The Rise and Fall of the ABS Market

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November 5, 2010

¹This policy note represents the views of the author and should not be interpreted as reflecting the views of the University of Glasgow or Structured Products. I wish to thank John Olokuru for collecting the data used in the first part and Robin Milne, Jo Danbold, Kwaku Opong, John Crosby and Paul Barden for useful discussion. Mario Cerrato, University of Glasgow, mario.cerrato@glasgow.ac.uk

Abstract

The financial crisis has raised some concern about the quality of information available on some traded assets on the securities markets to market participants and regulators. Asset-backed securitization in general got partial blame for the paucity of liquidity on bank balance sheets and the consequent credit crunch. After the Asset-Backed Security (ABS) market fell to near inactivity in 2009, the US federal government's Term Asset-Backed Securities Loan Facility (TALF) provided backing and a boost to the issuance of asset-backed securitization. In this market condition, given the nature of ABS, it is difficult for them not to be relatively illiquid, and this has resulted in unacceptable levels of market risk for most investors. Their liquidity before the crisis was driven by a market in continuous expansion, fed by Special Purpose Vehicle (SPV), Conduits, and other low capitalized term-transformation vehicles. Nowadays, the industry is concerned with the ongoing ABS reforms and how these will be implemented. This article reviews the ABS market in the last decade and the possible consequences of the recent regulatory proposals. It proposes a retention policy and the institution of a new financial body to supervise the quality of the security in an ABS pool, its liquidity, and the model risk implied by the issuer's valuation model.

JEL Classification: G39; G18 Keywords: Asset Backed Security; Government Policy and Regulation

1 Introduction

Since the 1930s, securitization has become one of the most important innovations to emerge in financial markets. The period between 1997 through to 2004 witnessed growing emphasis on risk management and investors were no longer just seeking to maximize the return but also seeking diversified risk strategies. The growth in securitization was further perpetuated by the bursting of the dot.com bubble in 2001. As investors switched to alternative securities in the form of corporate bonds, the fixed income market became saturated, credit spreads tightened and high quality corporate bonds became scarce thereby making portfolio diversification extremely difficult.

Banks reap many advantages by securitizing assets rather than keeping them on their books. For example, by packaging their portfolios of credit card receivables as securities, major commercial banks have been able to free capital for alternative investments. For example, as the leading bank issuer of credit cards, Citibank also emerged as the largest issuer of securities backed by credit card receivables.

Investor acceptance of asset-backed securitization grew as the market matured. Consequently, these securities were trading at a spread over Treasury bills that made them a relatively low-cost source of funding for many companies. Credit card-backed securities, which in 1991 represented the largest single category of new issues (41 percent of the dollar volume), settled into a trading range of 65 to 105 basis points (0.65 to 1.05 percentage points) over Treasury with comparable maturities. Issues collateralized with auto debt, the second-biggest market component (30 percent), traded at a spread of just 60 to 80 basis points, while offerings supported by home equity loans, the third largest (21 percent) category, moved in a range of 120 to 160 basis points.

Since the 80s, asset-backed securities evolved out of the mortgage-backed securities market, which had developed in the seventies when interest rates surged and institutions found themselves saddled with residential mortgages that were earning less than what they were paying for deposits¹. When compared with mortgagebacked securities, asset-backed issues have been relatively unaffected by swings in interest rates. The reason is that the car loans and other loans backing the securities have shorter maturities than mortgages, and therefore people are less likely to refinance when interest rates fall. Thus, asset-backed securities resemble noncallable bonds. Asset-backed securities enable depository institutions, finance companies, and other corporations to transform the nature of their balance sheets (i.e., raise

¹In 1999 the Clinton administration started to make pressure on Fannie Mae to expand mortgage loans to low income borrowers.

cash by borrowing against assets) and develop new sources of capital. Assets such as credit cards, automobile loans, and home equity loans are packaged as the collateral for intermediate-term (i.e., maturity of one to five years) securities and sold in the market or even to private investors. The broadest classification of securities in global asset-backed markets is into (1) ABS (asset-backed securities), (2) collateralized debt obligations (CDOs), (3) commercial mortgage-backed securities (CMBS) (4) residential mortgage-backed securities (RMBS) and (5) Repackaged Notes Programmes. The main classes of securities in the pure vanilla securitization markets today are commercial ABS, (1) consumer ABS, (2) CMBS, (3) Non-performing loans (NPLs) and (4) RMBS.

