

Challenges Related to Financial Guarantee Insurance

Sebastian Schich*

Traditionally, bond insurers have provided guarantees of payments on municipal bonds, where defaults have been very limited. But since the late 1990s they have become increasingly involved as guarantors of elements of various structured financial products: in particular, the credit enhancements provided by these entities have played an important role in making securities based on sub-prime loans attractive to a wide range of investors. It is this trend change in their activity that has become the focal point in concerns about the health of these entities that have grown during the financial turbulence. The note identifies three policy issues that arise in the context of the current challenges facing these entities and it draws some preliminary findings. First, while concerns regarding the potential financial stability implications of further downgrades and/or failures of some of these companies have ebbed somewhat from their peaks in early 2008, the situation still bears monitoring. Second, current developments raise questions regarding the role of financial guarantors in specific financial market segments. In this context, there appears to be a public interest in the continued availability of guarantees on payments on municipal bonds. Private solutions seem to be forthcoming. Third, transparency of the financial guarantee insurance sector is limited. In this context, the performance of credit rating agencies in providing guidance for investors regarding the quality of the guarantees provided by financial guarantors appears to have been uneven.

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Executive summary

Structured products have been at the heart of this financial crisis and there is considerable questioning regarding the future of this segment and the roles of the various players involved. In this context, the present note draws attention to financial guarantee insurance companies (or bond insurers) and to their interaction with other financial institutions and markets.

Financial guarantee insurance provides investors in debt securities with guaranteed payment of interest and principal in the event that the issuer of the guaranteed (“wrapped”) debt is unable to meet its financial obligations. The sector is largely based in the United States, but its clout is international, not least because securities wrapped by financial guarantors are issued by various internationally active institutions and are held in portfolios around the world.

Traditionally, bond insurers have provided guarantees of payments on municipal bonds, where defaults have been very limited. But since the late 1990s they have become increasingly involved as guarantors of elements of various structured financial products: in particular, the credit enhancements provided by these entities have played an important role in making securities based on sub-prime loans attractive to a wide range of investors.

Despite the growing role of financial guarantee insurance in the securitisation process that has come to characterise modern financial markets, the entities providing this specific financial service received relatively limited attention until early 2008, when several rating agencies openly discussed the possibility of taking adverse rating actions related to the biggest entities in the sector. Those discussions brought intense scrutiny on the role of bond insurers in structured finance.

The note does not attempt to arrive at definitive conclusions regarding the past and possible future role of these entities in the securitisation process, as current developments are in flux and uncertainty about outcomes is very high. Instead, the note identifies some policy issues that arise in the context of the current challenges facing these entities and it draws some preliminary findings, which could be confirmed in future work to permit firmer policy conclusions to be drawn.

- First, over the short term, current pressures on financial guarantors raise the question as to how relevant are these developments and the possibility of further credit rating downgrades and/or failures of some of these entities for financial markets, institutions, and stability. Such downgrades would feed through to downgrades of the guaranteed securities, the “wrapped” amounts of which are well in excess of USD two trillion, and there would be additional adverse effects on counterparties of financial guarantors. While concerns regarding these effects have ebbed somewhat from their peaks in early 2008, the situation still bears monitoring.
- Second, on a structural issue, current developments raise questions regarding the role of financial guarantors in specific financial market segments. In this context, there appears to be a public interest in the continued availability of guarantees on payments on municipal bonds. Whether and/or to what extent such concerns justify policy intervention is uncertain, however, especially as the business outlook for this activity is reasonably good anyway. Private solutions are forthcoming and new private capital is entering that segment. As to the role of financial guarantors in structured finance, some of the weaker and smaller companies may exit the market (enter into “run-off”). Whether remaining financial guarantors will be successful in procuring the necessary capital base to insure such business going forward is uncertain.
- Third, transparency of the financial guarantee insurance sector is limited. In this context, a specific issue relates to the performance of credit rating agencies in providing guidance for investors regarding the quality of the guarantees provided by financial guarantors. There is a possibility that concerns about the broader adverse effects of downgrades may have inclined rating agencies to forestall quick actions, perhaps giving investors inadequate or inaccurate assessments of underlying credit quality. But there is also the possibility that rating agencies actually have toughened their stance vis-à-vis financial guarantors more recently in an attempt to preserve their own reputations in the wake of the broader criticism of the role they have played in the rating of structured financial products. These issues have to be seen against the background of a wider discussion regarding the role and performance of rating agencies in the originate-and-distribute model that has come to characterise modern financial markets, as well as the heightened role assigned to credit rating agencies as part of the new approach to banks’ capital adequacy. The performance of credit rating agencies in providing guidance for investors regarding the quality of the guarantees provided by financial guarantors has been uneven.

I. Introduction

Structured products have been at the heart of the financial crisis and there is considerable questioning regarding the future of some segments of the market and the roles of the various players involved. In this context, the present note draws attention to financial guarantee insurance companies (or bond insurers), and to their interaction with other financial institutions and markets.¹

Financial guarantee insurance provides investors in debt securities with guaranteed payment of interest and principal in the event that the issuer of the guaranteed (“wrapped”) debt is unable to meet its financial obligations.

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Despite the growing role of financial guarantee insurance in the securitisation process that has come to characterise modern financial markets, the entities providing this specific financial service received relatively limited attention by the financial press and the wider public until early 2008, when several rating agencies openly discussed the possibility of taking adverse rating actions related to the biggest entities in the sector, although financial market indicators had indicated rising concerns since July 2007.

The rating assigned to bond insurers is a key parameter, as the business model of the latter essentially consists of lending their own credit rating to debt issuers for a fee. Their (typically high) credit ratings underpin the value of the insurance, or credit protection, provided to investors. Any lowering of such ratings would not only adversely affect the business outlook of the financial guarantor itself, but would most likely feed through to the rating of securities enhanced by guarantees provided by the insurers.

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Financial guarantors have played a very active role in many securities markets, including the very large US municipal bond market and those for structured financial instruments including collateralised debt obligations (CDOs) backed by residential mortgage-backed bonds and other asset backed securities. The total amount of securities “wrapped” by bond insurers’ payment guarantees is well in excess of USD two trillion.

Traditionally, bond insurers have provided guarantees of payments on municipal bonds, where defaults have been very limited. But since the late 1990s they have become increasingly involved as guarantors of elements of various structured financial products: The credit enhancements provided by these entities have played an important role in making securities, including those based on sub-prime loans, attractive to a wide range of investors. It is this trend change in their activity that has become the focal point in recent concerns about the health of these entities.

The note identifies some policy issues that arise in the context of the current challenges facing these entities

The note does not attempt to arrive at definitive conclusions regarding the past and possible future role of these entities in the securitisation process, as current developments are in flux and uncertainty about outcomes is very high. In particular, from a financial stability point of view, considerable uncertainty remains about the extent to which eventual loan delinquencies and foreclosures in subprime mortgage securitisations will translate into realised capital losses at financial institutions, including financial guarantee insurers. Instead, the note identifies some policy issues that arise in the context of the current challenges facing these entities and it draws some preliminary findings, which could be confirmed in future work to permit firmer policy conclusions to be drawn.²

The note is structured as follows. In the second section, the note provides some background information, focusing on selected developments preceding the recent financial pressures facing financial guarantors. The third section describes in some detail the activities and current challenges facing financial guarantors. Then, each of the subsequent three sections identifies and discusses a specific policy issue. They are as follows:

First, current pressures on guarantors raise the question as to how relevant are these developments for financial stability

- First, over the short term, current pressures on financial guarantors raise the question as to how relevant are these developments and the possibility of further credit rating downgrades and/or failures of some of these entities for financial markets, institutions, and stability. Such downgrades would feed through to downgrades of the guaranteed securities, the “wrapped” amounts of which are well in excess of USD two trillion, and there would be additional adverse effects on counterparties of financial guarantors. The most severe problems are primarily concerning weaker and smaller financial guarantors, while the two largest companies have preserved their (high) rating from two credit rating agencies for now. Thus, concerns regarding these effects have ebbed somewhat from their peaks in early 2008, although the situation still bears monitoring. Perhaps the most significant uncertainty in this context relates to the timing of potential losses at financial guarantee companies. Regardless of the specific point estimate of such losses, the key question is over what period of time these losses may be spread out (see also section IV).

Second, current developments raise questions regarding the role of financial guarantors in specific financial market segments

- Second, on a structural issue, current developments raise questions regarding the role of financial guarantors in specific financial market segments. In this context, there appears to be a public interest in the continued availability of guarantees on payments on municipal bonds. Whether and/or to what extent such concerns justify policy intervention is uncertain, however, especially as the business outlook for this activity is reasonably good anyway. Private solutions are forthcoming

and new private capital is entering that segment. As to the role of financial guarantors in structured finance, some of the weaker and smaller companies may exit the market (enter into “run-off”). Whether remaining financial guarantors will be successful in procuring the necessary capital base to insure such business going forward is uncertain (see also section V).

