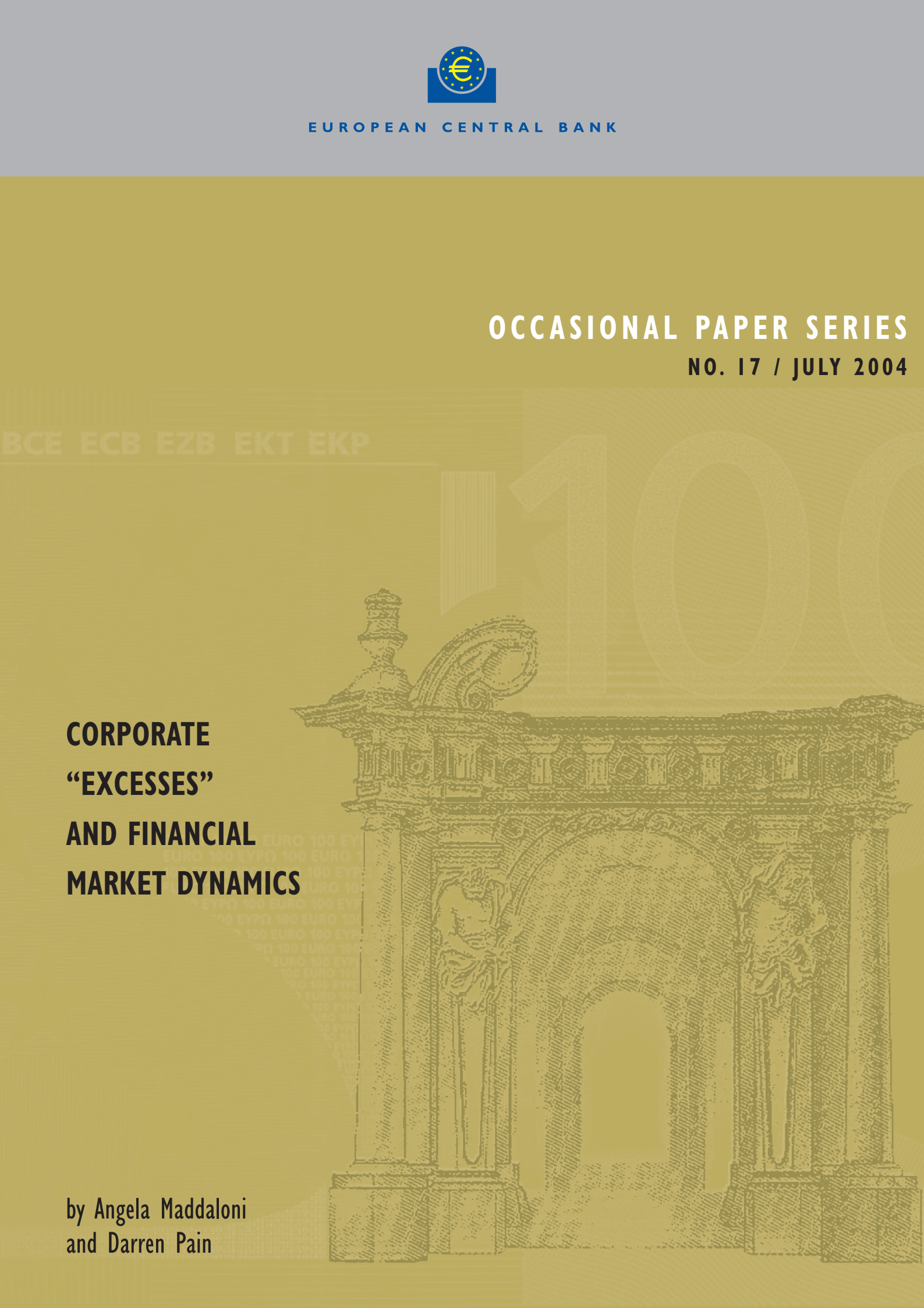

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NO. 17 / JULY 2004

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by Angela Maddaloni
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EXECUTIVE SUMMARY

The corporate failures in the US, such as Enron and WorldCom, and more recently the Parmalat scandal in Italy, have considerably damaged investors' confidence in the functioning of financial markets and the ability of the regulatory framework to safeguard their interests and prevent fraud. Although the number of corporate scandals in Europe has so far been smaller than in the US, and their impact relatively more contained, European investor confidence has nonetheless also been dented. Furthermore, as in the US, alleged serious, irregular accounting practices short of fraud have come to light (e.g. in the case of Ahold, the Dutch retailer).

On a general level, these episodes demonstrate that market failures exist, which can undermine the effectiveness of market discipline to ensure the appropriate allocation of capital. A key issue raised by the recent wave of corporate scandals is whether in the late 1990s conditions existed that made financial markets more prone to support corporate "excesses"[1] and abrupt adjustments. Furthermore, although fewer episodes of corporate malfeasance have come to light in Europe, financial markets have at times showed more pronounced swings in prices than in the US over recent years. This suggests the need to analyse how institutional features in Europe and in the US might have affected financial market outcomes, and to assess what policy responses may be appropriate in order to correct possible market failures.

This paper deliberately adopts a very 'microstructure' view of financial markets, namely by concentrating on those features that affect the processes by which investors' latent demands are ultimately translated into transactions, and in particular examining what frictions may exist that impede the efficient operation of financial markets. In doing so, it necessarily ignores a number of important influences on financial market outcomes, such as the macroeconomic environment, structural changes in the institutional set-up (e.g. the introduction of the single European currency), geopolitical uncertainties, market liquidity effects, and so on.

Specifically, the paper considers four particular features of financial markets that may have given rise to market failures: (a) perverse incentives/conflicts of interest; (b) destabilising trading/investment strategies; (c) lack of disclosure/transparency; and (d) concentrated versus fragmented ownership structures. The paper reviews the theoretical arguments and empirical evidence related to these four possible types of market failure, illustrating this with evidence drawn from the most recent corporate scandals.

It is difficult to draw any firm conclusions about the underlying forces driving market outcomes. Articulating the link between financial market dynamics and market failures is not easy – attempting to map developments in largely unobservable variables (payoffs, incentives, strategies, information sets etc. of investors) into changes in "observables", such as financial market prices and quantities, is fraught with difficulties. Moreover, any empirical analysis is unlikely to be able to control for all the possible relevant factors so as to isolate the influence of the issue at hand. In particular, unrealistic expectations about future economic performance and the risk attached to investments, as well as the sustained period of macroeconomic stability, were undoubtedly major factors in fuelling the asset price bubble of the late 1990s. Nonetheless, the evidence presented raises the possibility that conflicts of interest and the inadequacy of information disclosure may also have contributed to recent swings in financial markets in Europe as well as in the United States.

The evidence is not unequivocal. However, it is possible that the financial market bubble was, at least in part, inflated by biased investment

1 Situations in which company managers pursue particular strategies that lead to excessive risk-taking relative to the underlying preferences of the (ultimate) owners of the firm.

advice given by stock market analysts and broker-dealers. Although the more innocent explanation of "irrational exuberance" on the part of such analysts cannot be ruled out, their history of biased earnings forecasts is perhaps more consistent with the influence of the *conflicts of interest* embedded in combining investment advice with securities underwriting and brokerage activities.

These kinds of conflicts of interest are as likely to occur in Europe as in the US – and the ongoing investigations into the role of financial institutions in advising Parmalat serve to reinforce this point. So the effect of conflicts of interest alone seems unlikely to account for the greater volatility in European financial markets over recent years. However, a second feature, the *limited disclosure and lack of transparency in financial accounts*, may arguably have played a larger role in Europe. European firms score relatively low in terms of the transparency of the financial information they make available on a number of measures. To the extent that investors had access to inadequate accounting information that impeded them from fully understanding the nature of the risk exposures taken on by firms, this could have contributed to significant price misalignments during the market upswing in the late 1990s. In similar fashion, the revelation of corporate malpractice, although less widespread in Europe to date, could have triggered greater investor worries given the relative opacity of accounting information. That is, if investors fear that the limited transparency of information in European firms' accounts may have covered up corporate excesses, the reaction of financial markets could be consistent with greater perceived uncertainty about potential returns.

In contrast, there is perhaps less evidence that *destabilising trading or investment strategies* have had a particularly influential, or at least long-lasting, effect on financial market dynamics in recent years. On occasions, such market frictions can lead to bouts of instability, perhaps the most obvious recent example being the stress tests of life insurance companies' asset portfolios, which may have encouraged equity sales despite unfavourable trading conditions. However, it is difficult to believe that such positive feedback trading can explain the persistently high volatility in financial markets over the past few years. To the extent that trading innovations may have contributed to instability in the past, for example in the stock market crash of 1987 and the period of bond market turbulence in autumn 1998, such effects were largely temporary.[2] Similarly, misalignments in asset markets, which could have been influenced by particular types of institutional behaviour, have occurred, but have typically been short-lived. That said, further research in this area would be useful if the impact of institutional incentive structures on financial market dynamics is to be assessed fully.[3]

Little evidence is available to suggest that the *ownership structure* of firms has had a *systematic* effect on market dynamics. In theory, both the main forms of ownership structure – the so-called shareholder and stakeholder models – can create conditions where the actions of firms may not be consistent with the preferences of the majority of their owners. However, the potential links with financial market outcomes are not particularly clear or conclusive in either stylised framework.[4] And this ambiguity is borne out in empirical studies examining the relationship between ownership concentration and firms' performance, which have generally yielded mixed results. Nevertheless, it is probably fair

2 Of course, to some extent this may have reflected policy intervention. For example, the stock market crash of 1987 encouraged the NYSE to introduce "trade-breaker" rules for equity market trading.

3 A recent BIS (2003) study on this issue, based on a comprehensive review of the literature and extensive interviews with market practitioners, was unable to reach a clear-cut conclusion on the aggregate effect of particular institutional features in the asset management industry on financial market outcomes.

4 In the shareholder model, diffuse share ownership can lead to collective action problems, which undermine the disciplining mechanisms of shareholders. In the stakeholder model, blockholders may coerce firms' management into undertaking policies that are not in the interests of minority shareholders but confer private benefits onto themselves.

to say that the available empirical studies have not adequately addressed the impact of corporate governance arrangements on financial market outcomes. This is especially true in Europe, where a large number of firms are not publicly listed. It would therefore be unwise to rule out important links between ownership structure and market dynamics, particularly when there have been specific examples where it appears to have been influential.[5] Again, the Parmalat case provides a timely reminder of this point.

To some extent, market-led solutions to these problems are likely to emerge. Financial intermediaries rely to a large extent on their reputations. Recent events, however, have shaken investor trust in a number of established intermediaries, which gives the latter an incentive to adopt practices to restore this trust. For example, investment banks are now more likely to investigate ways of strengthening the firewalls between departments, if only to satisfy investor worries about conflicts of interest, let alone avoid legal reprisals. Similarly, rating agencies have already implemented a number of procedures designed to assure the independence and objectivity of the rating process – e.g. requiring ratings decisions to be made by ratings committees, imposing investment restrictions, and adhering to fixed fee schedules.

