

Perspectives in Company Law and Financial Regulation

EDITED BY MICHEL TISON, HANS DE WULF, CHRISTOPH VAN DER ELST AND REINHARD STEENNOT



The subprime crisis – does it ask for more regulation?

FRIEDRICH KÜBLER¹

I. Introduction

The creation and sale of asset-backed securities (ABS) is an established practice of financial management. It offers benefits to all participants. The original lender (originator) can sell the loans made to the original borrowers although they are correctly qualified as 'imperfectly marketable assets'. In a normal sale the information asymmetry between the selling bank, who knows the borrower, and the acquiring institution, who does not know her that well, will result in a considerable discount from the nominal value of the loan. This outcome is avoided by the securitization procedure. The claims (assets) are collected in a pool, held by an independent and bankruptcy-remote 'special purpose vehicle' (SPV), which is often organized in the form of a trust. The SPV issues debt instruments - notes or commercial paper (CP) or bonds - to the public, mostly to institutional investors. Their information problems as to the credit or default risk affecting the pooled assets are greatly reduced by the analysis and the evaluation of the pool by a credit rating agency (CRA). In many transactions the rating is improved by the 'credit enhancement' (CE) provided by the arranger of the programme or by the arranger's bank; this is a guarantee that a set percentage of the losses generated by defaulting assets will be borne by the arranger or the bank.

Such a transaction allows the original lender to transform its highly illiquid assets into cash and to significantly reduce the amount of required capital under the capital adequacy rules.² The lender removes risky assets from the balance sheet and thus reduces capital requirements.

¹ The assistance of Justin Gross is gratefully acknowledged.

² For a general description of the mechanism and the advantages it offers to participants, see H. Scott, *International Finance: Transactions, Policy and Regulation*, 14th edn. (New York, Foundation Press, 2007), 530 *et seq.*

At the same time the lender can use the cash to engage in more lending transactions, and this again increases the availability of credit for borrowers. The investors receive considerably higher returns from their CP compared to bank deposits; at the same time they enjoy the liquidity of a security traded on an organized market. And the arranger is benefited by the fees derived from setting up the scheme, from providing credit enhancement, and possibly from underwriting the securities issued by the SPV.

The generation of mortgage-backed securities (MBS) follows very much the same pattern. This practice is even older; it dates back to the 1960s, and the amounts outstanding appear to be considerably higher than those for ABS. At a first glance MBS look like more stable instruments compared to ABS. ABS are mostly based on pools of credit card and car loan receivables; these assets are directly exposed to the considerable risk of consumer insolvency. MBS appear to provide much more safety as the pooled home owner loans are collateralized by mortgages. Whenever the borrowing home owner fails, the creditor can look for satisfaction from the mortgage which is backed by the value of real estate.

There appears to be ample evidence that this mechanism of securitizing or restructuring debt has worked quite well until recently. The amounts outstanding increased from year to year,³ and the contractual instruments were refined by the joint efforts of banks and law firms. Larger-scale problems were unknown.

The subprime crisis came obviously as a surprise. It appears that there have been some market participants or observers who at an early stage were concerned by some of the specific practices used more recently. But the dimensions of the problems became evident only step by step; and at the moment, when this contribution is written, it is generally assumed that still more will come to the surface. But some facts are uncontroversial. Very experienced financial institutions like Merrill Lynch, Citibank or UBS had to disclose losses from investments in ABS amounting to volumes close to or even exceeding \$20 billion.⁴ A number of smaller institutions like Century in the US, Northern Rock in the UK or Industriekreditbank (IKB) and Sächsische Landesbank in Germany either failed or had to be rescued by merger or by huge capital injections

³ For Europe it is assumed that in 2006 the outstanding amount of European securitization deals exceeded \$1 trillion; see P. Aguesse, 'Is Rating an Efficient Response to the Challenge of the Structured Finance Market', *Autorité des Marchés Financiers (AMF)*, *Research Department*, *Risk and Trend Mapping*, 2 (2007), 7.

⁴ New York Times, 1 February 2008, C 6.

from controlling shareholders. This again has affected the stock markets globally; and there appears to be a threat that the world economy will sink into a recession.

