis on 9 August 2007, when BNP Paribas announced that it could not value three of its special funds. The credit crunch that soon ensued centred on the complex and opaque infrastructure of financial securitisation and banks' models of dealing with risks. According to Brunnermeir,

[t]wo trends in the banking industry contributed significantly to the lending boom and housing frenzy that laid the foundations for the crisis. First, instead of holding loans on banks' balance sheets, banks moved to an 'originate and distribute' model. Banks repackaged loans and passed them on to various other financial investors, thereby off-loading risk. Second, banks increasingly financed their asset holdings with shorter maturity instruments. This change

left banks particularly exposed to a dry-up in funding liquidity (Brunnermeier 2009: 78).

This sudden evaporation of liquidity, understood by Carruthers and Stinchcombe (1999) as the extent to which an asset is a generalised, fungible resource, indicated the absence of the underlying market for newly created financial securities. Most of the new created financial structures were highly bespoke products, held off balance sheets and sold over-the counter (OTC) to investors and not on any organised exchange, the lack of an obtainable price for the two funds controlled by BNP Paribas in August 2007 and similar problems at other institutions that soon followed, only confirmed the observation that in the functioning market mechanism, it is generalized knowledge of value that engenders liquidity (Carruthers and Stinchcombe 1999: 364). At first approximation therefore, the 2007-09 meltdown was a crisis of liquidity illusion and the first system-wide crisis of financial innovation (Nesvetailova 2010). Yet it was not simply the cumulative result of the invention of new financial securities, values and institutions that caused the global credit crunch. It was rather, a complex institutional network of incentives and interests that paralleled the evolution of securitisation that built up to the phenomenon now known as the shadow banking system.

Conventionally in finance, securitisation is defined as a processes of transformation, through the process of financial engineering, of an illiquid asset or a group of assets, into a financial security. Originating in the late 1970s US mortgage markets, the practice of securitisation evolved along with the change within the banking industry, from the traditional practice of liability management to present-day model of asset management. Securitisation and the shift to more efficient use of capital through asset management (also known as originate and distribute model of banking, or ORD), have been regarded as beneficial developments of mature financial system. Opportunities to shift risks off the balance sheet were deemed to give banks more flexibility, diversify the range of their assets, widen the scope and depth of the financial system, reduce the cost of credit and thus contribute to economic growth (Aglietta 1996: 572; Richardson et al 2011). Critical views on securitisation developed in political economy and related disciplines pointing to hidden fragility of opaque chains of debt and new sources of economic inequality (e.g., Albeers et al 2011; Bryan et al 2009; Lavoie 2012; Kessler 2011; Soederberg 2013).

In its narrow functional meaning, securitisation as a form of financial innovation; more specifically, a form of arbitrage. “The slicing a dicing of cash flows and credit risk are a way too close the gap between less efficient debt market and more efficient capital markets and to profit on the differentials that exist” (Fink 2000: 117). At the same time, three important factors have been critical to transforming securitisation from being an innovative financial markets concept to a new industrial practice in banking and finance: (1) changes in securities laws and the legal investor powers of institutions, (2) changes in IT and computer technologies; and (3) changes in investor understanding regarding securitisation (Ibid: 118). At a closer glance therefore, securitisation, like all forms of financial innovation, is not only a financial market process, but necessarily also a legal practice. The securitisation process ‘takes loans that traditionally would have been held on bank’ balance sheet by the originating firm and creates marketable securities that can be sold and traded via the off-balance sheet SPV” (McIntire 2014: 6). Interestingly, it is typically the least profitable loans (e.g. subprime mortgage or student loans) that banks select for securitisation schemes.

Developing at a nexus between finance and law, the economic functions of securitisation ultimately are framed by a set of legal techniques, which means that securitisation can assume a variety of forms. Lipson (2011/12: 1233) suggests that a true securitisation is defined as a purchase of primary payment rights which necessarily includes two conditions: (1) that it legally isolates such payment rights from a bankruptcy (or similar insolvency) estate of the originator; and (2) results, directly or indirectly, in the issuance of securities whose value is determined by the payment rights so purchased. As he argues, it is the legal isolation of the inputs (payment rights) from the credit risk of the originator that provides the structural key to securitisation. This is often accomplished by a ‘true sale’ of the input assets from the originator to a ‘special purpose entity’ or special purpose vehicle that is legally ‘remote’ from the originator should the originator go into bankruptcy or a similar insolvency proceeding (Ibid: 1240).

