The Functional Importance of Asset Backed Securities: An Assessment and Some Policy Implications

Photis Lysandrou[1] and Anastasia Nesvetailova[2]

Paper prepared for INET Annual Conference, 21-23 October, Edinburgh, UK

Abstract

Asset backed securities have become a permanent feature of the global financial system. A major reason for this are the gaps in the bond market. These, in turn, stem from the fact that government and corporate bond supplies typically fluctuate over the business cycle, while the institutional investor demands for these bonds as stores of value are monotonically increasing in line with the continual increase in fund inflows from household savers. This paper argues that one of the major functions of asset backed securities is to help to bridge these bond supply-demand gaps. Drawing on lessons from the financial crisis, the paper goes on to spell out some policy implications of the as yet, poorly recognised functional importance of asset backed securities in the contemporary era.

Key Words: Asset backed securities; stores of value; bonds, securitisation, institutional investors.

[1] Professor, Honorary Research Fellow, CITYPERC. Email: Photis.Lysandrou.1@city.ac.uk

[2] Professor of IPE, City, University of London. Email: A.nesvetailova@city.ac.uk. The authors gratefully acknowledge the support of INET and EU Horizon 2020 funding (Grant agreement No.727145, 'COFFERS' (Combatting Fiscal Fraud and Empowering Regulators)) in supporting part of the the research for this paper.

Introduction

Indebtedness, whether private, corporate or sovereign, is an integral feature of today's political economy and has been behind most financial crises of the past few decades. In late 2016, global debt levels reached a new all-time high of $217 trillion, a figure estimated at roughly 325% of the world' gross domestic product (Rabouin 2017). These general numbers, however, conceal the many forms and functions of debt today. One such function is to serve as a funding instrument for the governments and corporations issuing debt securities, while another function of bonds is to serve as investables, secure stores of value, for the investor community around the world. Currently, about 20% of global markets-based funding needs is fulfilled by securitisation based products. In the US, securitisation finances 30% of annual capital markets funding needs, and 40% historically (Ahern 20017).

This paper focuses on the important role played by one particular group of debt-based instruments in today's financial system, asset backed securities (ABS).

ABS often tend to be subsumed under general discussion of securitisation practices, including in the regulatory realm. Yet this is a mistake. The regulatory authorities and central banks based in the world's most advanced economies appear not to fully understand the contemporary importance of ABS, as attested by the contribution of their actions and policy prescriptions to the re-emergence of the type of complex structured finance securities that triggered the financial crisis of 2007-8 (e.g., Adrian and Shin 2009; Blommestein et.al. 2011; Akseli 2013). On that occasion, it was collateralised debt obligations (CDOs) that were the toxic securities at the epicentre of the crisis. Today's similar toxic securities are collateralised loan obligations (CLOs) that may include corporate junk bonds rather than subprime mortgage loans as their raw material but whose high risk nature pose just as great a threat to financial stability.[3]

The quantities of these securities are now rising with alarming rapidity; in large part this is due to tight post-2009 regulatory constraints that are preventing the rate of ABS supply to keep up with the demand for these financial securities. As a response to restricted quantities of ABS, the resulting excess demand is channelled towards the more complex collateralised

[3] In May 2017, two deals of more than $1bn each were undertaken; observers project that $75bn worth are coming later this year. Antares Capital recently closed a $2.1bn CLO, the largest in the US since 2006 and the third-largest in history (Partnoy 2017).(https://www.ft.com/content/95808118-662e-11e7-9a66-93fb352ba1fe?mhq5j=e5). See also "The sequel to the global financial crisis is here", Financial Times, July 31, 2017.

loan obligations (CLOs). Furthermore, part of the reason why financial regulators seem not to understand the consequences of their actions is that they appear to overlook the functional importance of asset backed securities in the contemporary era. The central aim of this paper is to help explain this functional importance.

The paper divides as follows. Section one starts with the dual importance of corporate and government bonds. Section two goes on to explain the functional role of asset backed securities. Section three spells out some policy implications by drawing on the lessons of the financial crisis. Section four draws some conclusions.

1. The Dual Function of Bonds.

One of the most striking developments in the contemporary global economic landscape is the growing domination of the markets for financial securities over the markets for goods and services (Figure 1). The neologism *financialisation* is often used to describe the growing size and weight of the financial sector relative to the real economy.[4] It is also often seen as the major political-economic force behind the crisis of 2007-09 (Crotty 2009; Wade 2007). As can be seen in Figure 1, within finance itself, this term corresponds to the higher importance of the securities component of the financial sector relative to the bank loan component, whose growth rate has broadly kept in line with that for world GDP growth. Second, it describes the larger role of the bond component of the securities market compared to the equity component.

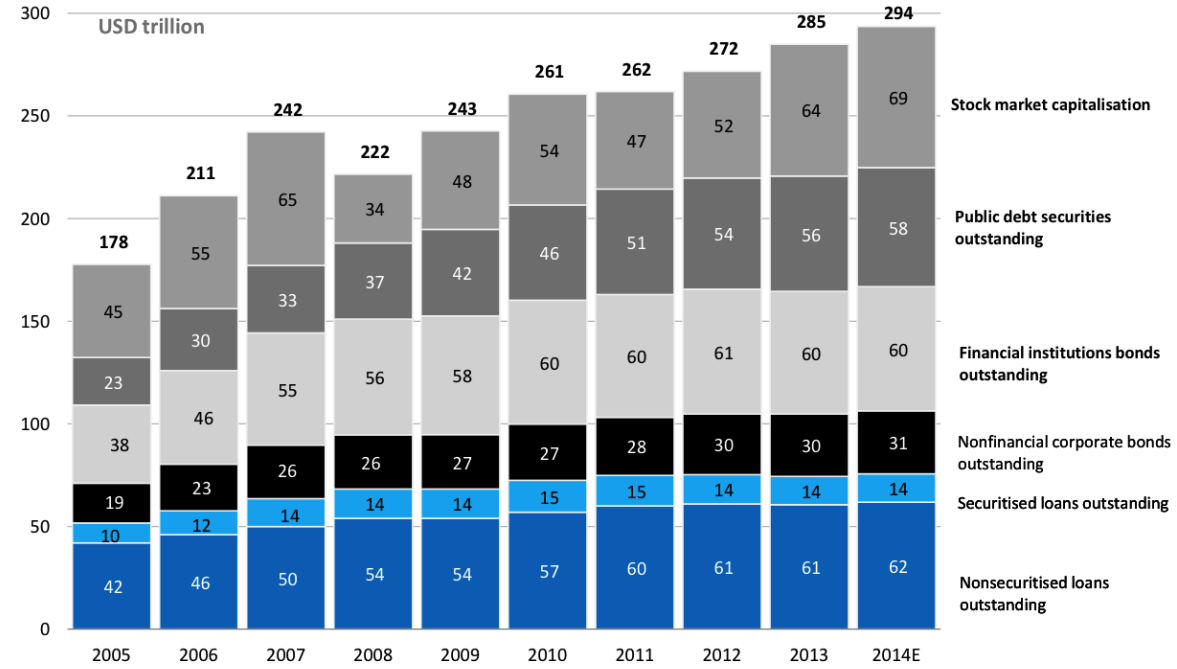
Today, bonds perform two important functions: on the one side, they serve as a type of financing instrument and, on the other side, they serve as a type of investable. The financing function is the only one that matters for the governments, banks and corporations issuing bonds, for which reason they are only concerned with the 'flow' dimension of these securities. They raise funds through the issuance of bonds on the promise to repay the funds at some future date and in the meantime they use the funds for investment or other expenditure purposes. By contrast, it is the second function of bonds that is of crucial importance to the large institutional investors – pension funds, insurance companies, money

[4] For a discussion of financialisation, see e.g. Epstein (2005); van der Zwan (2014); Lysandrou (2016).

managers, investment banks, endowments, some hedge funds - who dominate the buy side of the securities markets. Because of this, they need to be concerned as much with the 'stock' or quantity dimension of bonds as much as with their flow dimension. They give sums of money when purchasing bonds in the expectation of being repaid at some future date, but in the meantime they need to use these bonds as value containers into which clients' monies can be poured and from which monies can be extracted to repay clients.[5]

Figure 1

Stock of Global Financial Assets



Source: McKinsey Global Institute, Deutsche Bank Estimates.