In its purest form this process of pooling illiquid assets into financial instruments is called securitization. Thus, securitization is a means by which banks can directly raise funds from the capital market to finance their assets or "non-conventional" projects (i.e. projects which may not conform to the mainstream lending models of banks). Participants in this market were traditionally small (poorly rated) entities and as such in mainstream markets would have been subject to severe costs associated with the issue of debt. These organizations would securitize investments, sell an AAA-rated tranche (say 90% of the underlying pool), a BBB-rated tranche (say 8% of the pool) and retain an unrated first loss security of the remaining 2%and retain rights to the excess cash flows. Given the nature of the market, the nonbank participants were not in direct competition with banks. However, all this has changed over the last ten years as structured finance has grown and non-banks have started lending to mainstream borrowers. Furthermore, retail banks also started adopting this structured finance model as it provided them with a means through which to leverage equity and increase lending without requiring additional capital. Table 1 shows the global issuance of ABS between 2005-2009. As we can see there was a significant growth of Residential Mortgage Backed Security (RMBS) and subprime RMBS between 2005-2007, while the Asset Backed Security market, over the same period, was much smaller. It is likely that this growth is also linked to the increasing demand for residential houses over the same period (particularly in US) and Europe)²..

This article reviews the ABS market in the last decade and the possible consequences of the recent regulatory proposals suggested by the Security and Exchange Commission (the so called "skin in the game" and full discosure of the pool). It

²It is surprising that, given the importance of securitization, very few empirical studies have attempted to explain why there has been a growing demand of securitization instruments. Indeed, very important questions have not received, in my view, the necessary attention. For example, has securitization been mainly used as a financing tool or for regulatory arbitrage ?

proposes a retention policy and the institution of a new financial body to supervise the quality of the security in an ABS pool, its liquidity, and the model risk implied by the issuer's valuation model.



Table 1: Global Issuance of Asset backed Securities. Data Source, Dealogic.

2 The Asset Backed Securities Market

Securitization is a financing process where illiquid assets (mortgages, credit cards, student loans, etc..) are pooled and converted into liquid financial instruments which are then sold in the capital market to raise (cheap) funds. The issuer uses these financing vehicles to raise cash which is then used to expand her balance sheet. Generally, the securitization of asset backed securities (ABS) is handled by a so called special purpose vehicle (SPV), which issues tranches of different risk ³. Generally, the SPV will create and also sell the securities. Thus, if the SPV and the asset's originator have separate balance sheets, the latter can remove the risky assets from the balance sheet and free capital for further investments. Suppose that

³Tranches with the first lien (senior tranche) rated AAA and riskier tranches called junior tranches. Generally originators retain junior tranches such as equity tranches.

the asset's originator is a financial institution holding illiquid assets on the balance sheet, and assume that the return on alternative investments is very high. The securitization process allows the originator to free capital which can then be used to gain extra return.



Table 2: European Issuance by Collateral-2009. Data Source, Securities Industry and
Financial Markets Association.



Table 3: US Issuance by Collateral-2009. Data Source, Securities Industry and Financial Markets Association.

Table 2 and Table 3 show the evolution in the US and Europe of various structures (Residential Mortgage Backed Securities (RMBS), Commercial Mortgage Backed Securities (CMBS), Collateralize debt Obligation (CDO) and ABS) between 2009:Q1 and 2009 Q4. For example, the European ABS⁴ issuance includes auto, credit card, leases, loans, receivables. The European CDO issuance only includes eurodenominated issuance regardless of the country of origin of the collateral. A substantial percentage of CDOs are backed by multi-jurisdictional collateral. Historical CDO issuance totals have been revised due to periodic updates of the sector.