Third, a specific issue is the transparency of the sector

- Third, transparency of the financial guarantee insurance sector is limited. In this context, a specific issue relates to the performance of credit rating agencies in providing guidance for investors regarding the quality of the guarantees provided by financial guarantors. There is a possibility that concerns about the broader adverse effects of downgrades may have inclined rating agencies to forestall quick actions, perhaps giving investors inadequate or inaccurate assessments of underlying credit quality. But there is also the possibility that rating agencies actually have toughened their stance vis-à-vis financial guarantors more recently in an attempt to preserve their own reputations in the wake of the broader criticism of the role they have played in the rating of structured financial products. These issues have to be seen against the background of a wider discussion regarding the role and performance of rating agencies in the originate-and-distribute model that has come to characterise modern financial markets, as well as the heightened role assigned to credit rating agencies as part of the new approach to banks’ capital adequacy. The performance of credit rating agencies in providing guidance for investors regarding the quality of the guarantees provided by financial guarantors has been uneven (see also section VI).

II. Backdrop for the current challenges facing financial guarantors

Search for yield

Events in financial markets are still unfolding, so it is too soon for a proper *post mortem* on the crisis. This section seeks instead to discuss some of the important developments that gave rise to the market environment in which the crisis was triggered. Some factors are relatively recent phenomena, while others, such as the “search for yield” by investors, are more longstanding.

The backdrop to recent events is the longstanding “search for yield”

Over much of the early part of this decade, interest rates on low-risk investments such as high-credit-quality government bonds declined to low levels in many countries. Having become accustomed to higher nominal returns, many investors responded to the drop in yields on safe-haven investments by moving out the credit spectrum into higher-risk assets. This shift was evident in a number of

developments, including the strong demand for relatively new and higher-risk assets such as sub-prime residential mortgage-backed securities (RMBS), the increase in ‘carry trades’, the growth in alternative investment vehicles and the compression of risk spreads across a variety of different asset classes.

The “search for yield” had for some time been one of the main themes of discussions related to financial stability in various international *forae* such as the OECD’s Committee on Financial Markets (CMF), the Committee for Global Financial Systems at the BIS, the IMF, and the Financial Stability Forum (FSF). But as more time passed without any major financial market turbulence or casualties, concerns about the possible adverse implications of such behavior seemed to have ebbed (at least prior the actual outbreak of the crisis). There are a number of reasons why concerns had subsided. For one, at least some of the narrowing in yield spreads could be justified by underlying fundamentals, such as the strength of the global economy, strong corporate profit growth, sound corporate balance sheets, low corporate bond defaults, and strong economic performance by many emerging markets (EM). And while spread compression was evident in a variety of asset classes, some comfort could be taken from signs that investors were managing to differentiate between some types of high-yield instruments, *e.g.* with spreads on claims on a few of the riskier emerging market borrowers remaining at relatively more elevated levels.

Originate and distribute model

The search for yield also stimulated financial innovation

The search for yield, together with technological and financial theory advances, also stimulated financial innovation and supported rapid increases in the issuance of structured financial instruments, such as CDOs, asset-backed securities in which the underlying collateral consists of various forms of credit obligations, including loans, bonds, or other asset-backed securities. One asset class referenced by CDOs that has been in the spotlight of late is that backed by residential mortgage-backed securities.

The growth of the market for these instruments reflected a change in the business models of banks from so-called “buy-and-hold” to “originate-and-distribute” strategies. As a result of these changes, the role of banks as the ultimate holders (and monitors) of credit assets has become less important in many markets, replaced in turn by institutional investors such as insurance companies, pension funds, and hedge funds.

These shifts notwithstanding, banks and some securities firms continued to occupy a pivotal position in the credit intermediation process. They originated and underwrote a large share of credit assets,

which they then distributed to various investors, using securitisation and a variety of other techniques to unbundle and repackage the risks.

Heavy reliance on ample market liquidity

Many of these structured credit products relied on the prevalence of a substantial risk appetite among investors

The transformation of banks' business models from the so-called "buy-and-hold" to the "originate-and-distribute" model yielded substantial benefits, including a wider dispersion of risk throughout the financial system. At the same time, however, new risks arose.

One of them was that the structure of many of the new financial instruments relied on the continued supply of ample market liquidity. In this context, many of these structured credit products relied on the prevalence of a substantial risk appetite among various types of investors, in particular, those taking on the riskier tranches.

To sustain demand for structured products, a variety of enhancements were provided, including financial guarantees

To sustain investor demand for structured financial products, a variety of enhancements were provided, including financial guarantees. In fact, many investors did not invest in debt securities that did not carry such enhancements. Once highly rated financial guarantors had enhanced specific tranches of structured financial products, so that these tranches were considered high credit quality by rating agencies, many investors felt encouraged to invest in them. Oftentimes, issuers of structured financial products sought financial guarantees in situations when a CDO was invested in newer asset types or was managed by a new CDO manager.³

While market liquidity is crucial for the functioning of the modern securities-based financial system, recent events have again highlighted that it can evaporate very rapidly. It has now become clear that in a situation of stressed liquidity, risks that supposedly have been transferred to other investors through the sale of financial products can flood back to banks' and securities firms' balance sheets. That appears to be the case in the current scenario, whereby the complex structures created by these institutions have turned out to ultimately require the originators' support. It is difficult to grasp the full magnitude of this effect, not only for third parties, but also for the institutions themselves that had originated these structures.

In any case, the securitisation process became more complex as it involved a large number of players at different stages, with fees and premiums being earned at each stage. This situation implied that the process was subject to a number of frictions, stemming in particular from the existence of asymmetric information, meaning that one party has more information about an asset or portfolio of assets than another. Market participants have developed a variety of solutions to reduce these frictions or their effects. Nonetheless, with hindsight, it has become clear that at least some of them were insufficient.⁴

Sub-prime mortgage debt developments

Enhancements related to securitizations of sub-prime debt are the main reason for current pressures on financial guarantors

Even if the crisis has now moved beyond the area of sub-prime mortgage loans, the latter have been at the center of the recent financial market turbulence, and they have been the ultimate collateral that backed many complex financial instruments that were “wrapped” by guarantees from financial guarantee insurance companies. Indeed, the enhancements that financial guarantors have provided in the context of the securitisation process related to residential mortgage-backed securities are the main reason for the financial pressures that these entities are currently facing.

Sub-prime mortgage loans were often originated at a low initial “teaser” rate that expires after a set period of time, at which point the rate resets to its fully indexed level. It appears that mortgage lenders have been excessively lenient in their screening of mortgage applications, perhaps because they anticipated refinancing on the part of households as the result of an increase in house prices or because lenders anticipated that they would transfer the credit risks through securitisation, while borrowers may have opted for temporarily low financing costs, among other things, in anticipation of further increases in house prices.

In any case, the observation that defaults on some vintages of sub-prime mortgage loans have risen sharply *even before* interest rate resets have taken place is a clear sign of poor underwriting. This point is regularly made on the basis of a plot of the percentage of 60-day delinquencies as a share of total payments due by mortgage vintage year. What is remarkable in these charts is that for some vintage years delinquencies do occur within very short delays of only a few months after origination of the mortgage. These charts show considerably steepening curves as more recent vintage years are included, with the year 2006 standing out as a particularly bad one in terms of underwriting quality, according to that criterion.

There were similar patterns recorded in 2001 and also in the late-1990s. In the latter episode, after a period of depressed underwriting standards and high loan volumes, defaults on new vintage US sub-prime home equity loans ran well above the rates associated with earlier vintages. At that time, however, despite considerable fallout in the sub-prime sector, there was no broader contagion.

More recently, developments in the sub-prime (and Alt-A) mortgage market spilled over to broader financial markets. Default rates in the subprime segment reached record levels, and so did foreclosures, even though many recent vintage loans in the United States had not yet experienced rate resets. At the same time, falling house prices reduced the value of the collateral backing mortgage loans and effectively eliminated the possibility for borrowers to refinance their loans into more standard mortgage products after a period of satisfactory repayment experience. In

the past, with house prices rising, many sub-prime loans were refinanced after a short period and often turned into higher-grade loans. Such benefits were not available in the recent episode.

This time around, developments in the subprime market seem to have had outsized effects on the broader financial markets. Indeed, the US sub-prime market is small compared to the US mortgage market let alone as a share of the global financial market. For example, the notional value of asset-backed securities backed by US subprime mortgages (excluding those issued by US housing agencies) was around USD 700 billion at end-2006, according to estimates shown in the Bank of England's Financial Stability Report of October 2007. Thus, these securities accounted for not much more than ten per cent of the total notional value of the sum of (agency and non-agency) residential mortgage-backed securities and less than ten per cent of the total notional value of more than USD 10 trillion of US mortgage and non-mortgage asset-backed securities outstanding at end-2006 (based on data from the Flow of Funds Accounts, Federal Reserve Board).

Thus, it is remarkable that developments in the former were at the centre of the broader financial market turmoil. One explanation for this apparent puzzle is that problems in mortgage markets are no longer confined to the subprime sector. This explanation seems to be vindicated by recent developments, with problems now extending beyond the subprime area.

Another explanation, not contradicting the former, is that the initial shock of soaring delinquencies on U.S. subprime mortgage loans was amplified as it uncovered serious flaws in the mechanism of the securitisation process more general. The subprime sector affords, however, perhaps the most egregious example of the effects of shortcomings in the securitisation process, and the effects of past mistakes in this specific market have already been clearly revealed by reported losses.