Although both functions of bonds are central in today's economy, our knowledge of the role of these instruments is dominated by scholarship on bonds as financing instruments. By

[5] For further discussion of bonds as value containers see Lysandrou (2013)

contrast, there has so far been little discussion of the political economy of bonds as *value containers*. The main reason for this is doctrinal. Historically, mainstream macroeconomics has not accommodated money and finance (Minsky 1982, 1986; Mehrling 2010), at best likening the sphere of money and finance to other markets. Today, the dynamic stochastic general equilibrium (DSGE) models that are the major macroeconomic models used for policy guidance purposes by many central banks and by a number of international institutions, do not recognise the two-fold function of bonds (e.g. Villa and Yang 2011).

The crux of the matter is that these influential models make no distinction between institutional asset managers and households, which are taken to be the only representative agents along with firms. As a result, these models merely recognise the flow dimension of financial securities as being significant. This narrow approach is due to two reasons. First, unlike pension funds and other institutional investors, households do not market asset portfolios to the public, and thus have no reason to treat securities as portable value containers in which clients' monies are stored. As a result, there is no reason in the dominant models of the economy to view securities differently from the way that they are viewed by firms. Just as firms borrow funds for investment purposes on the promise to repay the funds at some point in the future, households lend funds in the expectation of being repaid those funds with an added return that can be used to finance future consumption. Households can choose between bank-based and security market-based forms of saving, but as they have no public asset management function, there is nothing preventing them from channelling all of their savings into bank deposits should the returns here be more favourable than are those on securities. This fact that contrasts starkly with the constraints binding on institutional investors who, because of the exigencies of their asset management function, must at all times keep the bulk of the assets under their management in the form of tradable financial securities.

The second reason why mainstream macroeconomic models do not differentiate between institutional and household investors is that they fail to take into account the recent changes in the scale and structure of the asset management sector. As long as that sector remained a small cottage industry catering to a few wealthy individuals, there was no fundamental distinction between professional and amateur investors. It was more a matter of degree than of kind, in that the professionals simply used their expertise to try and generate higher returns subject to a given level of risk than was otherwise possible.

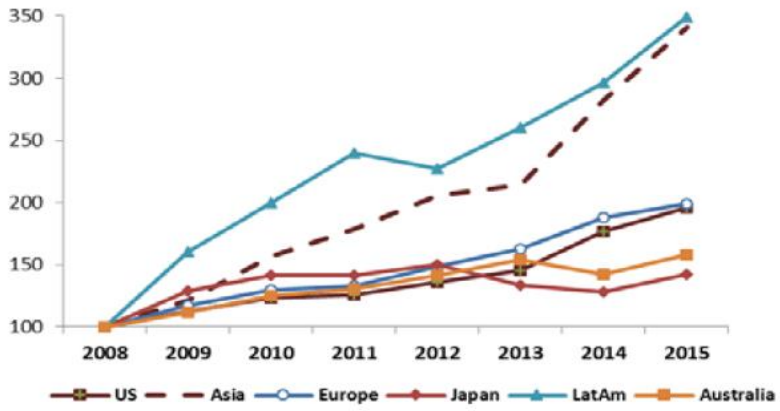
Over the past few decades however, a combination of socio-economic, political and demographic factors has radically changed the situation (Haldane 2014; IMF 2015). Institutional asset management has evolved into a mass industry catering to the retirement and other welfare needs of large sections of the population (Figure 2).[6] While other factors have also played a role in what Haldane (2014) has called the 'age of asset management', by far the most important has been the move away from universal government provision of social and welfare services towards more selective forms of provision that prioritise the needs of the poorest and most vulnerable sections of the population. Mid-to-high income households, who on average are living longer, have been forced to make their own welfare provisions, and in the process have become more yield oriented, a development which in the advanced market economies explains the trend shift in household savings away from bank-based forms towards capital-market based forms (Figure 3 illustrates developments in Europe). At the same time, the fact that many households generally remain risk-averse even while they become more yield-oriented, explains why they prefer to access capital market services via the intermediary role of professional asset managers.

As with the evolution of any industry, the growth of the asset management has necessarily led to a shift towards more standardised forms of provision. Rather than personally advise individuals as to how best to invest their money, it is now more typical that a range of standardised portfolios managed to different risk-return targets are put on offer and individual clients are invited to choose those portfolios that suit their risk appetites. As more clients' monies pour into asset management firms, the latter need more quantities of securities to house these funds. Other assets, such as real estate, gold and other commodities, can serve as investables, but the constraints on the availability of these assets combined with a lack of sufficient liquidity means that institutional investors have to rely on financial securities as the major type of value container.

[6] Global assets under management (AUM) with the 500 managers more than doubled in value since 2000. In the advanced economies, AUM has nearly tripled, but, when compared to the requisite GDP values, the percentage amount has grown by nearly 60%, rising from 57% to 90% over the twelve-year period (IMF 2015 and https://www.forexfraud.com/forex-articles/imf-warns-instability-asset-management-industry.html)

Figure 2

Global AuM: Growth Index



Source: European Fund and Asset Management Association (2017).

Exhibit 20: Global AuM at end 2015

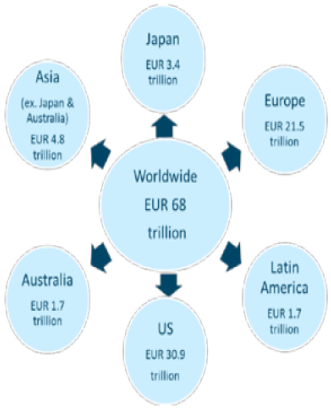
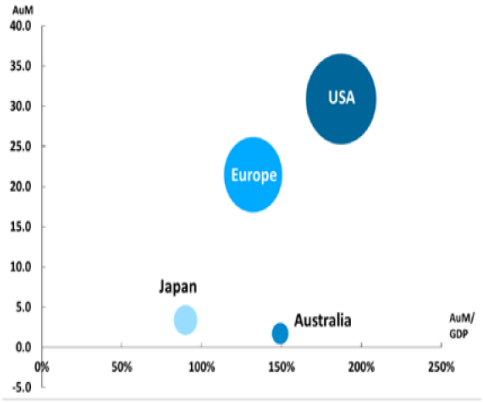