In this situation lawyers interested in the regulation of financial markets and institutions have good reasons to ask not only what went wrong but also whether there are regulatory responses which might prevent similar outcomes in the future. This preliminary investigation is organized in five steps. The first question, discussed in Section II, is to what extent the planned securitization of mortgage debt has influenced the contracting process between the borrower and the lender which generates the securitized assets. In a next step, in Section III, it will be asked to what extent the continued leveraging of MBS and CDO debt has contributed to the problem. In particular with regard to highly complex financial instruments, it can be asked to what extent the incentives provided by the internal structure of financial institutions discourage or prevent participants from applying adequate due diligence, this is discussed in Section IV. In Section V, it has to be asked whether the observed practice of rating structured finance products is appropriate or should be improved. Finally, some preliminary conclusions will summarize the observations in Section VL

II. Impact of securitization on the origination: predatory lending and borrowing

One source of the problem appears to be the contracting process between the borrower (mortgagor) and the lending bank (originator). It is credibly reported that in many cases the documentation as to the borrower has been very weak.⁵ There is no documentation of the income and the assets of the borrower; this makes it difficult to determine whether the borrower honestly disclosed her situation to the lender. It is assumed that this was not always true: that there have been cases of 'liar loans' and of predatory borrowing.

But there is evidence that in many cases the lending institution did not care about the financial situation of the borrower. Many of the borrowers had weak FICO scores and little or no equity. Many of them had faced bankruptcy in the last five years and/or foreclosure during the last two years and/or two or more thirty-day delinquencies in the last twelve

⁵ R. Herring, 'From Subprime Mortgages to ABS to CDO to SIVs and ABCP: The Darker Side of Securitization' (slides 2007, on file with author).

months.⁶ Many of the loans had very specific features. They provided the borrower with a 'five-year interest-only option', during which time no repayments of capital were due. For the first two or three years there was a 'teaser' interest rate, lower than the interest rate for fixed-rate mort-gages. After this time nearly 90% of the loans became 'adjustable rate'. The interest rate was now determined by the market.⁷ For many of the borrowers this structure entailed a continuing and very steep increase of their mortgage costs over a period of only a few years.⁸ It could be that in the beginning they had to use about 40% of their income to service the mortgage, and that this ratio had climbed to 80% after five years. Under these circumstances foreclosure appears to be inevitable. And there was mostly less than 10% of equity or none at all; thus the loan would not be fully repaid once real estate prices started to decline.

These are transactions implying a degree of default risk which would under normal circumstances exclude them from being done by a financially rational and responsible bank. They were obviously acceptable for no other reason than to sell them in securitized form to an anonymous market. This impression is confirmed by the procedures used for making these loans.⁹ New Century Financial, a company which filed for bankruptcy protection on 2 April 2007, had established an automated internet-based loan submission and pre-approval system called *FastQual*. Under this system, subprime lending by New Century grew at an annual rate of 59% between 2000 and 2004; in 2006 the firm originated \$51.6 billion of mortgage loans.

These facts suggest that there are flaws in the securitization process; this will be discussed later. They have also triggered requests for additional regulation, e.g. for federal legislation which would prohibit predatory lending. At this point it is much less than clear that this would have any significant impact. The Truth in Lending Act (TILA) and other (state) rules already address unsafe lending and borrowing practices. They may be helpful where they address and sanction misrepresentations used to defraud the other party. But this is not the major problem

- ⁷ Ashcraft and Schuermann, 'Understanding the Securitization of Subprime Mortgage Credit', (note 6, above), 20.
- ⁸ The offer of 'affordable products' expose borrowers to later payment shocks, See IMF, *Global Stability Report* (April 2007), 6.
- ⁹ Ashcraft and Schuermann, 'Understanding the Securitization of Subprime Mortgage Credit', (note 6, above), 18.

⁶ A. Ashcraft and T. Schuermann, 'Understanding the Securitization of Subprime Mortgage Credit' (typescript 2007, on file with author), 19; IMF, *Global Financial Stability Report* (October 2007), 7, note 7.

here. The agents operating for the lending institutions must have been aware that many of the loans were extremely risky. They did not care as they were not affected by the likely defaults. It is to be assumed that they were motivated by a compensation structure rewarding the conclusion of the deals regardless of the consequences they would entail. This is a more general problem affecting the way financial markets work, it will be discussed in Section IV.