III. Developments regarding financial guarantee insurance

Financial guarantee insurance

A financial guarantor promises to make payments associated with the insured security over the lifetime of that security

For a fee, a (monoline) financial guarantee insurance company promises to make payments associated with the insured security over the lifetime of that security. The institution that issues the debt or the arranger of a structured financial product may decide to acquire such insurance; it is not the investor that buys it directly. From the point of view of the debt issuer or arranger, this insurance is advantageous to the extent that it makes the security issued safer and thus lowers the interest payments required by investors in such a security.

The international dimension of financial guarantee insurance is significant

The financial guarantee sector consists of nine main firms. They are MBIA, Ambac, FSA, FGIC, SCA (quoted as XL Capital Assurance), Assured Guarantee, Radian Asset Assurance, ACA Financial Guarantee Corporation and CIFG. Most companies are based and supervised in the US states of New York or Wisconsin, while there are also subsidiaries and similar companies in Europe, including in the United Kingdom and France, with passporting rights in the case of other European countries.

Thus, while the sector is largely based in the United States, its clout is international. In this context, note that about one fifth of the business reported on the balance sheets of the nine main firms is qualified as international, and securities guaranteed by financial guarantors are held in portfolios around the world.

The credit ratings of financial guarantors are crucial to their business model

The business model of financial guarantee insurers is to guarantee the servicing of the bonds or asset-backed securities they insure (or “wrap”, in the common industry jargon), thus effectively lending their high credit rating to less creditworthy debt issuers against a fee. Hence, the credit ratings of financial guarantors are crucial to their business model and traditionally most financial guarantors held the highest triple-A rating in the case of the three major rating organisations, Moody’s, Standard and Poor’s, and Fitch Ratings.

In addition, to reduce the likelihood of the occurrence of the risk that the debtor defaults, the financial guarantor assists in the structuring of the debt issues, typically insisting on various covenants that provide a variety of rights and remedies available to the financial guarantor to address issuer or servicer financial problems or deteriorating asset performance. Moreover, the guarantor monitors the performance and alerts the issuers in situations when servicing difficulties may arise. In some cases, the financial guarantor intervenes - in advance of actual claims - to transfer servicing, redirect cash flows or enhance the coverage of insured securities to improve performance or mitigate losses.

While financial guarantors typically retain most of the risk that they underwrite, they use reinsurance selectively, although much of that reinsurance occurs within the financial guarantee sector (thus limiting the protection to be had for the sector as a whole). A limited amount is placed with traditional property and casualty insurance companies, however.

Box 1. Private mortgage insurance

There are two types of monoline insurance companies that were closely involved in the construction of many of the new complex financial products based on securities exposed to (mortgage) credit risk. Further to the financial guarantee insurance companies that provide guarantees related to flows of payments on outstanding debt, there are private mortgage loan insurers that provide guarantees of (part of) the stocks of outstanding mortgage debt. The latter repay a certain percentage of the loan, typically between 25 and 35 per cent, if the borrower defaults. Both types of insurance companies are referred to as monoline insurance companies, as they focus on just one specific type of risk, that is credit risk. Private mortgage insurers have the most direct exposure of any insurance sector to mortgage credit risk. Their core business is founded on insuring mortgages that are relatively high-risk (*e.g.* where loan-to-value ratios exceed a specific percentage, say, for example, 80 per cent) or otherwise non-standard (*e.g.* the absolute amount of the loan exceeding specific limits). In many jurisdictions, banking regulations require banks to demand mortgage insurance in those instances. To the extent that non-banks originate mortgage loans, such regulations do not apply, however. There have been substantial capital losses on the part of several of these entities, depleting substantial parts of the capital buffers that many of them had been able to build up beforehand. Share prices for many of the companies that are members of the Mortgage Insurance Companies of America (MICA) have fallen significantly.

A changing business focus of financial guarantors

Traditionally, the business of financial guarantors was confined mostly to guaranteeing bonds issued by municipalities ...

... requiring only very thin capital bases

Traditionally, the business of financial guarantors was confined mostly to guaranteeing bonds issued by municipalities. This specific business focus perhaps explains the widespread use of the label “bond insurers” when referring to these institutions. Indeed, financial guarantee insurance is generally acknowledged to have begun in 1971 with the insurance of a USD 650 000 obligation bond for the Greater Juneau (Alaska) Borough Medical Art Building. By 2003, almost half of all municipal bonds issued in the United States were insured.

The insurance provided by financial guarantors consisted of a guarantee of the *flows* of payments rather than *stocks* of outstanding debt. Moreover, defaults were very limited in this asset class, allowing the financial guarantee insurance companies to operate with very thin capital bases (Figure 1).

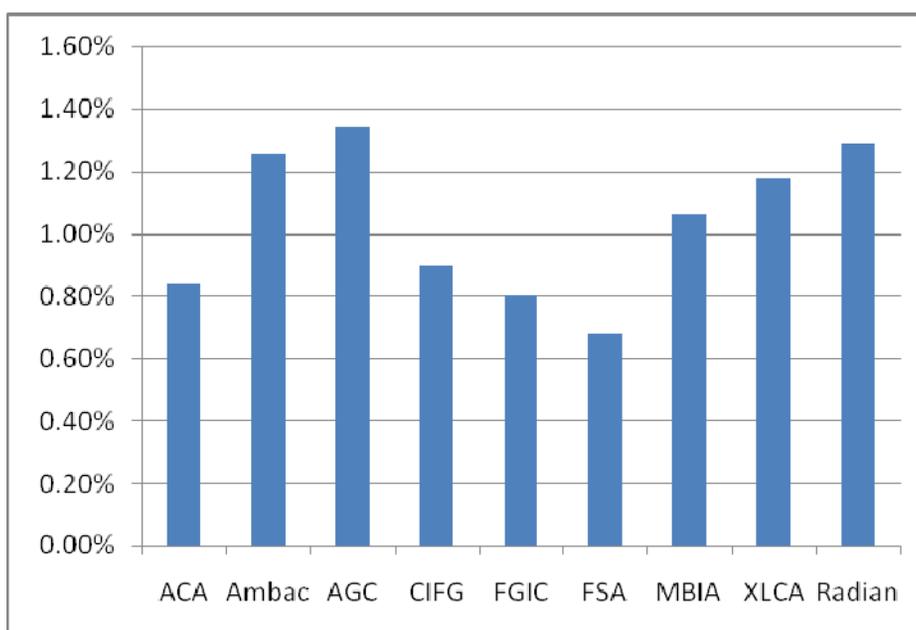
Subsequently, financial guarantors began to increase their exposure to structured financial instruments

Subsequently, however, in response to the increasingly competitive conditions in the municipal bond insurance sector, financial guarantors began to increase their exposure to risk in structured financial instruments. As well, there was a rule change in the United States in the late 1990s that facilitated the financial guarantors' expansion beyond their speciality business of insuring municipal bonds to the area of more complex structured financial products.⁵

Over the past few years, financial guarantors have played an increasingly important role as both protection sellers in asset-backed structured products and leveraged synthetic structures (mostly CDOs) and as providers of secondary guarantees for certain structures. While the regulatory capital base of financial guarantors has grown over the past few years, this growth rate was eclipsed, especially most recently, by that of their structured finance business (Figure 2). The relative involvement in this type of business differs across individual companies, however (Figure 3).

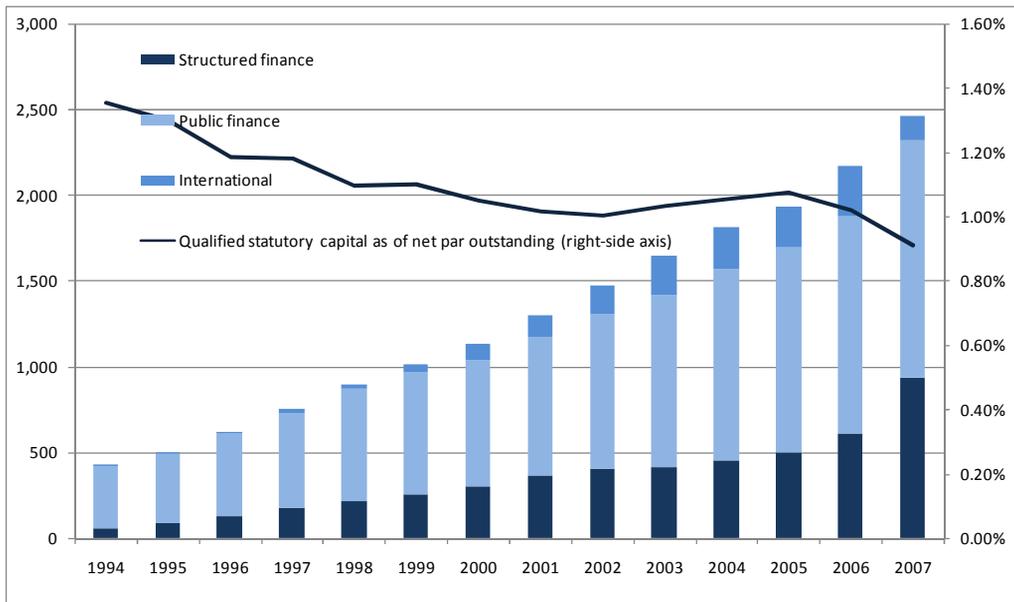
Figure 1. **Capital as a percentage of business underwritten**