Exhibit 21: AuM (EUR billion) and AuM/GDP (%) at end 2015

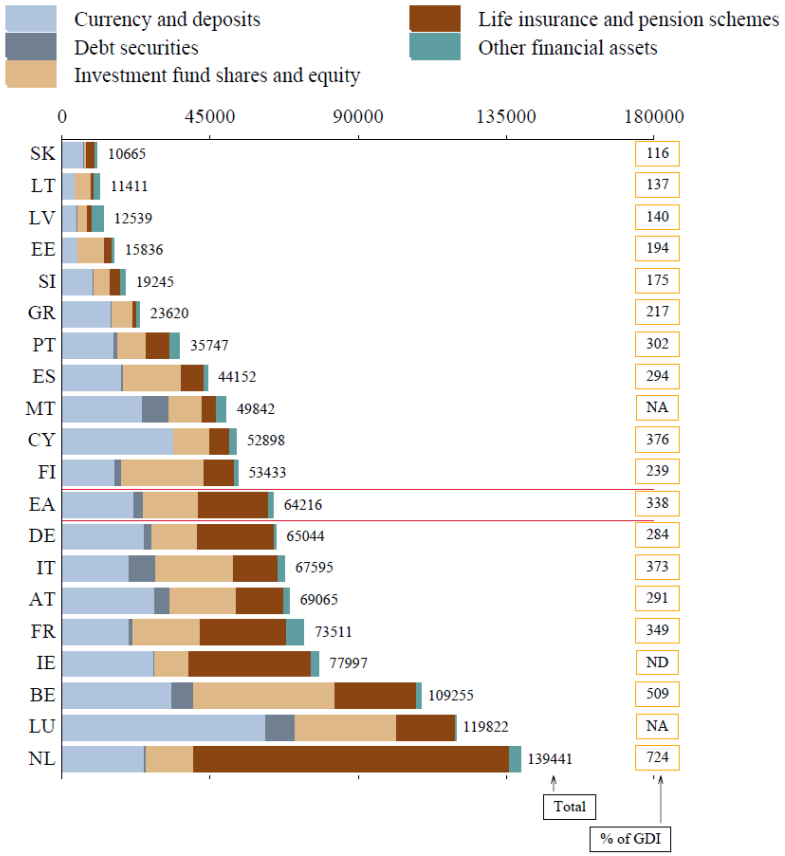


Source: EFAMA.

Figure 3

Household gross financial wealth by asset type

(Euro area)



Source: ECB (2015).

Close consideration of the portfolio needs of asset managers explains not only the quantities of securities that they demand but also the uneven breakdown of these quantities into their generic types. Recall the point, as illustrated in Figure 1, that it is bonds rather the equities that have been the major driving force behind the expansion of the securities markets in recent decades, a development that ties in with the portfolio needs of asset managers in two ways. The first has to do with asset-liability matching. Mutual funds, who have no fixed liabilities in terms of duration and who concentrate more on maximising returns for clients, typically hold more equities than bonds. At the other extreme, insurance companies that have liabilities of known duration and thus must hold the bulk of their assets in a form that can meet these liabilities as and when they fall due, typically invest more in bonds because these have finite redemption dates unlike equities.

The second reason has to do with tangibility. As financial securities have no intrinsic value, they can only fulfil their value storage function when their prices are maintained at a stable

level over time. This condition presupposes that cash is returned to investors at the required levels and at the required intervals, a condition that is far better met by bonds that pay interest by law than by equities that pay dividends on discretion. Observers have described this process as 'de-equitisation' (Haldane 2014; Berry 2015). From a production standpoint, this phenomenon may be a negative one: the inability of corporations to spread the risks of industrial investments more widely inevitably holds back the scale of these investments.[7] From the asset management standpoint however, the same phenomenon is entirely understandable. Insurance companies and other institutional investors need to match their liabilities with corresponding amounts of financial assets. At the same time, as they depend on the tangibility of these assets' prices to safeguard their value storage role, find that bonds, which have finite redemption dates and pay interest by law, fulfil these needs far better than do equities that have no redemption dates and pay dividends on discretion.

2. The Functional Importance of Asset Backed Securities.

The functional importance of bonds to institutional investors and their strategies illuminates the reason why quantity mismatches between the supply and demand for bonds can emerge. This also explains why asset backed securities play a crucial role in helping to resolve these mismatches. Before elaborating on this point, let us first note why no such mismatches can arise in mainstream macroeconomic models other than as a temporary phenomenon.

As there are no agents who are concerned with the quantitative, value storage dimension of securities, these models see prices as performing the same equilibrating role in the securities markets as they do in the product markets. If, for example, households seek better returns from securities than are available on their bank deposits their prices will go up and yields go down thus encouraging firms to issue more securities to finance investment. Demand in other words, creates its own supply. Conversely, to take another example, if firms issue more securities for investment purposes than are currently demanded, their prices will have to fall and yields rise so as entice the required extra household demand for securities. Supply creates its own demand. As excess demand for securities can never be more than a fleeting problem due to the equilibrating role of prices, within mainstream economics, the demand side of the securities markets can never be a source of sustained pressure on the banking sector to create

[7] See e.g. Haldane (2014, p.11) for a criticism of the 'de-equitisation' phenomenon along these lines.

extra quantities of asset-backed securities to compensate for any shortfall in the supplies of debt securities issued by corporations.

When we bring into the picture institutional investors who are concerned with the *stock dimension* of securities, i.e. their role as value containers, a very different storyline emerges. Just like in the product markets, excess demand and supply problems can arise in the securities markets. However, the equilibrating mechanism for resolving them here is necessarily different. In product markets the imbalances between supplies and demands can notionally be resolved through price adjustments: prices up when there are excess demands and prices down when there are excess supplies.

By contrast, in the securities markets that are now dominated by insurance companies and other institutional investors on the buy side, price adjustments are not equilibrating. Securities have no intrinsic value. It is through their prices alone that they can possess a quantitative, value storage property. It follows that institutional investors generally need these prices to be stable over time if securities are to function as investables. Thus if an excess demand for bonds as safe stores of value emerges, the solution to the problem cannot be through a price adjustment process, as this would undermine their value storage property and would thus be self-defeating. Instead, it must be through a quantity adjustment process: more bonds need to be supplied to soak up the excess demand thereby keeping their prices and yields stable and thus their value storage property secure. From a stock perspective, therefore, quantity mismatches in the bond markets can be a serious and enduring problem.

To say that quantity mismatches can happen is, of course, not to explain why they happen. For this explanation, bonds need first to be viewed from the supply side standpoint. As already noted, the governments and corporations issuing bonds essentially see them as nothing other than forms of debt that have to be serviced. In this view, the amounts of these securities that they wish to issue will vary over the business cycle. In an upswing phase, governments, whose tax revenues will be higher than average, will wish to redeem certain amounts of bonds, while corporations may wish to increase their bond issuance because investment prospects look promising. The reverse will be the case in a downward phase of the cycle, with corporations cutting back on bond issuance because of pessimistic expectations and governments increasing their issuance to bridge any widening income-expenditure gaps. The problem is that while the supplies of government and corporate bonds are business-cycle sensitive, the institutional demand for them is not. On the contrary, asset

managers' demand for these bonds in their value storage capacity is monotonically increasing in line with the continuous inflow of funds placed under their professional management.[8] The excess demand for securities as value containers is thus a structural problem of contemporary finance. There will inevitably emerge gaps between the supplies of bonds and the institutional demands for them, and for these gaps to be closed there needs to be a dependable supplementary supply of bonds.

Asset backed securities – securities that finance pools of familiar asset types, such as auto loans, aircraft leases, credit card receivables, mortgages, and business loans[9] - fit this description well. This is because the ultimate source of the mortgage and other credit loans which form the raw materials of these securities is rising inequality. In the age of globalisation and rapid technological change, amongst other developments, rising household debt is set to be a structural feature of advanced economies. Recall from Figure 1 that securitised loans now form a consistently appreciable part of the total global stocks of fixed interest securities. Most recent estimates put the size of the global securitised market at $9.8 trillion, with the U.S. securitized market representing 86 percent (Morgan Stanley 2017: 2; see Figure 4). While the US dominates the supply side of the global ABS market, the geographical mix on the demand side is very different.