Nonetheless, policy-makers have also responded with increased regulation. In the US, most of the regulatory response is enshrined in the Sarbanes-Oxley (S-O) Act. In Europe, a number of regulatory changes were already in the pipeline before the recent corporate scandals as part of the Financial Services Action Plan (FSAP), with the aim of developing and strengthening the single European market. The recent spate of corporate scandals has given greater impetus to this process, and has indeed been influential in framing changes to the proposed regulations.

The lack of transparency in financial account reporting, and information disclosure more generally, had previously been recognised as a particular weakness in Europe, resulting in a number of EU Directives that attempt to address this issue. These directives should improve the flow of information to investors, and in particular facilitate comparability across firms in Europe. They are therefore likely to enhance the efficiency of financial markets and strengthen market discipline.

As far as conflicts of interest are concerned, a number of national regulators in Europe have implemented rules or have undertaken investigations into the conflicts of interest facing investment analysts.[6] So far at least, the new rules in Europe are less severe than in the US. To some extent, this reflects the fact that global market participants may adopt US practices as the de facto industry standard. It could also reflect the smaller role of private (i.e. non-professional) investors in Europe, for whose protection regulation is often rationalised. There are potential drawbacks associated with separating functions that might give rise to conflicts of interest such as investment research and underwriting activities. Information is costly to acquire and sometimes cannot be revealed without giving specific advantages to competitors, so the separation of certain activities could ultimately have the perverse effect of reducing the amount of information available in financial markets. EU regulators therefore need to monitor how far the new rules are effective in curbing the most profligate behaviour without unduly impeding market efficiency, or to decide whether stronger regulation is required.

One area where the official response has so far been quite limited, both in the US and Europe,

5 Arguably the transparency of the structure of firm ownership and organisation is also important. Transparency of structure may help demonstrate to investors that conflicts of interest have been appropriately addressed.

6 IOSCO set up a task force to examine conflicts of interest facing sell-side security analysts and rating agencies. Similarly, at the EU level, the European Securities Committee (ESC) has established a Forum Group on Financial Analysts to make recommendations on the best regulatory and market practices for financial analysts.

is in relation to *rating agencies*, whose role in financial markets has become increasingly more influential. Rating agencies often face conflicts of interest similar to those faced by investment bank analysts, and could have been similarly influential in inflating asset prices in the late 1990s. Moreover, the high degree of market concentration – the three major US-based agencies dominate the global market, although quite a number of smaller rating agencies also exist – raises questions about how effective market discipline actually is. A number of official reviews of the role of rating agencies are currently underway – for example, by the SEC[7] – with a view to introducing measures to foster competition and to promote improvements in market practices. Progress on this front will have to be monitored to ensure that any proposals do not raise financial stability concerns of their own (for example, a move towards more "point-in-time" ratings could encourage greater pro-cyclicality).

7 The US SEC issued a "concept" release that discusses, among other issues, proposals for more public disclosure of information about the key methods and assumptions underlying rating decisions; how to avoid potential conflicts of interest; and how to reduce potential regulatory barriers to entry.

INTRODUCTION

The recent highly publicised corporate failures in the US, such as Enron and WorldCom and, more recently, the Parmalat scandal in Italy, have sparked widespread debate about the operation of capital markets and the role of certain market participants and financial intermediaries. In particular, these episodes have served as a timely reminder that market failures exist even in deep and liquid capital markets and that, in certain circumstances, these can lead to serious resource misallocation.

So far there have been less corporate scandals in Europe than in the US, and their impact has been relatively more contained. Last year, *The Economist* reported that in the US "as many as 1,200 companies have been forced to restate their accounts in the past five years; in Europe the number is barely in double digits."[8] Nonetheless, as well as Parmalat, there have been other high profile European corporate defaults and court cases of alleged irregular accounting in recent years, for example the Dutch company Ahold, the Swiss company Adecco, and the Italian company Cirio. Indeed, following Parmalat, the short-term impact of more stringent oversight by public and private bodies (e.g. auditors) may well be that more evidence of corporate malpractice will come to light.

Furthermore, particular strategies pursued by some European companies have led to significant weaknesses in corporate financial health, if not outright default. For example, the increased leverage built up by a number of companies in the technology-media-telecommunications (TMT) sector subsequently made them particularly vulnerable when expectations of future profit growth were sharply revised downwards. A key issue is whether these corporate "excesses"[9] simply reflect the natural fallibility of market forces – in a world of uncertainty, there will always be well-intentioned but ultimately ill-judged business decisions – or whether particular institutional features in financial markets prevented the normal checks and balances from effectively controlling firm and investor behaviour. That is, whether conditions existed that prevented market discipline from ensuring (ex ante) the efficient flow of capital to the most promising investment opportunities, so that (ex post) the subsequent correction in financial market imbalances has been sharper and more pronounced.[10]

Charts 1-3 compare the performance of the euro area and US stock markets over the past ten years. Chart 1 clearly shows that the late 1990s stock market "boom" occurred in both trading areas, but was more pronounced in the euro area markets – between January 1997 and March 2000, the Dow Jones Euro STOXX index rose by more than 160%. Over the same period the Standard & Poor's 500 index increased by around 100%. Thereafter both markets went on a declining path until mid-March 2003, when the euro area market fell more than the US. Chart 2 plots historical volatility (measured by the monthly average of daily price changes) for the two markets. By this measure, equity volatility increased notably both in the euro area and in the US over the late 1990s. Chart 3 plots implied volatility, computed from options on the market index, for the two markets since 1998. Up to June 2002, the relative movements in the two series are quite similar. However, thereafter and until March 2003, the euro area market experienced a significant increase in implied volatility compared to its historical average. The sharp decline in implied volatility starting in the second quarter of 2003 brought this measure of market participants' uncertainty down to historically low levels in both markets.

8 *The Economist*, 1 March 2003.

9 Situations in which company managers pursue particular strategies that lead to excessive risk-taking relative to the underlying preferences of the (ultimate) owners of the firm.

10 A particularly clear manifestation of this amplified volatility in financial market outcomes is the notion of so-called fallen angels. These are issuers that are downgraded from investment grade (BBB- and above) to speculative grade (BB+ and below). According to S&P, the number of "fallen angels" increased each year from 1996 to 2002, when it peaked amidst widespread credit deterioration combined with anxiety about corporate scandals and accounting impropriety, before falling back in 2003.

The growth in amounts outstanding of corporate bonds in the euro area has fallen over the past two years from the peaks reached at the end of 1999, partly reflecting turbulence in the financial markets and the high level of market uncertainty. Nevertheless, net issuance has remained positive.

More generally, debt financing of euro area firms (which also includes bank borrowing) grew very rapidly in the late 1990s in the euro area, in fact at a faster rate than for US firms in recent years (Chart 4). Part of this build-up in debt could be due to one-off balance adjustments caused by

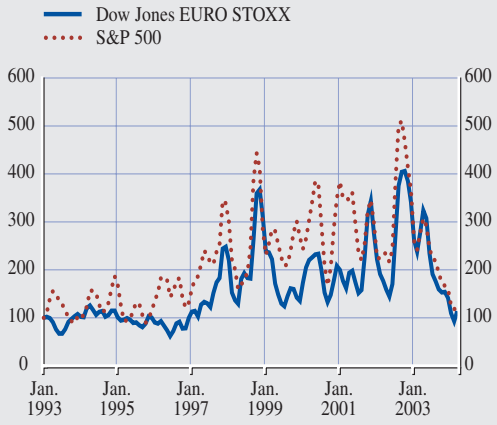
Chart 1 Stock market price indices – US and euro area

(index: Jan. 1993 = 100)

Source: Thomson Financial Datastream.

Chart 2 Historical volatility of US and euro area stock market price indices

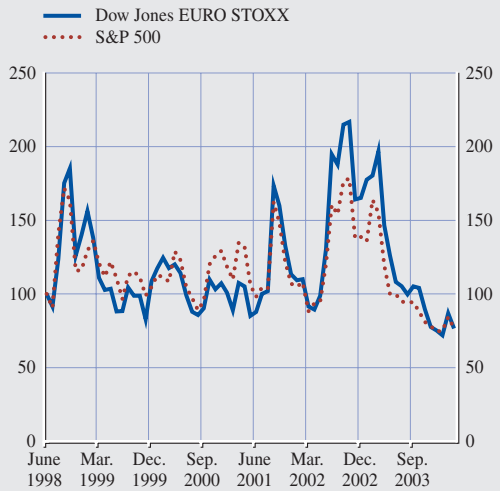
(index: Jan. 1993 = 100)



Sources: Thomson Financial Datastream and authors' calculations.
Note: Monthly average of daily volatility.

Chart 3 Implied volatility of stock market indices – the euro area and the US

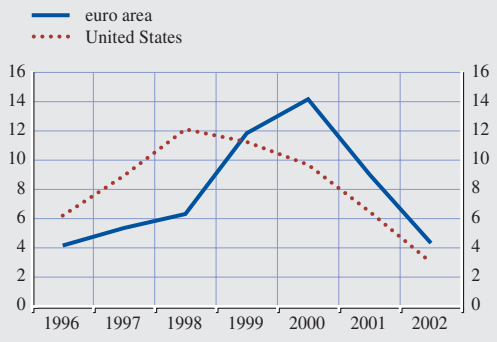
(index: June 1998 = 100)



Source: Thomson Financial Datastream.

Chart 4 Annual growth in corporate debt in the US and in the euro area

(in percentages)



Sources: ECB, Federal Reserve Board.
Note: There are issues of precise comparability between the two series. The euro area corporate debt is calculated using annual financial accounts, which are generally non-consolidated and partially include inter-company loans, depending on the availability of statistical sources. Moreover, euro area corporate debt includes non-autonomous pension funds reserves of non-financial corporations, which do not exist in the United States (see also the article on "Developments in private sector balance sheets in the euro area and the United States" in the February 2004 issue of the ECB Monthly Bulletin).

firms seeking to adjust their balance sheets in anticipation of the introduction of the single currency. In addition, firms might simply have taken advantage of the environment of low interest rates, which increased the level of sustainable debt. To the extent that such borrowing looked excessive relative to expectations of future growth, this could be consistent with the sharper equity market correction in the euro area (compared with the United States), as investors demanded higher returns to compensate for the higher risk associated with any debt overhang.

Is there any evidence that characteristic market failures contributed to recent corporate excesses and subsequent "bust"? How much of the differential pattern in the euro area can be attributed to peculiar market characteristics?

To address these questions the paper reviews the theoretical arguments and empirical evidence related to possible market failures, using illustrations drawn from the most recent spate of corporate scandals. The paper deliberately adopts a very "microstructure" view of financial markets. That is, it concentrates on those features that affect the processes by which investors' latent demands are ultimately translated into transactions, in particular examining what frictions may exist that impede the efficient operation of financial markets. In doing so, it necessarily ignores a number of important influences on financial market outcomes, such as the macroeconomic environment, structural changes in the institutional set-up (e.g. the introduction of the single European currency), geopolitical uncertainties, market liquidity effects, and so on. All of these factors could have played a significant part in the evolution of financial markets in recent years. The fact that they are not discussed in this paper should not be taken as an indication of their lack of importance, but instead that the main focus of the paper lies on other potentially significant features.

The paper is organised as follows. Section 1 outlines the conceptual link between market failures and financial market dynamics. This forms a backdrop for a discussion of the potential sources of market failure described in Section 2. The section also investigates the empirical evidence on how far these market failures might account for any differences in the European and US experience. Recent responses by national regulators and policymakers are summarised in Section 3. Finally, Section 4 offers some concluding remarks.