The web of SPVs, SPEs and SIVs provides the ‘Holy Grail’ of the legal process underpinning securitisation schemes and the evolution of structured finance. These entities are typically easy and relatively inexpensive to set up, as they require neither staff nor capital costs. Across the world, financial centres host thousands of such entities. Recent data from the Bank of England reveals 1968 SPVs owned by UK MFIs (as distinct from all SPVs registered in the UK)

(Bank of England 2013), while the Netherlands is estimated to accommodate more than 10 000 of various SPVs (Peters 2013). Typically, SPVs are set up in offshore financial havens such as Cayman Islands, Ireland, British Virgin Islands, etc. Together, the expansion of financial engineering and the legal infrastructure needed in the operations with various debt-based instruments, had enabled the development of a complex and largely undetected institutional framework for financial innovation.

It would be in 2007 that the system would be given a name. In the midst of the unfolding financial meltdown Paul McCulley, then a senior partner at PIMCO, singled out the role of ‘unregulated shadow banks that [unlike regulated banks], fund themselves with uninsured short-term funding, which may or may not be backstopped by liquidity lines from real banks.’ Because they fly below the radar of traditional bank regulation, he argued, these levered-up intermediaries operate in the shadows without backstopping from the Fed’s discount lending window or access to FDIC (Federal Deposit Insurance Corporation) deposit insurance (McCulley 2009: 257). Several strands of economic, legal and regulatory literature of shadow banking have emerged following McCulley’s initial observations. Most of these studies focus on non-traditional channels of the credit system and describe shadow banking as a complex network of financial intermediation that takes place outside the balance sheets of the regulated banks, and thus remains invisible to the regulatory bodies. Yet disagreements about the precise definition of a shadow bank and shadow banking do continue. The differences of opinion go beyond linguistics; including or excluding certain practices or entities under the umbrella of shadow banking raises important implications for understanding the politics and legal arrangements of financial innovation. Some of the emergent scholarship has addressed the question of the nexus between the financial and monetary impact of the shadow banking system systematically (Mehrling 2011; Ricks 2011). These studies suggest that the systemic consequences of shadow banking stem from its dual role: it in plays a facilitating role in the individual credit strategies of ‘visible’ financial institutions, while at the systemic level it does generate a new frontier of private credit. Table 1 summarises major approaches to shadow banking, with key points of conceptual disagreement highlighted in *italics*.

*Insert table 1 about here*

### **Table 1. Major Definitions of Shadow Banking**

Functional	Legal	Political-economic
<p>Shadow banks are financial intermediaries that conduct maturity, credit, and liquidity transformation <i>without access</i> to central bank liquidity or public sector credit guarantees (Pozsar et al 2010).</p> <p>Shadow banking is money market funding of capital market lending (Mehrling et al 2013).</p> <p>The shadow banking industry is a system of securitized banking that is composed of (1) the securitization process and (2) the repurchase market ( McIntire 2014).</p>	<p>Shadow banking refers to maturity transformation that takes place outside the terms of the banking social contract. A non-exhaustive list of shadow banking institutions would include: repo-financed dealer firms; securities lenders; structured investment vehicles (SIVs); asset-backed commercial paper conduits; some varieties of credit-oriented hedge funds; and, most importantly, money market mutual funds, which absorb other forms of short-term credit and transform them into true demand obligations (Ricks 2011).</p> <p>The shadow banking system describes a web of financial instruments (asset-backed securities, credit derivatives, money market mutual funds, repurchase agreements) that connects commercial and household borrowers to investors in capital markets. The shadow banking system <i>generates funding and additional credit</i> (Gerding 2011).</p>	<p>A system of credit intermediation that involves entities and activities outside the regular banking system, and raises i) systemic risk concerns, in particular by maturity/liquidity transformation, leverage and flawed credit risk transfer, and/or ii) regulatory arbitrage concerns (FSB 2011).</p> <p>Shadow banking is a market-funded, credit intermediation system involving maturity and/or liquidity transformation through securitization and secured-funding mechanisms. It exists at least partly outside of the traditional banking system and <i>does not have government guarantees</i> in the form of insurance or access to the central bank (Deloitte 2012).</p> <p>Shadow banking includes all financial activities, except traditional banking, which require a private or public backstop to operate (Claessens and Ratnovski 2014).</p>