III. Leveraging

A second aspect of the present crisis is the amazing practice of leveraging mortgage debt. In an MBS transaction the pool of the collected assets is normally cut into several tranches.¹⁰ There is a senior tranche, mostly rated AAA, which pools the mortgages presenting the lowest default risk. This tranche would back bonds or commercial paper sold to institutional investors. In addition there can be more junior 'mezzanine' tranches pooling more risky mortgages and therefore backing lower-rated commercial paper or notes designed for more sophisticated investors.¹¹ At the low end of the spectrum there are tranches which do not receive a rating as they are backing highly risky debt or equity securities. This separation and subordination presents a method of providing credit enhancement to the most senior tranches. But it also raises the question of what to do with the tranches at the lower end. The originating bank could keep them: this would improve risk sharing as the bank would continue to have an interest in keeping the lending operations within the limits of sound banking practice.¹²

But this is not what has happened recently. To a large extent the first loss pieces have been transferred to entities which would repackage them into pools serving again as collateral for the issuance of securities, mostly asset-backed commercial paper (ABCP).¹³ The first loss pieces and junior tranches have been mostly repackaged into Collateralized Debt Obligations (CDOs). They can have different features: they can be

¹⁰ See Herring, 'From Subprime Mortgages to ABS to CDO to SIVs and ABCP', (note 5, above) and IMF, *Global Stability Report* (April 2007), 8.

¹¹ G. Franke and J. P. Krahnen, 'Default Risk Sharing Between Banks and Markets: The Contribution of Collateralized Debt Obligations' in M. Cary and F. Stulz, *The Risk of Financial Institutions* (2007), 603–8.

¹² Franke and Krahnen, 'Default Risk Sharing Between Banks and Markets', (note 11, above), 625.

¹³ The face value of the debt instruments pooled in ABCP vehicles amounts to \$1.4 trillion; IMF, *Global Financial Stability Report* (October 2007), 19.

fully funded by the transfer of ABS or they can be 'synthetic'; in this latter case the bank retains the securities and buys a credit default swap on behalf of the CDO vehicle.¹⁴

The CDO vehicles can and often did repeat the process of cutting its pool into tranches which would represent different categories of risk and therefore bear different rating grades. The most senior tranches were sold to the market, the most junior ones securitized again. The vehicles now could be CDOs again, or Structured Investment Vehicles (SIVs), which would also receive and pool other assets, or Security Arbitrage Conduits (SACs), which would collect preferably higher-rated ABS.¹⁵ And with their ABCP the process could be repeated again and again. The rated securities were sold mostly to hedge funds and to banks.¹⁶

It is not too difficult to see how this process of leveraging increases the risk for the holders of the ABCP. It is always the tranches containing the most risky assets which are securitized again. When the new pool is divided again and the best assets are put into a senior segment rated AAA, this method of credit enhancement does not appear to reduce the risk and to improve the quality of the original assets, which continue to be needed to satisfy the claims of the holders of the ABCP. That is to say, each new securitization of MBS products considerably increases the default risk for the holders of the leveraged securities.

Again it is to be asked whether this practice of leveraging securitized debt could and should be contained by new regulation. And again this is difficult to determine. Leveraging can be a useful technique of risk allocation. This is no less true where it is combined with asset securitization; any ban or constraint of these transactions is not likely to improve the efficiency of financial markets. What is striking, however, is the complexity of the arrangements and the intransparency and opaqueness of the process used to put together the CDOs, SIVs etc.¹⁷ In December 2004, the Securities and Exchange Commission (SEC) adopted Regulation AB providing for major changes to the disclosure regime for public offerings of ABS.¹⁸ Regulation AB requires information explaining the

¹⁵ IMF, Global Financial Stability Report (October 2007), 18.

¹⁴ Franke and Krahnen, 'Default Risk Sharing Between Banks and Markets', (note 11, above), 606.

¹⁶ Ibid., 15.

¹⁷ J. R. Mason and J. A. Rosner, 'How Resilient are Mortgage Backed Securities to Collateralized Debt Obligation Market Disruption?', Working paper (2007), http://ssrn. com/abstract=1027472.

¹⁸ Release No. 33-8518; 34-5095, (22 December 2004).

characteristics of the pool, the background, experience, performance and role of the parties, and the legal structure used for the SPV. But this applies only to public offerings and not to private placements. Where ABCP are exclusively sold to institutional investors like hedge funds or banks the gathering and evaluation of the material facts is left to their exercise of due diligence. This is to be further discussed in Section IV.

Another element of the existing regulatory framework to be taken into consideration at this point are the rules on capital adequacy. The rules introduced by Basle I certainly encouraged securitization. Whenever a bank replaced a loan to a customer by sponsoring and enhancing an ABS project originated by this customer the bank was able to considerably reduce the amount of required capital.¹⁹ This would not be dramatically different under Basle II. The new rules increase the amount of required capital for banks pooling and securitizing their own receivables. The most interesting change occurs with regard to banks investing into ABS originated and sponsored by other institutions. Basle I provided for risk categories which would normally imply a risk weight of 100%. Basle II – for the Standardized Approach – refers to credit rating: for ABS in a senior tranche with an AAA rating the risk weight factor would be reduced to 20%. Now we are faced with the question: how good is the process of rating ABS or other structured credit products? This is to be discussed in Section V.