I MARKET FAILURES AND FINANCIAL MARKET DYNAMICS

In perfect markets, prices continually reflect the demand and supply schedules of all potential investors. These equilibrium prices represent the fundamental market valuations which should prevail in the long run and which ensure that resources are allocated efficiently across competing uses.[11] However, in practice, markets are not perfect – market failures[12] exist which mean that, in the short term, transaction prices may deviate from long-run equilibrium values. More specifically, short-term deviations may arise, for example because of frictions such as transaction costs, asymmetric information as well as strategic behaviour on the part of market participants. As a result, the process by which prices converge to (or indeed diverge further from) equilibrium – i.e. market price dynamics – will have implications for efficiency in allocating funds in the economy. In particular, discrepancies between price and fundamental value affect the level and choice of corporate financing, providing a potential link from the microstructure of financial markets to the field of corporate finance and in turn to the episodes of corporate excess witnessed in recent years.

Articulating the precise relationship between potential market failures and financial market dynamics is not easy. This is because the sources of market failures relate to institutional features that are largely unobservable, such as payoffs, incentive structures, strategies, information sets, etc.. Attempting to map developments in these variables to changes in "observables" such as financial market prices and volumes (and higher moments of these) is therefore fraught with difficulties. Nevertheless, a new branch of the economic literature – so-called market microstructure models – has developed in recent years that considers these types of issues. Various models have been formulated which investigate the institutional structure of financial markets, including information distribution patterns and the resulting incentive structures faced by market participants, with a view to understanding better the asset price discovery process. That is, their goal is to look inside the "black box" by which latent demands are translated into realised prices and volumes. A central tenet in microstructure is that asset prices need not equal the full information expectations of future values owing to a variety of frictions (Madhavan, 2002).

To fix ideas, a key component of many market microstructure models relates to incomplete or imperfect information that is known by all or certain market participants. In particular, the extent of market transparency (i.e. the ability of market participants to observe information about the trading process) can impact significantly on the behaviour of traders/ investors and their strategies. For example, revelations about particular transactions by certain market participants may be used by less informed traders as a signal about future value and thus lead them to revise their opinions.

Another line of enquiry in the microstructure literature considers "market architecture", which defines the environment governing the trading and investment process in financial markets. Many academic studies have shown that market structure matters, as it affects the speed and quality of price discovery, liquidity and cost of trading. Particular features of the market that can affect asset price dynamics include the extent of programme trading and more general trading protocols, imperfect competition, and the types of channels through which information is disseminated.

The presence of market failures, or more generally departures from the paradigm of perfect competition, creates the potential for government intervention. That is, there may be a role for government policies to solve market failures by increasing competition, improving information and fixing incomplete markets. For

11 Formally, under the so-called First Welfare Theorem of Economics, perfectly competitive markets will deliver first-best (i.e. Pareto) efficient outcomes.

12 Instances of market failures include: (i) natural monopolies, monopolistic competition, oligopoly, monopsony, or other failures of competition; (ii) adverse selection, moral hazard, principal-agent problems, fraud, simple ignorance or other failures of information and incentives; and (iii) public goods, thin markets, transaction costs or other forms of incomplete markets.

example, regulation may be necessary to curb any build-up of monopoly power. However, even though we can compare markets under perfect competition (the first-best) to all other possibilities, it cannot be proven which of the imperfect varieties is preferred (this is the so-called theorem of the second-best). It may be that solving one market failure can create another and may make matters worse. For example, in the context of financial markets, a number of studies have shown that too much pre-trade transparency can actually reduce market liquidity, because traders are unwilling to reveal their intentions to trade (Madhavan, Porter and Weaver, 2002). In similar fashion, too much post-trade transparency can induce fragmentation, as traders conduct trades off-market (i.e. "over-the-counter").

Moreover, left alone, markets may sometimes overcome failures and promote self-correcting mechanisms, at least in the long run. For example, in the context of repeated interaction amongst market participants, reputational considerations may mean that incentives to exploit, say, an informational advantage to the detriment of other participants may be naturally suppressed. Thus, in evaluating any policy response to market failures, it is important to assess how far government action should seek to promote market-led solutions, or whether more prescriptive forms of intervention are appropriate.

2 SOURCES OF MARKET FAILURE

In order to investigate the potential link between market failures and recent financial market developments, we need to articulate what particular market features may have given rise to greater instability in financial markets. Four features in particular can be highlighted:

- Perverse incentives/conflicts of interest (i.e. agency problems).
- Unstable trading strategies (e.g. herding and cognitive failures).
- Lack of disclosure/transparency (i.e. asymmetric information issues).
- Concentrated and fragmented ownership (e.g. collective action problems).

We consider each of these issues in turn, although it is possible (and indeed likely) that they may all be present simultaneously. It is not easy to distinguish which factors might be more important at particular times. Even with a formal model with clearly-defined links between observable market dynamics and institutional characteristics, any empirical investigation is unlikely to be able to control for all the relevant influences on market outcomes. Because of this, any evidence that we present below can only be suggestive. To the extent that securities prices of TMT firms have been particularly volatile in recent years, developments in this sector may perhaps provide especially important insights, and we therefore highlight characteristics of this sector in particular where appropriate.

2.1 PERVERSE INCENTIVES/CONFLICTS OF INTEREST

The recent wave of corporate failures brought to light a number of serious cases of misconduct of managers and/or of people working in financial intermediaries which did not fairly disclose information related to corporations with which they had business links. The result of this misconduct was that shareholders were generally not aware of the real value of their investment, even though ultimately they were the ones that bore the financial losses.

The source of this improper behaviour can usually be related to conflicts of interest arising in the work environment of the principal-agent kind. For example, managers of firms may have an incentive to take excessive risks to gain financial reward since the shareholders will ultimately be the ones to suffer if things turn out badly. Financial intermediaries, acting as delegated monitors and advisers, can help investors to control firms' managers. However, in so doing they too may face conflicts of interest. Such conflicts can arise, for example, between the underwriting and research activity of investment banks, between the commercial banking and the investment banking activities of universal banks, as well as for external providers of auditing and credit assessment services (e.g. when the same company is also selling consulting services). Below, we examine the empirical evidence on a selection of these principal-agent problems, concentrating on those actors that may have the most direct impact on financial market outcomes, namely the firms themselves and the financial institutions which advise them.[13]

2.1.1 COMPANY EXECUTIVES' COMPENSATION[14]

In the US, much has been made of the role of executive compensation in encouraging excessive risk-taking. Stock options became a popular form of remuneration for executives during the 1990s in particular, since in theory the provision of stock options was thought to align their interests with those of the shareholders. In fact, they turned out to have other effects: managers had an interest in

13 For a more comprehensive discussion of such conflicts of interest, see Crockett et al. (2003).

14 Another area of potential conflict of interests which is not explored here but which has attracted attention is that of director and officer (D&O) insurance. This could be seen as a means to further distort incentives for company directors by ensuring that the monetary costs arising from any regulatory/judicial investigations into corporate malfeasance will be met by the firm and not necessarily by those individuals who are responsible.

driving up the stock price of their firm to realise their gains, exercising their options and then cashing in upon leaving the company. Furthermore, particularly in the US, the use of stock options helped to distort published earnings, as companies could choose between expensing employee stock options in their income statement or disclosing the effect of such expensing in notes to their accounts. Until recently, only two publicly traded companies had chosen the latter alternative.[15] The use of stock options also had the effect of diluting shares – estimates suggest that the percentage of firm ownership by top management rose from 2% to over 10%.[16]

In Europe, empirical evidence concerning excessive risk-taking prompted by executive compensation is scarce and in fact relates almost exclusively to the UK. This is largely due to the lack of comprehensive databases on executive compensation, including stock options, in continental Europe, which in turn is related to differences across countries concerning disclosure requirements. However, what available information there is suggests that executives' pay arrangements in Europe may, at least in spirit if not in magnitude, be little different than in the US. A recent survey by DWS GmbH[17] reports that 93% of the largest fifty European companies offer a stock option plan to their executives.

2.1.2 UNDERWRITING, RESEARCH AND BROKERAGE ACTIVITIES IN INVESTMENT BANKING

Investment banks provide an array of financial services that bridge informational asymmetries in the primary and secondary capital markets. In the primary market, they float new and seasoned securities and advise on mergers and acquisitions; in the secondary markets, they act as brokers or dealers, providing research for both markets (Bloch, 1986). Equity research analysts constitute an influential part of the investment industry. Investors carefully read their research reports and recommendations, while firms' managers try to cultivate good relationships with them in order to obtain favourable coverage.[18] Brokerage firms promote research as a means of obtaining trading business from their investors as well as underwriting and merger advisory from firms. A few analysts have attained the status of media celebrities, and the influence of their recommendations on stock prices is highlighted in several academic studies.[19]

The possible exploitation of information synergies from underwriting, research and market-making provides a rationale for combining these distinct financial services. However, there are also potential conflicts of interest between these activities. Boni and Womack (2002) identify four main areas where conflicts of interest may arise that potentially undermine the independence and objectivity of the advice of analysts working in investment banks:

– First, internal pressure from the analysts' firm with respect to other income derived from related business. For example, analysts may have an incentive to provide positive reports on companies to investors because their firm will gain greater brokerage commission from the trade. The firm may gain directly through its own proprietary trading. Similarly, analysts may come under pressure to promote certain companies' public offerings because of the corporate financing revenues the firm generates from the client, or because of their institutions' loan exposure to the firm. The firm may also gain directly through its own proprietary trading.

15 Under great public pressure in the wake of the Enron and WorldCom bankruptcies, other companies announced that they would start expensing stock options. Over 750 companies (out of about 14,000 publicly traded) have made such announcements as of July 2004.
16 Figures quoted from Gourevitch (2002).
17 DWS is an asset management company run by Deutsche Bank.
18 Positive investment recommendations can result in firms gaining access to cheaper financing. This can serve to boost firms' profitability, which in turn can have a favourable impact on their share prices.
19 See, for example, Givoly and Lakonishok (1979), Womack (1996), Barber et al. (2001). The role played by analysts grew in importance during the 1990s, especially in some sectors of the economy, like TMT, where companies took advantage of the high valuations that analysts were providing to raise capital.

– Second, pressure from the management of the companies that the analyst covers. Analysts may develop close ties with the management of the companies they cover, not least because this could give them access to privileged information. They may thus be reluctant to issue negative reports on these companies for fear of being excluded from this "inside" information.

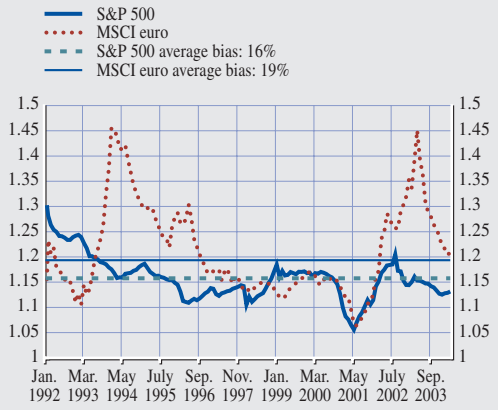
– Third, pressure from the analysts' institutional investor clients. Institutional investors that own the securities of the company in question may also be clients of the analysts' firms. As a result, an analyst may be inhibited from issuing a rating downgrade that would adversely affect the institutional client's portfolio, because this could threaten future brokerage business from the institution.