**2. The Role of Shadow Banking in the Crisis of 2007-09**

If the disagreements about what shadow banking does and what a shadow bank is are set to continue in the post-crisis regulatory debate, there are several important points around which academic and policy analyses of shadow banking now converge. First, the term ‘shadow’ banking is widely seen as an unfortunate choice, since it describes a vital and complex part of the financial

system. Shadow banks in the form of mortgage giants and non-banks financial institutions have been part of the system of capitalist finance for most of the 20<sup>th</sup> century. Their emergence was enabled by the regulators and facilitated by the government and these non-banking institutions have long played an important function in the credit intermediation process (McIntire 2014).

Second, there is now a wide understanding that the shadow banking system has played a central role in the global financial crisis (Lysandrou and Nesvetailova 2014). As Krugman noted: ‘as the shadow banking system expanded to rival or even surpass conventional banking in importance, politicians and government officials should have realized that they were re-creating the kind of financial vulnerability that made the Great Depression possible—and they should have responded by extending regulations and the financial safety net to cover these new institutions’ (Krugman 2009, cited in Moe 2012: 36-37). More recently, Mark Carney, the governor of the Bank of England, identified shadow banking in the emerging markets as the greatest challenge to the world economy (*The Economist* 2014: 9).

Third, the importance of shadow banking for financial stability has been widely recognised. Here one common argument shared by academics, practitioners and the regulators, concerns the complexity embedded in financial innovation through shadow banking. Not only the securitisation process by which illiquid loans are converted into apparently saleable securities is very non-transparent, but the very infrastructure of shadow banking is organisationally complex. The shadow banking system includes a complex web of financial and legal entities, instruments and techniques that facilitate the functions of banks and other financial institutions, both visible and shadow. As follows from Table 1, the inhabitants of the shadow banking system vary in size and function. Often, shadow banks straddle the line between traditional and shadow banking, such as in the case of a regulated bank sponsoring an SPV (Luttrell et al 2012: 5-6). Several non-bank entities linked in a chain of financial and legal operations, can function as a *de facto*, if not *de jure*, banking structure. The heterogeneity of shadow banking entities and functions shrouds this network of credit intermediation in layers of complexity. As Lysandrou (2011/12) explains, the special purpose entities used in securitisation are themselves divided into three categories of investment vehicles: (1) the bank-owned special purpose entities (SPEs) that transformed bank loans into securities, (2) the SIVs sponsored by the commercial banks or operated by the investment banks that transformed securities into CDOs, and (3) the conduits, most of which were owned or sponsored by the commercial banks. The first two of these vehicles were at the heart of

the CDO production process while the third was not. In contrast to the SIVs that sold most of the CDOs that they created to other investors, those conduits that had bought or created CDOs continued to hold onto all of them, because their main function was to maximize profits from the maturity mismatch between their assets (the mortgage- and non-mortgage-backed securities that they bought from the SPEs) and their liabilities (short-term commercial paper that they issued in the money markets) (Lysandrou 2011/12: 242).

Fourth, the consensus view in the emergent economic and financial literature, and certainly in the policy debate on the origins of shadow banking, suggests that shadow banking is an outcome of regulatory arbitrage in the international financial system (Thiemann 2014). It is commonly agreed that the shadow banking system consists of several financial operations that offer ‘alternative, unregulated means to traditional banking functions’ (McIntire 2014: 6). According to Acharya and Richardson (2009), the move towards securitization-generated income paralleled the expansion of the ‘originate and distribute’ model of banking and became a feature of market-based banking systems of several OECD economies. This was particularly pronounced in the period after 2003 in the US when driven by banks’ desire to avoid holding costly capital against their assets, private sector asset backed security (ABS) issuance exploded. Altunbas et al. (2009) note similar strategies were adopted in Europe, where securitisation practice of banks accelerated around the same time, post-2004 (Barrel 2011 et al). Pozsar et al (2010) delineate several types of regulatory arbitrage: capital, tax and liquidity arbitrage, all of which play a major role in shaping securitisation structures.

