Executive summary

The objective of this paper is to demonstrate that there a number of fundamental issues with the banking practice of securitisation (mainly Asset Backed Securities such as MBS). There is mounting evidence to support the following key criticisms:

1. The very structure of separating loan origination from ownership awakens deep rooted concerns about the exploitation of asymmetric information, namely Adverse Selection and Moral Hazard
2. The expectation of market operations to effectively regulate credit risk is shown to be unfounded, instead resulting in ill-conceived and excessive lending practices
3. The recent growth in debt levels therefore may be masking a more fundamental issue of declining debt quality, such as debt for consumption and Ponzi financing
4. Risk transfer practices mean that poor credit risk judgements are increasingly likely to be borne by unsuspecting counter-parties such as underwriters of Credit Default Swaps and central banks enjoying Government support
5. Finally, the climate for fraudulent activity is amplified as Government support for institutions with the potential for suffering losses (on securitised assets) increases.

This paper recommends further investigation into the contribution played by securitisation on masking debt deterioration through deceptive (but currently permitted) tactics of creative accounting. Suggestions for mitigating these issues revolve around the gradual cessation of securitisation practices and further encouragement of the re-mutualisation of lending institutions.

1) Introduction

The events of 2007-2008 in the financial sector have shown the vulnerability of the UK economy to shocks and meltdowns with seemingly complex causes and consequences. The event itself was termed a “liquidity crisis” and that this was precipitated by uncertainty of the risks associated with particular securitised financial assets (e.g. mortgage backed securities) both in the UK as well as the US. In many respects we are both in extremely new territory, with phenomenally high debt levels in our economy and armed with an array of innovative financial instruments, but we are also in worryingly familiar territory immortalised by that haunting phrase “but this time is different”.

The last 20 years have seen UK debt grow by a factor of six to more than four and half times our GDP whilst the banking sector balance sheet rose parabolically to over £7tn (Independent Commission on Banking: Issues Paper sections 2.5 & 2.6). “The growth of UK debt and of banks’ balance sheets was accompanied by an increase in banks’ leverage” (ICB Section 2.7). This paper aims to show the role of securitisation in that growth in leverage, providing further support to the following ICB comment:

“It was argued and widely accepted during the pre-crisis period that diversifying exposure to credit risk through securitisation made the financial system more stable…the events of the financial crisis showed the opposite.” (ICB Section 2.9)
2) Intermediation and risk in banking

One of the major functions of a bank\(^1\) is its role of Intermediation, whereby the requisite demands of lenders and borrowers are brought together for mutual benefit. In such a relationship there is scope for asymmetry of information amongst the relevant parties that could be exploited. Borrowers probably have more information about their circumstances and ability to meet repayments than the bank does. Likewise, a bank is expected to have access to more information about its state of affairs than its depositors (Buckle & Thompson 2004 p.341).

This Intermediation can be split into two key functions for banks. The first is maturity transformation, whereby banks borrow money in the short term (e.g. instantly available deposits) and lend out over the long term (e.g. a 20 year mortgage). This places a bank in the unfortunate position of being vulnerable to a liquidity squeeze whereby lenders could withdraw deposits quicker than a bank could liberate its assets (especially if pressured to accept “fire-sale” prices). As a result of this, banks need to provide credibility and trust to lenders (and by implication the Government if they are underwriting deposit guarantees). In return for handling this transformation (borrowing short and lending long), banks are rewarded through extracting a profit, provided that this trust is honoured.