– Finally, conflicts created by the analysts' personal investments. To the extent that analysts own stocks in the companies they cover, they may be reluctant to issue sell recommendations.

In the US, Michaely and Womack (1999) compare the investment recommendations for IPOs of those analysts who were the lead underwriters of the issue with those of other analysts. They find that the recommendations of underwriter analysts displayed a significant positive bias – stocks that they recommended performed more poorly than "buy" recommendations by unaffiliated brokers prior to, at the time of, and subsequent to the recommendation date. Moreover, they show that the market does not seem to recognise the full extent of the bias, suggesting that underwriter analysts can unduly influence market outcomes.

As an alternative indicator of analyst bias, Chart 5 shows the ratio of 12-month ahead earnings expectations relative to the actual subsequent performance, both for the S&P 500 and the MSCI euro index.[20] Market analysts' profit forecasts would appear to be biased

Chart 5 The upward bias in stock market analyst forecasts: ratio of forecasts to subsequent outturns



Sources: Thomson Financial Datastream and authors' calculations.

upwards – actual earnings were almost always lower than forecasts. This would seem to suggest that on average over the last 12 years, analysts have provided a somewhat overly optimistic outlook for corporate earnings.[21] Interestingly, the bias seems to be time-varying and possibly linked to the profit cycle. This might suggest analysts are prone to overestimating the durability of strong profit growth during economic upswings.

More generally, the existence of the bias does not necessarily imply that underwriters' analysts are affected by conflicts of interest. Analysts could genuinely believe that firms they underwrite are better than firms underwritten by other institutions – in the terminology of behavioural finance, they suffer cognitive biases. In addition, firms may choose underwriters *because of* the favourable views they have about the firm. That is, the empirical findings of more favourable recommendations of underwriters arises from a selection bias – those firms seeking better recommendations

20 The chart shows MSCI euro index earnings forecasts since data for the Dow Jones EURO STOXX index are only available from December 1999.

21 See also the Box entitled "What is the information content of stock market earnings expectations held by analysts?" in the March 2004 issue of the ECB Monthly Bulletin.

than their fundamental valuations would deserve tend to turn to particular underwriters. However, Michaely and Womack (1999) suggest that since an analyst's ability to generate revenues and profit for his or her firm is a significant factor in his or her remuneration, the possibility that conflicts of interests are at work cannot be ruled out.[22]

In recent years, the emphasis given by market participants to firms' earnings performance has increased, accompanied by more significant market reactions at the time of the announcement. An earnings disappointment is popularly perceived as representing very bad news. One way in which firms' managers can directly manipulate earnings signals is through reported financial statements, i.e. by choosing different accounting treatments of revenues and expenses. An alternative, if indirect, way of managing market reactions to earnings announcements is to influence market analysts' forecasts.

A recent paper by Chan, Karceski and Lakonishkok (2003) – henceforth CKL – examines whether analysts adjust their profit estimates in order to help managers match or exceed expectations. They show that in the US, the proportion of positive earnings surprises (the difference between actual quarterly earnings per share and the most recent consensus forecast prior to the announcement data) persistently outweighs that of negative surprises. They suggest that this is consistent with analysts massaging their forecasts to engineer good news.[23] This tendency has increased over time,

22 Survey evidence would also seem to suggest that analysts themselves are aware of the potential conflicts of interest they face. A Reuters Survey in 2000 reported that individual analysts were very concerned about the pressures that the companies they monitor can exert (see The Reuters Survey 2000, European Larger Company, Investment Research, Sales & Trading, Investment Banking (Originated by Tempest)).

23 The time window between the consensus forecast and the announcement date is short, so it is unlikely that there is a systematic bias owing to unexpectedly favourable overall economic conditions. Therefore, CKL argue that there is no reason to expect that the probability of a positive surprise should differ notably from the probability of a negative surprise, even if business conditions had been unexpectedly robust in the late 1990s.

Table 1 Summary statistics and frequency distribution of earnings surprises – United States

Panel A: Summary statistics

Sample period	Mean	Median	Std. deviation	25th percentile	75th percentile
1984 Q2-1989 Q4	-5.8	-0.86	37.76	-8.71	4.78
1990 Q1-1994 Q4	-1.93	0.02	16.69	-4.37	3.28
1995 Q1-1998 Q4	0.54	0.76	7.87	-0.98	2.79
1999 Q1-2000 Q1	1	1	8.19	-0.2	3.4
2000 Q2-2001 Q1	0.06	0.75	10	-0.88	3.15
Overall	-2.32	0.01	20.72	-4.53	3.68

Panel B: Percentage of positive, negative, zero and small surprises [1)]

	Percentage of cases:				
Sample period	Positive	Negative	Zero	Small positive	Small negative
1984 Q2-1989 Q4	43.3	51.13	5.58	13.98	13.32
1990 Q1-1994 Q4	46.36	43.92	9.73	16.92	12.93
1995 Q1-1998 Q4	53.91	29.81	16.28	24.32	11.29
1999 Q1-2000 Q1	59.48	24.41	16.11	22.58	8.17
2000 Q2-2001 Q1	54.95	28.45	16.6	20.94	9.3
Overall	48.57	40.69	10.74	18.32	12.11

Source: Chan, Karceski and Lakonishkok (2003).
1) The earnings surprise for each firm in each quarter is the difference between actual quarterly earnings per share and the most recent consensus forecast prior to the announcement date. Earnings surprises are measured in cents per share (based on number of shares outstanding as at the date of the earnings announcement) and computed for all firms with forecasts for at least five analysts. Numbers reported in the table are averages over all quarters, from 1984 Q2 to 2001 Q1.

and became particularly important in the late 1990s (see Table 1). Moreover, CKL document that the increased tendency for positive surprises became more prevalent in the late 1990s for so-called growth stocks relative to value stocks.[24] They suggest that this is intuitive – many growth firms, particularly those in the TMT sectors, were "intensively engaged in raising capital as well as merger activity. Firms and analysts would thus have been especially anxious to paint a rosy picture of those firms' earnings prospects in order to maintain favourable investor sentiment." A concrete example is Enron – almost until the day Enron stopped trading on US exchanges, equities analysts from leading US brokerage and investment banking houses, which had significant corporate finance business with Enron, maintained "buy" recommendations on the stock.

CKL extended their analysis to a number of other countries, although financial disclosure requirements outside the US meant that only annual, rather than quarterly, observations on corporate earnings and analysts' forecasts could be considered. Their results are reproduced in Table 2. In marked contrast to the US, there is no evidence of a predisposition to positive surprises in the pooled sample of foreign markets (panel A).

The results for continental Europe (panel D) suggest that the proportion of negative surprises exceeded 50% in every sub-period, so that the median surprise was less than zero in all sub-periods, including the peak years of 1998-1999[25]. As in the US, there is some evidence that the incidence of positive earnings surprises increased during the late 1990s, but the shift was much milder than in the US – the proportion of positive surprises stood around 37% during the late 1980s, rising to around 47% in 1998-1999 (compared with comparable figures of 43% and 60% for the US). On this basis, therefore, even though there was a similar stock market boom in both areas, it would seem that analysts in continental Europe were less prone to massaging earnings compared with US analysts. To support this view, CKL suggest that the investment banking industry is less developed in Europe and the role of analysts much less visible, so that the potential conflicts of interest that undermine analysts' research tend to be weaker in markets outside the US. The relatively larger role of institutional investors in Europe compared with the US may also arguably have given them more influence in insisting upon more objectivity in analysts' research and investment advice.[26]

How robust is this result? A number of US firms are also significant players in European investment banking markets, and therefore could have contributed to inflating asset prices there too.[27] That said, European universal banks are also important players in European financial markets, but provide a relatively larger proportion of finance to clients via bank loans, with fewer of those clients being publicly listed. In this sense, the scope for conflicts of interest for investment analysts of European institutions may be genuinely less – European banks lend to their clients via loan agreements and do not tend to write research on them.

However, other more direct evidence of conflicts of interest at work in Europe would suggest a less benign conclusion. One of the few studies which exclusively looks at

24 CKL define "value firms" as those whose book-to-market value of equity ratios exceeds that of the median NYSE firm; growth firms have positive book-to-market ratios that place them in the bottom quartile based on NYSE firms.

25 This could also be consistent with the evidence shown in Chart 5, where it seems that European analysts' forecasts are even more upwardly biased than those of their US counterparts.

26 A shareholding culture is more developed in the United States compared with continental Europe. At the end of 2000, US households held equity to the value of 147% of GDP, compared with a figure of 67% for the euro area. One of the reasons behind this difference could be the difference in social security benefits. Indeed, the large diffusion of company retirement accounts implies that US households have large indirect shareholdings. Nevertheless, the ageing population in the euro area, which enhances long-term savings, has increased the importance of "new" financial intermediaries (as opposed to banks) in the euro area, as funds are increasingly channelled into mutual funds, pension funds and insurance companies.

27 The recent legal action brought by the Louis Vuitton group (LVMH) against Morgan Stanley for allegedly biased investment advice that damaged the firm also suggests that these issues do not solely concern US firms. Ironically, this particular case centred around adverse investment advice which may have been influenced by conflicts of interest on account of Morgan Stanley's banking relationship with LVMH's rival, Gucci.

Table 2 Frequency distribution and summary statistics of earning surprises [1] – International sample (excl. the United States)

Sample period	Percentage of cases: Positive	Negative	Zero	Median
(A) All international				
1987-1989	39.4	49.82	10.78	-0.17
1990-1994	38.91	55.08	6.01	-1.27
1995-1997	41.97	54.78	3.25	-1.35
1998-1999	40.41	57.92	1.67	-3.57
2000-2001	39.62	58.96	1.42	-4.82
Overall	39.91	54.87	5.22	-1.85
(B) Europe, Australia and Far East (EAFE)				
1987-1989	39.89	48.38	11.73	0
1990-1994	39.97	54.22	6.42	-1.04
1995-1997	45.73	50.72	3.55	-0.26
1998-1999	42.33	56.02	1.65	-2.12
2000-2001	42.37	56.24	1.39	-3.16
Overall	41.54	52.86	5.6	-1.1
(C) Japan				
1987-1989	53.6	45.91	0.49	1.48
1990-1994	32.47	66.45	1.08	-8.01
1995-1997	45.73	53.22	1.05	-2.44
1998-1999	28.01	71.3	0.69	-14.25
2000-2001	46.76	52.93	0.32	-1.45
Overall	41.24	57.97	0.78	-4.74
(D) Continental Europe				
1987-1989	36.77	54.73	8.51	-1.2
1990-1994	35.72	56.21	8.08	-1.49
1995-1997	44.92	51.52	3.56	-0.41
1998-1999	47.06	50.99	1.95	-0.35
2000-2001	42.05	55.93	1.82	-4.13
Overall	40.15	54.24	5.61	-1.42
(E) UK				
1987-1989	44.96	31.82	23.23	0.01
1990-1994	47.21	46.75	6.04	0.01
1995-1997	56.87	39.97	3.16	1.13
1998-1999	59	38.86	2.14	1.47
2000-2001	39	60.48	0.53	-5.11
Overall	49.17	43.48	7.65	-0.25

Source: Chan, Karceski and Lakonishkok (2003)
1) The earnings surprise for each firm in each quarter is the difference between actual quarterly earnings per share and the most recent consensus forecast prior to the announcement date. Earnings surprises are measured in cents per share (based on number of shares outstanding as at the date of the earnings announcement) and computed for all firms with forecasts for at least five analysts. Numbers reported in the table are averages over all years, from 1987 to 2001.