However while accounting for the importance of macro-economic and institutional context of the developments in the financial industry, regulatory arbitrage explanations however, tell only a partial story of the rise of shadow banking. There is one fundamentally flawed assumption informing regulatory arbitrage theories of financial innovation and shadow banking more specifically. Spatially, these analyses view the financial system as a relatively neatly demarcated realm of regulatory niches, with boundaries drawn between regulated and un-regulated companies and activities, between various national systems of financial regulation and taxation, and between protected (e.g. depository banks) and unregulated (e.g. hedge funds) financial institutions. In such readings, financialisation, or the globalisation of financial markets and services, is argued to have evolved in the context of regulatory ‘race to the bottom’ (e.g. breaking the traditional credit intermediation process into legally independent structures that deal with each other). Shadow

banking is therefore, a recent manifestation of this process, having become a conduit for propagating systemic risk since failures can lead to ‘important contagion and spill over effects’ (Garcia 2012: 5).

Under closer examination however, the regulatory context enabling financial developments, as well as the political economy of financial innovation and the crisis that ensued, are much more complex phenomena (Helleiner and Pagliari 2011; Nesvetailova 2014). Economic and mainstream finance approaches to the crisis often cite global disequilibria in savings, trade revenues and currency holdings as a background to the financial crisis 2007-08. However, Caballero (2009) argues that the really important imbalance shaping macro-economic developments in the North Atlantic economies is financial in nature. As he explains, the surge of safe-assets-demand has been a key factor behind the rise in leverage and macroeconomic risk concentration in financial institutions in the US, UK, and several European countries as these institutions sought the profits generated from bridging the gap between the rise in demand and the expansion of its natural supply. Responding to the growing demand for high quality assets, the financial sector was able to create micro-AAA assets through the securitization of lower quality ones, but at the cost of exposing the system to fragility and crisis (Caballero 2009: 2-3).

Although counter-intuitive in the age of global capital, and contradicting most conceptual approaches to finance and crisis that stress the abundance of capital and a ‘global savings glut’ as main macroeconomic factors behind the developments in North Atlantic financial markets, the argument about lack of high-quality, reliable assets (or so-called ‘investables’) has been developed in the recent literature on financial innovation and shadow banking. In a series of recent publications, Photis Lysandrou (2011; 2011/12; Goda and Lysandrou 2013) investigates the socio-economic factors driving the demand for complex securities. In his analysis, it was profound socio-economic inequality that was the root cause of the global financial crisis, and crucially, a key factor sustaining the securitisation process (Lysandrou 2011). More specifically, his analysis demonstrates that it was hedge funds, propelled by cash-rich demand of their enlarged client base now including High Net Worth Individuals (HNWIs), that drove the demand for the products of financial innovation, most notably CDOs (Lysandrou 2011/12). Goda and Lysandrou (2013) find that between 1997 and 2007, the wealth holdings of these HNWIs more than doubled (from US\$ 19 to US\$ 41 trillion) and their share of total global private sector wealth increased from 31.6% in 2001 to 35.3% in 2007. The subsequent increase in HNWI’s investment demand not only helped

to lower the yield of highly rated traditional bond classes, but also led to the growth of assets placed with hedge funds who in turn, were the major buyers of CDOs:

The acceleration in CDO production between 2002 and 2007 appears to have been very closely paralleled by an acceleration in the growth of the hedge fund industry... Hedge fund assets more than tripled between 2002 and 2007, rising from US\$ 600 billion to about US\$ 2.2 trillion, while the number of firms operating within the industry nearly doubled in this period... Institutional investments in hedge funds remained comparatively modest up to 2002 but after that date these investments rose rapidly... – a likely motivating factor being their search for yield (Goda and Lysandrou 2013).