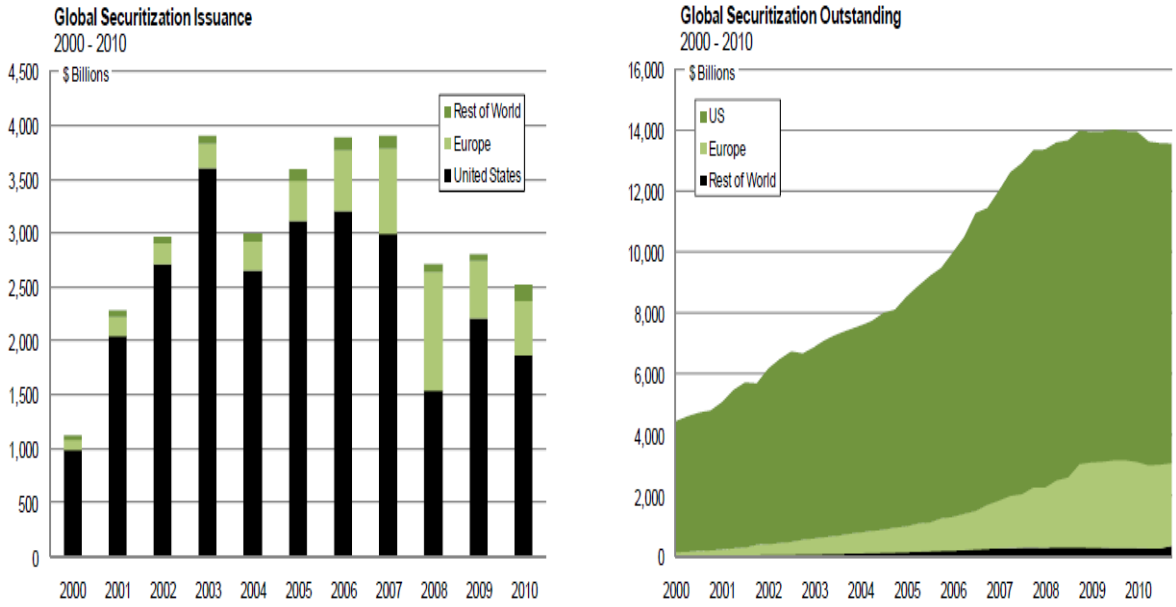
In recent decades, in addition to US institutional investors, foreign governments and foreign private investors have become important sources of demand for US securities and, since the end of the dot.com bubble in 2000/1, particularly for all classes of US bonds including US ABS. For foreign governments, it is exchange rate motives that are their principal motive for investing in US treasuries and agency bonds, but for foreign institutional investors it is the absence of any sizeable securities markets in their home countries that is the principal explanation for their heavy involvement in the US bond markets. In some cases their domestic economies are simply too small to support securities markets of any significant size. In other cases, although there is potential for security market expansion, it remains largely unrealised, either because of a continued preference for bank-based forms of finance or because the kind of transparency and governance standards that are required to develop deep

[8] According to industry estimates, AuM is expected to register 8-10% growth rate per year. The consultancy Oliver Wyman suggests that by 2020, there will emerge a $15 trillion gap in AuM (Deutsche Bank / Oliver Wyman 2016). PwC concurs with these projections, assuming that by 2020, AuM would rise from just over $70 trillion to US63.9 trillion US$111.2 trillion (PwC 2017).

[9] Guggenheim Investments, 2017, "The ABCs of ABS".

and liquid bond markets are more difficult to establish than are the production standards for goods and services.

Figure 4



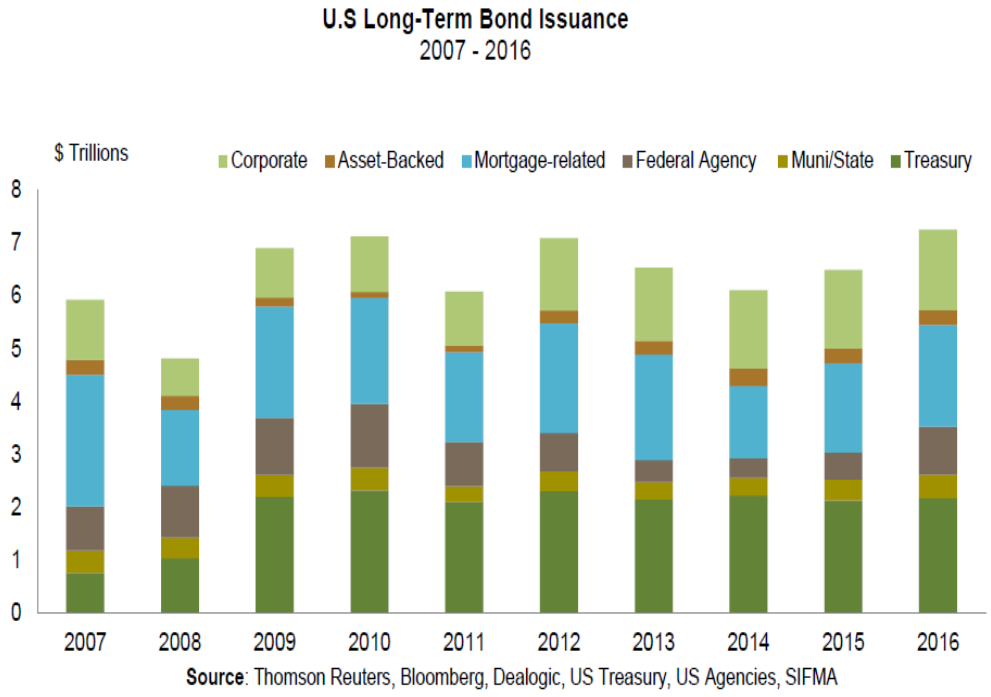
Source: SIFMA.

Whatever the reason behind the relative underdevelopment of the securities markets across Asia and many other parts of the world, the fact remains that this underdevelopment means that much of the accumulating volumes of household savings in these areas have to be channelled into the US securities markets, and in particular into the US bond markets. The upshot is that the bond market gap-filling role of asset backed securities is of crucial importance in a global context as much as in a purely US domestic context. With this point in mind, we come to the distinction within the US ABS market between mortgage loans that are securitised by government sponsored agencies and mortgage and other credit loans securitised by the private commercial banks (Figure 5). Agency mortgage backed securities constitute by far the major part of US ABS supplies, but given the strength of domestic institutional investor demand for these securities (notably from US pension funds) combined with the strength of foreign government demand for them (agency bond holdings being a key supplement to their holdings of US treasuries), privately issued ABS continually play an

important supplementary gap filling role in the US bond markets. This fact has a direct bearing on the implications of any regulatory or other policy actions that affect the rate of private label ABS supply, as we shall now see by drawing on the lessons of the financial crisis.