European data, albeit only for Italian firms, is Fabrizio (2002).[28] This study examines analysts' stock recommendations, producing results that confirm the existence of biased analyst behaviour which is assessed to be linked to conflicts of interest. Three features in particular are identified. First, there is a strong prevalence of "buy" recommendations, which seems to suggest that market analysts refrain from preparing negative reports. (Alternatively, as mentioned earlier, it could be consistent with a selection bias – firms covered in these reports may typically be ones for which there seem to be good growth prospects). Second, the bias seems even more pronounced when companies

28 Italian regulation requires research reports produced on firms listed on the Italian stock exchange to be filed with Consob (the Italian authority which regulates securities exchanges). This research is used by Consob in its market surveillance activities, and is archived in the database that was also used for that study.

are involved in an IPO or some other corporate action. In these cases, "non-independent" analysts (i.e. researchers working for financial intermediaries closely involved with the issuing firm) produce almost exclusively positive recommendations. They also tend to stick to their view in the first few months following the issue, even if market conditions drastically change. Third, the market for equity research is fairly concentrated, so that eventually "deviant" behaviour of leading analysts may have a potentially large impact.

Similarly, Lehar and Randl (2003), in a study of German banks' activities in financial markets, find evidence of conflicts of interest, resulting in upwardly biased investment reports. They find that analysts behave strategically by using their information advantage to release favourable reports at times when the rest of the market underestimates earnings, and to suppress negative information when the market is overly optimistic.

The recent Parmalat case also poses the question whether some financial institutions involved with Parmalat were operating in circumstances in which conflicts of interest could have arisen. A number of banks, including European institutions, had multiple relationships with Parmalat, which could have been affected by such conflicts of interest. In particular, these institutions (i) often contributed to the issuing and placement of bond and financial instruments; (ii) provided the company with large amounts of funding (either loans or bank overdraft facilities); and (iii) sometimes owned shares in Parmalat. Investigations are currently proceeding in order to assess whether these institutions adequately managed these potential conflicts of interest when providing advice to investors.

Conflicts of interest can give rise also to insider trading. The existence and enforcement of insider trading laws in stock markets is largely a phenomenon of the 1990s. Insider trading laws were first established in the United States in 1934, followed only much later in 1967 by France. At the beginning of the 1990s, insider trading was not illegal in most European countries until the European Union required its members to apply the European Community Insider Trading Directive (89/592/EEC of 13 November 1989). Bhattacharya and Daouk (2002) investigate whether the existence and enforcement of insider trading rules has affected the firms' cost of equity (i.e. if corporations are in effect paying a higher premium for their financing owing to the possibility of insider trading). Their main findings are that while the existence of insider trading laws does not significantly affect equity valuation, their enforcement would appear to do so. They find that average returns decreased after the introduction of insider trading laws, and even more noticeably after the first prosecution had been carried out. Turnover tends to increase after enforcement, whereas volatility does not change significantly. Using different models of the costs of capital, they find that enforcement has a significant negative effect on the cost of equity.

2.1.3 COMMERCIAL AND INVESTMENT BANKING

Potential conflicts of interest can arise when banks engage in both commercial and investment banking business. Indeed, such conflicts of interest were arguably a key factor behind the Glass-Steagall legislation enacted in the US in 1929, which until relatively recently separated the two activities. However, the combination of commercial and investment banking can have potentially beneficial effects on market outcomes. By forming long-term lending relationships and providing transaction services to firms, commercial banks are likely to acquire superior knowledge concerning firms' creditworthiness. And by combining commercial and investment banking, a universal bank can exploit economies of scope in information collection, so that the issues it underwrites may be perceived as having better "certification".

Of course, the value of this certification can be offset by any perceived conflict of interest. For example, an institution that has a commercial

lending relationship with a firm may have an incentive to underwrite and promote a low-quality issue in order to transfer its loan risk to uninformed investors. If investors feel that a bank could exploit its conflict of interest, this will lead the market to apply a premium to the securities issued by the universal bank. However, empirical evidence in the US covering periods in the 1920s and early 1990s suggests that certification effects have tended to dominate the negative effects associated with conflicts of interest. For example, Puri (1996) found that prior to 1929, securities underwritten by bank affiliates were priced at a lower yield than comparable securities issued by separate investment banks. There is no evidence that universal banks inflicted low-quality securities on the public – on the contrary, they were generally underwriters of higher-quality securities.

Using more recent data, Gande, Puri, Saunders and Walter (1997) examined the characteristics and pricing of securities underwritten by the top twenty underwriters from 1993 to 1995. They found that bank subsidiaries tended to underwrite smaller issues than independent investment banks. This is consistent with the idea that commercial banks tend to assist firms subject to the greatest informational asymmetries. Subsidiaries of commercial banks seemed to provide a significant certification effect. When the commercial banks had a significant lending stake in the issuing firm, the yield paid was lower than for comparable issues underwritten by investment banks. The yields were even lower if the issue was used to refinance part of the commercial bank debt and when the parent bank still held a stake.

There are no directly comparable empirical studies on conflicts of interest in European universal banking. This is partly due to a comparatively less developed equity culture coupled with, until very recently, limited securities issuance activity. It is therefore difficult to assess how far the research results for the US can be applied to Europe. That is, whether the benefits of certification provided by banks outweigh the effects of conflicts of interest. However, as noted above, the recent Parmalat case has renewed interest in this area, and it seems likely that, going forward, investors and regulators alike will scrutinise more carefully how well banks manage such potential conflicts of interest.

A recent study by Lehar and Randl (2003) investigates the issue from the perspective of the investment recommendations of German universal banks which have long-lasting lending or equity relationships with their clients. Their results suggest that affiliated brokers (i.e. analysts whose brokerage firms own a stake in a firm) use their superior information to issue more precise forecasts relative to the consensus than do non-affiliated brokers. However, as noted above, they also find evidence of conflicts of interest in the sense that earnings forecasts of affiliated brokers are on average more positive than the consensus. It is not clear which effect might dominate. Moreover, their regression results suggest that the interaction of an information advantage and conflict of interest effects apply mostly to banks with small equity stakes in the firm in question. Analysts working in banks with large equity investments in a firm seem less prone to exploit their superior information and are less likely to issue more favourable forecasts.

Partial evidence based simply on observations on the arrangements for securities issuance by European telecommunications companies over recent years is inconclusive. Table 3 provides details of the different relationships between the main brokers and the major European telecommunications companies. It shows that, in a number of cases over the period 1998-2003, a brokerage firm that was involved in the underwriting of a bond issuance by the telecommunications company was also an arranger of a syndicated loan that was still outstanding during the period.[29] In addition, in

29 A lead arranger in a syndicated loan need not actually take a tranche of the loan, although in the majority of cases they do, which can give rise to a conflict of interest.

Table 3 Potential conflicts of interest for brokers – European Telecom Companies

Financial intermediary "Bookrunner" (Top 5 per corporate)	Underwriting share of bonds issued (1998-2003) %	No. of times involved as a (joint-) bookrunner a % of total number of separate issues	Also involved in syndicated loan outstanding during the period? [1]	No. of times involved as mandated (co-) arranger as a % of number of loans/ tranches of loans (1993-2003)	An identified shareholder of the firm?
Vodafone					
Lehman Bros.	33	31	yes	43	no
Salomon-Smith Barney	18	25	no	0	no
Goldman Sachs	16	19	yes	14	no
Deutsche Bank	13	13	yes	43	no
Barclays	10	19	yes	71	no
Telefonica					
JP Morgan	22	38	no	0	yes
Morgan Stanley	17	24	no	0	no
Goldman Sachs	15	19	no	0	no
Banco Bilbao Vizcaya	7	29	yes	20	yes
Lehman Bros.	5	14	no	0	no
Deutsche Telekom					
Deutsche Bank	21	27	yes	75	no
Morgan Stanley	14	21	no	0	no
Goldman Sachs	13	14	no	0	no
JP Morgan	10	10	yes	50	no
BNP	10	11	no	0	no
Telecom Italia					
JP Morgan	25	100	yes	25	no
Mediobanca	16	67	yes	50	no
Lehman Bros.	16	67	no	0	no
Merrill-Lynch	16	67	no	0	no
Caboto	9	33	no	0	no
France Telecom					
Morgan Stanley	16	31	yes	43	no
BNP	15	33	yes	43	no
Salomon-Smith Barney	12	24	yes	0	no
CSFB	11	16	yes	29	no
Deutsche Bank	9	21	yes	43	no

Source: Authors' calculations (based on data from Bondware/Loanware).
1) Based on details of syndicated loans upon origination. It does not take into account of possible loan sales post-origination.

the case of Telefonica, two of the financial institutions were also shareholders at the time of the issuance.

However, in terms of brokers' trade recommendations there is less evidence that analysts belonging to those firms which had a closer commercial relationship with a particular telecom company made positively biased recommendations. Table 4 presents recommendations made by JP Morgan and CSFB over the late 1990s for the major European telecommunications companies. In three of the five cases, JP Morgan's share of the underwriting business with the company was much larger than CSFB's, yet its published trade recommendation was no more positive, and indeed may have been more downbeat. Of course, CSFB could have been consistently bullish as regards the telecommunications sector. Indeed, in the case of Vodafone, where both companies had few reported commercial interests, the CSFB recommendation was perhaps slightly more positive.

Table 4 Investment recommendations of JP Morgan and CSFB – European Telecom Companies

Firm	Vodafone		Telefonica		Deutsche Telekom	
Broker	JP Morgan	CSFB	JP Morgan	CSFB	JP Morgan	CSFB
(% of underwriting business with firm during 1998-2003)	0	0	22	1	10	4
1999 H1	Hold		Buy/Hold		Sell	
1999 H2	Hold/Buy		Sell		Buy (Yes)	
2000 H1					(Yes)	
2000 H2	Hold		Hold (Yes)		Hold	(Yes)
2001 H1	Hold/Buy		Buy/Hold		Hold/Sell	(Yes)
2001 H2	Hold	Attractive/Buy	Sell (Yes)	Hold (Yes)	Hold (Yes)	Attractive (Yes)
2002 H1	Hold/Sell	Attractive/Hold	Hold/Sell	Hold	Hold/Buy (Yes)	Attractive
2002 H2	Hold/Sell	Hold	Hold/Sell	Hold/Attractive	Hold/Buy	Attractive/Hold (Yes)
2003 Q1	Hold/Sell	Hold	Hold/Sell (Yes)	Attractive/Hold	Hold/Buy	Attractive

Source: Authors' calculations.
Note: Whether the broker is involved as a bookrunner on bonds issued during that period is shown in brackets.