Capital as of net par outstanding, as of end-2006



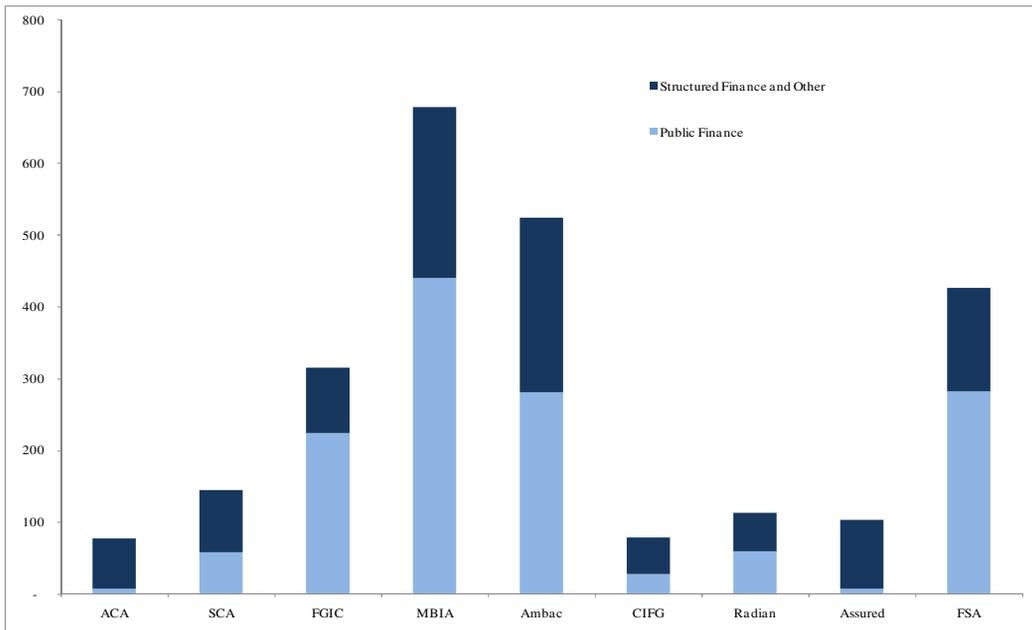
Source: Standard&Poor's and Secretariat's own estimates.

Figure 2. Total net exposure by line of business



Note: In USD billions unless otherwise stated.
 Source: Standard & Poor's and Secretariat's own estimates.

Figure 3. Total net exposure by line of business



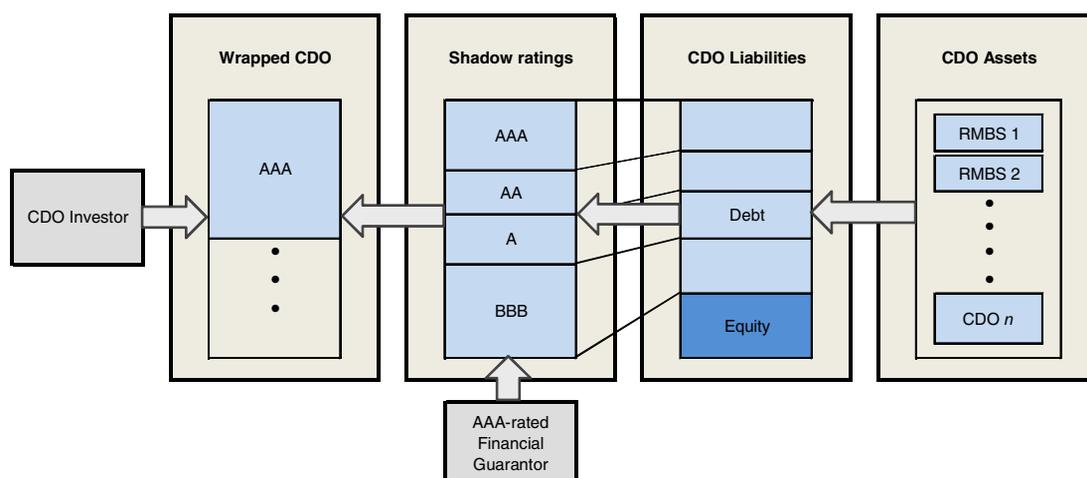
Note: In USD billions. The item "other" may include international public finance in the case of some of the companies. Adding "international public finance" to the "public finance" shown here for those companies where such breakdown is available does not materially change the overall picture, however.
 Source: Standard & Poor's and Secretariat's own estimates.

The insured part of the CDO attains the credit rating of the financial guarantor

The insured or “wrapped” part of the CDO attains the credit rating of the financial guarantor, which is typically higher than the shadow ratings of the securities for which the guarantor provides the payment guarantee (Figure 4). The shadow rating is determined by the credit rating agency. It is not published by the agency unless the debt issuer specifically requests or consents to its publication. It is based on the credit quality of the underlying CDO assets: in the example shown in Figure 5 these assets consist of residential mortgage-backed bonds and CDOs (far-right column).

The financial guarantee (of the payment of interest and principal) in the example above raises the rating of the wrapped CDO. In this sense, financial guaranty insurance is similar to other credit enhancements embedded in the structure of CDOs, such as diversification, over-collateralisation, cash-trapping triggers and, perhaps most notably, subordination. A very important aspect of the structure of a CDO is the absolute seniority and subordination of the CDO’s debt tranches to one another. Cash flows from the CDO’s assets are distributed according to the scheme dictated by seniority.

Figure 4. Example of CDO enhancement by financial guarantor



Source: OECD.

In this context, most financial guarantors typically guarantee payments only on the most senior CDO tranches. For example, according to the trade association of insurers of municipal bonds and asset-backed securities (*Association of Financial Guaranty Insurers – AFGI*), its members provide insurance only in the case of securities that are rated investment grade by at least one rating agency (the “shadow rating” rating of the security).

This policy aims at ensuring that financial guaranty insurance remains a “loss-remote” business. Such a strategy is actually seen as the defining criterion of many financial guarantors. For example, the

Encyclopedia of Actuarial Science (2004) explains that “...all triple-A insurers subscribe to what may be termed a zero-loss or remote-loss underwriting standard”.

Recent loss experience inconsistent with “zero-loss underwriting standards”

Financial guarantors have not maintained their traditionally positive loss experience track record

This practise has not enabled financial guarantors to maintain their traditionally positive loss experience track record, however. Indeed, most financial guarantors reported their first ever quarterly losses during 2007.⁶

In part, reported losses reflect the fact that financial guarantors were obliged to mark unrealised losses to the extent that they guaranteed payments on CDOs using credit default swaps (CDSs). These are derivatives, and they have to be marked-to-market: Under US accounting standards, derivative positions must reflect price changes, and unrealised gains or losses reflected in income statements. By contrast, changes in the value of bonds guaranteed using traditional insurance policies (rather than using derivatives) do not require such treatment, and this practise has contributed to the stability of many insurers’ earnings in the past. The unrealised losses arising from derivatives business are typically ignored, however, by rating agencies and regulators in assessing claims payment capacity of financial guarantors. In fact, in April 2008, one of the largest financial guarantors reported losses related to the financial turbulence in excess of USD 3 billion, noting that these losses would have fallen by a third if CDS policies had been written in insurance form.

Losses are projected by many analysts to rise even further. For example, in mid-January 2008 Standard & Poor’s Rating Services updated and published the results of its financial guarantor stress tests, considering a steepened path for losses and severities in its mortgage vintage model. It showed projected losses well exceeding those that the agency had projected only a month before, even though loss estimates continued to focus only on the exposures of those companies to RMBS and to CDOs with RMBS collateral, however (see for a summary of results Figure 5). These exposures may be most problematic, although they may not be the only source of potential losses.

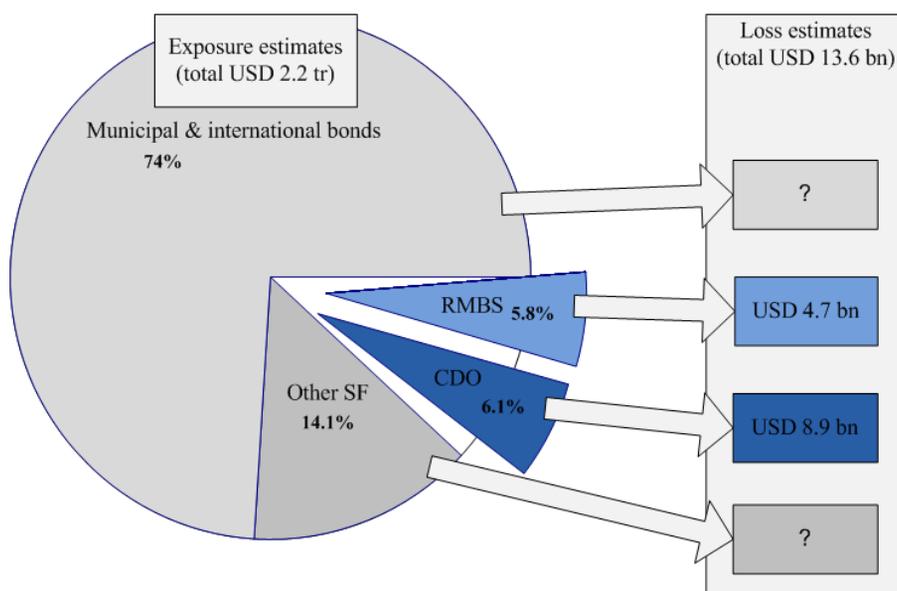
Additional losses could arise from non-core business activities in the structured finance area, where financial guarantors have offered products including guaranteed investment contracts (GIC), medium-term notes (MTN), and structured investment vehicles (SIV). The companies offered GIC, which carry a guaranteed return, to the municipalities whose bonds they “wrapped” so as to enable the latter to temporarily invest the cash raised from a bond issue before it is

being spent. In the case of unexpectedly high redemptions, losses could arise in liquidating the assets backing those GIC contracts. Financial guarantors also offered programmes that involve a subsidiary issuing MTN and investing the proceeds to earn a spread, with the financial guarantor guaranteeing both MTN assets and liabilities. Losses could arise from the materialisation of maturity transformation and credit risks.