Figure 5

US Bond Markets: Issuance



4. Policy Lessons from the Financial Crisis

The toxic securities that triggered the financial crisis were CDOs, and any explanation of the root cause of the crisis must include an explanation of how the market for these instruments had grown to a size sufficient enough to wreak havoc when it suddenly collapsed in the summer of 2007. A few mainstream economists pointed to the demand for safe stores of value on the part of institutional investors as having been the primary driving force behind the pre-crisis growth of the CDO market (e.g. Caballero, 2010). But this view has been the exception amongst mainstream economists, because the basic premises of mainstream macroeconomic theory do not allow for the very idea of an excess institutional demand for securities as stores of value. As, according to the model, excess demand for securities can never be more than a temporary phenomenon due to the equilibrating role of prices, it follows that the demand side of the securities markets can never be a source of structural pressure on

the banking sector to create extra quantities of ABS to compensate for any shortfall in the supplies of debt securities issued by corporations. What of course then follows from viewing the financial crisis of 2007-8 from this particular standpoint is that all of the pressures on the US banking sector that led it to create the amounts of asset backed securities and collateralised debt obligations on the scale that it did must have come entirely from the groups active on the supply side of the US ABS and CDO markets.

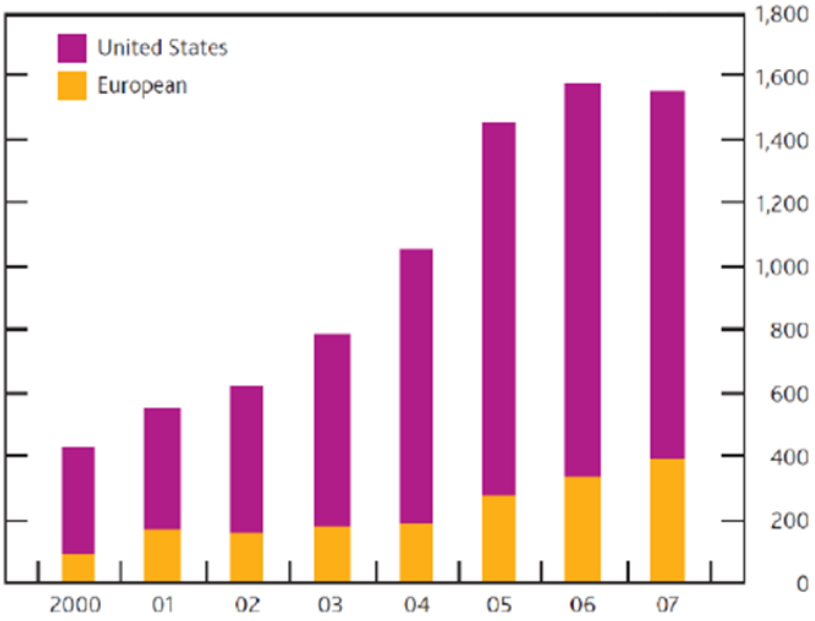
There were three such groups. In addition to the US commercial banks who used residential mortgage loans as the principal raw material in the creation of ABSs and CDOs, the other two major groups that were held to have been key to the expansion in supply of these securities were US households who took out these mortgage loans in the first place and the US government that encouraged the securitisation of these loans as a means of expanding US home ownership. According to mainstream analyses of the financial crisis, the common underlying factor behind each of these groups' contributions to the pre-crisis supply-side boost to the ABS and CDO markets was the gross undervaluation of risk (see e.g. Rajan, 2010; Acharya et.al., 2012). In the case of the household sector, there were simply too many US households who readily took out mortgage loans that they could not afford to service (e.g. Del'Arriccia et al 2012). In the case of the banks, their chief motive for engaging in securitisation, it is said, was to boost the profits that could be made from regulatory arbitrage (i.e. taking mortgage loans off their balance sheets, where the costs of capital cover were high, and passing them on to their off-balance sheet vehicles where such costs were either minimal or absent altogether) (Acharya and Richardson 2009). Finally, in the case of the US government, there was a combination of overdependence on the private banking sector to meet household home ownership aspirations with under-regulation of that sector.

While the above narrative undoubtedly formed part of the explanation for the growth of the US ABS markets in the period prior to 2007, it cannot provide the whole explanation as indicated by the distinctive peculiarities of that growth. Had the widespread undervaluation of risk on the part of the household, banking and government sectors been the central driving force behind the growth of the US ABS and CDO markets one would have expected to see that growth display a higher trend rate of increase over a longer stretch of time than was actually the case. Of the $11 trillion worth of global ABS outstanding by end-2007, over $9 trillion were of US origin. However, the more striking fact is that while these securities had been around in the US for over forty years, over half of the amount outstanding in 2007 had been created in just the previous four years (Figure 6). It is stretching credulity to ask us to

believe that it was only from about 2003 onwards that the US government, US households and US banks suddenly woke up to the many opportunities and advantages that could be gained through expanding the ABS market. The same caveat applies to the US CDO market. This had first come into existence in the early 1980s, but still remained extremely small until end-2002, after which point it suddenly exploded in size, as can be seen in Figure 7.

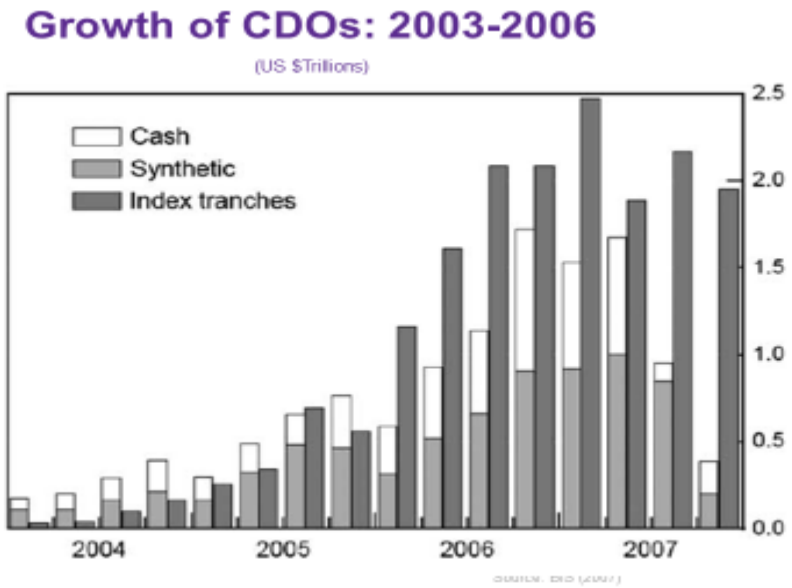
Figure 6

Pre-Crisis Global ABS Issuance



Source: Bank of England, 2007.

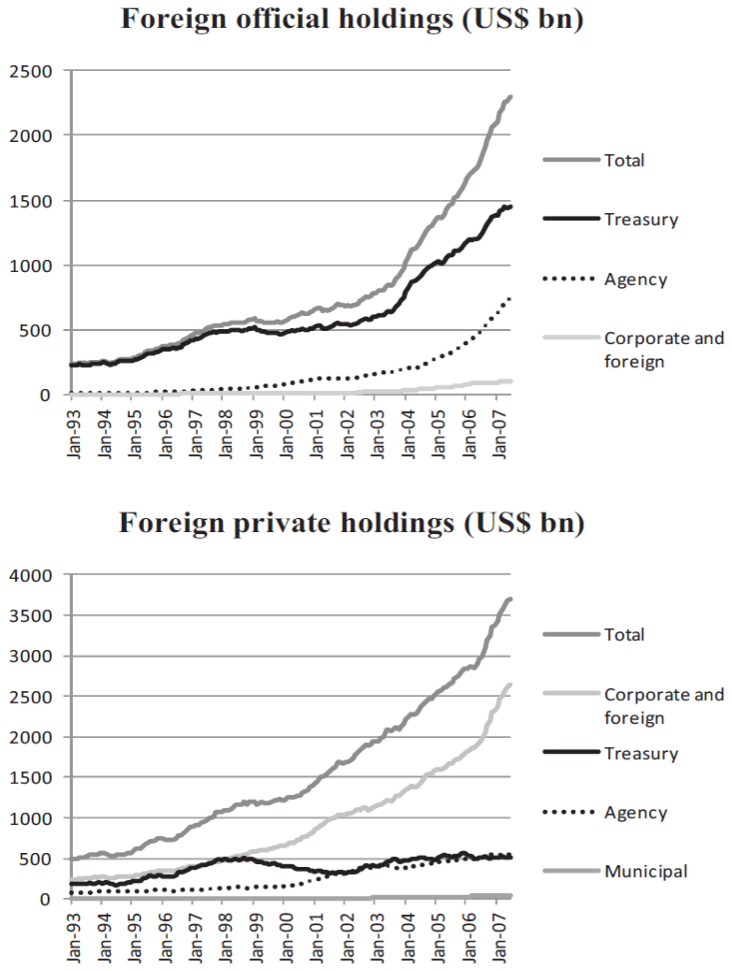
Figure 7



Source: Borio, 2008.