The available data on CDOs demonstrates that the supply of financial innovation by the financial industry and specifically, the shadow banking system, was a reaction to this growing concentrated demand of asset holders for new ‘investables’ and high returns. At the same time, Awrey (2012) argues that an important missing link in the emergent conceptualisations of financial innovation concerns its supply-side processes. He distinguishes three sets of incentives that prompt financial institutions to innovate: genuine demand within the marketplace; mitigating the impact of regulations; and recreating monopolistic conditions. Focusing more specifically on the monopoly-like conditions for extracting financial rents through financial innovation, Awrey finds that embracing complexity (so-called ‘shrouding’), in addition to accelerating the pace of financial innovation, has been an important factor in the latest phase of financial innovation. As he explains, ‘many financial intermediaries have harnessed technology and financial theory in order to develop and move an increasingly large proportion of their activities into new and relatively opaque institutions, instruments and markets. In parallel, they have also lobbied against reform which would seek to achieve a more level-playing information field’ (Awrey 2012: 36-37). In this instance, it is rather telling that throughout the 2002-07 credit boom, the leading banks were in fact the major buyers of complex CDO structures that they themselves created, largely replacing traditional investors like pension funds towards the end of the boom (see Figure 1). By 2007, 67 percent of the risky slices of CDOs were bought by other CDOs, up from 36 percent in 2004. In the last two years of the boom, nearly half of all CDOs sponsored by market leader Merrill Lynch bought significant portions of other Merrill CDOs (Berstein and Eisinger 2010).

*Insert Figure 1 about here.*

This analysis implies that securitisation through the shadow banking system is facilitating financial innovation, and *not* financial speculation and market trade. The complex structures of securitised assets, special purpose conduits and highly bespoke products comprising the network of shadow banking did not constitute an open market. Indeed, some of them were created simply as conduits for value, not as mass-market securities. Their presumed liquidity lay in the anticipation that these complex structure would enable the extraction of value from the underlying debt, not from the convertibility of newly created AAA securities into cash or another asset as would be the case of an asset traded in the market (cf. Crockett 2008). Mehrling explains that ‘the underlying securitisation tranches were designed to be held, not traded, and in general they were held, not traded, and here is the source of a persistent challenge for the market-based credit system.’ The shadow banks in turn, were holding (and funding) only the very highest-rated tranches created by a larger securitisation process that packaged loans and then sliced and diced the package into securities with specifically tailored risk characteristics. Risker tranches were held - indeed, were designed to be held - by pension funds, insurance companies and hedge funds (Mehrling 2011: 126). Overall, the entities and products of shadow banking were simply far too complex to serve as instruments of speculation or market trade. Instead, they were structured as bespoke vehicles of debt which, given their in-built complexity and the heterogeneity of underlying assets, were extremely difficult to trade and discern. In fact, no two CDOs are alike: ‘each one is a unique, customised product that can be sold at a privately negotiated price but not so easily marketed on any standardised price terms’ (Goda and Lysandrou 2013: 12).

How best to understand the political-economic function of this large and opaque system?

### **Towards Post-Keynesian Institutionalism**

The burgeoning academic literature, popular culture and social media remind us that mainstream economic and financial theory is inept at understanding contemporary banking and finance. But the crisis also has revealed the limitations of critical and heterodox approaches to finance and credit. The meltdown of 2007-09 was a complex phenomenon, itself a product of increasing

complexity of finance (Datz 2013). It was caused by overextended credit, created and channelled through the shadow banking system. It has been a major crisis of debt in its many forms: consumer indebtedness, Ponzi investment structures, leverage built into bank portfolios, and complex synthetic financial products. The meltdown also occurred against unprecedented polarisation of wealth and deepening socio-economic inequality (Lysandrou 2011; Picketty 2014). Perhaps unsurprisingly, no single theory in either mainstream or heterodox economics provides us with the ready tools to address these complex issues comprehensively and dynamically.

The problem lies with the state of economic and political economic theory as it evolved during the post-war years of the 20<sup>th</sup> century. Economic theory, preoccupied with the question of growth, inevitably sees debt as a burden inherited from the past and a factor constraining growth. It thus stumbled upon the unresolvable dilemmas of savings vs. investment as factors of economic growth. Most economic models, whether mainstream or heterodox, are based upon the false dichotomy between credit and debt, a presumption further supported by accounting practices. Conceptual debates about wealth in turn, if and when they do take place, often stumble about the false distinction between financial and ‘real’ economy. In fact there appears to be single theoretical framework that would somehow help reconcile the analytical categories of debt, credit, finance, wealth and ownership in a single theory of financialised capitalism.

In this regard, the crisis of the shadow banking system may well serve as a constructive turn in political economy. The lessons drawn about securitisation (and perhaps most persuasively, the regulatory calls for a revival of securitisation in the credit starved economy post-2009 indicate that debt has long become not only a factor of growth, but an important institution of financial capitalism. The emergent literature on shadow banking and its complex network in turn, suggests that the valuation, nature of ownership and the timing of securitization are key factors of stability and functionality of finance, as well as wider economic participation.