Loss estimates are highly uncertain however because of the large number of assumptions involved regarding the materialisation of risk. Also, a deal-by-deal analysis would be required to determine the exact size of the exposure to the risk. In particular, detailed information is required with respect to a number of different parameters including distinction by loan vintage, underwriter, geography, loan-to-value ratio and the terms of subordination embedded in guarantees. While credit rating agencies have access to detailed information on individual deals, such information is generally not publicly available.⁷ Estimates based on observed financial market prices, which could be an alternative to those based on deal-by-deal data are problematic in a situation when prices are depressed by a widespread lack of liquidity and thus not as informative as under normal circumstances; they would tend to lead to exaggerated loss estimates.

Figure 5. **Exposure and loss estimates by a credit rating agency**

Aggregate for nine as of early 2008



Note: The data shown is the aggregate for nine financial guarantee companies (ACA, AGC, Ambac, CIFG, FGIC, FSA, MBIA, Radian, and XLCA).

Source: Standard & Poor's, "Standard & Poor's updates results of its bond insurance stress test for revised assumptions", January 17, 2008.

Note that a hedge fund manager made publicly available a list of individual transactions that are supposed to provide a fairly complete assessment of the individual deals in which the two largest financial guarantors (MBIA and Ambac) are involved. On the basis of that data published in early 2008, the hedge fund manager arrived at loss estimates that far exceed those publicised by the major rating agencies. In particular, he projected losses to the tune of USD 11.61 billion in the case of Ambac and USD 11.63 billion in the case of MBIA. Thus, these estimates for the two companies combined exceeded those produced by Standard & Poor's by a factor of about 4. They must be regarded with caution, however, as the hedge fund manager's investments may benefit from publishing such data.

In any case, even if these and other loss estimates may not appear to be large in absolute terms they are certainly large compared to the capital base and/or claim-paying resources of those financial guarantors, estimated to amount to somewhat less than USD 25 and 50 billion, respectively.⁸ As always, the key question related to such loss estimates is over what period they will be incurred.

Financial market assessments of financial guarantors

Market indicators suggest that there is concern about the financial health of many of these entities

Even before the publication of some of these loss estimates, several financial market indicators suggested that market participants had already become increasingly concerned about the financial health of bond insurers. For example, the relative share prices of several of them underperformed compared to a broad market index throughout the year 2007, but most notably a few months into the financial turmoil, in October 2007.

Given the potential system-wide importance of the financial health of large financial guarantors, most attention focused on the stock price decline of the two largest financial guarantors, Ambac Assurance Corporation and MBIA Insurance Corporation. Figure 6 shows the share price developments of the parent holding companies of these two financial guarantors. The developments at the parent holding companies of some of the smaller financial guarantors were broadly similar.

Figure 6. Relative share prices of the two largest financial guarantors



Source: Thomson Financial Datastream.

Protection against credit default on the part of these entities is now expensive

Also, protection against credit default on the part of these entities has become expensive compared to its own recent past.⁹ For example, premiums on credit default swaps (CDS) for the two major bond insurers rose from less than 30 basis points in early 2007 to several hundred basis points more recently (Figure 7). The development was broadly similar in the case of some of the smaller peers (Figure 8).

A CDS premium of 500 basis points means that the cost of insuring against default on USD one million of five-year senior debt issued by the referenced entities costs USD 50 000 per annum, although this premium is paid quarterly (*i.e.* 12 500 per quarter). Converting this premium to the implied default probability, assuming a contract for one year only and an expected recovery under default equal to half of the original debt, the premium is consistent with a perceived 10 per cent probability of default within one year.

Thus, the current cost of buying protection on credit exposure to financial guarantors via credit default swaps would suggest that market participants attach a significant probability to a default by these entities over the short term. Thus, some earlier analysis interpreted the increase in CDS premiums in autumn 2007 as a sign that there was at least some concern on the part of market participants that losses on CDOs would turn out to be so substantial that they affected not just the unrated and lowly rated but also the most highly rated tranches of CDOs, that is those tranches that are typically “wrapped” by financial guarantors.¹⁰

Figure 7. **Credit default spreads of the two largest financial guarantors**
 Five year maturity, in basis points



Source: Thomson Financial Datastream.

Figure 8. **Credit default spreads of some other financial guarantors**
 Five year maturity, in basis points



Source: Thomson Financial Datastream.

The business of financial guarantee insurance may be poorly understood

Bond insurers have argued that these price developments reflect an exaggeration of their problems and an underestimation of their actual financial health. Indeed, it is possible that a lack of understanding on the part of many investors of the situation of monoline insurers, including of issues related to their balance sheet accounting, has contributed to recent price developments. This suggestion is not implausible given that the business of financial guarantee insurance in general and specific issues such as calculating adequacy of capital, capacity and reserves, in particular, are perhaps not widely understood, reflecting the limited transparency of the sector.

Another factor explaining the significant run-up in CDS prices are attempts by the counterparties of financial guarantors to hedge any exposure they might have against the latter. More generally, according to some market observers, CDS price developments in early 2008 for any company may have reflected to a significant extent the presence of technical imbalances between the supply of and the demand for credit protection, which may have tended to make these indicators less informative about the fundamental prospects of any individual company.

Recent credit rating actions

The stance of major credit rating agencies seemed at times to be fully at odds with financial market prices

Initially, the major credit rating agencies seemed reluctant to change their existing ratings stance with respect to the bond insurers, while independent specialist analysts at GimmeCredit had already downgraded at least two bond insurers.¹¹ Moreover, at times, the stance of the major credit rating agencies with respect to these companies seemed to be at odds with the assessment reflected in financial market prices (Figure 9). For example, there were episodes where credit protection costs for bond insurers enjoying triple-A credit ratings were higher than those related to some BBB-rated companies.

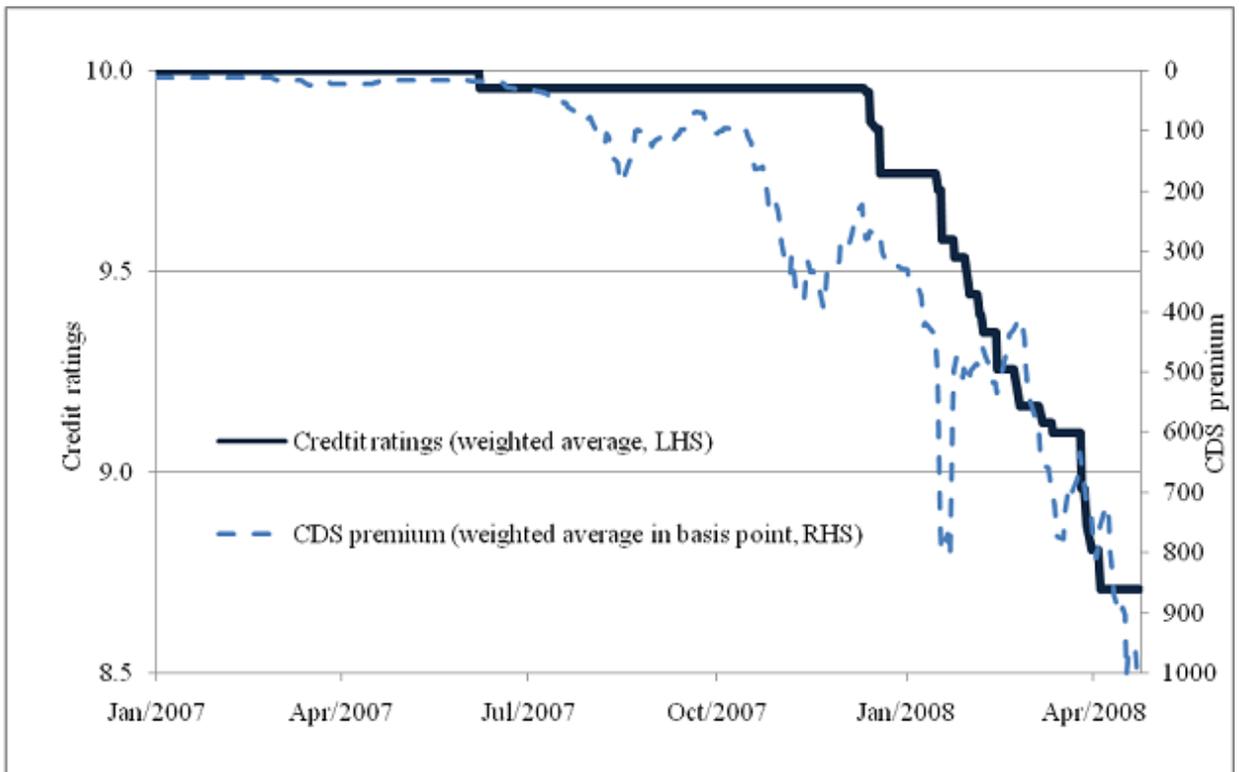
More recently, however, credit rating agencies seemed prepared to take more decisive rating actions. By early 2008, several monoline companies had seen their triple-A rating put on credit watch negative or even downgraded to double-A or lower by at least one of the three major rating agencies. One rating agency even downgraded one of the two major bond insurers from triple-A to double-A. The other two major rating agencies stopped short of stripping these two companies of their triple-A rating, however. They reconfirmed these ratings, although the ratings carry the qualification “on negative credit watch”.