The US ABS issuance includes auto, credit card, home equity, student loan, equipment leases, manufactured housing. ABS issuance totals have also been revised due to periodic updates of the sector. The US CDO issuance only includes US-denominated issuance regardless of the country of collateral and may therefore include European transactions which are denominated in US dollars. Historical CDO issuance totals have been revised due to periodic updates of the sector.

Mortgage Backed Securities are the predominant type of securitization vehicle in both US and Europe. In the US the market is dominated by the Agency MBS. These are securities backed by the US agencies Fannie Mae and Freddie Mac.

⁴Note that in these figures all volumes have been converted using the $\$/\in$ exchange rate (as end of quarter).



Table 4: European and US Securitization Issuance. Data Source, Securities Industry
and Financial Markets Association.

Table 4 shows the growth of the securitization market in US and Europe between 2000 and 2009. Clearly the size of these two markets is substantially different. Furthermore, while in the US, the securitization market started to lack speed in 2005, it was still growing in Europe.

The securitization market was the most exciting and fastest growing sector in the financial markets before the financial crisis. But the market has not only been dynamic in USA and Europe but also in other countries. For example, in Canada outstanding ABS exceeded C\$100 billion in 2004, increased to C\$105.3 billion in 2005 and there is not much change today (see Table 5). Market Share (by %)

| As At | Dec-00 | Dec-01 | Dec-02 | Dec-03 | Dec-04 | Dec-05 | Dec-06 | Dec-07 | Dec-08 | Dec-09 | Feb-10 | Mar-10 |
|------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Term ABS (incl. CMBS) | 25.8% | 27.4% | 27.6% | 30.9% | 33.6% | 32.3% | 31,9% | 32.3% | 35,9% | 40.3% | 41.8% | 44.9% |
| ABCP - Bank Sponsored | 61.1% | 58.4% | 57.5% | 55.7% | 49.9% | 47.2% | 40.6% | 43.6% | 36.0% | 29.8% | 28.6% | 28.3% |
| ABCP - N on Bank Sponsored | 13.0% | 14.2% | 14.9% | 13.3% | 16.4% | 20.6% | 27.5% | 3.2% | 12% | 0.1% | 0.2% | |
| Affected ABCP | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 19.7% | 23.0% | 0.0% | 0.0% | |
| Structured Notes | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.3% | 0.6% | 22.3% | 22.5% | 22.8% |
| Private Placements | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 1.0% | 3.3% | 7.5% | 6.9% | 4.0% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Market Size (in billions of CAD\$) | 79.9 | 84.5 | 88.8 | 94.3 | 102.3 | 127.7 | 166.0 | 164.3 | 14 1 4 | 107.4 | 105.6 | 104.5 |

Note: Private Placements includes On Balance Sheet as well as ABS Private Placements



Source: DBRS

Table 5: Canadian Securitization Market Size. Source, Canadian National Bank.

Although public opinion has mainly focused on what went wrong with securitization, there are many economic benefits associated with it. For example, it is widely recognized that securitization helps banks to re-allocate credit risk outside the banking system to entities which are better equipped to manage it (thus securitization helps banks to effectively manage credit and liquidity risk)⁵.

⁵One of the reasons why this had not happened during the booming age, was due to banks holding on to their balance sheets ABS issued by other banks. Consider as an example the mortgage market, according to the IMF, in the middle of 2006 banks held about 51% of the total exposure of the financial institutions to the mortgage market. Thus, a relevant proportion of financial institutions had, in effect, a significant "skin-in-the-game". Most of the banks holding these securities were ill-equipped to properly evaluate them and did not have a sound system of risk management in place. Additionally, these institutions were allowed to buy underpriced protection (against ABS securities) from large insurance companies such as AIG.

3 The Collapse of the ABS Market

The current crisis in US and Europe has followed a pattern that has been played out for decades. The crisis was preceded by excessive borrowing and a speculative bubble across different asset classes. Investors (particularly "non sophisticated" investors) had such a confidence in the securitization market that they were willing to buy subprime mortgages or very complex instruments such as CDO² which they did not understand.

