

Reflections in plague time: perspectives on the sub-prime crisis

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Published in 2005 and effective as of January 1 2006, Regulation AB is a comprehensive set of rules and forms adopted by the Securities and Exchange Commission (SEC) to address the registration, disclosure and reporting requirements for publicly offered asset-backed securities (ABS) governed by the Securities Act of 1933 and the Securities Exchange Act of 1934. The pre-Regulation AB disclosure and reporting requirements were designed primarily for corporate issuers and their securities, and consequently did not mandate the provision of information considered important by ABS investors, such as information about the transaction structure, servicing and the characteristics and quality of the asset pool. Recognising an increasingly important role of securitisation in the financial markets, the SEC's guidance was aimed at clarifying the regulatory requirements for ABS in order to increase market efficiency and transparency and provide more certainty to the overall ABS market, investors and other participants.

Fast-forward to early 2008. Despite Regulation AB, the market finds itself in the midst of a severe credit crunch caused by a 'perfect storm' of failures in the sub-prime mortgage securitisation sector. Dozens of sub-prime mortgage loan originators have gone bankrupt and a number of big-name investment banks have announced billions of dollars in writedowns as a result of their direct exposure to the sub-prime mortgage market. More bad news is expected in the future.

Whether there is a real shortage of capital or widespread paranoia and a lack of confidence is yet to be established. A variety of explanations has been offered for the existing crisis, the primary reason being a sharp increase in the riskiness of mortgage loans and related financing products offered to sub-prime mortgage borrowers in recent years. Some analysts blame structured finance: thanks to a securitisation vehicle, sub-prime lenders were able to offload sub-prime risk to the purchasers of such loans, and ultimately investors in mortgage-backed securities (MBS), collateralised debt obligations or structured investment vehicles.

Analysts also believe the lack of transparency to be one of the primary causes of the sub-prime crisis. Blaming Regulation AB for the current debacle is unfair. However, what is clear is that Regulation AB, with its significantly expanded disclosure and transparency requirements (eg, the disclosure of historical static pool information, including frequency and severity of losses), contributed little to the prevention of the current epidemic of the sub-prime virus.

Ever since its inception in the 1970s as the vehicle for providing liquidity – and its corollary, affordable interest rates – to the US single-family residential market, securitisation has been considered a safe and sound vehicle, as both a relatively low-cost funding source (with additional tax and accounting benefits) for issuers and an attractive investment opportunity for investors seeking high yields relative to the actual risk of the securities offered. Far from being a zero sum game, securitisation was perceived as offering benefits to all sides involved in a transaction. Do the current crisis and the smaller disasters of past years challenge this assumption? Is it now

time to reassess the safety and benefits of securitisation structures? Could the problem be embedded in the core premises of securitisation or are the current and past problems the result of improper execution of structured finance technology? If the current situation is the result of prior errors, such as imperfect structures or inattention to asset quality, what measures can be adopted to prevent such abuses or imperfections in the future without undermining the viability of structured finance?

Faulty business model or defective portfolio

The first logical approach to understanding how a transaction failed should be the 'helicopter view' analysis: is there something wrong with the underlying business model of the sponsoring entity? No matter how good assets are or how well they are serviced or distributed, if the business structure itself is flawed, the transaction is doomed to fail.

DVI, Inc

Incorporated as Diagnostic Ventures, Inc (and later renamed DVI, Inc), this company, along with its subsidiaries, provided lease and loan financing to healthcare providers for high-end medical diagnostic equipment. It also provided working capital loans backed by healthcare receivables. DVI would later securitise its lease payments: between 1994 and 2003, it sponsored 16 transactions, issuing securities backed by medical equipment leases.