2.1.4 CONFLICTS OF INTEREST FOR RATING AGENCIES

A number of the potential conflicts of interest facing investment bank analysts may also affect analysts working for rating agencies. One potential conflict of interest is related to the fees charged by agencies for their rating services, which constitute a major source of their revenues. Most ratings are solicited – i.e. firms request the rating. Hence, if a customer is not satisfied with an agency's rating, it may threaten to switch to a rival agency. To avoid such loss of business, agencies may have an incentive to rate issuers more liberally and to search less eagerly for negative information. As a result, investors may not receive the most reliable and objective advice about the fundamental strength of a company. Another potential conflict of interest is related to the development of complementary businesses, such as advisory services. Although these services still represent a small portion of the overall business of rating agencies, the sale of these additional services may still influence the ratings attached to firms.

In the case of Enron, the SEC investigation concluded that rating agencies failed to use their legally sanctioned powers to investigate the operations of the company. This could have been due to conflicts of interest as well as poor monitoring.

In terms of the impact on market dynamics, the effects of such conflicts of interest are not clear. There is some evidence that this potential ratings bias is to some extent factored into prices. Studies of the value provided by bond-rating agencies (e.g. Hand, Holthausen and Leftwich, 1992) generally conclude that rating downgrades provide new information to investors, whereas upgrades are already reflected in stock and bond prices when they are announced. Moreover, the behaviour of rating agencies is often constrained by the fact that the market requires many issuers to have more than one rating, suggesting that systematic overrating by one agency would be easily identifiable.

However, the conflicts of interest could be more influential in the ratings of collateralised debt obligations (CDOs) and other similar synthetic products. In this case, the rating agency works alongside an issuer in structuring the instrument and may be under pressure to choose the weakest possible bundle of assets that meet the required overall credit rating. The fact that such instruments are often only rated by one company and are not widely understood by investors increases the risk that any such

practices might not be detected, and suggests that the scope for ratings manipulation may potentially be higher than for more basic products.[30]

2.2 DESTABILISING TRADING AND INVESTMENT STRATEGIES

Instability in financial markets may come about not necessarily as a result of "bad" incentive problems, but simply through the optimising behaviour of investors who, faced with imperfect information, individually pursue particular strategies that are destabilising for the market as a whole. There are a number of candidate strategies that can in theory lead to greater volatility in markets – for example dynamic hedging, herding, "noise-trading"[31], etc. The difficult empirical question is how important they might have been in contributing to the increased volatility in financial markets in recent years, in both the US and Europe.

2.2.1 COMPLEX FINANCIAL INSTRUMENTS

A number of authors have suggested that the development of complex financial instruments (e.g. synthetic options) may in itself have generated the potential for greater volatility in financial markets; see for example Jacobs (1998).[32] The argument typically runs as follows. Option market-makers and dealers will try to hedge any risk they face as quickly as possible. Ideally, they will be able to find a speculator willing to take on their short option position, but overall they will only be able to do so when investors' desire to sell options is in rough equilibrium with their desire to buy them. Alternatively, market-makers and dealers may attempt to hedge their short positions by buying options. However, OTC dealers who have sold tailored options with specifications in liquid markets may find that they cannot synthesise an offsetting position using exchange-traded options. When equity option traders cannot offset the risk of holding short option positions by either of these routes, they will have to hedge in equity futures, and possibly in the stock markets. Yet, such hedging will mean buying as equity prices rise and selling as equity prices fall – i.e. positive feedback trading.

Recently the argument that new risk management techniques can potentially destabilise markets has resurfaced in the context of the development of the credit derivatives market. Persaud (2002) and the CMF (2002) both assert that by increasing the connection between the market for credit risk and equity markets, credit derivatives have acted as an additional driver for financial market volatility. A recent survey of the global credit derivatives market by Fitch-IBCA suggested that European banks and (re)insurers have been active sellers of credit risk protection through the credit derivatives market, more so than their US counterparts. Persaud argues that this is one reason why European equity markets have been weaker and more volatile than US markets, even though the largest downward revisions to growth expectations have occurred in the US. He suggests that European insurers have sought to hedge their increased credit exposure through short-selling equities much more than US insurance companies, which has

30 For more discussion of the influence of ratings agencies on financial markets see Gonzalez et al. (2004).

31 Noise traders take market positions based on non-fundamental information, for example chart formations, technical signals, and investing fads. In theory, people who trade more or less at random will eventually be driven out of the market by investors trading on views about the fundamental valuations of firms such as potential earnings growth. However, a number of models have been developed that show that irrational traders can survive and dominate in a competitive market, even with no limits on arbitrage. Moreover, these results do not hinge on investor size – in these models, small irrational traders can change stock price movements and induce a large hedging demand in rational traders (see for example Kogan, Ross, Wang and Westerfield, 2002).

32 From a theoretical perspective it is not clear why financial innovations should lead to greater volatility in financial markets. Indeed, Citanna and Schmedders (2002) and Basak (2002) develop general equilibrium models that demonstrate that financial innovations actually *reduce* volatility. However, a number of empirical studies have argued that automatic trading rules based on portfolio insurance and dynamic hedging techniques contributed to particular episodes of financial market volatility, for example the stock market "crash" in September 1987 and the market turbulence in Autumn 1998. Yet, as noted in Jorion (2002), this view is not universally held, and a number of empirical papers find no such link between financial innovation and market volatility.

contributed to greater stock market volatility in Europe. However, since the main reference entities are not exclusively European, and indeed include some large US corporates, it is not clear why insurers would hedge credit risk exclusively in European markets, unless there was a currency hedging issue or the US firms had dual listings.

Another recent example of market instability that may arise from the development of complex financial instruments as well as risk management practices is related to the development of the US mortgage-backed securities (MBS) market and the activity of the government-sponsored agencies, primarily Fannie Mae and Freddie Mac. These institutions were established to provide liquidity to the US mortgage market. Their primary activity consists in issuing MBS written on bundles of mortgages originated by commercial banks. At the same time, and increasingly so, they also directly purchase various mortgage-related securities, including the repurchase of their own MBS from investors in the open market. The majority of US residential mortgage contracts provide borrowers with the option to prepay the mortgage. This option is typically exercised when interest rates go down, as it becomes financially convenient to repay the mortgage at the established rate and take on a new mortgage loan at the current, lower interest rates. The existence of this option greatly enhances the interest rate risk of the MBS. Mortgage security investors are actively engaged in managing the interest rate risk exposure in their portfolio; the agencies in particular now use a combination of "dynamic hedging" activities.[33]

In the summer of 2003, US government bond yields fluctuated significantly, increasing sharply from the historically low levels reached in mid-June 2003. Developments in the swap and government bond markets over the same period suggest that the hedging activities of Fannie Mae and Freddie Mac might have had a significant impact on the prices determined in these markets.[34]

2.2.2 SIDE-EFFECTS OF REGULATION

Regulatory policies can also lead to positive feedback investment behaviour. For example, in order to assess investment risk, some European regulators have developed stress or resilience tests to evaluate the soundness of insurance companies and to assess whether additional provisions are required to bolster solvency positions. Denmark, France, Ireland and the UK require life insurance companies to stress test their investments held at market value. Such regulations are a way of introducing ex ante requirements for risks related to equity holdings that are ignored in standard solvency regulations. However, the effect of these sorts of stress tests can be that insurers are forced to sell equities as equity prices decline. Selling equities and thus reducing holdings may reduce the risk of breaching regulatory solvency minima. However, this can give rise to a downward market spiral, as forced selling leads to further falls in share prices.[35]

Constraints on short selling in asset markets can also potentially be a destabilising factor. The presence of constraints causes asymmetry in the market, as those who think that the asset

33 For this purpose, they trade their loan portfolio, use hedging derivatives and trade their own debt, changing the ratio between short-term and long-term debt and thus also the average maturity of their liabilities. They can also enter the Treasury market – by buying or selling government bonds – and the swap market in order to alter the average maturity of their financing obligations. Because of the size of their MBS holdings, the potential magnitude of this type of hedging activity is large.

34 Perli and Sack (2003) found evidence that hedging activity related to the mortgage market tends to amplify movements in the ten-year swap rate. The results indicate that these effects are statistically significant and considerable in magnitude.

35 In the period immediately following September 2001, the Financial Services Authority (FSA) eased the resilience test used to determine the capacity of UK life insurers' investment portfolios to absorb losses. They quoted the potential positive feedback effects of forced selling as one reason for temporarily relaxing the resilience test. Other EU insurance regulators chose to relax their rules by other means. A number of insurance regulators (e.g. Germany) relaxed valuation principles. Instead of valuing equities at a minimum of market value and costs, insurance companies were allowed to value equities at cost, even if this was higher than the market value. Furthermore, German life insurers have created an emergency fund to rescue insurance companies that experience solvency problems. In Switzerland, the government announced a reduction in the mandatory minimum return rate on life insurance policies.

is overvalued cannot affect the price. One implication of this is that, in a period of asset price inflation, an important proportion of sceptics tend to be disenfranchised from the market. Of the set of agents who do not own the asset already, only those who think that the price is going to increase can invest by taking a long position. In this way, the absence of completeness in financial markets can impart an upward bias to financial asset prices and may accordingly be a factor in contributing to asset price misalignments.

The impact of short selling on financial market outcomes is the subject of intense debate. Some commentators, including some regulators, are suspicious that short selling can exacerbate market crashes. Most academic researchers, however, make a strong theoretical case for allowing short sales in markets, based upon the notion that markets exist to facilitate the efficient pricing of assets, and that restricting short sales reduces market efficiency. A number of empirical studies, particularly Jones and Lamont (2001), provide some support for the hypothesis that difficulties in short selling are associated with security mispricing. However, a more recent paper by Bris, Goetzmann and Zhu (2003) finds empirical evidence in support of both views. Specifically, in markets where short selling is either prohibited or not practised, *individual* stocks are less likely to exhibit extreme returns. However, the authors find little compelling evidence that short sale constraints prevent or mitigate severe price declines at the level of the market as a whole.

2.2.3 HERDING BEHAVIOUR

Another class of destabilising trading behaviour may result from market participants taking similar positions to those of other participants rather than basing their decisions explicitly on prices. When position-taking is undertaken strictly by following others' positions, it is frequently termed herding. The root causes of herding are numerous, although as Bikhchandani and Sharma (2000) suggest, the three most important ones are imperfect information, concern for reputation and compensation structures:

- Information-based herding – traders may mimic the behaviour of an initial group of investors in the erroneous belief that this group is better informed;

- Reputation-based herding – investment managers may tend to copy each others' strategies if taking a contrary position may damage their reputation ("the trend is my friend");

- Compensation-based herding – if a trader's compensation depends on how his/her performance compares to other investors' performance, this may encourage herding.

In practice, it is difficult to distinguish empirically which form of herding is likely to be more prevalent at any one time, not least because of the lack of information on the underlying motives for the trades. It is also difficult to know whether market participants are genuinely reacting in similar fashion to news about a certain situation.[36] However, certain institutional features related to the behaviour of intermediaries might potentially accentuate herding behaviour. For example, analysts' recommendations may be influenced by each other, and rating agencies tend to move together when making changes to a company's rating. Both of these tendencies could be influenced by the degree of concentration in the particular segment of the financial industry. For instance, small research firms may feel constrained in making recommendations that deviate from those of the large investment banks if they feel that the market power of the large firms may move investor sentiment against contrary views. In this way, herding biases could be reinforced.