All rating agencies continue to stress the need for bond insurers to raise significant amounts of additional capital, although each agency uses a different capital model, which produces markedly different

outcomes regarding the amount of capital needed to sustain a specific rating. In this context, one financial guarantor has requested one rating agency to discontinue rating its insurance business, as it felt that the capital model used by that agency would overestimate the level of additional capital needed to back the company’s structured finance business. The agency has continued to rate that company however. Withdrawing its rating would imply that some investors would be forced to sell the securities that are insured by that financial guarantor and rated only by that rating agency.

The disparities among rating agencies may have contributed to the uncertainty surrounding the situation of financial guarantors and the increased volatility of their equity and credit default swap prices. While some observers may not have welcomed this effect, such disparities would be expected if the rating market was competitive.

Figure 9. **Indexes of guarantors’ credit ratings and credit default spreads**
 Averages for seven guarantors, weighted by net par outstanding



Source: Secretariat calculations based on data from Thomson Financial Datastream and the three major credit rating agencies.

IV. Financial stability concerns

Potential implications of bond insurer credit rating downgrades

Ratings of bond insurers have implications for their own outlook and for “wrapped” securities

A financial guarantors' credit rating lies at the heart of its business. The ratings of bond insurers have implications both for their own business outlook and for the universe of financial products that are backed by guarantees from these entities. In particular, the quality of the guarantee provided by a bond insurer as part of a financial product cannot exceed the quality of its own rating.

Thus, if the rating of a monoline is lowered, *e.g.* from triple-A to double-A, this may give rise to a series of subsequent adverse developments. As the credit ratings are crucial for a financial guarantor's business model, any downgrade would adversely affect the entity's capacity to write *new* business. There is a widespread perception among bond insurance analysts that a rating reduced to double-A may still permit the concerned company to write some new business, but that any lower credit rating would imply a “run-off”, that is, abandoning writing any new business, be it an explicit strategy or merely a *de facto* state of affairs. Any new business would likely be taken up by the better rated companies, including new start-ups (like Warren Buffet's Berkshire Hathaway Assurance).

A run-off of a company does not imply that it may quickly become insolvent...

A run-off of a company does not imply that it may quickly become insolvent, given the specific nature of its payment guarantees. The bond insurer does not pay the full value of a defaulted security up front. Instead, it needs to honor the payment of interest and principal only when these contractual payments actually fall due. Thus, in principle, a company's existing claims-payment capacity may be sufficiently large so that the company could make the required payments on guarantees in cases of defaults, even if the company does not attract any new business. To overcome liquidity problems, the company may even be able to accelerate receipt of outstanding premiums.

... although the financial situation of a bond insurer may deteriorate rapidly

In practise, however, the financial situation of a bond insurer may deteriorate rapidly for a number of reasons. For example, a rating downgrade may allow the insurer's counterparties to ask the bond insurer for extra cash to back their contracts (or alternatively to terminate these contracts). To what extent such contingencies indeed exist depend on the exact specifications of the financial guarantee contract, which differ from one contract to another. It appears that the more highly rated bond insurers tend not to accept such clauses, so that they are less likely to face calls for extra collateral in the case of a rating change. There is, however, little information in the public domain of the exact terms of such contracts, so that it is difficult to assess the risks that a company will face liquidity problems after a rating cut.

The example of ACA is sometimes cited as an example how quickly the situation of a bond insurer can deteriorate, although the company was special in some respects. The bond insurer ACA Financial Guaranty Corp. was downgraded in December from single-A to a junk rating of triple-C. Subsequently, counterparties of the parent company of ACA Financial Guaranty Corp (that is ACA Capital Holdings Inc.) had to enter into “forbearance agreements” to help the company avoid failure. ACA is relatively small, however, and the company was only A-rated even before the pressures on bond insurers started and it has a relatively large share of structured finance business as opposed to municipal bond business (see also Figure 3). Thus, its experience may not be the most relevant benchmark when assessing the potential downward dynamics for the larger financial guarantors that were entering this phase with the highest credit rating.

A downgrade of the credit rating of a financial guarantor has serious consequences beyond those for the company itself

A decline in the rating of the guarantor feeds through to downgrading of the ratings on all securities it guarantees

In any case, a downgrade of the credit rating of a financial guarantor has serious consequences beyond those for the company itself. In particular, a decline in the rating of the guarantor would feed through to downgradings of the ratings on all securities it guarantees, which would affect not only the issuers but possibly the investors as well. Under these circumstances, it seems clear that the implications of deteriorations in the credit ratings of bond insurers for securities markets would likely be widespread.

Monoline insurers have played a very active role in many securities markets, including, in particular, those for mortgage-backed bonds and the very large US municipal bond market, with the total amount of bonds carrying a bond insurer payment guarantee estimated to total some USD 2 400 billion. Issuers in these markets have relied to a considerable extent on guarantees of interest and principal payment from these entities to boost the ratings on their debt security offerings and thereby lower their overall borrowing costs.

Some investors do not invest in debt securities that do not carry such a payment guarantee. For example, as a result of any rating downgrades, many institutional investors that can only hold the highest rated or very highly rated paper may be forced to sell securities that involve bond insurer guarantees, putting additional downward pressures on the prices of these financial instruments.

Concerns about possible knock-on effects

The failure of one big financial guarantor may lead to a chain reaction in financial markets

There is a perception that a significant downgrade or the failure of one big financial guarantor might lead to a chain reaction in financial markets and among financial institutions, including systemically important ones. This effect could operate through various channels. For one, problems at one financial guarantee insurance company

could also spill over to other companies through reputational effects as well as through the existing reinsurance arrangements within the sector. Moreover, deteriorations in the financial health of bond insurers and/or downgrades of the credit ratings of these entities may imply market-to-market losses on guaranteed positions in trading and investment portfolios of financial institutions. Also, there would be a decline in the value of hedges purchased by these institutions from guarantors. In addition, in the case of investment banks and securities houses, there may be funding implications (*e.g.* in the case of so-called liquidity backstop arrangements) and potential mark-to-market losses from guaranteed positions in ABCP conduits and other off-balance-sheet funding vehicles.

Monoline insurer downgrades could lead to large additional losses for major investment banks and securities firm ...

By some estimates, monoline insurer downgrades could lead to between USD 10 billion and close to USD 100 billion of *additional* losses for major commercial and investment banks. Estimates at the lower end of the range apply to potential downgrades from triple-A to double-A, while the estimates at the higher end refer to downgrades to single-A. These numbers are significant especially as large banks and securities firms have already suffered about USD 200 billion in write-downs and credit losses related to subprime mortgage debt in the second half of 2007, and are expected to be forced to make further write-downs of about USD 60 billion in the first half of 2008, even assuming that the situation of financial guarantors worsens only moderately.¹²

As regards the broader insurance sector, there seems to be a perception on the part of the management and the regulators of large life and non-life insurance companies that they are well placed to weather the potential fall-out from any further deterioration in the situation of financial guarantors. For example, when discussing this issue at the meeting of the OECD's Insurance and Private Pensions Committee (IPPC) in December 2007, delegates took a sector-wide view and, on the basis of the accumulated experience to that point, concluded that the insurance industry overall was not substantially exposed to developments in the monoline insurance industry and that the former was well capitalised. Delegates from regulatory bodies did not raise any specific concerns.

Market indicators of the quality of large financial institutions deteriorated considerably both in the United States as well as in Europe (until the Bear Sterns takeover), although it is not clear however to what extent these declines reflect specific concerns of investors regarding the potential impact on these firms of downgrades or failures of bond insurers. Looking at the joint behaviour of such market indicators, the evidence for close links is not very strong in the case of at least some types of institutions. For example, the changes in credit default swap (CDS) premiums for large investment banks are not very tightly linked to the changes in

such risk premiums for the major financial guarantors in situations when there are very large moves in either of these premiums. These extreme co-movements appear to be less strong than co-movements of CDS premiums for entities within the *same* industry, which suggests that problems at financial guarantors may not have been the main drivers of the deterioration in the credit quality indicators of large investment banks.