DVI was considered a safe and sound company until it declared bankruptcy on August 26 2003. In the course of the bankruptcy proceedings, the court-appointed examiner produced a 188-page report citing an overly aggressive expansion plan and an ill-advised strategy of international expansion as the core causes of DVI's problems. In addition to an assortment of improprieties, accounting irregularities and other fraudulent activities, the report accused DVI of "over reliance on securitizations, a principal source of income for the companies, based on the higher level of interest on the underlying loans and leases over the interest level of the securities issued". According to the report, DVI was "addicted to securitizations" which the company did not adequately collateralise (double pledging assets was one of the many issues cited in the report). Without cash generated by new securitisations, DVI could not have continued its operations. Among the securitisation-related manipulations cited by the report were:

- the regular repurchase of non-performing leases before they became contractually delinquent; and
- the substitution of leases to allow lessees to upgrade their equipment, many financed by new loans from DVI to friendly borrowers which were then included in new securitisations.

This was apparently all done with the intention of masking defaults and delinquencies which would have put an end to further securitisations.

When, due to its business shortcomings and financial difficulties, DVI was no longer able to repurchase delinquent leases, the performance of the securitised portfolio deteriorated significantly, early amortisation was delayed by the issuer and the AAA-rated securities were downgraded by the rating agencies.

National Century Financial Enterprises, Inc

The problems faced by National Century Financial Enterprises, Inc (NCFE) are known as a classic case of a fraud situation, but are also a good example of a faulty business model leading to one of the worst cases of ABS market defaults. Ohio-based NCFE purchased medical accounts receivable from US healthcare providers. Through its subsidiaries, NCFE would purchase accounts receivable from hospitals, nursing homes and other healthcare providers and medical institutions, and securitise these accounts by privately placing the issued securities with large institutional investors. However, the company did not adequately value its assets and therefore significantly overestimated the expected collections on some receivables, thus creating a mismatch with securitisation cash flows.

Another issue in this debacle resulted from NCFE and its clients executing evergreen receivables sales agreements, which did not provide the clients with the ability to terminate those contracts (even after default, cash payments from unsold receivables were directed into accounts controlled by the special purpose entity rather than the providers), which resulted in providers essentially becoming lenders to NCFE. In addition, NCFE's situation also highlighted problems associated with due diligence conducted on transactions backed by revolving pools of assets: due diligence performed prior to the closing date cannot guarantee the existence and quality of the collateral that revolves into the underlying pool after the closing date. The lesson here, as noted in

the report produced by Nomura Fixed Income Research group, is that revolving deals should have strict ongoing oversight and audits by independent third parties. NCFE filed for bankruptcy in November 2002 and was liquidated in 2004. The investor losses exceeded \$2.6 billion and approximately 275 healthcare providers found themselves in bankruptcy protection.

BioPharma Royalty Trust

Asset diversification is another important component that should not be overlooked when structuring a securitisation. The case of Royalty Pharma AG presents a good lesson not only for securitisation of intellectual property, but also for structured finance at large. Royalty Pharma is in the business of purchasing royalty interests in biopharmaceuticals from universities, pharmaceutical companies and investors. One such biopharmaceutical was Zerit, a HIV drug licensed by Yale to Bristol-Myers Squibb. In June 2000 Royalty Pharma, through the BioPharma Royalty Trust, securitised Yale University's patent for Zerit by issuing \$115 million in debt and equity securities. The transaction was rated "A" by Standard & Poor's, based on projections of Zerit sales and Yale University's and Bristol-Myers Squibb's credit ratings.

The deal initially performed well and was thought of as a "model for future deals going forward". However, in 2001, due to lower than projected cash flows generated by Zerit, the transaction violated certain financial covenants for three consecutive reporting periods and went into early amortisation in 2002. The problem was caused by Bristol-Myers Squibb's sale of its entire Zerit portfolio at a discount to wholesalers in 2001. Moreover, according to other specialists the valuation methods originally used to calculate the projected revenues from the sales of the drug were faulty. The primary lesson learned from this transaction was that it is too risky for a securitisation to depend on revenues from a single asset, no matter how profitable or secure it may appear on the closing date. Incidentally, Royalty Pharma learned this lesson well and the next securitisation it sponsored included a portfolio of 13 biopharmaceutical products.