The second role is deemed to be one of risk transformation. In this capacity, a bank undertakes to control or mitigate the different levels of risk that it holds as assets (e.g. loans). This takes the role of the bank trying to protect itself from the potential abuse of trust by borrowers. By choosing the word “transformation” one is led to believe that banks can perform tangible changes to the extent of risk that they are exposed to, however a better choice of word would be risk mitigation. The table below shows the various strategies that banks undertake for risk mitigation:

<table>
<thead>
<tr>
<th>Risk management strategy (after Buckle &amp; Thompson p.66)</th>
<th>Underlying risk management strategy</th>
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<tr>
<td>Screening for bad loans</td>
<td>Risk avoidance</td>
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<td>Pooling risks (large number of loans)</td>
<td>Dilution / absorption of risk</td>
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<tr>
<td>Diversifying risk (supply to different types of borrower)</td>
<td>Containment / absorption of risk</td>
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<tr>
<td>Holding sufficient capital</td>
<td>Containment / absorption of risk</td>
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As we can see, it is clear that risk in its pure and aggregate sense is not strictly acquired by banks and then mystically detoxified into a safer level. Banks receive the right to profit from appropriately containing or avoiding risk, not because of their ability to convert the risk to a less hazardous state. Risk is not qualitatively transformed in the way that maturity has been changed. Instead banks either avoid the risk in the first place or absorb the stochastic nature of default / delinquency through the appropriate dilution of risk in their loan pool or by holding a sufficient cushion of capital to smooth losses over time.

In a closed system whereby banks perform the complete role of Intermediation there is actually no outlet to change the level of risk or to transfer risk on to external parties. The close scrutiny of lending had to be undertaken by the originating institution as it was solely responsible for the risk (i.e. any default or cost associated with delinquency). Its choices were to contain or absorb risk to such a point where it could reasonably expect to sustain it. If presented with the prospects of weaker quality loan issuance, the institution’s only choices would be to demand a higher risk premium (commensurate with the default risk) or decline to originate (therefore avoid) the loan.

Consequently, the lending institution would typically implement restrictive covenants on the borrower to minimise undesirable behaviour potentially brought about by moral hazard. These restrictive covenants would need to be monitored / supervised by the lending institution to protect the value of its loan assets and consequently the long term credibility and solvency of the bank.

\(^1\) Throughout this document, the term bank will be used to represent any form of institution involved in the initial handling of loan origination (e.g. building society, finance house etc.). The main focus of the paper is on household sector mortgage loans, however as many other credit products are similar in nature then appropriate generalisations are not unrealistic.
3) The changing face of banking Intermediation - Value Chain fragmentation

The previous description of banking Intermediation was standard practice for much of the 20th century. It was often referred to as the “originate and hold” model (O&H) as banks would not trade or sell-on the loans that they had initiated. Recent deregulation of the banking sector has led to the feasibility of trading loans on a secondary market, also known as the “originate and distribute model” (O&D). This has led to a fragmentation of the loan process into the following key steps:

- Loan origination
- Administration
- Credit risk assessment
- Secondary market funding (e.g. Asset Backed Securities)

This market structure (which is sometimes referred to as Disintermediation) has resulted in increasing proportions of loans becoming packaged up and traded as securities. The objective was to reduce banking costs for customers by promoting greater competition & liquidity. Tasks that would normally be the integrated responsibility of banks would become dissected, with one of the most critical aspects, the pricing of risk and the supervision of borrower behaviour, placed within the hands of the market².

The assumption is that risk inherent in loan generation can then be borne by those most willing and able to absorb it. However, this is a tacit admission that the risk is not qualitatively diminished (or “transformed”), but merely absorbed by other parties. The main distinction of course being that under O&D the risk has been transferred to the secondary market³. This emphasis on risk transfer to parties better able to weather the responsibility presumes that those parties would not act against their own self interest and thus the risk is appropriately assessed and represented in terms of its market pricing (a theme which will be returned to later).

None of the “perceived benefits” offered to justify O&D (lower entry barriers, increased competition, increased liquidity etc.) actually address the fundamental issues of adverse selection and moral hazard brought about by the abdication of loan responsibility. Indeed evidence abounds of supposedly logical argument actually denigrating to at best obfuscation and at worst contradictions.

For an example of obfuscation, we take the principle of non-traded loans as enabling banks to avoid the “free rider” problem of poor supervision of restrictive covenants. This point is emphasised by Buckle & Thompson (p.41) as a fundamental benefit of the “originate and hold” model in protecting the quality of loans and reducing prospects of delinquency. However, at a later point in their text, when describing the rationale for permitting loan trading (O&D) no argument to counter their earlier position is ever offered (Buckle & Thompson p.60).