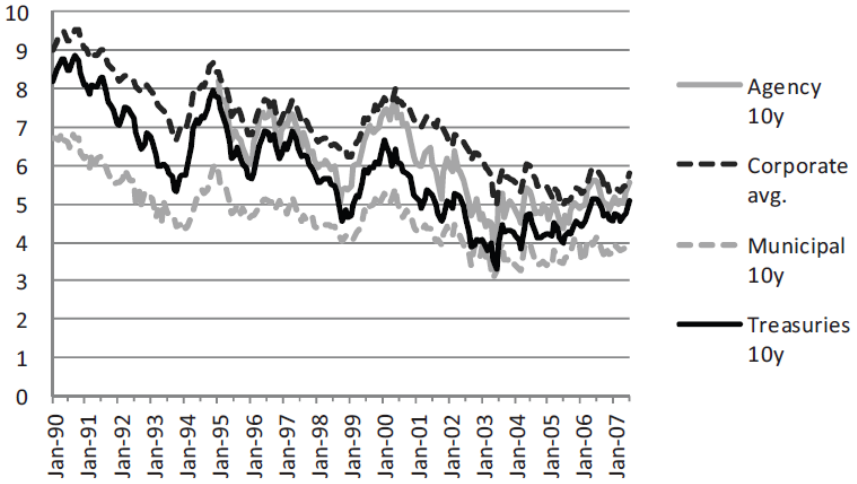
The most plausible explanation for the sudden and rapid expansion of the US ABS and CDO markets between 2003 and mid-2007 was the huge influx of foreign funds into the major US bond markets during this period (Figure 8). Together with rising domestic investments in these markets this led to a continuing downward pressure on bond yields (Figure 9). It was chiefly to accommodate the excess demand for yield spilling over from the government and corporate bonds markets that the US banks increased the rate of ABS production (Lysandrou and Nesvetailova 2015). Furthermore, it was because this increased rate was still not enough to absorb the excess demand pressure as attested by the continuing decline of the ABS premium over US treasuries during the 2003-2007 period that the US banks had to step up the rate of CDO production.

Figure 8



Source: Goda and Lysandrou, 2014.

Figure 9
US yield spreads



Source: Goda and Lysandrou (2014).

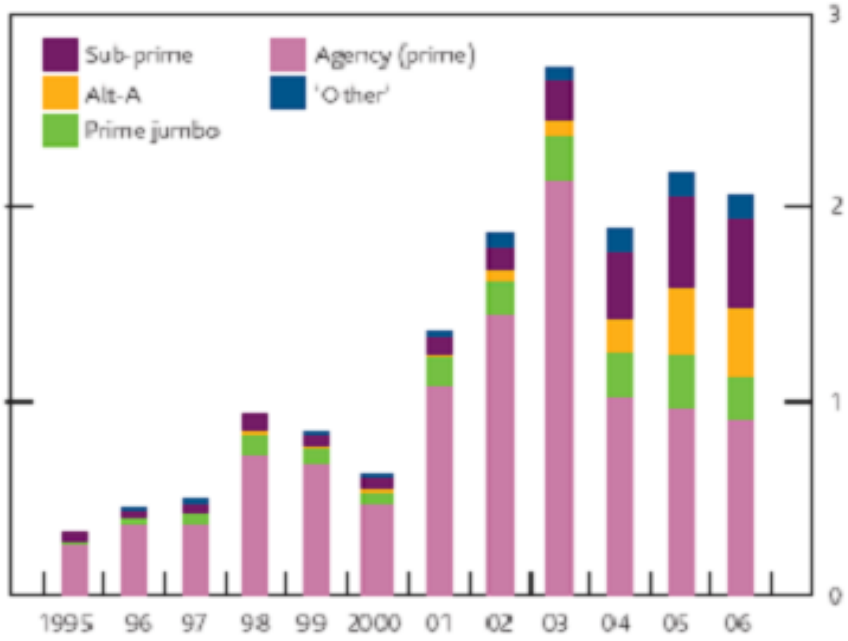
Why was it then, that the US banking system could not create enough amounts of prime ABS so as to have avoided the need to expand the supplies of CDOs? The answer comes down to numbers. To create prime ABS, the US commercial banks in addition to government agencies needed creditworthy US borrowers. The numbers of these borrowers appear to have been sufficient prior to about 2002-3, but when the limits to these numbers began to be reached the US banks brought into the mortgage market increasing numbers of non-conforming borrowers (as can be seen in Figure 10).

Non-conforming loans comprised of jumbo loans (so-called because they had an above average loan to property value ratio), alternative-A loans (alt-A borrowers were just below prime borrowers in that, while having no income documentation, they had a good credit rating) and subprime loans (borrowers belonging to the subprime category either had no credit history or an extremely poor one and included NINAs, those with no income and no assets, and NINJAs, those with no income, no job and no assets). It is striking that while conforming residential mortgage loans comprised the majority of all such loans in the US right up to early 2004, between then and mid- 2007 it was the nonconforming segment that became the major part of such loans. On the one hand, the strength of investor demand for standard, prime ABSs was strong; on the other, the limits to the amounts of creditworthy US households eligible for mortgage loans were tight. As a solution to this contradiction, the US banking sector had no option but to bring into the mortgage market the very poorest of the

US working population. Of course there were many of these people who had dreams of owning their own home, but the acceleration in subprime mortgage issuance from 2004 to mid-2007 had less to do with realising these dreams than with boosting the rate of supply of the raw material needed for the CDO production process.

Figure 10

Residential mortgage loans by type.



Source: Bank of England, 2007.

The implications of any policy actions that impact on the rate of ABS supply should now start to become very clear. ABS are first floor debt securities that stand midway between government and corporate bonds (which are ground floor debt securities in the sense that the interests on them come directly out of government taxes and corporate profits), and the more complex structured finance securities such as CDOs and CLOs (which are second floor securities in that they are securities backed by securities backed by bank-credit loans). Should there emerge any type of constraint slowing down the rate of ABS supply while there is at the same time a rising excess demand for the ground floor debt securities, then it follows that that excess demand must find vent in a market for the more complex structured finance securities. In the pre-crisis era the constraints on the rate of ABS supply simply came down to a lack of creditworthy households to whom prime mortgages could be lent. In the post crisis era,

however, the tightening of financial regulation has played, and continues to play, a key role in constraining the rate of ABS supply.