Box 2. A recent public initiative for private capital injection

There was a meeting on 23 January 2008 between insurance regulators (New York Insurance Department, which regulates MBIA, and the Commissioner of Insurance in Wisconsin, which regulates Ambac that is based in New York but chartered in Wisconsin) and representatives of more than ten large banks to discuss ways to help improve the situation of these companies. Among the different solutions discussed, regulators suggested that banks inject additional capital. According to some reports, the talks focused on a proposal for the banks to inject a sum of USD 15 billion of additional capital into the monoline insurance sector. This sum appeared significant, given that efforts by individual bond insurers to raise additional capital have met with great difficulties. Ambac had to abandon its plans for raising an additional USD 1 billion, while MBIA did raise (just) USD 1 billion shortly before that date, although at an interest rate that was more than twice as high as the rate paid by debt issuers with similar credit ratings.

The initiative by the New York Commissioner for Insurance initially failed to achieve agreement, however. A number of reasons were advanced. First, there was a large degree of uncertainty about potential losses. Unlike in the case of LTCM (which could be seen as a template for the effort related to bond insurers), where exposures were known, there was (and still is) great uncertainty as to total potential losses and how they are distributed over time. There was certainly a longer time frame for liquidation compared to the LTCM case, assuming the insurers are put in “run-off” mode, given the nature of their contracts. Second, related to this observation, there was probably a lack of a sense of urgency. In the case of LTCM there was a risk of an immediate collapse, while in the case of the bond insurers, the immediate risk was only one of further downgrades. Third, not just one but several bond insurers were involved and each company had a very different business mix and extent of relations with banks and securities houses. This situation complicated the development of a common template. In this context, it should be noted that several banks initiated separate talks about potential bailouts with individual monoline insurance companies (*e.g.* with Ambac and FGIC). Fourth, unlike in the case of the LTCM rescue, the understanding by banks and securities firms of this specific insurance business may have been limited, thus further complicating agreement on details. Finally, the demand for additional funds came at a time when the banking and securities industry itself was trying to attract additional capital.

In March 2008, an agreement was reached in the case of one of the two large guarantors, whereby banks would provide a backstop for part of the additional equity that the company needed to raise to prevent a cut of its triple-A rating by two of the major rating agencies.

... although the latter may have been able to establish a certain measure of protection

Indeed, banks may have achieved a certain degree of protection against problems at financial guarantors. For example, investment banks have been reported to have been significant buyers of CDS on financial guarantors, thus providing them with a certain degree of hedge against their exposure to these entities. Incidentally, these

purchases may have contributed to the at times rapid increases in the prices for protection against monoline insurer defaults that could be observed.

Banks appear to be reluctant to bail-out the financial guarantee industry as a whole

Indirect evidence for the hypothesis that the implications of a worsening of financial guarantor problems for banks may be contained could perhaps be seen in the fact that banks were (initially) reluctant to join a publicly supported financial bail-out arrangement for the financial guarantee insurance industry, although a host of other factors may explain the failure to reach an agreement (see *e.g.* Box 2).

But even if banks and other systemically important financial institutions may have achieved a degree of protection against a further deterioration of the situation at financial guarantors, recent developments have highlighted that historical data (such as past correlations between CDS premiums) may be of limited use for projecting future developments in a stress situation.

Perhaps the most significant uncertainty in this context relates to the timing of potential losses at financial guarantee companies. Regardless of the specific point estimate of such losses, the key question is over what period of time these losses may be spread out.

V. Concerns regarding the role of guarantors for specific market segments

The past few years have seen a number of new and complex financial products emerge that allow market participants to isolate and repackage different aspects of their risk exposures. The credit markets have been the focus of much of this activity. Financial guarantors have come to play an increasingly important role as providers of protection for many of the new products, and they have thus been an important -- although little known -- driving force behind the securitisation process. For example, the “wraps” by financial guarantors were particularly sought after (and provided by these entities) when new and perhaps more complex securities were brought to the market. The “wraps” provided by financial guarantors allowed these products to obtain the credit rating of the guarantors, which were typically higher than the “shadow ratings” of the “wrapped” securities. Some investors, especially those that can only hold highly rated papers would not have bought these securities without such enhancements. These enhancements may also have served a signalling function, whereby the financial guarantor essentially puts its approval stamp on the “wrapped” security.

With hindsight, it is clear that this new line of business (as compared to the traditional business of insuring municipal bonds)

The capital base was not adequate to withstand the materialisation of the risks associated with the new line of business

was characterised not just by higher premiums but also by greater default intensities and extents of losses. Judged by equity market valuations, market participants seem to be sceptical that the combined capital bases of many financial guarantors are sufficient to withstand increasing demands on their payment capacities arising especially from their involvement in the area of structured finance. The fundamental question raised by these developments is how adequate is it to use the same capital as a base for two types of business characterised by very different risks.

Clearly, as a result of recent developments, the economic value of the type of enhancement that financial guarantors provide has recently become more uncertain. This situation in turn has implications for (all) the market segments in which the financial guarantors have been active.

For example, recently, there have been unusual signs of stress in the municipal bond markets, presumably reflecting the uncertainties regarding the value of the guarantees provided by financial guarantors to many of these instruments. For example, while municipal bonds have traditionally yielded much less than comparable US Treasury instruments because of their tax-favoured status, the yields on the former have converged to those on US Treasuries and even exceeded them at times. Moreover, municipal bond issuance has recently fallen and issuance of insured municipal bonds has fallen even further. Stress also appeared in the market for tender option bonds, which are programmes that issue short-term securities backed by (long-term) municipal bonds. Some programmes had to sell assets from their portfolios, as money market funds withdrew some of their investments.

The (traditional) role of guarantors in municipal bond markets is considered valuable

This situation was considered critical enough by some regulatory authorities to justify immediate policy intervention, apparently aimed at ensuring the continued availability of (credible) financial guarantee insurance for municipal bonds. A recent proposal by a US regulator foresees the breakup of the monoline insurance companies into two different business areas, one consisting of the more traditional business of insuring municipal bonds and the other one consisting of business related to more complex structured financial instruments, including those involving residential mortgage bonds. The idea of this proposal is to allow the former to again start writing insurance policies on municipal bonds after such activity suffered in early 2008.

Thus, there appears to be the view that monoline insurers have played a useful economic role in providing insurance for municipal bonds and that any further deterioration in the financial health or credit rating of these entities would reduce or eliminate such benefits.

Indeed, financial guarantors can play a useful screening function, as their “wraps” effectively represent a kind of approval stamp. Unlike rating agencies, financial guarantors are also assuming a liability when they perform this function. This aspect would be expected to help ensure a high quality of the financial guarantors’s assessment. With hindsight, however, it is clear that their performance in this respect can be uneven.

Whether the availability of bond insurance is indeed essential for municipal bond issuance is not so clear

Whether the availability of bond insurance is indeed essential for municipal bond issuance is also not so clear. Due to the relatively high level of inherent credit quality of municipal bonds -- as reflected in their track record of very low historical default rates -- the value added by such insurance may be relatively limited. Indeed, the default performance of municipal bonds is actually better than that of triple-A rated corporate borrowers, which is why some commentators have questioned the need for municipalities to purchase insurance for their bonds at all. The only real economic value of these guarantees, these observers argue, is that they reconcile the difference between the perception and reality of the creditworthiness of these issuers. Moreover, they argue that municipal bond insurance has effectively subsidised the structured finance business at financial guarantors.

Private solutions in this area are forthcoming

Looking ahead, the financial guarantors’ municipal bond insurance portfolios may indeed offer a reasonably good business outlook, unlike the structured finance portfolios. In this context, for example, the investor Warren Buffet announced in mid-February 2008 that he had offered to take over the municipal bonds guaranteed by three financial guarantors (Ambac, MBIA, and FGIC), although financial guarantors were reportedly reluctant to accept that offer. It is interesting to note that these three companies are characterised by a relatively larger ratio of municipal bond business to total business, as compared to some of the smaller financial guarantors, especially ACA (see Figure 3). In the meantime, substantial new private capital has already entered the segment with the establishment of a new financial guarantor in the United States.

Also, in the recent backstop agreement between banks and one financial guarantor, one of the conditions imposed by the former was that the latter would cease writing structured finance business and instead fully concentrate on municipal business for an indeterminate amount of time. To a similar effect, rating agencies have recognised that their previously used capital models overstated the risks of many municipal exposures insured by financial guarantors and understated the risk of many of these entities’ structured finance exposures, and they have revised their capital models accordingly.¹³ Thus, private solutions are forthcoming.

VI. Transparency and the performance of rating agencies

Transparency is limited

The transparency of the financial guarantee insurance sector is not as high as one might wish. For example, the financial health of financial guarantors is difficult to assess using publicly available data. The deal-by-deal data required to assess the (financial) health of financial guarantee insurance companies with some degree of confidence is typically not publicly available but only available to the financial guarantors themselves and the credit rating agencies that assign credit ratings to these entities. Enhancing transparency would be helpful, although financial guarantors have a legitimate business interest in keeping some information proprietary.