From the summer of 2007, as a consequence of the subprime crisis in the US, the ABS market has suffered large losses, with the mortgage market hit by the largest losses. Probably the turning point of the recent crisis was the collapse of Lehman Brothers which hit hard an already shaking financial system. As a result, spreads on securitized products soared and market activity across different segments of the market suddenly stopped. Thus, the ABS market started to shrink even more, but bond issues backed by residential mortgages were the hardest affected. To help to restore liquidity and support the markets, in November 2008 the Fed introduced the Asset Backed Securities Loan Facility (TALF), and spreads have largely dropped since then⁶.

ABS dealers as well as banks were holding ABS structures on their balance sheets and were unable to sell them simply because there was no buyer. Indeed, investors were "flying" towards quality assets such as Treasury bills. Following the collapse of Lehman Brothers investors became even more reluctant to enter the ABS market. 'In such an illiquid market, it was very difficult to obtain a reasonable price for these securities⁷.

4 Inside the ABS market

Structuring an ABS deal involves different people at different levels of the chain. For example the originator (for example banks and credit card issuers) pools the assets. The pool is then sold to an SPV. The SPV will act as an intermediary between the originator of the pool and the ABS issuer. Investors will finally buy the tranches offered in the market. The different people along the chain are indeed likely to have different information about the security. For example, the ABS issuer

⁶In effect, with the institution of the TALF, the Fed has acted as a lender of last resort as financial institutions were no longer able to raise funds using the securatisation market. Smaller non-banks lenders have been the ones most affected since they could not have access to the TALF.

⁷We shall discuss in the next sections the relationship between asymmetry, market liquidity and ABS price.

can have better information about the price of the security. The same information is likely to be unavailable to the investors⁸.

To simplify the discussion, suppose that there are only two parties involved in structuring an ABS deal, namely, the issuer and the investor⁹. We assume that the issuer possesses more information about the security than the investor. The informational advantage may consist, for example, in private information about the future cash flow of the security or sophisticated models to price it. Thus, there is a degree of asymmetric information between the issuer and the investor¹⁰. Suppose that the issuer has a high preference for liquidity and she uses the securitization market to raise cheap funds¹¹. Also suppose that the issuer sells a fraction $q \in$ [0,1] of the security and retain the remaining part on her balance sheet¹². Thus, investors may rationally anticipate that the issuer will sell a greater amount of the security when her private information implies a lower value of the security (lemon problem¹³). It follows that the investor will rationally offer a lower price for the security. Retention in this case is a credible signal (i.e. it is a financial decision which conveys information). Since we have assumed that the issuer has a high preference for liquidity, the market asymmetry produces a "liquidity cost"¹⁴. We use the model proposed in De Marzo and Duffie (DD) (1999) to investigate this issue further.

The demand function for the security is depicted in Figure 1, where f can be interpreted as the expected payoff of the security using the issuer's valuation model¹⁵:

⁸Issuers in the ABS market are generally investment bank, which have the know-how to better price the securities. Investors are generally pension funds or even retail banks. However, asymmetric information can also be due to rating agencies valuing the security. For example, generally, banks ask a few rating agencies to rate a structure, they have then the option to buy the best rate. Information about the credit ratings of all the agencies involved are normally not discosed to the public.

⁹This general assumption has no implication for our analysis.

¹⁰That is, the investor knows that the issuer has private informations about the security which are unavailable to her.

¹¹This might be due to profitable investments in the market.

¹²Obviously retention is costly since there are investment opportunities and because the issuer will have to post capital against the retained proportion of security.

¹³The lemon problem occurs because of information asymmetry between the buyer and the seller (i.e. the seller has more information about the product being sold than the buyer). Thus, the buyer uses the quantity of the product sold by the seller as a signal of the quality of the product itself.

¹⁴This happens as the issuer has a high preference for liquidity given the available investment opportunities. Therefore there is a cost/opportunity between the sale of the security and retention which the issuer will have to consider.

¹⁵This should not be confused with the price of the security offered by investors.