In July 2017, in its report focused on the assessment of shadow banking activities, risks and the adequacy of post-crisis policy tools to address financial stability concerns, the Financial Stability Board declared that: "Aspects of shadow banking considered to have contributed to the financial crisis have declined significantly and generally no longer pose financial stability risks" (FSB, 2017, p.1). The "aspects of shadow banking" mention nothing about the pressures of institutional investor demand on the commercial banks to create extra yield bearing securities but instead focus only the "incentive problems" driving banks to underestimate the risks in creating these securities. As the FSB's report goes on to state, to address these incentive problems:

> Authorities have taken steps to address banks' involvement in shadow banking… Consolidation rules for off-balance sheet entities were enhanced so that banks now must bring a large proportion of their off-balance special purpose entity assets onto their balance sheets where they are subject to prudential rules (FSB 2017, p.2).

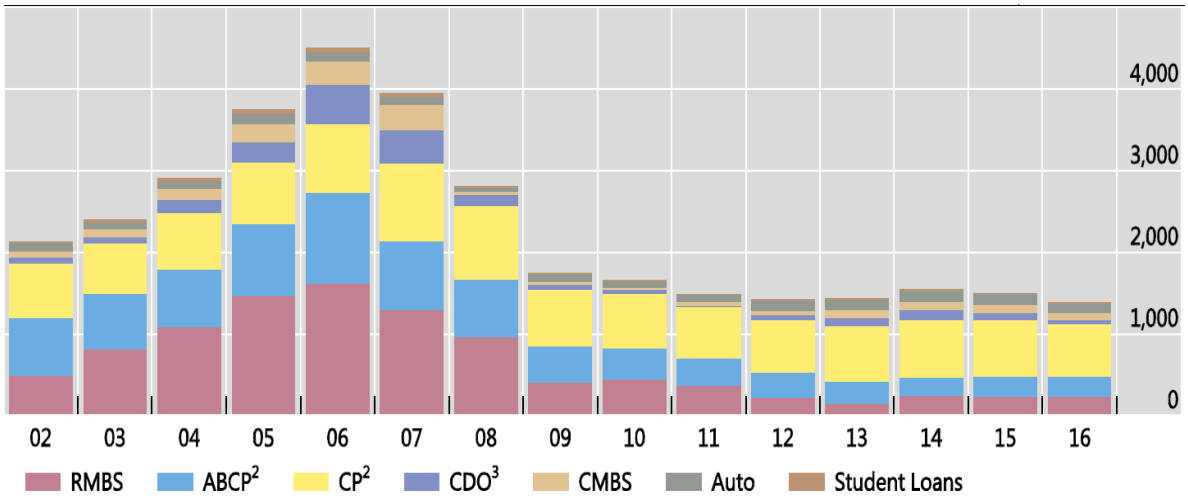
Of course, the result of forcing US and European banks to bring all of their off-balance sheet SPV assets onto their balance sheets, has seen a dramatic decline in the issuance of private label residential mortgage and other credit loan backed securities, as can be seen in Figures 11 and 12.

Figure 11

US and European structured finance[1]

In billions of US dollars

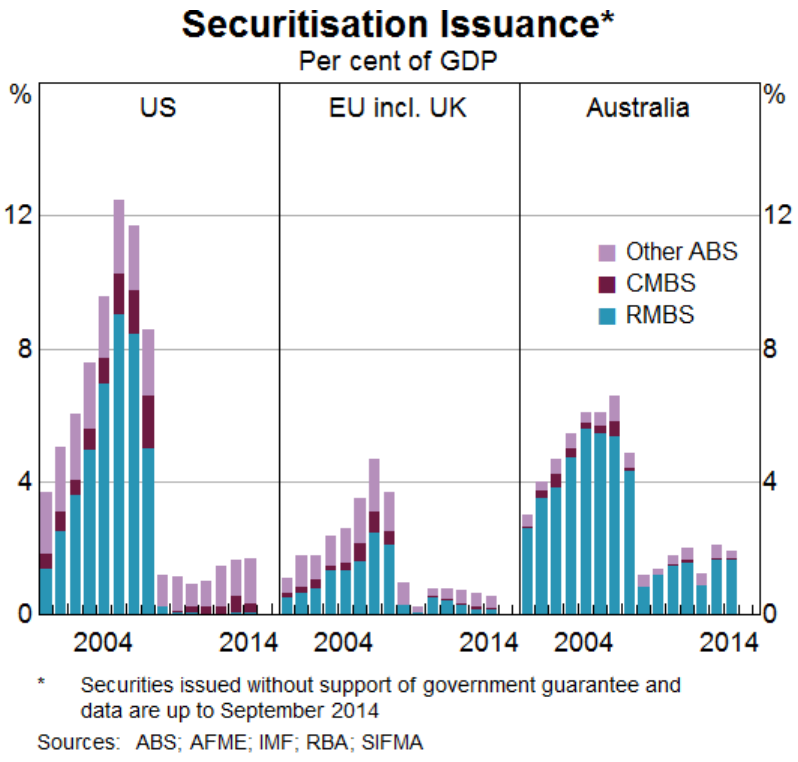
Graph 1



[1] Includes securitisation issuance for US and Europe, where available. [2] US Commercial Paper Outstanding. [3] Includes Structured Finance and Collateralised Loan Obligations (CLOs).

Source: SIFMA

Figure 12



Source: Aylmer 2014.

The point here is not to refute a post-crisis policy aimed at tightening the various rules and regulations in the financial sector so as to ensure that all of its participants properly assess and price the risks that they take on. The point, rather, is to make clear that this initiative, implemented on its own, can only be justified if it could be safely assumed that a global excess demand for yield bearing securities could never again recur on a scale that would require the commercial banking sector to create extra volumes of asset backed securities to meet this excess demand.

We cannot make such an assumption. Having temporarily dipped in the immediate aftermath of the financial crisis, the volume of global asset demand has again resumed its upward growth path (Figure 2). Ironically, it has done so in large part because of the side-effects of the expansionary monetary policies aimed at tackling the fall-out of the crisis. With central interest rates hovering around zero, mid-to high income households are placing more of their savings with asset managers in the search for higher returns and as they do so, the asset managers have to purchase more securities if they are to accommodate their clients' needs. Furthermore, in addition to the stimulus given to institutional investor demand for securities, there is also the stimulus given to the demand from the very rich individuals. They, benefitting from the boost to their wealth given by low interest rates pushing up asset prices, seek to capitalise on this by accumulating even more yield bearing assets.

This process unfolds in the context defined by two contradictory developments. On the one hand, tighter regulation of mortgage and other credit lending restricts the rate of supply of private label ABS. On the other hand, looser monetary policy stimulates the rate of demand for yield bearing securities to the point where that rate not only exceeds the rate at which governments and corporations can issue their own debt securities, but also the rate of issuance of agency mortgage backed securities. As a result, the excess demand for securities must again find vent in a market for the more complex structured financial securities. As we said at the outset of this paper, that market may not be a CDO market where subprime mortgage loans form part of the backing collateral but something more like the market for collateralised loan obligations (CLOs) where corporate junk bonds are a major part of the collateral. However, the dangers in relying on high risk debt instruments to artificially inflate securities stocks are just as high.

In sum, the role of excess demand for securities continues to remain a major intellectual and practical challenge for the financial regulators world-wide. Having failed to identify the global excess demand for securities as the root cause of the 2007-09 financial crisis, the world's leading central banks and financial regulators appear to be doing their best to ensure that an excess demand for securities will again reach the proportions that can cause the next great financial crisis.