Rating the financial guarantors is difficult

In this context, attention has recently focused on the role of rating agencies. Rating agencies assess both the financial guarantors that provide enhancements for structured financial instruments as well as the underlying instruments themselves. Rating agencies not only assign credit ratings to the various tranches of debt issued by these structures but they also approve the legal and credit structure of many structured financial products and perform other related services.

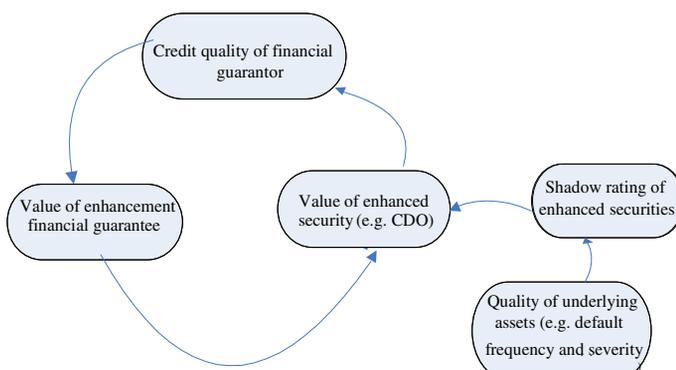
The health of guarantors depends on the value of complex financial products, the value of which in turn depends on the enhancements provided by the former

Important informational asymmetries characterise any rating process, but the task is especially difficult in the case of structured products, owing in part to the lack of a generally agreed modelling approach for many of these securities.

In the case of financial guarantor ratings, the assessment is further complicated by the presence of an important element of circularity: The values of financial guarantors depend on the values of the securities that they have “enhanced” and, in turn, the values of these enhancements depend on the financial health of the financial guarantor (see Figure 10 for a stylised representation).

Because of the complexity of the instruments and the lack of verifiable public information on the specificities of the structure and composition of many of the products guaranteed by financial guaranty insurers, investors have relied much more heavily on the ratings assigned by credit rating agencies to the tranches of structured financial instruments than they would in the case of other more traditional, and less complex, securities. Indeed, absent such ratings, some of the structured products could not even be placed with investors.

Figure 10. Simplified illustration of credit quality/value interrelations



Source: OECD.

But given the above cited important challenges involved in calculating such ratings, there is a non-trivial risk that the agencies' published ratings may not be accurate and, in that case, may have given some investors a false sense of security.

In addition, there may be conflicts of interest in the case of rating agencies' assessments of financial guarantors

In addition, there may be conflicts of interest in the case of rating agencies' assessments of the credit quality of financial guarantors. It is not clear, for example, to what extent, if any, concerns about the broader adverse effects of downgrades of large guarantors may incline rating agencies to forestall quick actions regarding changes to ratings of bond insurers. Any change in the status quo, in particular, any downgrades of financial guarantors would cast doubt on the validity of the originate-and-distribute model that has come to characterise modern financial markets and has benefitted many players, including the rating agencies themselves and others that receive fees based on the issuance of structured products.

The considerations may, however, be balanced by the fact that rating agencies increasingly rely on models to determine their ratings. To the extent that the results of the models are closely followed, there would have to be a compelling external reason to disregard a model's predictions, for example, by resisting a suggested change in a rating. But to the extent that the agencies do not rely exclusively on those models, there is scope for greater reliance on judgement, which could favour the status quo in situations such as those characterising financial markets in the second half of 2007.

In this context, there is a long-standing discussion among policy makers about whether and the extent to which the activity of rating agencies needs to be subjected to closer public scrutiny, especially given the heightened role assigned to credit rating agencies as part of

the Basel II approach to banks' capital adequacy. In particular, under the standardised approach (as opposed to the internal ratings-based approach), ratings assigned by approved credit rating agencies are to be used in the calculation of credit risk and, hence, in the determination of required capital.

This discussion is likely to intensify in the wake of recent experience, as recent developments have highlighted the significant challenges facing valuation practises by credit rating agencies in the case of new instruments such as structured financial products. In particular, rating agencies have been criticised for their supposedly slow reaction to recent developments, which allegedly reflect conflicts of interest arising from the fact that the ratings are paid for by the originators of the financial structures.

A valid question is whether ratings are influenced by incentive problems

Indeed, one important question is whether and to what extent incentive problems might exist. This question is a valid one, given current payment arrangements for ratings. As the number of instruments issued increases, so, too, does the fee income received by the rating agencies.

Yet another question is whether rating actions are, in fact, reinforcing downward pressures, thus aggravating the crisis. In this context, there is the possibility that rating agencies actually have toughened their stance vis-à-vis financial guarantors more recently in an attempt to preserve their own reputations in the wake of the broader criticism of the role they have played in the rating of structured financial products.

Notes

1. Throughout the remainder of this note the terms financial guarantor, bond insurer or monoline insurer are all used interchangeably to reference a monoline financial guaranty insurance company. They are referred to as "monoline" insurers since they only underwrite one type of business – financial guaranty insurance.
2. In this context, the OECD is well placed among international institutions in addressing issues related to the role of financial guarantors in financial markets, given the significant cross-border dimension of the problem and the fact that the activities of these entities span the institutional perspectives of the Committee on Financial Markets (CMF) and the Insurance and Private Pensions Committee (IPPC), the membership of which consists of insurance supervisors and regulators.
3. Lucas, D.J., L.S. Goodman, and F.J. Fabozzi, "Collateralised Debt Obligations and Credit Risk Transfer", *Yale ICF Working Paper* No. 07-06, 2007.
4. A discussion of these frictions is beyond the scope of the present note. For a detailed description and analysis of them, using the example of subprime mortgage securitisation, see Ashcraft, A.B.

and T. Schuermann (2007), *Understanding the securitisation of subprime mortgage credit*, Federal Reserve Bank of New York, 4 December 2007.

5. For example, the regulator allowed bond insurers to issue credit-default swaps on complex asset-backed and mortgage securities through shell companies called “transformers”. The latter transformed a traditional bond insurance contract into a credit default swap, while the bond insurers in turn guaranteed the “transformers” obligations, which required them to pay the interest and principal on these obligations of the asset-backed securities defaulted. The liabilities of the “transformers” were consolidated with the financial statements of the bond insurers.
6. The companies MBIA and Ambac (both of which reported losses for the first time in the third quarter of 2007), SCA, AGR, Radian, and ACA (which reported losses already in the second quarter of 2007) had not reported quarterly loss ever before 2007. The company XL Capital Assurance already reported losses from 2003 to 2005; it was subsequently taken over by SCA in 2006 and had not reported loss since then.
7. In releasing the information in early 2008, the hedge fund manager said it was doing so to provide market participants with access to primary source data so that they could construct their own views of potential losses by financial guarantors, without having to rely on the analytical judgement of rating agencies or the financial guarantee industry. It also made public however the information that the hedge fund company holds short positions on these financial guarantors. Thus, even if these estimates were inaccurate, by publishing them, the hedge fund manager may succeed in depressing asset prices and moving his short positions into profit.
8. Data from company reports of the nine financial guarantors. Further to the qualified statutory capital (which consists of stockholder’s equity and contingency reserves), the claim paying resources include *unearned premiums*, *contingent capital* and the *present value of future premiums*. *Unearned premiums* are the part of premiums that were paid upfront but that have not yet been recognised or “earned”. They are recognised as capital (i.e. cash or cash equivalent) for rating agency capital adequacy modelling since there are no conditions to their recognition except the passage of time. Such upfront premium payments are typically made in the area of municipal bond insurance. If premiums are not paid upfront in full, then they pay in instalments over the life of the insured security. This is the typical method of payment for structured finance deals. The *present value of future premiums* is obtained by simply discounting the premiums that have not been paid in full at the beginning of the transaction. *Contingent capital* is capital that is not yet paid in, but the payment of which is triggered by specific events. Typically, there is an option that gives the holder the right to raise capital from the option provider at predefined terms upon the occurrence of a pre-agreed event. The resulting capital injection can be in form of subordinated debt or preferred shares etc.
9. A distinction needs to be made between the holding company and its insurance subsidiary. Financial guarantors are generally structured as a publicly traded holding company (for which data on stock prices are available, as well as on credit default swap premiums in many cases) with an insurance company subsidiary (for which data on premiums on credit default swaps are available).
10. See Blundell-Wignall, A., “Structured Products: Implications for Financial Markets”, OECD *Financial Market Trends* No. 93, November 2008.
11. For example, one of the major rating agencies confirmed in August 2007 that “the deterioration in the subprime mortgage markets does not appear to be a threat to the rating stability of U.S. bond insurers.” Even after the write-downs recorded by some of the bond insurers in the third quarter, another rating agency explained end-October that these developments were unlikely to lead to any changes in credit ratings. One rating agency adopted a somewhat more critical stance ahead of the other major agencies however and reported around that time that it had put the ratings of one or more bond insurers “on review” – to see if downgrades were needed (although the agency insisted that such a review is not identical to putting the ratings of insurers on watch, which has a more negative connotation). It eventually downgraded one of the two largest financial guarantee insurance companies, while the other two major rating agencies confirmed these companies’ triple-A ratings.
12. Deutsche Bank, *Banks and brokers – Estimate revision*, 11 March 2008.
13. See e.g. *Fitch Discusses Financial Guaranty Capital Model and Ratings Methodology*, FitchRatings, 19 March 2008.