What is then, the ultimate function of this opaque yet essential financial-legal space today? An important conceptual step towards answering this question lies in the recognition that today, financial system is as much a ‘credit’ system as it is a debt system. This characteristic of modern finance is often attributed to the developments that have taken place from 1971 onwards. It is thought that when key financial activities were removed from state controls, the financial system transformed itself from a service industry that connects savers and borrowers in space and time (if indeed it was that ever), to an industry of mining, trading and multiplying risk (c.f. Kurtzman 1993;

Guttman 1995). However placed in a longer historical context, the breakdown of the Bretton Woods arrangements in 1971 only amplified and accelerated the much longer historical trend beautifully captured by John Commons some hundred years ago, when he analysed the legal foundations of a capitalism in which ‘mere expectations of money are converted into money itself’ (Commons 2002 (1934): 393).

Mainstream theory, founded in neoclassical economics, is unable to engage with the realities of such a system. Its major paradigm, or the *economics view* as Mehrling calls it, “resolutely looks through the veil of money to see how prospects for the present generation depend on investment in real capital goods that were made by generations past” (2011: 4). It is true that, as Drucker observed in 1959, economic activity has always been about the commitment of present resources to future expectations, and for the past three centuries this has been done in contemplation of change (Drucker 1959: 240). But in mid-20<sup>th</sup> century, in the wake of the Bretton Woods collapse, a new type of economic activity and a mode of capitalism – based on what Commons understood as modern capital - became globalised.

Hyman Minsky called it money-manager type of capitalism (Minsky 1993; Wray 2009), a system defined by the divorce of ownership of capital from the management of capital. In this new system of ownership, management and distribution of financial capital and wealth, the mere expectation of a change can be converted into a financial security (Shiller 2004; Wigan 2009), and it is financial derivatives that serve as a *de facto* anchor to fundamental activities in the real economy, not the other way around (Bryan and Rafferty 2005). Scholars today refer to this era as epoch of financialised capitalism (e.g., Hudson 2010), defining financialisation either as a macro-historical trend in the evolution of capitalism, or as a series of socio-cultural shifts within finance and driven by finance (Montgomerie 2008). But the major problem with financialisation theory is that despite its nuanced insight into the dynamics led by financial change, financialization remains a largely descriptive tool used to explain developments that occur outside the financial system. Fundamentally, financialisation theories tend to be based on the false distinction between finance and the real economy. Yet as Paul Davidson reminds us, in an economy operating under uncertainty, production is financed not by tapping savings from previous production, but by incurring debt (Davidson 1978: 61). Today, the central role of shadow banking in modern finance as revealed by the global crisis only reaffirmed the observation made by John Commons a while ago: in its modern meaning, capital is divorced from the obsolete meaning of savings, because

modern capital is comprised of intangible property (the present value of future sales) and incorporeal property (the present value of expected payments of debt) (Commons 1934: 456, cited in Atkinson and Whalen 2011: 55).

The post-crisis theoretical discussion in political economy has seen a revival of post-Keynesian thought which is rooted in the assumption ‘that economic decisions are made by human beings facing an uncertain and unpredictable economic future, while they are moving away from a fixed and irreversible past’ (Davidson 1991: 58-9, in Atkinson and Whalen 2011). More recently, the focus on uncertainty and expectations central to Post-Keynesian thought has been advanced by the insights from old institutional economics championed by Commons, Veblen, Berle and others. The emergent synthesis, described by Glen Atkinson and Charles Whalen (2011) as Post-Keynesian Institutionalism, is built around the concept of *Futurity*, pioneered by John Commons in the 1930s and understood as the very essence of modern capitalism, where “Futurity embodies itself objectively in a present ‘economic quantity’, Credit, which is the equivalent of debt” (Commons 2002 [1934]: 398).