Turning to an example of contradiction, Buckle & Thompson (p.40) emphasise that banks possess a particular advantage over other organisations in that they have informational advantages about a potential borrower through direct observation of account transactions. In particular one would expect banks, where a current account is held, to know both historical as well as up-to-date income, expenditure and other debt holdings. This is offered as a basis from which a bank can then minimise its exposure to the adverse selection problem (whereby weaker loan applications are deemed to be more prevalent than superior quality applications). At a later stage in their text Buckle & Thompson (p.61) then make reference to deconstruction as a means for facilitating specialisation (such as external risk assessment) as means of leveraging comparative advantages. Reality must demand that only one of these positions is indeed correct.

Ultimately, with credit risk assessment becoming separated from credit risk responsibility it takes an extreme stretch of the imagination to believe that this approach would lead to anything other than a decline in the quality of loan evaluation:

“Lack of screening incentive created by the separation of origination from the ultimate bearer of the default risk has been a contributing factor to the current mortgage crisis.” Fritz-Morgenthal (2008)

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³ “Securitisation merely transmits latent credit quality problems on to the bond market” (Warburton 1999, p.173).
4) The performance of securitised loans

Since the 1980s in the US, and the 1990s in the UK, there has been the presumption that markets can appropriately price risk (Authers 2010 p.45). But the track record appears to tell a different story. What had begun as a belief that risk had been tamed through the wonder of the market was to be proved wholeheartedly incorrect (Authers 2010, p.48 & p.10 4). Not only is there high profile evidence of the poor performance of securitised loans (Northern Rock being the main case-in-point), but evidence collected and published on the cusp of the crisis in 2008 demonstrated that there were already warning signs of adverse selection and moral hazard occurring in this practice.

Berndt & Gupta (2008) demonstrate that loans handled through the “originate-to-distribute” model underperformed compared with those under the traditional “originate-to-hold” process. Their data is based upon $2.5trillion of commercial loans representing over 80% of the secondary market trading in syndicated loans:

“We find that borrowers with an active secondary market for their loans underperform their peers by about 9% per year in terms of annual, risk-adjusted abnormal returns, over a three year period subsequent to the initial sale of their loans.” Berndt & Gupta (2008)

Data from other sources also support this view:


The US Junk Bond crisis shows how securitisation of debt actually led to deterioration in supervision standards; “high yield bonds in the 1980s typically carried fewer covenants and restrictions than conventional corporate debt” (Akerlof & Romer 1993). This therefore reveals a fundamental flaw in the assumption that markets can appropriately price the risk, and that markets can provide a sufficient level of scrutiny to replace the prior method of non-traded loan handling. The very structure of Disintermediation is facilitating the exploitation of the asymmetric information concerns raised by the literature:

“The highly deregulated nature of this market is perhaps one of the reasons for the moral hazard and adverse selection problems that we detect in this market.”

“There are two alternative explanations for this under performance - either banks are originating and selling bad loans based on unobservable private information, similar to the events in the current subprime mortgage crisis, and/or the severance of the bank-borrower relationship allows the borrowers to undertake suboptimal investment and operating decisions” (Berndt & Gupta 2008)

The authors suggest that this is due to exploitation by one of two groups of players. Firstly borrowers themselves may be making inferior loan judgements. Certainly there is evidence that growth in Consumer Debt is driven by consumption and speculation rather than investments4. Obtaining leverage for asset price speculation on housing would qualify, as would the observed rises in equity release loans, credit card loans, and car loans, all of which could in reality just be providing artificially stimulated consumption demand. The Savings and Loan crisis in the US also foretells a decidedly worrying trend of using excessively leveraged securitised debt to facilitate the temporary payment of initial periods of interest repayment (Akerlof & Romer 1993). Such conduct is tantamount to Ponzi financing.