The major policy implication that follows from the above is that there should be a more measured approach to regulating the shadow banking system. Off-balance sheet vehicles such as structured investment vehicles (SIVs) that are responsible for the creation of CDOs, CLOs and other complex and opaque structured finance products should certainly be heavily regulated. But a blanket, indiscriminate approach to shadow banking regulation that broadens its remit to include all off-balance sheet vehicles, SPVs alongside SIVs, and all off-balance sheet instruments, ABSs alongside CDOs and CLOs, is, under the present circumstances, likely to do more harm than good.

As several commentators have observed (see e.g. Caballero et.al. 2017) today there is a problem of a global safe asset shortage which, far from abating, is getting worse. This is partly because securities markets remain woefully underdeveloped in many large EMEs, with the result many of their institutional investors continue to be heavily dependent on the US and European securities markets for bonds and other investable assets. It is also because some of the policy actions and some of the official attitudes in these latter regions are restricting the rate of supply of safe assets. Quantitative easing policies by the Federal Reserve and the European Central Bank, which have served to remove massive amounts of government and good quality corporate bonds from circulation as a consequence of the central bank bond purchasing programmes, is a case in point. Another is the government debt brake programme currently being applied across the EU under the instigation of the German government, whose fear of debt is severely restricting the rate of supply of government bonds, the paradigmatic type of safe asset. US government sponsored securitised loans can go some way to bridging the widening gaps between the global supply and the global demand for fixed income securities. But it cannot go all the way. Which is why the US and European commercial banks should be allowed to continue to increase the rate of issuance of ABS through their off-balance sheet special purpose vehicles.

5. Conclusions

It is true that private label ABSs were a constituent part of the toxic CDOs that triggered the financial crisis of 2007-8. However, this is no reason for imposing a blanket restriction on the post crisis rate of supply of these products by forcing commercial banks to bring all of their special purpose entity assets onto their balance sheets. Given the continuing problem of a global safe asset shortage, such a policy is counterproductive. Ostensibly aimed at preventing a future financial crisis, this policy will more likely help to bring about the opposite result. What is instead required is a more measured and nuanced policy towards commercial bank issuance of asset backed securities that separates out the dysfunctional uses of these financial products for targeted control while leaving untouched their functionally important uses. In the end, this type of measured policy requires a full understanding of the role played by asset backed securities in the contemporary global financial system. This paper has sought to contribute to such an understanding.

Bibliography

Acharya, V. and M. Richardson, 2009, "Causes of the Financial Crisis", *Critical Review* Vol. 21 , Iss. 2-3.

Acharya, V., T. Philippon, M. Richardson, 2009, " Nouriel Roubini The Financial Crisis of 2007-2009: Causes and Remedies" *Cato Journal,* Vol. 29, No. 1 (Winter 2009).

Adrian, T. and H-S Shin, 2009, "The Shadow Banking System: Implications for Financial Regulation", FRB of New York Staff Report No. 382, 30 July.

Ahern, J. 2017, Spotlight on Structured Finance, Moody's SFG Mexico Briefing.

Akseli, O, 2013, "Securitisation, the Financial Crisis and the Need for Effective Risk Retention", *European Business Organization Law Review*, 14:1.

Aylmer, C., 2014, "The Securitisation Market", Remarks to the Australian Securitisation Conference, Sydney, Australia. Available at: https://www.rba.gov.au/speeches/2014/sp-so-111114.html

Bank of England, 2007, *Financial Stability Report.* October.

Berry, C., 2015, “Take the long road? Pension fund investments and economic stagnation”, The International Longevity Centre , London, November.

Blommestein, Hans J. and Keskinler, Ahmet and Lucas, Carrick, 2011, Outlook for the Securitisation Market (September 15, 2011). OECD Financial Market Trends, Vol. 2011, No. 1, 2011. Available at SSRN: https://ssrn.com/abstract=1927792

Borio, C., 2008, “The Financial Turmoil of 2007–? A Preliminary Assessment and Some Policy Considerations.” Working Paper no. 251, Bank for International Settlements, Basel, March.

Caballero, Ricardo J., Emmanuel Farhi, and Pierre-Olivier Gourinchas, 2017, “The Safe Asset Shortage Conundrum.” *Journal of Economic Perspectives* 31 (3): 29-46.

Caballero, R. 2010, “The "Other" Imbalance and the Financial Crisis”, NBER Working Paper No. 15636, January.

Crotty, J. 2009, “Structural causes of the global financial crisis: a critical assessment of the ‘new financial architecture”, *Cambridge Journal of Economics*, 33:4.

Dell’Arriccia, G., D. Igan and L.Laeven, 2012, “Credit Booms and Lending Standards: Evidence from the Subprime Mortgage Market, *Journal of Money, Credit and Banking,* 44:2-3, March/April.

Deutsche Bank/Oliver Wyman, 2016, *Global Wealth Management*, Special Report.

ECB 2015, European Central Bank (2015), The New Household Sector Report, European Statistics by the ESCB Contribution to the World Statistics Day 2015, European Central Bank, 20 October 2015.

European Fund and Asset Management Association (2017), *Asset Management in Europe*, May.

Epstein, G., 2005, *Financialisation and the World Economy*, Edward Elgar.

FSB, 2017, “Assessment of shadow banking activities: risks and the adequacy of post-crisis policy tools to address financial stability concerns”, Basle: Financial Stability Board.

Goda, T and Lysandrou, P., 2014, “The contribution of wealth concentration to the subprime crisis: a quantitative estimation”, *Cambridge Journal of Economics,* Vol. 38, pp. 301–327.

Haldane, A. 2014, “ The age of asset management?”, Speech by Mr Andrew G Haldane, Executive Director, Financial Stability, Bank of England, at the London Business School, London, 4 April 2014.

IMF 2015, Navigating Monetary Policy Challenges and Managing Risks, *Global Financial Stability Report*, April.

Lysandrou, P. and A. Nesvetailova, 2015, "The role of shadow banking entities in the financial crisis: a disaggregated view", Review *of International Political Economy*, 22(2).

Lysandrou, P., 2016, "The colonization of the future: An alternative view of financialization and its proponents", *Journal of Post-Keynesian Economics*, 39:4

Merhling, P. 2010, *The New Lombard Street. How the Fed Became the Dealer of Last Resort*, Princeton: Princeton University Press.

Minsky, H., 1982, Can *'It' Happen Again?,* New York: M.E. Sharpe.

Minsky, H., 1986, *Stabilizing an Unstable Economy*, New Haven, Conn.: Yale University Press.

Morgan Stanley, 2017, "An Overview of the Global Securitized Markets", Investment Insight.

Obstfeld, M. and K, Rogoff, 2010, "Global Imbalances and the Financial Crisis: Products of Common Causes", CEPR Discussion Paper No. DP7606.

PwC, 2017, Asset & Wealth Management Insights Asset Management 2020: Taking stock, July.

Rabouin, D., 2017, "Total global debt tops 325pct of GDP as government debt jumps: IIF", Reuters, 4 January 2017.

Rajan, R., 2010, *Fault Lines. How Hidden Fractured Still Threaten the World Economy*, Princeton UP.

Stefania Villa, J. Yang, 2012, "Financial Intermediaries in an Estimated DSGE Model for the United Kingdom," Bank of England Working Paper No. 431, 23 March.

van der Zwan, N., 2014 "Making sense of financialization", *Socio-Economic Review*, Volume 12, Issue 1, 1 January 2014, Pages 99–129, https://doi.org/10.1093/ser/mwt020

Wade, R. 2008, 'The First World Debt Crisis of 2007-2010 in Global Perspective', *Challenge*, July-August.