NextCard

NextCard, Inc, founded in 1996, operated as an online issuer of Visa credit cards and was one of the

pioneers in issuing consumer credit online. The company securitised its credit card receivables in 2000 and 2001. NextCard's faulty business model was highlighted later in 2001: after the regulators forced NextCard to reclassify some of its 'fraud losses' as 'credit losses', the company became undercapitalised and the Office of the Comptroller of the Currency ultimately closed the company and appointed the Federal Deposit Insurance Corporation (FDIC) as its receiver. The FDIC could not find a buyer for NextCard's portfolio (partially due to underpriced servicing fees), and at the same time refused to honour an early amortisation trigger, noting that "early amortization based solely on the insolvency or the appointment of the FDIC as receiver is not enforceable against the FDIC". However, weak performance of the assets and the subsequent violation of certain transaction triggers still resulted in performance-based early amortisation. After the FDIC terminated a large number of credit card accounts, thus converting the securitisation assets from a revolving pool to an amortising pool and further diluting the quality of the portfolio, ratings were further downgraded.

Servicing, trustee and rating agency issues

In the current market crisis much commentary has focused on the oversight provided by neutral third-party participants in securitisation transaction, such as servicers, trustees and rating agencies. One of the expected byproducts of the current crisis is a better definition of the role of third-party participants in analysing legal structures, running stress cases and simulations, monitoring various features of a securitisation and uncovering fraud.

Successor servicing and collection practices are an essential ingredient of a well-structured securitisation. With respect to servicing issues, two main problems may arise in a structured finance context: pricing of servicing fees and servicing transfer/back-up servicing.

Conseco

To make securitisations more attractive to investors, the sponsors or issuers are often tempted to underprice servicing fees (thus increasing the amount of cash flow available to bondholders) and make such fees subordinate to certain classes of issued securities. This problem is especially apparent where the servicer is related to or is the entity sponsoring a securitisation. In such case, if the sponsor or the special purpose vehicle (SPV) should

find itself in bankruptcy and no longer willing or able to service the portfolio, it may become near-impossible to find a replacement *bona fide* servicer to maximise the return on the remaining assets. This scenario played out in the case of Conseco, Inc, which serviced pools of manufactured-housing loans securitised by one of its subsidiaries. After Conseco filed for bankruptcy and the securitisation performed badly, the servicing fee (already underpriced at a rate of 50 basis points) further declined because of its subordination in the waterfall. After the company threatened to walk away and stop servicing the collateral, the bankruptcy court restructured the servicing fee by increasing it to 115 to 125 basis points and moving it to the top of the waterfall (which is rarely done by bankruptcy courts). This resulted in reduced levels of overcollateralisation and subsequent downgrades of the more junior tranches.

Heilig-Meyers

A good illustration of how asset performance is linked to idiosyncratic servicing and collection practices can be found in the case of Heilig-Meyers Company, a Virginia-based chain of furniture stores. Two years after securitising its instalment sale receivables, the company closed its stores and declared bankruptcy in August 2000. Following its bankruptcy declaration, Heilig-Meyers wanted to resign as a servicer of the securitised assets. The trustee objected and a new back-up servicer was appointed for the portfolio. Additional problems were created by the fact that collections were typically performed at Heilig-Meyers's stores, which were no longer in operation. Account closures led to a declining pool in early amortisation. After the back-up servicer took over, it discovered further problems with the portfolio. As a result, Standard & Poor's had to downgrade all the issued securities.

One significant lesson learned from the Heilig-Meyers situation is the importance of having a named back-up servicer and a mechanism providing for a smooth back-up servicer transition and specifying its role in preserving the asset portfolio. In this regard, some parties have advocated for bond trustees to assume greater responsibility in managing securitisations. Typically, the trustee's role has been limited to:

- holding cash flows in segregated trust accounts and distributing them to investors;
- notifying investors, rating agencies, insurers and other parties of certain breaches and events

of default under transaction documents; and

- managing or arranging for servicing transfers if the securitisation servicer is no longer willing or able to service the portfolio.