Figure 1: Profit Function

The demand function for the security is decreasing and convex. Investors are naturally concerned about the security that they are being offered since they anticipate that the seller has private information that they do not know. Thus, the price offered for the security will be higher, the larger the proportion (q) of the security retained by the seller on the balance sheet. The optimal quantity of the security offered by the issue is therefore decreasing. This is consistent with the fact that the issuer will sell less of the security, when its expected payoff is higher. Thus, there is an endogenous relationship between the quantity of the security put on sale and its market price. Furthermore, there is a direct link between the degree of asymmetry in the market, and the issuer's profit. We shall investigate this issue further in the next section.

5 Rescuing the ABS Market

Figure 2 below shows the profit from securitization for different face values of the debt issued. The profit is plotted for different degree of asymmetry, ranging from low asymmetry (m = 1%) to high asymmetry (m = 14%). We have used an extension

of the DD (1999) model to simulate the profit¹⁶



Fig. 2: Securitization Profit

The profit from securitization falls as the "lemon" problem becomes worse. Indeed, when m is very high (i.e. the degree of asymmetry is very high), the issuer will have to retain a larger proportion of the security and thus faces higher holding costs¹⁷.

There are two important things which can be learned from Figure 2. Firstly, when the "lemon" problem is very persistent (as it happens to be during a financial crisis), any marginal proportion of the security put on sale in the market is likely to

¹⁶The profit from securitization is the value of the unsold fraction (1 - q) of the security plus the cash flow from the sale of the proportion (q) of the security. Thus given q, the issuer issues an amount of debt with face value d.

In this exercise we have assumed a retention cost $\delta = 98\%$. The retention cost is the value to the issuer of the unissued security or the discount rate used by the issuer to discount the future cash flows from the unissued security. Thus, given that the issuer has a high preference for liquidity, the lower δ , the higher the cost of holding the assets. Since in our simulation exercise the total (expected) cash flow from the underlying assets is \$100, such a value for δ implies that the maximum expected profit from securitization, because of the lemon problem, is bounded below \$2 (i.e. $1 - \delta$).

¹⁷The issuer will be forced to post more capital against the security and therefore she will have less capital available for investments.

have a substantial impact on its market price (and therefore on the issuer's profit). On the other hand if the lemon problem is not a substantial issue (m = 1%), the issuer may issue bonds with large face value ($d = \infty$)¹⁸. In this case, we have a pure pass-through security¹⁹.

Figure 2 can help to better understand the economic implications of most of the regulatory proposals being discussed these days. In fact, different proposals have been suggested to reform and re-start the ABS market. For example the White Paper (2010) proposed by the Association of Mortgage Investors, the SEC (2010) and the EU proposals.

Amongst the many different proposals contained in the SEC (2010) document, we shall discuss a few which, we believe, are important. The SEC (2010) document recommends a fixed proportion (5%) of the security to be retained on the issuer's balance sheet (the so called "skin in the game"). The risk retention approach aims to distinguish those securities which are of a sufficient quality while avoiding the reliance on ratings. In other words, the issuer puts her money at stake with the investors and consequently this should constitute an incentive to issue higher quality securities. It is very likely that this proposal may have a substantial impact on the ABS market liquidity in the future. If one believes that the proportion of the security retained on the balance sheet constitutes a signal, then it is difficult to understand how a five percent floor (or indeed any floor) can be chosen simply by regulation. Indeed, following our discussion in the previous section, the proportion (q) of the asset sold to investors constitutes a credible signal which the (uninformed) investor can use to guess about the private information available to the issuer²⁰. Of course a higher degree of market transparency would probably make this signal less relevant. However, the impact on the ABS market liquidity is probably underestimated.

Additionally, the SEC proposes the so called "new disclosure rules" for the ABS market. ABS issuers, instead of relying on "principles" based disclosure, will have to report specific information for each asset in the pool. This data should be made available by the issuers to the public after filing of a computer program²¹. Given the importance of these proposals, we shall discuss them further in the next sections.

 $^{^{18}{\}rm The}$ securitization profit reaches an asymptotic limit at 1.3.

¹⁹Indeed in Europe several banks have used covered bonds instead of ABS securities to expand the balance sheet.