36 This is sometimes known as "spurious" herding, where groups of investors face similar decision problems and information sets and take similar decisions. Such spurious herding can be an *efficient* outcome in the sense that investors evaluate their optimal behaviour on the basis of available information; it just so happens that a number of investors tend to make similar investment assessments so that their actions are correlated.

Herding need not entail any irrationality on the part of investors; indeed, it may be entirely rational to follow the behaviour of others. However, other models have been developed which depart from the full rationality assumption and attempt to understand better and explain how emotions and cognitive errors influence investors' decision-making processes. In particular, various authors have argued that analysts' recommendations and earnings forecasts may suffer from cognitive biases – for example, a tendency to place less weight on the possibility of bad outcomes the greater the time has elapsed since they last occurred.[37]

2.2.4 INDUSTRY PRACTICES

A recent study by the BIS (2003)[38] identified a number of structural features in the institutional asset management industry which might limit the ability or willingness of institutional asset managers to help correct any mispricing in financial markets. In particular:

- A narrowing of investment mandates and an increase in passive management. Increasingly, specialist asset managers who invest in a smaller class of selected assets have become common in many countries. Similarly, passive (index-based) investment strategies have grown in importance. Both features may mean that asset managers have less discretion to hold contrary views.

- Evaluation of performance against peer-group benchmarks. Even if an asset manager is not tightly constrained in terms of asset portfolio choice, he or she may not have an incentive to deviate too far from what others are doing simply because his/her performance will be judged relative to his/her peers. The study noted a widespread decline in the reliance on peer-based benchmarks during the 1990s. However, the concomitant increase in market benchmarks may potentially give rise to the same sort of problems – evaluating investment performance relative to a (limited) number of market indices may mean that an asset manager is better off, at least in the short run, by adopting a position close to his/her peers. More generally, such relative performance measurement may encourage herding behaviour, in the sense that asset managers simply follow what others are doing in selecting their investment strategies, although formal empirical analysis of this phenomenon has so far failed to uncover any robust evidence.

- Consolidation in the asset management industry (and the associated investment research industry) could affect the process of information-gathering and aggregation. This in turn could reduce the quantity and quality of information available to investors.

However, the same study also noted a number of counterbalancing trends that could serve to offset any reduction in institutional investors' ability to transact to reduce price misalignments. These include a broadening in the choice of available investments, which could reduce the potential for highly correlated investment behaviour; the "retailisation" of asset management, with a more diffuse investor base making asset allocation decisions; and, perhaps most important, the widespread use of fixed asset allocations which are chosen at periodic intervals. These would provide a source of negative feedback trading and thereby limit volatility. As an example of the latter, a fund invested in bonds and equities with a cap of 60% on holdings of either asset class would be forced to liquidate equity holdings if market developments raised the value of equities in the portfolio above this threshold.

37 In the terminology of cognitive psychologists, this is known as the availability heuristic. Another heuristic that has been found to characterise behaviour with regard to low-probability, high-loss events is the threshold heuristic – the tendency to assign a zero probability to very unlikely but still possible outcomes.

38 The empirical information for the report was based on two rounds of interviews with more than 100 industry practitioners representing the various sectors of the institutional asset management industry in 14 countries.

Overall, the report concluded that it was impossible to assess accurately the net effect on market efficiency and volatility of these countervailing developments in institutional asset management. It is therefore uncertain whether and to what extent changes in the structure of the asset management industry have affected the ability of institutional investors to counter asset pricing errors. Furthermore, anecdotal evidence provides little support for the view that the late 1990s bubble was accentuated by the trading behaviour of institutional investors. Nonetheless, the report points to *short-lived* misalignments along these lines that appear to have been present during particular episodes and which could have been influenced by institutional behaviour.

In terms of cross-country differences, the interviews conducted with market participants did not suggest that there were significant differences in institutional asset management practices between Europe and elsewhere.

2.3 LACK OF DISCLOSURE/TRANSPARENCY

Following the recent corporate scandals, a number of commentators have highlighted the issue of information disclosure as a key contributory factor in the build-up of corporate vulnerability and the subsequent instability in financial markets. In particular, financial accounting information is a key quantitative indicator on which investors rely: without accurate and reliable accounting information, market discipline can be undermined.

2.3.1 CONCEPTUAL BACKGROUND

Bushman, Piotroski and Smith (2003) – henceforth BPS – suggest three channels through which financial accounting information can influence financial markets. First, better financial accounting information helps investors identify promising investment opportunities, thereby decreasing estimation risk – in the absence of reliable and accessible information, human and financial capital may not flow to the most productive uses, and this uncertainty thus increases a firm's cost of capital. Second, objective and verifiable accounting information can facilitate monitoring by shareholders and thus reduce opportunities for managers to serve their own personal interests. Third, better financial reporting can reduce information asymmetries among investors – reducing, for example, the costs associated with adverse selection problems.[39]

However, the degree of information disclosure is not simply a matter of the *quantity* of disclosure. More important perhaps is the *quality* (e.g. its relevance, timeliness, consistency, comparability, accuracy, etc.) of the information. D'Avolio, Gidor and Schleifer (2001) – henceforth DGS – suggest that there are four key requirements for a well-functioning securities market: "the availability of accurate information, the existence of a broad base of investors with access to this information, legal protection of these investors' rights, and a liquid secondary market unencumbered by excessive transaction costs or constraints." DGS posit that advances in information and communication technology have greatly affected the amount, type and speed of information that is disseminated to investors. Such developments have also lowered barriers to entry, hence expanding the investor base and increasing trading volumes. Less certain is the effect on investors' rights. On the one hand, technology in conjunction with new regulation is levelling the playing field for individual investors, for example facilitating conference calls between firms' management and the general public via live Internet telecasts. On the other hand, improvements in technology have made it easier for insiders and financial intermediaries to trade quickly on private information. Moreover,

39 As documented in Amihud and Mendelson (2000), a major component of liquidity premia is related to adverse selection costs, which are reflected in bid-ask spreads. By pre-committing themselves to the timely disclosure of high quality financial accounting information, firms reduce investors' risk of loss associated with trading with informed investors. This in turn should encourage more funds to enter capital markets and lower the liquidity premia demanded by investors.

DGS suggest that the quality of information may not have kept pace with the quantity of available information. With trading costs falling, the marginal investor is likely to be less experienced and sophisticated and less able to derive the fundamental value of traded securities from the available information. However, newly listed companies are often less likely to generate the internal cash flow sufficient to finance their investments in the short term. A high stock price may therefore become an even more important indicator of the financial health of these firms. Both these features may combine to create strong incentives for firms to distort information released to investors. Indeed, DGS show evidence in the US of deterioration in the quality of information that firms supply to investors, which serves partly to offset any improvements owing to technological advances. Reinforcing this argument, Standard & Poor's announced in May 2002 a new set of definitions to evaluate the operating performance of publicly quoted companies in the United States, with the aim of partly restoring investor confidence.[40] Following the collapse of Enron, substantial differences in alternative published profit measures of listed companies have come to light (in particular between the so-called pro-forma figures and the earnings reported to the SEC), significantly increasing uncertainties among investors over the transparency and reliability of the information disclosed by corporations. Jensen and Fuller (2002) argue that Wall Street equity analysts and company executives may engage in a "profit expectations game" which ultimately creates an incentive for the companies to disclose inaccurate information.[41]

2.3.2 EMPIRICAL FINDINGS

Despite the complex nature of any relationship between information disclosure and investor behaviour, a recent paper by Bhattacharya, Daouk and Welker (2002) – hereafter BDW – has found evidence of a link between the transparency of accounting reports and financial market outcomes, at least in a cross-country setting. Specifically, using panel regressions these authors consider how the degree of opacity in firms' reported earnings in different countries affects both the level of equity prices and the level of trading in stocks. A metric for earnings opacity is constructed from measures that seek to capture three different ways in which financial accounting information may be manipulated:

(i) Earnings aggressiveness – the tendency to delay the recognition of losses and speed the recognition of gains. BDW proxy this by the median amount of accruals (divided by total assets) in each country on the basis that aggressive accounting would be characterised by fewer negative accruals that capture losses, and more positive accruals that capture economic gains.

(ii) Loss avoidance – the possibility that firms may try to engineer positive reported earnings, even if they are small, rather than reveal actual losses. BDW construct a ratio based on the number of firms with small positive earnings (between 0 and 1% of total assets), minus the number of firms with small negative earnings (between 0 and -1% of total assets) divided by their sum. The higher this ratio is in country i, in year t, the higher the suspected loss avoidance.

(iii) Earnings smoothing – the possibility that firms may try to make reported earnings smoother over time than their underlying economic performance would warrant. Following previous authors, BDW calculate the correlation between the change in accruals and the actual change in cash flows (both scaled by lagged total assets) in country i, year t. The more negative the correlation, the more likely it is that earnings smoothing is obscuring variability in the underlying economic performance.

40 See Standard & Poor's (2002).

41 These incentives seemed to stem from the conflicts of interest associated with the use of executive stock options and the structure of analysts' compensation packages.

For all three dimensions of earnings opacity, a country is assigned a rank between 1 and 10 for each year, depending on which decile of the distribution across all country-years the particular observation appears in. BDW then average these rankings to obtain a single time series of overall earnings opacity for each country. Table 5 summarises their country

Table 5 Earnings opacity ranking of countries [1)]

	Earnings aggressiveness [2)]	Loss avoidance [3)]	Earnings smoothing [4)]	Overall earnings opacity [5)]
Least, 1	**Portugal**	Brazil	Turkey	United States
	Belgium	Mexico	United States	Norway
	Netherlands	Australia	Brazil	**Portugal**
	Germany	United States	Norway	Brazil
	Switzerland	Norway	Mexico	**Belgium**
	United States	**Ireland**	Canada	Mexico
	Denmark	**Denmark**	Australia	Canada
2	**France**	**France**	Taiwan	**France**
	Spain	**United Kingdom**	**Spain**	Australia
	Finland	**Belgium**	**France**	**Spain**
	Austria	**Sweden**	Thailand	**United Kingdom**
	Canada	**Portugal**	**Sweden**	**Denmark**
	Thailand	Canada	**United Kingdom**	Switzerland
	Norway	Hong Kong	India	**Sweden**
3	**Italy**	**Netherlands**	Hong Kong	**Germany**
	United Kingdom	South Africa	**Portugal**	**Netherlands**
	Pakistan	**Austria**	Indonesia	**Finland**
	Ireland	Singapore	Malaysia	**Austria**
	Australia	South Korea	Switzerland	Thailand
	Sweden	Malaysia	**Finland**	**Ireland**
	Singapore	**Germany**	Singapore	Hong Kong
4	Taiwan	**Italy**	**Belgium**	Singapore
	Chile	**Spain**	South Africa	Taiwan
	Japan	Switzerland	**Austria**	Turkey
	South Africa	Japan	**Germany**	South Africa
	Brazil	**Finland**	**Ireland**	Malaysia
	Mexico	Pakistan	Pakistan	**Italy**
	Hong Kong	Chile	**Denmark**	Pakistan
Most, 5	Malaysia	**Greece**	Chile	Japan
	South Korea	Turkey	**Greece**	Chile
	Indonesia	Taiwan	Japan	India
	India	Thailand	**Netherlands**	Indonesia
	Greece	India	**Italy**	South Korea
	Turkey	Indonesia	South Korea	**Greece**

Source: Bhattacharya, Daouk and Welker (2002)
Note: EU countries are in bold.
1) The data used to construct the earnings opacity variables are sourced from Worldscope.
2) BDW scale accruals by lagged total assets for each firm, determine its median in the cross-section of firms per country per year, and then rank these medians across years and countries. This rank is the "earnings aggressiveness" per country.
3) BDW define firms with small positive earnings (small negative earnings) as firms with net income between 0 and 1% (between 0 and -1%) of lagged total assets. They subtract the number of firms with small negative earnings from the number of firms with small positive earnings per country per year, divide this difference by the sum of the two, and then rank this ratio across years and across countries. This rank is the "loss avoidance" variable per country.
4) BDW find the correlation between the change in accruals and the change in operating cash flows (both scaled by lagged total assets) in the cross-section of firms per country per year, and then rank these correlations across years and across countries. This rank is the "earnings smoothing" variable per country.
5) The "overall earnings opacity" measure is the average of the "earnings aggressiveness", "loss avoidance" and the "earnings smoothing" variable per country.

rankings. In terms of the overall earnings opacity measure, European countries feature near the middle of the distribution of countries. The United States has the least amount of earnings opacity, followed by Norway, whereas Greece, South Korea and Indonesia show the most severe earnings opacity in the sample.[42] However, this aggregate measure masks a slightly different picture when specific components of earnings opacity are considered. Specifically, earnings aggressiveness appears less of an issue for most European countries while, in contrast, there is more evidence that European firms seek to smooth their earnings.