However, trustees are not charitable organisations; they are generally not set up to conduct the daily servicing activities for large asset pools and would be unwilling to play larger roles without being adequately compensated, if at all – something that may not play well with the current economics of a securitisation transaction. Even where there is a mechanism in the documentation for replacement of the sponsor (as servicer) or other original servicers with a named back-up servicer, if the original servicer refuses to cooperate in the transition installing the back up might require convincing a court to issue an injunction or other equitable relief.

Another question arises as to the role of the rating agencies in structured finance transactions. It has long been recognised by US courts that rating agencies act as independent evaluators of the creditworthiness of specific debt issues, not as advisers to the issuer of such debt. However, in light of current developments questions have arisen as to how independent rating agencies really are. Under the current system, rating agencies are paid by the entities whose products they rate. Moreover, the revenues of the rating agencies depend on the volume of securities they rate. As illustrated by the sub-prime mortgage crisis, rating agencies play a crucial role in securitisation transactions and their failure, for whatever reason, can have a destabilising effect on the entire system.

Fraud

Transaction failures can rarely be attributed to a single problem. Most case studies mentioned in any section of this chapter could easily be moved to other sections, since the failure was usually the result of multiple causes.

Spiegel

From this perspective, the case of The Spiegel Group (Spiegel, Inc) and First Consumers National Bank (Spiegel) is the *War and Peace* of problematic securitisations. Founded in 1865 in downtown Chicago, Spiegel was a seller and catalogue supplier of furniture in the United States. In 1989 Spiegel acquired First Consumers National Bank (FCNB) and made it Spiegel's finance subsidiary.

Between 1999 and 2001, FCNB sponsored securitisations of credit card receivables, with MBIA Insurance Corp providing a guarantee on the issued securities. In early 2001 the asset performance started to decline. Through various mechanisms (eg, allowing its merchants to charge FCNB marketing charges) and in order to avoid hitting an early amortisation trigger, Spiegel was able to achieve a higher excess spread in its securitisation SPVs. However, this did not result in any long-term gains and continuing charge-offs led to the decreasing excess spread. Similarly to NextCard, Spiegel characterised first payment defaults as fraud losses instead of credit losses, which led MBIA to declare 'pay-out events' on the deals that it had insured (the issue was later settled between MBIA and Spiegel). Shortly thereafter the rating agencies started downgrading the non-insured securities. After trying unsuccessfully to sell its credit card business, Spiegel was forced by the Office of the Comptroller of the Currency to liquidate the FCNB credit card portfolio and in 2003 Spiegel filed for bankruptcy protection, thus triggering early amortisation events under the securitisation documents.

Around the time of bankruptcy declaration, the Securities and Exchange Commission began an investigation into Spiegel's compliance with federal securities laws. In September 2003 an independent examiner's report revealed that Spiegel had made material misstatements and omissions with respect to the collateral used in FCNB's securitisations, manipulated interchange rates and misreported the performance of securitisation transactions to avoid the early amortisation triggers.

Similar to other deals described above, the Spiegel securitisation had no back-up servicing arrangements. The servicing fees were not high enough to encourage FCNB to continue servicing the asset portfolio or to find a *bona fide* servicer to replace FCNB. Ultimately, the Office of the Comptroller of the Currency directed FCNB to find another servicer and at the same time ordered Spiegel to raise the servicing fees to market rates to avoid the further deterioration of the portfolio that would result if a substitute servicer were unwilling to step in. According to Nomura's "ABS Credit Migrations 2004" report, Spiegel's series of securitisations was the most instructive of all securitisation defaults as it included:

- problems with the servicing of assets and calculation of servicing fees;
- a declining pool in early amortisation;
- fraud;

- manipulation of triggers and early amortisation delayed by the sponsor;
- reclassification of 'fraud losses' as 'credit losses';
- servicer misappropriation of collections; and
- securities fraud.