²⁰Issuers in the past have already held proportion of the issued security on their balance sheets. However, generally, the proportion retained was a small proportion and therefore it would have been unlikely to drive the issuer to focus on the quality of the loans. Furthermore, given the high demand for high yield securities in the past fifteen years, the incentive for the issuer to sell the retained security was very high.

²¹The SEC goes much further than that to also suggest that this information should then regularly be updated when assets in the pool change, etc...

6 The Effect of the Recent Proposals

The proportion of the security retained by the issuer constitutes a credible signal (i.e. the investor observes the proportion of the security put on sale by the issuer and she uses this information to guess about the quality of the security). Suppose that the proportion of the security retained by the issuer is fixed by regulation. There might be an incentive for the issuer to sell off the largest possible part of the pool in order to maximize the profit. Figure 3 below shows the relationship between the issuer's preference for liquidity, the face value of debt and the securitization profit. We have assumed three different retention costs (i.e. 94%, 96% and 98%)²². As the cost of reteining the assets increases (i.e. as δ decreases) the issuer will issue debt with larger and larger face value²³. That is the issuer is issuing an equity tranche.



Fig. 3: Securitization profit

As a way to make the ABS market more transparent, the SEC also proposes new

 $^{^{22}}$ Thus, in the first case the profit from securitization is expected below 6% of the \$100; in the second case below 4% of the 100\$ and in the third case below 2% of the 100\$.

 $^{^{23}}$ Up to a point when the issuer will issue a

pass-through security.

disclosure rules for ABS issuers. The rationale being that more transparency in this market is in the interest of both investors and issuers. As mentioned earlier the SEC proposal favours the institution of a "machine-readable, standardized format that is useful to investors and the market" (SEC, 2010). The SEC requires, for each asset (loan) in the pool the disclosure of specific data relating to the terms of the asset, obligor characteristics etc...

We believe that such a degree of disclosure is unnecessary and is likely to impact negatively on the market. To see this, consider Figure 4 below



Fig. 4: Securitization profit

The blue curve shows the profit from securitization in the case disclosure is only partial. The green curve shows the same profit when there is a full disclosure as suggested by the SEC (2010) proposal. The drop in the profit (in the best case scenario) is about 0.15. To understand the reasons for this fall in profit, suppose that the price at which the security can be sold falls within the range $[p_0, p_1]$. Also, assume that the investor faces no uncertainty about the security (i.e. the investor has full disclosure of information of the pool and/or the security price). Given that the investor has full information of the market demand for the security, it is reasonable to expect that the market price (P(q)) bid for the security is such that $P(q) = p_0$. That is, rationally, investors will be willing to offer p_0 (the lower price) for any proportion of the security sold in the market 24 .

Proposals for the future 7

The next couple of years will be crucial in establishing a new framework for the Over the Counter Market (OTC). The ABS security market will be in "the line" of fire. Different proposals are being advanced. In the previous sections we have focused on two. We have focused on two, which we believe are likely to have a severe impact on the ABS market and concluded that, they may lead to a severe decline in the liquidity of this market. Given the importance of the ABS market for the whole economy, we need empirical evidence assessing the impact of these proposals on the economy. In this section we shall make some recommendations.

Two main conclusions can be reached from the discussion above: firstly, given the high cost for the issuer to retain a larger proportion of the security, and given the market asymmetry, investors rationally anticipate the demand curve and they interpret the proportion of the security put on sale by the issuer as a credible sig nal^{25} . Secondly, as figure 4 shows, if the market asymmetry is largely removed by regulations, the profit for the issuer may fall significantly which, in the last instance, may imply that most of the ABS products will disappear.