Secondly, the accusations that loan originating firms tended to ignore potentially worrying borrower circumstances is not unfounded. This is particularly pertinent given that in many circumstances banks earn on a fee basis, and therefore have no incentive to weigh up aspects relating to the long term repayment structure. Under these conditions then, the phenomenal growth in debt witnessed these last 20 years may not be all fully attributable to genuine economic investment and instead could be the symptom of poorly judged credit issuing.

4 “The more recent rise in house prices and low interest rates has once again caused a surge in mortgage equity withdrawal, which has helped to finance the recent consumption boom” Buckle and Thompson (2004 p.108)
5) Transferring poor quality risk

Whichever party (borrower or loan originator) is the more culpable, the evidence provided by Berndt & Gupta leads to the highly portentous conclusion that loan quality is compromised under secondary market handling. The traditional function of banking intermediation suggests that this would normally be the responsibility of the institution creating and holding the loan asset, but clearly the practice of disintermediation is upsetting this dynamic.

The empirical findings give credence to the following risk management model:

<table>
<thead>
<tr>
<th>Risk Management Strategy</th>
<th>Quantity</th>
<th>Quality</th>
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<tbody>
<tr>
<td>Avoid risk</td>
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<td>↑</td>
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<tr>
<td>Absorb risk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfer risk</td>
<td>↑</td>
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The crux of the model is that the aggregate quantity and quality of credit issuance within a market is inversely related (Warburton p47, p49). Rationing of credit is believed to result in an overall improved status of portfolio quality, whereas an increase of total credit issuance is connected with worsening quality. As stated above, an O&H approach is prevented from risk transfer practises, therefore the expansion and contraction of credit issuance is limited by the direct participants’ ability to absorb risk. However, in an O&D environment, rising quantity of credit issuance is feasible by accepting (potentially mis-priced) declines of credit quality, assisted on the part of the issuer through the practice of risk transfer.

Nobel laureate Dr. A. Michael Spence writes:
"Financial innovation, intended to redistribute and reduce risk, appears mainly to have hidden it from view. An important challenge going forward is to better understand these dynamics as the analytical underpinning of an early warning system with respect to financial instability."

So, rather than provide a valuable risk reduction function for society, it seems that modern banking practices such as securitisation disguise the underlying levels of risk and pass the problem along the food chain. Therefore, permitting risk transfer practices (in the form of securitisation) is tantamount to condoning sub-optimal lending activity. More importantly, it facilitates the continuation of mis-priced risk, the cost of which will have to be borne by someone or other eventually.
6) The sucker of last resort

The elimination of a credit quality spread has contributed to the appearance of lowered risk levels (Warburton p.174). But the risk hasn’t really gone away; it has merely been disguised and transferred. With the prospect of major banking institution failure, Governments and central banks have filled the role of being the ultimate bearer of this risk. “The state has instead become the last-resort financier of the banks” claims Haldane (2009) as he demonstrates that the explicit gross support for banks in the UK is 74% of GDP. Indeed Haldane goes on to cite evidence of five strategies that banks undertook to increase their risk exposure, including higher leverage, such that “the high leverage strategy pursued by UK and European banks rather effectively privatised gains and socialised losses”.

“Central banks have preserved a measure of order in the financial system whilst disturbing the fundamental balance between risk and reward” (Warburton p.274).

This is effectively manifesting as a guarantee for lending institutions that they will receive state bailouts should any investment activities jeopardise their short term solvency. Unfortunately, rather than promote self-sufficiency, continued state support simply incentivises future risk-taking (Haldane 2009). If risk taking is conducted within an environment where any negative consequences are cushioned, then there is scope for distortion in risk and reward pay-off structures. A rational agent would not be expected to put itself in such a position that it deliberately absorbed other people’s losses. However, to mis-quote Keynes, a Government can remain irrational for only as long as it can remain solvent:

“Optimising individuals will not repeatedly lend on terms that let them be exploited…..however… Governments sometimes do things that optimising agents would not do”. (Akerlof & Romer 1993)

This brings us to the uncomfortable territory of linking the localised issues of banking operations with that of sovereign level solvency. Reinhart & Rogoff (2009) put forward a causal model showing how regulatory conditions (of private credit creation) relate to the occurrence of banking crises and potential knock-on effects. Adapting their model (from p.271), we get:

Financial liberalisation > Asset speculation > Banking crisis > Currency crash > Rising inflation > Default > High inflation / currency collapse

Banking crises can and have often ended the chain of events, with the prospect of escalation being averted. But all too often the dynamic has transmitted issues through the remaining stages of crisis, ultimately impacting on currency collapse. We have yet to witness any correction in possible asset price bubbles building up over the last 15-20 years. Reality may not have had chance to kick-in, as rather than the private sector (which profited during the boom) suffering the correction, the downside risks are sitting squarely on the shoulders of the tax payer.

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5 “This literature on financial crises suggests that markedly rising asset prices, slowing real economic activity, large current account deficits and sustained debt build-ups (whether public, private or both) are important precursors to a financial crisis.” Reinhart & Rogoff (2009, p.216)
7) Risk transfer as fraud

The final aspect to raise is whether or not this transfer of responsibility is part of a deliberate or malicious strategy on the part of participants. Securitisation by its very nature avoids regulatory costs (Warburton p.82), and so there is an indication that these activities are intended to operate at arms length from scrutiny. However, as Haldane notes, Government support for the banking sector is one side of the social contract, the other is the responsibility for the Government to regulate. Somewhat disconcertingly, current trends appear to indicate ever increasing financial support, yet declining regulatory supervision of banks.

The convergence of these two outcomes appears rife to encourage the climate for “bankruptcy for profit” (also known as looting) strategies:

"Bankruptcy for profit will occur if poor accounting, lax regulation, or low penalties for abuse give owners an incentive to pay themselves more than their firms are worth and then default on their debt obligations. Bankruptcy for profit occurs most commonly when a government guarantees a firm’s debt obligations." (Akerlof & Romer 1993)

An abstract model of looting is postulated by Akerlof & Romer:

- Limited liability gives the owners of a corporation the potential to exploit lenders
- Owners could intentionally drive a solvent firm bankrupt
- The damage to society caused by this looting could be greater than their captured private gains

The assumption is that owners / managers employ a deliberate strategy of going broke (intentional looting) rather than subsidised risk taking / speculation. The reason for this occurring is that various conditions conspire to make this strategy yield a positive pay-off to the potential looter. The three key symptoms of looting are:

a) Excessive Pay
It is not unreasonable to expect that the total payout in terms of salaries, bonuses and dividends could be a sizeable proportion of a firm’s market value. Payment for performance on short term profit making activities could exacerbate conditions for looting. The shift in banking revenues to more fee earning activities compounds the climate for disingenuous wealth extraction, as evidence exists for the scope to create false representations of immediate term accounting profit.

b) Over-inflated valuation of the firm
Unlike firms from other sectors, financial organisations posses a remarkable ability to implode in dramatic and almost unforeseen circumstances. The lowest possible valuation of a financial company (its floor) is conceivably a mere fraction of its standard capitalisation, given that its liabilities can exceed assets many times over, especially if forced to liquidate these assets at “fire-sale” prices. However, as the ICB paper itself notes, often signs of liquidity could reveal underlying concerns of solvency (ICB p19)

c) Invoking Government guarantees
In order to encourage looting activity, there would need to be conditions whereby the government provided final recourse for any damage, but whereby any dubious conduct by the looter would lead to them either exonerated or only mildly reprimanded. J Stiglitz (2010) draws attention recently to how many senior executives in major banking institutions are likely to consider the prospect of punishment for any underhand conduct as little more than the nuisance caused by receiving a parking fine.

“This paper has shown how other people's money, typically deposits in financial institutions or insurance funds, can profitably be looted, with the guarantor of the assets, typically the Government and its taxpayers, left holding the bag” (Akerlof & Romer 1993)

There is more than just a suspicion of this looting syndrome, given the prevalence of all pre-conditions. The absence of widespread investigations of fraudulent conduct should not be taken as clear proof of its non-existence.