NCFE

In addition to the Spiegel case, the experience of NCFE (described above) provides a good example of fraud and misappropriation being major obstacles to a successful securitisation. Shortly before the bankruptcy filing (which in turn was preceded by a Federal Bureau of Investigation raid on its headquarters), NCFE and its principals were accused of fraud in connection with NCFE's securitisations and claims that the securitisation collateral either was ineligible or did not exist. Enabling this fraud was the revolving nature of the collateral and the lack of third-party oversight. In addition, improper transfers of reserve funds between the two major securitisation SPVs were made without authorisation. As well as claims against the principals, the investors filed lawsuits against the placement agent, the trustee and other parties. Three top executives of the company pleaded guilty and were sentenced to prison terms, while five others began trial in February 2008.

One of the lessons learned from these and other prior securitisation transactions is that corporate fraud infecting structured finance issuances is not an uncommon phenomenon in structured debt transactions. With stronger compliance rules and better management and supervision (both external and internal), the results might have been different.

Legal issues

A fundamental principle of structured finance (and its distinction from a secured financing) is bankruptcy based: it involves a true sale of the collateral to a bankruptcy-remote SPV, which is structured so as to prevent it from being substantively consolidated with the sponsor if the sponsor becomes a bankruptcy debtor. Investors must look solely to the collateral portfolio and any credit enhancements to provide the expected cash flows. Moreover, a high rating is supposed to be indicative not only of a high probability of ultimate repayment to investors, but also of timely payment when due without delay due to the automatic stay in bankruptcy. Thus, it is essential to structure an SPV in a way that minimises the prospect that it will

become a debtor in bankruptcy and to reduce the practical possibility that its bankruptcy remoteness will be challenged in a bankruptcy court. At best, however, proper structuring can make the risks of an SPV bankruptcy more remote; as is seen below, it cannot bankruptcy-proof the SPV.

LTV Steel/Days Inn

Until recently, it appeared that securitisation finance rested on secure legal grounds. Then came the LTV Steel case which challenged (without definitively resolving) the very foundations of structured finance, with the case successfully entrenching itself in all true sale opinions given by legal advisers.

LTV Steel was preceded by the infamous bankruptcy of Days Inn in the late 1980s. In the \$155 million securitisation of the trademark franchise assets of Days Inn, the sponsor entity which ran its franchised hotel business operations declared bankruptcy and, despite the fact that the securitisation itself was performing as scheduled, at the request of the sponsor the bankruptcy court entered an order granting a motion for substantive consolidation of Days Inn and its SPV which held the trade name and received franchise fees. The ruling (which was subsequently withdrawn) relied heavily on the 'core assets' analysis: the monetised trademarks were determined to be core assets of the debtor and therefore necessary for the successful sale and reorganisation of the entire Days Inn business operation in bankruptcy for the mutual benefit of creditors of the sponsor and SPV. The bankruptcy filing by the SPV resulted in the occurrence of a termination event under the transaction documents regardless of whether it was performing economically. What was instructive about the Days Inn case was that it demonstrated that it is not always sufficient to structure and document a securitisation properly if the legal requirements are not observed following the closing date. What the bankruptcy court found during the proceedings (eg, commingling of bank accounts, expense payments from a joint account, interrelationships among the debtors and other violations of the separateness covenants) was enough for the court to determine that grounds existed for substantive consolidation of the SPV with the bankruptcy debtor, especially where the benefits (a higher sale price for the entire operation) outweighed the burdens on the securitisation investors which ultimately were paid in full, albeit after a delay.

The structure employed in *LTV Steel* was also

typical of many other securitisations. When LTV Steel, one of the largest steel manufacturers in the United States, faced a liquidity problem and filed for Chapter 11 relief in December 2000, the company itself filed an emergency motion with the bankruptcy court in Ohio requesting the interim use of cash collateral used in prior securitisations and claiming that those securitisation transactions were not true sales, but disguised financings. The arguments and points that LTV Steel used were not atypical of those used in other similar bankruptcy proceedings:

- failure to maintain corporate formalities;
- LTV Steel's retention of risk if the value of the collateral was insufficient to repay the investors; and
- the amount of control LTV Steel exercised over the collateral.

The collateral in question was securitised and the securities sold to a consortium of banks led by Abbey National. The bankruptcy court went along and approved the emergency motion as part of LTV Steel's first-day pleadings, thereby allowing the debtor the use of the securitisation proceeds on an interim basis in return for providing the securitised parties with adequate protection in the form of a continuing lien on LTV Steel's new receivables and inventory.