In his monumental history of political economy John Commons noted that ‘political economy [is] not a science of individual liberty, but a science of the creation, negotiability, release, and scarcity of debt’ (Commons 2002 [1934]: 390). The lessons we draw about the shadow banking system in light of the recent crisis suggest that in the age of modern capital, the old distinctions between credit and debt are of limited use: both credit and debt are essential ‘economic quantities’ in the terminology of MacLeod and Commons. Credit offers a valorised access to the future; while debt is a valorised commitment to a future. As Mehrling puts it, ‘the seductive allure of present credit and the crushing burden of future debt are two faces of the same creature’ (2011: 11). Both these quantities, and their special characteristics, can be converted into financial assets or ‘investables’, and it is the shadow banking system that plays a vital role in this financial alchemy. The shadow banking system is not merely an outcome of regulatory arbitrage by banks and financial institutions. It is the infrastructure for mining, enhancing and shifting debt and its related products into the future, and plays, therefore, a vital role in the operation of the contemporary credit system.

To engage with the political economy of such a system, Mehrling suggests, one needs to develop a *finance view* focuses on the present valuations of capital assets, seeing them as dependent entirely on imagined future cash flows projected back into the present (2011: 4). In the finance

view, shadow banking is an organic part of the financial capitalism of futurity. Two key features of the instruments used in the shadow banking system illustrate this role. First, the techniques and instruments are created and deployed with the aim of extracting a cash flow from an underlying asset. Inevitably in the securitisation realm, this asset tends to be an instrument of debt. Second, the legal components of securitisation are founded on principle of true sale – alienating the ownership of the resultant financial claim from the ownership of the underlying assets or entity. The financial innovation and what Kennedy (2011) calls ‘creative lawyering’ through shadow banking are capable of generating a web of assets which are money-like instruments and thus perform important funding functions (Gerding 2011: 6-7). Gerding’s study of shadow banking in the US context, as well as other socio-legal analyses of finance are particularly relevant for scholars in political-economy. A legal economist, Gerding (2013) presents the trajectory of financial innovation as necessarily a dual, financial-legal process. Insightful of the inner mechanics of securitisation practices, his study reveals the limitations of conventional finance and legal theory that continue to dominate policy and academic debate (Kennedy 2011). Three observations, all originating in the tradition of financial Keynesianism (Minsky 2008) and Old Institutional Economics, follow on from this.

First, the financial system dependent on shadow banking is ridden with a classic conflict based on the paradoxes of aggregation. In classic Ponzi schemes, timing is key: pyramids actually tend to work for those investors who manage to get out in time, yet the community of investors never get their money back. Turner (2012: 27) argued that any financial system that performs credit intermediation and maturity transformation – whether within banks or via shadow banks and market-based credit contracts – is capable of generating a set of claims whose combination of apparent risk, return and liquidity is in aggregate unsustainable or even impossible. During the crisis apparently liquid claims became illiquid: apparently low risk claims became high risk and lost value; and the system’s ability to generate new claims which met investors’ expectations shrank. And part of the (unfortunate but necessary) policy response to the crisis has been a large scale socialisation of the credit intermediation and maturity transformation function (Turner 2012: 28).

Second, Ponzi schemes are inevitably, debt schemes. Securitised debt is the very heart of the shadow banking system (McIntire 2014), which mobilises and amplifies debt in several ways. As Gerding (2011: 20-21) explains, employed in a system of economic and financial transactions,

shadow banking instruments helped increase leverage in financial markets in three ways: by providing new instruments for borrowing, by increasing economic leverage, and by creating embedded leverage. For instance, credit derivatives free up capital that the seller can deploy elsewhere, including by underwriting additional credit derivatives. Shadow banking instruments can also increase what Gerding calls embedded leverage. The layering of securitization upon securitization or the hedging and re-hedging of investments with credit derivatives means that the leverage of individual investments can be multiplied many times over. One shadow banking instrument (for example, a repo) can allow a firm to make a leveraged bet in another already leveraged instrument (for example, a subordinated asset-backed security or a credit default swap) (Gerding 2011: 22). In fact, the principle of collateral re-hypothecation (a practice of pledging securities for a loan when the same securities have already been pledged for another loan) is a modern version of a Ponzi pyramid. The brokerage firm essentially passes along the collateral in order to obtain a loan to finance the customer's account. In the City of London, where there are no haircuts on the re-use of pledged collateral, 'mathematically, the cumulative collateral creation can be infinite' (Singh 2011).