6 “In the absence of such discipline, borrowers may undertake suboptimal investment and operating decisions, and even allow some stakeholders to appropriate cash flows at the expense of other stakeholders, which would destroy value in the long run.” Berndt & Gupta (2008).
8) Conclusion

The ICB Issues Paper (Box 1) lists seven important factors that contributed to the financial crisis. Of these seven, five have been addressed directly by this paper and are within the direct control and jurisdiction of UK regulatory powers:

- Light touch regulation
- Declining underwriting standards
- Widespread mis-pricing of risk
- A vast expansion of bank balance sheets
- Rapid growth in securitised assets

These are not distinct aspects but instead a confluence of mutually reinforcing risks, which if to be properly addressed needs a holistic approach of remedial action. The Treasury select committee (2007) accepts that under the “Originate and distribute” regime there has been a confusion of risk responsibility, yet at the same time dismisses the very premise of “financial liberalisation” as part of the problem. This is in spite of the following:

1) A wealth of historical evidence that regulatory liberalisation is at the heart of the problem
2) The fundamental conflicts (issues) inherent in the structure of banking, such as moral hazard & risk transfers
3) Specific evidence of poor loan performance.

The reliance on markets to be a reliable determiner of credit risk has been shown to be theoretically and empirically false. Instead, the turning over of banking functions to a seemingly competitive market has at best yielded superficial hopes of improved customer choice, but more importantly, has masked a more serious issue of the mis-selling of credit and gargantuan risk transfer to the public purse.

To accept that securitisation (even under promised conditions of increased supervision / sanitisation) is necessary for modern banking is to implicitly condone the continued growth of debt levels of potentially deteriorating quality. Not only are they a risk in themselves to banking stability but it is clear that they pose a more substantial systemic risk to the nation by providing the means for even further debt expansion as well as the obfuscation of risk ownership and exposure levels.

The current situation is a heady cocktail of perverse incentives, lax supervision and bewildering complexity. Ripe conditions for fraudulent conduct and ambiguous larceny. An important point that Akerlof & Romer make is that the extent of harm or damage to wider society caused by the looting parties may be far in excess of the ill-gotten gains of the perpetrators. The lessons of Iceland, Ireland & Greece all point to the dangers of highly leveraged banking sectors. The prospect for excessive levels of private banking debt being created under at best dubious assumptions of genuine economic growth, or at worst malicious conditions of fraudulent lending activities is too serious to ignore:

“the aggregate supply of credit is effectively un-regulated… (as)… central banks have turned a blind eye to the dangers of credit creation…. If stability means anything, then it must apply to the surveillance of credit quality” Warburton p.45.
9) Recommendations

Current discussions on methods for preventing a major banking crisis in the future have focused on various fine tuning aspects of the existing operating model (increased capital holdings, levy on transactions, caps on leverage, separation of retail and investment banks etc.). However, few policy discussions have challenged the very premise of securitisation itself, despite mounting evidence of its flaws and direct observation of its hazardous consequences. Concerns that market based “price-discovery” is either failing or circumvented have been around for some time now (Warburton 1999 p.120), and the scope for fraud in this sector is considerable (Buckle & Thompson 2004 p.342).

Berndt & Gupta (2008) have a catalogue of serious questions that regulators need to address, both in terms of overall policy, as well as practical supervision responsibility:

- “Are the banks selling lemons?
- Do they only sell the loans of borrowers about whom they have negative private information that is unobservable to outside investors?
- Are they deliberately originating bad loans to enhance their fee income, just because there is an active secondary market where they can sell these loans?
- How does this affect the incentives of the bank to monitor their borrowers?
- Is the severance of their lending relationship harmful for borrowers?
- What is the consequent impact on the long run valuation of the borrowers?
- Is the secondary loan market ‘socially desirable’? “

The answers to these questions lie within the performance data of banks, and this paper aims to provide direction as to the types of investigation necessary to yield such informed decision making. Certainly, a managed transition back to non-traded loan origination would help to avert compounded risk problems until at such point there was clear evidence that initial moral hazard concerns had truly been overcome. Continuing with the status quo appears akin to leaving ones back door constantly on the latch.
Bibliography