As discussed earlier, the effect of the introduction of a fixed floor is largely unknown and also it is not yet obvious how this policy should be implemented (see Fender et al, 2009)²⁶. Alternatively, we suggest disclosing informations on the quantity of the issued security that has been put on sale and the proportion of the same security retained on the balance sheet. Investors may use this information to infer about the quality of the security. Should the sponsor retain the security for a period of time before re-selling it? Once again, we believe that the best approach is full disclosure of the proportion of the (retained) security put on sale. Furthermore, as noted in Duffie (2007) the issuer (sponsor) may have an incentive to develop a reputation by retaining a proportion of the bond for a long period. What about

²⁴This may have serious implications for the market. In fact, given its unique characteristics and due to adverse selection, the release of more public information may reduce market liquidity.

²⁵It is not a coincidence that sponsors in the ABS market already used to retain a proportion of the security, and it is typical practice for credit card ABS market. The model above clarifies the reason why that happened. Thus, the retention of a proportion of the security may have very little to do with the "inability or lack of incentive to sell those securities" as suggested by the SEC (2010) document.

²⁶However, under technical regularity conditions, Innes (1990) shows that the optimal security to retain is pure equity, which is, in effect, what has generally happened in the past. 16

investors? Should investors retain the security for a certain period? Why should they be asked to do so? Investors (and not only speculators) generally buy a security at a lower price and sell it at a higher price. Why should it not then be the same in this case?²⁷.

The SEC has proposed the adoption of new rules for the disclosure requirements for ABS securities: specific data on each loan or asset in the pool, obligor characteristics, description of the methodology used to calculate the pool performance and computer program to run the cash flow provisions of the transaction (waterfall). Thus, the issuer (sponsor) is obliged to filing a computer program of the contractual cash flow provisions of the securities and all the information cited earlier. This information should be made available to investors in full. We have discussed the possible impact on the ABS market of the "full disclosure approach" above. We believe that full disclosure may have a substantial impact on the market (see the example above). To mitigate this effect we propose that investors should only have access to aggregate information rather than specific informations²⁸. The information made available to investors should include factors such as illiquidity for that category of assets, credit risk and also model risk. On the other hand, one may think of a regulatory body to whom sponsors (originators) should be obliged to report full information on the security (including the methodology used to obtain the price). In this way the new body will have a clear picture of the overall systemic risk and banks's total risk exposure. Information can be disclosed in aggregate form, considering similar deals conducted in the market²⁹.

8 Conclusion

The new regulatory framework for the ABS market may lead it to loose the attractiveness as a funding tool. This study has reviewed recent developments in this market and focused on two recent regulatory proposals (SEC, 2010), namely fixed retention floor of the security and new disclosure principles. The study concluded that, if implemented, these policies are likely to have a major impact on the liquidity of the ABS market. The recent crisis in the ABS market has more to do with

²⁷It has been suggested that under this proposal one would better ensure that the resale is not a distribution. We do not see anything wrong with the old model based on the distribution approach. Afterall, it is not a model which causes a crisis but it is the way the model is interpreted and used. Regulators should probably focus on this point.

²⁸This would also encourage investors to invest in technology and know-how for research.

²⁹This can follow the same approach as for the aggregate CDS position data released by DTCC (see also discussion in Duffie et al, 2010).

reputational concerns than retention policy. This study suggests using alternative approaches which should alleviate the pressure on originators (issuers). It is important that regulators find the right balance between maintaining a sufficient interest in the securitization market and at the same time avoid the errors made in the past. To do this, we need theoretical as well as empirical studies to analyze the impact of the new regulatory framework on the securitization market and the economy as a whole. The availability of information to market participants is crucial for the correct functioning of the securitization market. However, full disclosure of information may not be the key to restart the market. Indeed, it may even reduce the market liquidity.

The goal of regulation should be to preserve the benefits deriving from the ABS market while achieving important public policy objectives, including financial stability, investor protection, and market integrity. Devising an appropriate regulatory response to financial innovation is challenging. The introduction of the regulations discussed in this study may well lead to either the shut-down of the securitization market (or at least a significant reduction of the market), or to the rise of riskier instruments³⁰.

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 $^{^{30}}$ For example for the case of Collateralised Loan Obligation (CLO), Duffie (2007), based on Innes (1990), shows that if the cost of effort (for the issuer) of controlling for the quality of the loan in the pool is very high, the issuer will simply sell the entire loan portfolio, making minimal effort.

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