A week later, counsel to the trustee and securities noteholders appeared at the final hearing on the matter and challenged the bankruptcy court's jurisdiction to enter an order extending the automatic stay to inventory and receivables sold to LTV Steel's special purpose entities prior to the filing on the grounds that such assets were no longer the property of its bankruptcy estate because they had been transferred to the SPV in a true sale. The court in effect treated their objection as a request for a temporary restraining order against the debtor's use of the securitised assets, which it refused to grant without the benefit of a full evidentiary review. On the basis of the limited record before it, the court was unwilling to rule that LTV Steel had no interest in these assets or that such assets were not the property of LTV Steel's bankruptcy estate subject to the automatic stay, and left its original ruling intact, permitting use of these assets to stand pending a full trial on the merits. However, the LTV Steel court's ruling was only an interim one; it made no final findings on the true sale issues. Ultimately, Abbey National reached a settlement with LTV Steel involving new debtor-in-possession financing arrangements with higher fees; in return, LTV Steel

acknowledged that the securitisations were in fact true sales of the collateral. The bankruptcy court approved the settlement.

Due to the settlement, the bankruptcy court did not get a chance to answer the question of whether LTV Steel's transfer was in fact a true sale. The main lesson learned from this case was that significant risk exists where the securitised collateral consists of the sponsor's working capital assets which generate substantially all of its cash flow (without which the sponsor would be unable to obtain debtor-in-possession financing or remain in operation following a filing). In short, the true sale findings requested by the securitisation parties would have meant a quick end to the bankruptcy case and would have left LTV Steel with little or no funds with which to operate. This explains the court's interim decision.

As *LTV Steel* indicates, there is no bright-line test to determine whether a transfer amounts to a true sale of assets, as is demonstrated by the myriad of qualifications, assumptions and other disclaimers found in true sale opinions. Issuers and sponsors can try to minimise the risk of a bankruptcy court applying the doctrine of substantive consolidation (ie, disregarding the separate legal status of two or more legal entities and pooling their assets and liabilities). To achieve this, it is important that the issuer in a securitisation be prohibited from engaging in activities other than owning and managing the securitisation assets and from behaving as a mere alter ego of its parent company. Sponsors and SPVs employing different and independent officers and/or directors, having separate offices, paying their own operational expenses, not assuming each other's liabilities and obligations and otherwise obeying typical corporate formalities can all be used to prove the SPV's independence and to defend against efforts to invoke substantive consolidation. Similarly, the SPV can have an independent director whose consent is required to approve a voluntary bankruptcy filing, but who is subject to the same state law fiduciary duties as any other director. These mechanics can make the chances of the SPV's filing for bankruptcy more remote, but to say that they bankruptcy-proof the SPV is a misnomer.

Sub-prime crisis

The adoption by the SEC of Regulation AB coincided with the later stages of the real estate boom, then the downturn and ultimately the meltdown of the sub-prime market. What were the

causes of the collapse and what lessons can be learned to avoid similar fiascos in the future?

The current sub-prime mortgage crisis can trace its origins to the latter part of 2006, which saw a moderate drop in housing prices, combined with rising interest rates. Sub-prime mortgages are mortgages taken out by individuals with a less-than-perfect credit profile, often under significantly relaxed documentation requirements. However, instead of looking at the borrower as the source of repayments and the property as security for such repayments, more often than not lenders paid more attention to the property. With the booming real estate market, the sub-prime borrower's worst-case scenario appeared to be refinancing or selling the property.

This system continued to be profitable for a while, leading to easy access to mortgage credit and subsequently near-record levels of home ownership. However, with the slowdown in growth and the decline in home prices, combined with the rising interest-rate environment, refinancing or even selling the property was no longer an option. Default and foreclosure activity intensified and neither the borrower nor the property itself could now support the amount of the mortgage loan.

This chapter takes a brief look at the causes of the current crisis from a structured finance perspective and attempts to determine whether they are different from or similar to the issues previously discussed in this chapter.