Third and related, the dependence of the economy and the official financial system on its shadow parts has important implications for the way we understand (and hence attempt to govern) economic activity in the age of financial futurity. Even up to today, most debates about banking and its role in the crisis, eventually boil down to the discussion about the structure of incentives in the financial sector. Inevitably, this line of reasoning tends to point to disparities between 'real' and 'financial' economy. The processes of shadow banking however, demonstrate that if ever such a distinction did make sense, it is not applicable in the age of financialization based on the separation of negotiability of risk-based assets, and alienation of ownership by means of financial innovation (and not assignability of ownership, as implied in mainstream economic and financial theory) that is central to securitization in finance and to contemporary techniques of value extraction.

In his seminal study of *Institutional Economics* John Commons drew on the work of Henry MacLeod, the first legal economist, who once observed:

“if I were asked... what discovery has most deeply affected the fortunes of the human race, it might probably be said with truth – *The discovery that a Debt is a Saleable Commodity*....When Daniel Webster said that Credit has done more a thousand times to

enrich nations than all the mines of all the world, he meant the discovery that a Debt is a saleable Commodity or Chattel: and that it may be used like Money: and produce all the effect of Money” (Macleod 1856: 200, cited in Commons 2003: 397; emphasis and punctuation in the original).

The discovery that debt, especially low quality debt, may not only be sold, but deferred into the future and divorced from the underlying risks, and thus become a vehicle for value extraction today, may well be seen as one of the most important economic discoveries of late 20<sup>th</sup> century.

## **Conclusion**

This article has inquired into the role of the shadow banking system in the financial crisis of 2007-09. It is now commonly agreed that the global financial meltdown was centred on the process of financial innovation and more specifically, the practice of securitisation. In this, the crisis of 2007-09 was distinct from earlier outbreaks of financial instability and stock market crashes. Although the credit boom of 2002-07 provided the macroeconomic background to speculation in various asset classes, including real estate and commodities, and while exuberance of traders shifting obscure financial products between financial institutions was certainly an important part of the financial era of 2002-07 (Cameron et al 2011), the instruments and entities that brought down the banks and parts of the financial system were never part of an organised platform of financial exchange; they were not actively traded on the market, and their liquidity stemmed from the anticipated ability to allow the extraction of value, not from their liquidation or sale in a marketplace.

Instead, the complex and highly bespoke vehicles of debt-based value at the centre of the securitisation process were created on the margins of the financial institutions as a means for banks to deal with risk embedded in the loans the financial institutions originated. It is these instruments and entities that played a central role in facilitating financial innovation that has been the process at the heart of the crisis. The resultant network of entities, products and operations involved in this process of financial innovation is now known as the shadow banking system. **Although most current figures tend to be under-estimations, recent data suggests that shadow banking accounts**

for up to a third of world's financial system. Emergent consensus in academic and policy literature sees shadow banking to be the outcome of regulatory arbitrage in the banking sector, enabled by national tax, accounting and bank rules.

In this article I have engaged with the regulatory arbitrage explanations of the rise of shadow banking, finding them insightful, yet not comprehensive in accounting for the complexity, scope and diversity of shadow banking entities. Drawing on current scholarship in heterodox political economy, and on early writings of institutional political economy, I have shown that shadow banking in fact is the financial industry's institutionalised response to investors' search for yield and investables. The complex web of shadow banking operations, entities and products provides the institutional infrastructure of financial capitalism oriented towards the future and play a key role in the economic cycle (Palan 2013). Embedded in the legal framework provided by shadow banking, securitisation overcomes the present constraints on capital and returns by employing debt in the value extraction process in new, transformed and enhanced forms. Some 100 years ago that John Commons understood it as a socio-economic and legal system based on the principle of Futurity, where:

[all activities have their present values] not on account of what has happened in the past, nor even on account of what is happening at the present point of time, but on account of what I and others hope, expect or fear will happen in the future. The extent to which this human ability of forecasting has its influence on present behaviour and values may be given the name, futurity (Commons 1925: 2).

Today, through the facilities offered by the shadow banking system, the financial system has been able to harvest the future for a select group of cash-rich clients. The system erupted when assets generated by harvesting the financial future were unable to get a price in the present. In this way, the crisis of 2007-09 need to be understood not as a financial market crash nor a mere banking crisis, but as the first system-wide crisis of financial future that has become...overcrowded.

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