IV. Complexity and due diligence

Another aspect of the current crisis is that these highly leveraged ABCP have been bought to an amazing extent by highly sophisticated financial institutions. For 2007 Merrill Lynch had to write down \$24.5 billion, Citigroup \$22.1 billion, UBS \$18.4 billion and HSBC \$10.7 billion.²⁰ This may include some losses which are not connected to high-risk home loans, but there is no doubt that the problems result primarily from the

¹⁹ Assume a bank lends \$100 million to a car manufacturer who needs to finance loans made to the buyers of the cars. The loan has a credit weight of 100%. The capital ratio mandated by Basle I is 8%. This means that the bank has to support this transaction by using \$8 million of its capital base. Providing credit enhancement of 5% to a \$100 million pool of car loan receivables generates a potential – and therefore off-balance-sheet – liability of \$5 million. As a standby type of guarantee it carries a conversion factor of 100% and (again) a risk weight of 100%. In other words, the required capital amounts to 8% of \$5 million or \$400,000. This is just 5% of the \$8 million required for the loan to the car manufacturer. Even if we assume a credit enhancement for 20% of the pool the required capital is only one-fifth of what it would be for the loan.

²⁰ New York Times, 1 February 2008, C 6.

collapse of the subprime mortgage market. Thus we are faced with the question of why and how these and other financial firms did accumulate such enormous amounts of highly problematic securities. One answer could be that they trusted favourable ratings. This certainly has to be taken into account, but it does not fully explain the lack of in-house analysis before making these huge investments.

There are other indications that the observance of due diligence has declined.²¹ Clayton Holdings is a firm specialized in rendering due diligence reports to investment banks with regard to residential mortgage loans; it is the biggest provider of this service in the US. Clayton reported that starting in 2005, it observed a significant deterioration of lending standards, and that with the growing demand for the residential loans, mortgage companies were in a strong enough position to stipulate that investment banks have Clayton and other consultants look at fewer loans. It appears that the lenders wanted due diligence to find fewer problem loans which would be sold at a discount. Clayton reported in addition that investment banks did not give the due diligence reports to the rating agencies.²²

This story suggests a somewhat paradoxical situation. On the one hand, the instruments of structured finance have become inherently less safe for investors, and the increasing risks were disguised by more and more complex and opaque arrangements. On the other hand, due diligence has been systematically reduced.

There are several ways to explain this phenomenon; they are not mutually exclusive. Many of the players in the field are big institutions characterized by complex organizational structures, a high degree of specialization to perform very specific services, incentive compensation based on short-term results, and significant job mobility.²³ Such an arrangement generates incentives to increase volume regardless of the medium- or long-term consequences: when the losses occur, the responsible agents have cashed their bonuses and been moved to other functions. Another explanation is 'disaster myopia', the often-observed tendency to underestimate the probability and the consequences of low-frequency

²¹ This appears to be equally true for other functions in the process; see Ashcraft and Schuermann, 'Understanding the Securitization of Subprime Mortgage Credit', (note 6, above), 10.

²² J. Anderson and V. Bajaj, 'Loan Reviewer Aiding Inquiry Into Big Banks', New York Times, 27 January 2008, 1 and 10.

²³ R. Herring, 'Credit Risk and Financial Stability', Oxford Review of Economic Policy, 15 (1999), 63–73 et seq.

shocks.²⁴ And we may also see the consequences of 'herding' behaviour: the fact that others have done exactly the same thing serves as a defence against *ex post* recriminations.²⁵ These phenomena are interconnected: disaster myopia and herding behaviour can be supported and reinforced by institutional arrangements.²⁶

This experience raises the question of whether and to what extent top management and possibly the board of financial institutions should be held responsible for inadequate organizational structures which discourage employees from observing adequate due diligence and risk assessment practices. This would not be a completely new approach. Section 404 of the Sarbanes–Oxley Act requires management to establish and maintain effective internal controls with regard to corporate governance. Bank supervisors could be allowed and encouraged to have a closer look into the organizational implications of sound risk management.