System and structure failure

Most analysts have concentrated on the poor quality of the collateral, relaxed underwriting criteria and the condition of the real estate market and the US economy as a whole. However, the failure of the current market may be an actual reflection on the failure of structured finance as a means of providing capital markets liquidity. In his defence of the sub-prime mortgage market, former Federal Reserve Chairman Alan Greenspan argued that the securitisation of sub-prime mortgages, and not the loans themselves, was to blame for the credit crisis.

Before the widespread use of securitisations, mortgage originators typically retained their mortgage loans until they were paid down or refinanced. As a result, they were much more concerned about the credit quality of both the borrower and the collateral. However, with the development and gradual increase in

securitisations of sub-prime mortgage loans, and later collateralised debt obligations, the link between the lender and the borrower was severed: with the mortgage loans securitised or sold at a profit to unrelated third parties, the originator's wellbeing was no longer dependent on the quality of the collateral. Many lenders decided to reduce underwriting standards and to resort to automatic software-enabled underwriting. Even then, under the reduced documentation standards many loan applications included fraudulent misrepresentations, leading one economics professor to refer to the phenomenon as "predatory borrowing".

Therefore, there was an apparent disconnect: lenders had the power to decide whether to underwrite mortgage loans and on what terms, but in most cases had no stake in their performance. Moreover, following a securitisation any losses associated with sub-prime mortgage loans can be allocated to a multitude of investors, therefore spreading the risk of owning a sub-prime portfolio. Is the system itself to blame for the sub-prime crisis? Unlike the micro analysis (eg, fixing the problems of deficient pools, stricter origination guidelines), this would be a macro approach to the problem. If the system itself is flawed, is there a better alternative?

In addition, there have been numerous structural weaknesses within the system. The first and the most obvious one was the suspect collateral. Aside from the elephant in the room – the sub-prime nature of the assets as discussed above – the current crisis also underscored the fallacy of the portfolio effect. One of the problems faced by the sub-prime mortgage-backed securities (MBS) is the lack of real diversification. The supposed diversification by state and zip code notwithstanding, most of the sub-prime MBS transactions were based on homogeneous collateral which did not perform well under the negative market conditions, and most critically proved to be correlated rather than non-correlated in a declining real estate cycle. Thus, the comfort of the 'portfolio effect', the 'law of large numbers', the Monte Carlo simulations and other stress analyses performed by the rating agencies in rating these securities proved to be illusory.

Another structural deficiency in MBS securitisations is their complexity. The MBS structures, with multiple variations, tranches and credit support arrangements, have become difficult to value and it is even harder to predict their performance over a long-term period. The rating agencies failed miserably in addressing this

problem and are now faced with issuing multiple-notch downgrades on billions of dollars' worth of bonds which they rated AAA/Aaa just a year or two before.

Third-party oversight

One of the problems often cited with respect to the rating agencies is that while the market relies on their independent valuation of the issued securities, they are not disinterested evaluators as their fees are paid by the issuers or related entities whose securities they rate. The more deals that the rating agencies help to structure and ultimately rate, the higher their earnings. This conflict of interest is often cited by sceptics who do not believe that faulty ratings were purely the result of mistaken analysis.

Regardless of whether this failure was the result of wilful representations or honest mistakes, there was certainly a model failure on the part of the rating agencies. To assign a rating to a MBS security, the rating agency needs to be able to predict its performance over a certain period of time. One level of analysis involves reviewing and analysing historical data on similarly situated pools of mortgage loans. The second level of analysis involves an examination or prediction of how the current pool would perform under a variety of plausible economic circumstances. It appears that the problem with the second level of analysis was that the scenarios envisioned by the rating agencies were typically too close to the average values and did not contemplate a housing meltdown of the current proportions. Some Congressional leaders have called for an investigation of the rating agencies and their role in the sub-prime crisis. Clearly, an overhaul of the rating system is required and the rating agencies are aware of this.