V. Rating structured finance products

It is obvious that there have been considerable problems with the rating of MBS, CDOs and other structured finance products. Top executives of major rating agencies have conceded in public that significant mistakes have been made.²⁷ Changes in the methods of MBS and CDO rating²⁸ led to considerable downgrading of already-issued ABCP.²⁹ This again has negatively affected the reputation and credibility of rating agencies.³⁰

It is less obvious why the rating process failed to such an extent. There are several explanations (which are again not mutually exclusive):

- 1. There is some evidence that the rating agencies have not been fully informed by the issuers and underwriters of ABCP.³¹ It is less obvious
- ²⁴ R. Herring and S. Wachter, 'Real Estate Booms and Banking Busts An International Perspective', Group of Thirty, Occasional Paper, No. 58 (1999), 9 et seq.
- ²⁵ R. Herring, 'Credit Risk and Financial Stability', (note 23, above), 73.
- ²⁶ J. Guttentag and R. Herring, *Disaster Myopia in International Banking*, (Princeton University International Finance Section, 1986), 5; R. Herring, 'Credit Risk and Financial Stability', (note 23, above), 73.
- ²⁷ F. Norris, 'Moody's Official Concedes Failure in Some Ratings', New York Times, 28 January 2008, C 13.
- ²⁸ J. Mason and J. Rosner, 'Where did the Risk Go? How Misapplied Bond Ratings Cause MBS and CDO Market Disruption', Working paper (2007), http://ssrn.com/ abstract=1027475, 21.
- ²⁹ Ibid., 80 et seq.
- ³⁰ C. W. Calomiris, 'Not yet a 'Minsky Moment'' (typescript 2007, on file with author), 3.
- ³¹ Anderson and Bajaj, 'Loan Reviewer Aiding Inquiry Into Big Banks', (note 22, above), 15, report that investment banks did not give their due diligence reports to the rating agencies.

why the agencies either did not find out this lack of disclosure or abstained from sanctioning them. Traditionally rating agencies have enforced disclosure by downgrading issuers who had proved to be unwilling to come forward with all the required information.

- 2. Another aspect may be derived from the special relationship between the rating agencies and the ABCP issuers (and their investment banks and law firms). It is argued that the number of relevant issuers has declined and that this form of concentration impairs the market position of the rating agencies; they become more dependent on specific issuers and therefore more inclined to accommodate to their wishes.³² At the same time the revenues of rating agencies are increasingly derived from evaluating structured finance products.³³ And the complexity of these products asks for closer cooperation between rating agencies and investment banks; this is plausibly viewed as a new source of conflicts of interest.³⁴
- 3. Another concern is the use of ratings by regulators.³⁵ It is true that the rating agencies are mostly compensated by the issuer. This does not necessarily imply a conflict of interest as they are normally chosen by the institutional investors who are or may be interested in acquiring the securities. In these cases the rating agencies depend on the goodwill they enjoy among institutional investors. Their reputation and their success are closely linked to the accuracy and the reliability of their evaluations and their forecasts, they are thus disciplined by the market. This is not necessarily true with ratings for regulatory purposes as regulators normally do not insist that the rating be made by the agency of their choice. This can modify the incentives, such that rating agencies may be more inclined to respect the wishes of the issuers.
- 4. Finally it has been correctly observed that the rating of structured finance products differs significantly from the rating of corporate bonds.³⁶ In assessing the default risks of corporate bonds the rating agency evaluates the financial stability and the future cash flows of

³³ Mason and Rosner, 'Where did the Risk Go?', (note 28, above), 8.

³² Aguesse, 'Is Rating an Efficient Response to the Challenge of the Structured Finance Market', (note 3, above), 8 *et seq.*

³⁴ Ibid., 31.

³⁵ Calomiris, 'Not yet a 'Minsky Moment'', (note 30, above), 18 *et seq.*

³⁶ Ashcraft and Schuermann, 'Understanding the Securitization of Subprime Mortgage Credit', (note 6, above), 48 *et seq.*; Mason and Rosner, 'Where did the Risk Go?', (note 28, above), 36 *et seq.*

the issuing firm. MBS and CDO ratings are different; they refer to a static pool and not to a dynamic corporation; they rely on quantitative models and not on the judgement of analysts.³⁷ In addition, rating agencies have difficulties assessing the risk of whether a mortgage will be prepaid by the borrower.³⁸ And these aberrations tend to increase with every step of leveraging the original pool.³⁹

Do these weaknesses and deficiencies in the process of rating structured finance products present good reasons to ask for changes in existing regulation? First of all, it has to be remembered that in the US, rating agencies are regulated.⁴⁰ Since 1975, the SEC has determined who is a 'Nationally Recognized Statistical Rating Organization' (NRSRO).⁴¹ In 1997, the SEC defined the formal criteria for becoming an NRSRO. The Credit Rating Agency Reform Act from 2006⁴² has officially confirmed the regulatory and supervisory powers of the SEC; the Act states that the SEC can revoke NRSRO status of a rating agency for lack of financial or managerial resources.⁴³ In December 2004, the International Organization of Securities Commissions (IOSCO) released a code of conduct for the rating agencies.⁴⁴ And the Committee of European Banking Supervisors (CEBS) has issued 'Guidelines on the Recognition of External Credit Assessment Institutions',⁴⁵ following largely the example of American legislation. The promulgation of these rules obviously overlaps in time with the emergence of the problems described in this contribution. For all these reasons the push for new regulations at this moment should not be supported; the effectiveness of the existing framework should be carefully assessed before additional rules are enacted.

A separate issue is the proposal to eliminate the use of ratings for the purpose of regulation.⁴⁶ This would affect and probably eliminate the

- ³⁷ Ashcraft and Schuermann, 'Understanding the Securitization of Subprime Mortgage Credit', (note 6, above), 48.
- ³⁸ Mason and Rosner, 'Where did the Risk Go?', (note 28, above), 55.
- ³⁹ Ibid., 66 *et seq*.
- ⁴⁰ US regulation is essential since the most important rating agencies are located in the US.
- ⁴¹ Ashcraft and Schuermann, 'Understanding the Securitization of Subprime Mortgage Credit', (note 6, above), 43.
- ⁴² S. 3850, 109th Congress § 2 (E) (2006).
- ⁴³ Mason and Rosner, 'Where did the Risk Go?', (note 28, above), 29.
- ⁴⁴ IOSCO, Press Release, 'IOSCO Releases Code of Conduct Fundamentals for Credit Rating Agencies', (23 December 2004).
- ⁴⁵ Available at www.bundesbank.de/download/bankenausicht/pdf/cebs/GL07.pdf.
- ⁴⁶ Calomiris, 'Not yet a 'Minsky Moment'', (note 30, above), 18 et seq.

core element of the Basle II regime of capital adequacy which refines the risk weighting of bank assets by the use of ratings. Before such a revolutionary (or reactionary) step is taken it should be considered whether there are less far-reaching options likely to improve the rating process. One possibility would be to distinguish between ratings which have been asked for by investors and are in addition used for risk weighting, and ratings which are exclusively used for regulatory purposes. The first category should be less of a problem as the selection of the agency continues to be controlled by the market. In the other case the choice should not be left to the issuer or the underwriter: the decision should be made by the regulatory agency which is charged with the supervision. This might eliminate or at least reduce the temptation of the rating agency to pay too much attention to the interests of the issuer.

VI. Preliminary conclusion

There can be no doubt that some of the consequences of the subprime crisis are serious. They may justify measures taken for the protection of individuals who are facing particularly harsh consequences like the loss of their family home through foreclosure.⁴⁷ But this cannot be achieved by the hasty introduction of new regulation for the financial markets. So far there is no evidence that any risk affecting the safety of the global financial system cannot be addressed by existing tools like the provision of liquidity by the central banks. It should also be remembered that we cannot expect financial markets to move consistently on a path of regular and balanced growth; there appears to exist no reasonable method to prevent business cycles by regulatory intervention. At the same time we should acknowledge that individual behaviour on financial markets is not completely determined by rational motives; and this appears to be true not only for small investors but also for the professionals who are running major financial institutions like banks and insurance companies. It is not likely that their performance will be improved by new regulation. Yet there is evidence that some of the irregularities - disaster myopia, herding, and extreme short-termism - are at least partially due to the internal structures and the compensation schemes of financial institutions. This

⁴⁷ This is, however, far from uncontroversial; see e.g. the warnings by the (American) Shadow Financial Regulatory Committee, 'Treasury Department's Mortgage Foreclosure Program', *Statement No. 250* (10 December 2007).

could and probably should be addressed by the supervision of these firms within the existing regulatory framework. At the same time it should be remembered that there are strong indications that financial markets are already overregulated.⁴⁸ New rules should not be enacted unless there is at least some evidence that the benefits will outweigh the costs.

⁴⁸ For the US, see Committee on Capital Markets Regulation, *Interim Report* (30 November 2006) and 'The Competitive Position of the US Public Equity Market', *Report* (4 December 2007).