Therefore, it is no wonder that as a reaction to the market's criticism Moody's has recently announced that it is contemplating a change in how it assigns ratings to MBS securities and other structured products. Other rating agencies are likely to follow. For now, one lesson to be learned is that ratings assigned by the agencies are not absolute truths or unconditional guarantees of performance; they are opinions (presumably educated) by some of the market participants based largely on data which the sponsors and other participants provide to the rating agencies, and should be viewed accordingly. The few reported cases in which attempts have been made to sue the rating agencies for faulty ratings have stressed this

point in typically refusing to hold the agencies liable for their ratings.

Multiple conflicts of interest can also be found with the existing structure. Far from uncommon were structures where the originator, the sponsor, the depositor, the underwriter and/or the servicer were affiliated entities, often represented by the same counsel in a securitisation transaction. Aside from a potential failure of the system of checks and balances in structuring securitisations, there is also a question of financial incentives as certain functions (eg, origination, underwriting or servicing) are valuable in and of themselves and are likely to continue to be profitable even if the transaction itself does not perform well.

Finally, many observers believe that the lack of governmental oversight is one of the reasons for the market's collapse. Conversely, some claim that the government's role in strongly encouraging lenders to extend sub-prime mortgages to uncreditworthy consumers pursuant to the Community Reinvestment Act is one of the reasons for the expansion of the sub-prime market. Others claim that, despite a multitude of federal and state laws governing disclosure limitations with respect to high-cost loans, the government has not done enough to discourage predatory lending and prevent the growth of a secondary market in predatory loans. At present, there is no shortage of proposed legislation to deal with the existing crisis; it will soon be seen what remedies, if any, the government will adopt to respond to the current crisis and to prevent its recurrences. However, one word of caution is that there is a fine line between excessive government regulation and the stifling of financial flexibility and activity.

True sale issues

With the amount of litigation generated by the sub-prime meltdown and the multiple theories and causes of action involved, the true sale issue will undoubtedly resurface again as one of structured finance's black holes. As noted earlier, while the entire concept of structured finance is based on a true sale to the SPV, the issue, as applied to securitisations, has never been definitively settled in a court of law. The true-sale analysis rests on a few bankruptcy cases arising in contexts very different from a securitisation. There is no reported decision upholding a securitisation true sale. Is there a risk that the sub-prime debacle may actually unwind the true-sale concept? While there is a risk that the sub-prime debacle may lead to a frontal

challenge to the true-sale concept, this is not likely. Such challenges have previously arisen in transactions involving a company's core working capital assets, not discrete pools of financial assets such as sub-prime mortgages.

Conclusion

Returning to the original question of this chapter, is the current sub-prime mortgage crisis proof of a fatal defect in the structured debt paradigm or is it the result of human failures in applying securitisation technology? Are the problems currently faced by the structured finance market inherent in the securitisation model or do they constitute a 'black swan' event? In *The Black Swan: The Impact of the Highly Improbable* Nassim Nicholas Taleb defines a 'black swan' event as an occurrence of high impact which was not predicted based on prior experience, but which in retrospect could have been foreseen if erroneous conclusions had not been drawn from such experience. Could the sub-prime crisis have been predicted based on prior negative experiences with non-performing securitisations? If the problems are of the same nature, why were the necessary measures not taken to avoid them in the future?

It would be easy to think that the problems of previous years were resolved and remedied and that the current crisis is a new phenomenon caused by a different set of issues. This is not the case. The only difference between the failed transactions described in the first half of this chapter and the sub-prime mortgage crisis is the magnitude of the problem and, due to the nature of the collateral, the effect that it has on a large number of investors and homeowners. On the one hand, there were individual cases which concerned only a handful of investors and securitisation analysts; now the same issues and problems are magnified by a substantial factor. However, the nature of the issues facing structured finance remains the same: defective collateral, deficient structure or business model, fraud, mismanagement of assets, lack of third-party oversight and shaky legal grounds. What changed was the scale and the effect these problems are having on the economy.

As to the question of whether securitisations cause more good than harm, it is appropriate to paraphrase Winston Churchill: securitisation is the worst form of finance, except for all the others that have been tried.