To investigate the link between information disclosure and financial markets, BDW estimate a number of panel regression models that posit a relationship between selected equity market indicators and their earnings opacity measures. Table 6 summarises their results. BDW's overall earnings opacity measure is positively associated with the cost of equity, which is measured in two different ways: via a dividend discount model (DDM), and using an international asset pricing factor model (IAPF). More specifically, an increase in overall earnings opacity from the 25th percentile rank to the 75th percentile rank is associated with around a 3% increase in the cost of equity (for both DDM and IAPF). However, the source of this association differs with the cost of equity measure; for the DDM-based measure, the key component would appear to be earnings aggressiveness, whereas for the IAPF model, the relationship is driven by the loss avoidance variable.

The potential link between opacity and prices is mirrored in the relationship with the trading quantity variable, with turnover falling as earnings opacity rises. An increase in overall earnings opacity from the 25th percentile rank to the 75th percentile rank is associated with around a 9% decrease in annual trade in stocks from that country.

Since it is difficult to control effectively for other factors that might explain the correlation between earnings opacity and financial market outcomes (especially the potential effect of a key omitted variable that could simultaneously affect both), it is important not to draw causal inferences from such empirical analysis. Nonetheless, the regressions at least suggest the potentially important influence of information disclosure on financial market dynamics.

Of course, set against the background of the recent spate of corporate scandals, the puzzle is why, if accounting transparency is relatively greater in the US, corporate malfeasance has so far been more prolific there. Some commentators have pointed to the weaknesses of accounting standards in the US and in particular the reliance on specific rules which can be manipulated, rather than principles. A review of the relative merits of different accounting regimes is beyond the scope of this paper; however, it should be noted that to some extent this debate may miss the point, as the recent US corporate scandals were largely due to fraud and breakdowns in auditing which could have occurred in any accounting jurisdiction. This point is reinforced by the Parmalat case, in which fraud was again a central feature.

Financial accounting information can only ever provide a snapshot of the health and viability of a firm. The key issue is, given the innovations in risk management and financial engineering over recent years, whether traditional financial reporting has become much less meaningful. Innovations such as securitisation and derivatives products facilitate the use of sophisticated financial structures. Consequently outsiders (i.e. investors) may have more difficulty understanding the risk positions of many large, complex organisations using traditional accounting information. Again the Parmalat case provides a concrete example of how opacity can develop in financial reporting

42 The cross-country ranking is broadly consistent with other studies of accounting transparency – see for example Bushman, Piotroski and Smith (2003).

Table 6 Effect of earnings opacity on equity market indicators

Panel regression results [1]			
Dependent variable	Cost of equity		Stock turnover [4]
	Using DDM [2]	Using asset pricing factor model [3]	
Independent variables			
Earnings aggressiveness	+ve***	-ve	-ve***
Loss avoidance	+ve	+ve***	+ve
Earnings smoothing	+ve	+ve	-ve***
Overall earnings opacity	+ve***	+ve*	-ve***
o/w controls:			
Liberalisation [5]	-ve	-ve***	+ve***
Insider trading enforcement [6]	-ve**	-ve	+ve***
GDP growth [7]	ve***	+ve	-ve
Foreign exchange risk [8]		+ve***	
Liquidity		+ve**	

Source: Bhattacharya, Daouk and Welker (2002)
1) Sign of coefficient estimates from panel regressions which include country-fixed-effects, country-specific heteroscedasticity and country-specific autocorrelation. ***, ** and * imply significant at 1%, 5% and 10% significant levels.
2) Dividend discount model.
3) The dependent variable is the residual (e_{it}) from an international asset pricing factor model: $(r_{it} - r_{ft}) = \alpha_0 + \phi_{it}\lambda_{cov}h_{iwt} + (1-\phi_{it})\lambda_{var}h_{it} + e_{it}$ where φ_{it} is a measure of integration of country i at time t; λ_{cov} is the price of covariance risk with the world; λ_{var} is the price of own-country variance risk; h_{iwt} is the conditional variance and h_{it} is the conditional variances from the multi-variate ARCHmodel:

$$r_{it} = c_1 + \varepsilon_{it}; r_{wt} = c_2 + \varepsilon_{wt}$$

$$h_{it} = b_1 + a_1\left(\frac{1}{2}\varepsilon^2_{it-1} + \frac{1}{3}\varepsilon^2_{it-2} + \frac{1}{6}\varepsilon^2_{it-3}\right);\ h_{wt} = b_2 + a_2\left(\frac{1}{2}\varepsilon^2_{wt-1} + \frac{1}{3}\varepsilon^2_{wt-2} + \frac{1}{6}\varepsilon^2_{wt-3}\right);\ h_{iwt} = b_3 + a_3\left(\frac{1}{2}\varepsilon_{it-1}\varepsilon_{wt-1} + \frac{1}{3}\varepsilon_{it-2}\varepsilon_{wt-2} + \frac{1}{6}\varepsilon_{it-3}\varepsilon_{wt-3}\right)$$

$$\varepsilon_{it}, \varepsilon_{wt} \approx N\left(\begin{bmatrix}0\\0\end{bmatrix}\begin{bmatrix}h_{it} & h_{iwt}\\ h_{iwt} & h_{wt}\end{bmatrix}\right)$$

where ε_{it-j} is the innovation in monthly return of the stock market index of country i at time t-j, $j \in \{0,1,2,3\}$; e_{wt-j} is the innovation in monthly return of the stock market index of the world at time t-j, $j \in \{0,1,2,3\}$
4) The dependent variable is defined as the natural logarithm of the ratio of volume of dollar trade per month to dollar market capitalisation at the end of the month.
5) The control variable "liberalisation" is an indicator variable per country. It changes from 0 to 1 after the liberalisation date used in Bekaert and Harvey (2000).
6) The control variable "insider trading enforcement" is an indicator variable. It changes from 0 to 1 after the first enforcement of insider trading laws. This date was obtained from Bhattacharya and Daouk (2002).
7) The control variable "GDP growth" is the growth rate of gross domestic product of a country each year.
8) The control variable "foreign exchange risk" is estimated from a multivariate ARCH model.

and in turn undermine market discipline. The Parmalat group set up around 180 offshore entities or special purpose vehicles (SPVs), including most notably a legal vehicle called "Buconero" – or "black hole" – through which some of the fraudulent transactions were processed.[43] Such special purpose vehicles, which are widely used by corporations both in the US and Europe, often to achieve tax savings, can make it difficult for an investor to evaluate the financial position of a company, not least because they can be used to prevent full details of transactions showing up in company accounts.

2.4 CONCENTRATED AND FRAGMENTED OWNERSHIP

2.4.1 CONCEPTUAL BACKGROUND

As well as information disclosure, the ignominious failures of Enron and WorldCom in the US, and the Parmalat scandal in Europe, have given rise to a more general debate about the effectiveness of corporate governance in controlling firms' management. In the stylised

43 There are parallels here with the case of Enron, where offshore vehicles were also given obscure names such as Jedi, LJM and Raptor, which gave no indication of the underlying businesses.

(textbook) market model, many investors acting independently may not be able to exert control over firms' behaviour. There is a clear separation between ownership and control. In particular, it may not be in the interests of individuals to invest considerable resources in monitoring management if they possess too few votes to affect decisions – i.e. there could be a coordination problems among investors. More formally, this is a problem of many principals (i.e. shareholders) seeking to monitor their agents (i.e. managers).[44] In this situation, collective action problems may undermine market discipline: there may be no incentive to monitor firms because others will free-ride. Consequently, excesses may build up which require more radical correction which in turn may imply greater volatility in financial market prices.

The potential for such collective action problems is increased if firm ownership is highly dispersed as in the US/UK system – the so-called shareholder model.[45] Such fragmented ownership creates the need for external monitors, so-called reputational intermediaries, who review and analyse information on the activities of the firm with the aim of ensuring that managers act in the interests of the firm's shareholders. Unfortunately, recent corporate scandals have revealed the potential weakness of these arrangements, namely that reputational intermediaries may, at best, be ineffective in controlling firms' management and, at worst, may collude with firms' management and each other at the expense of other shareholders.

An alternative model linking firm ownership and control, which is more common in Europe, is the so-called stakeholder model. The stakeholder system overcomes the collective action problem by allowing concentrated ownership of shares, or "blockholding". Substantial shareholders may have a strong incentive to monitor the firm, as they know they will be listened to and their risk is greater. They effectively become "insiders", and as such are able to share information with managers. The stakeholder system encourages information sharing because the economic fates of the respective parties are tied together. In addition, extensive cross-shareholding and coordination mechanisms prevent the opportunism that sharing of information may otherwise provoke. Furthermore, it is argued that insiders are more likely to act as "patient" capital – shareholders that stress value over the long haul and are less responsive to short-term fluctuations in sentiment.

Table 7 presents details of ownership structures, or more precisely voting rights, across different countries. The data are quite old - most observations refer to the mid/late 1990s, as they are based on information disclosed under the Large Holdings Directive (88/627/EEC) in the European Union and Section 13 in the US. However, trends in ownership are typically slow moving, so the data are likely to be still relevant.

In 50% of non-financial listed companies in Belgium, Germany, Italy and Austria, a single blockholder (an individual investor or group of investors) controls more than 50% of voting rights. In 50% of Dutch, Spanish and Swedish companies, more than 43.5%, 34.5% and 34.9% of votes respectively are controlled by a single blockholder. In contrast, the median blockholder in the UK controls only 9.9% of votes, while in the US the median size of blockholding of companies quoted on both NASDAQ and NYSE is just above the disclosure level of 5% (8.6% and 5.4%).[46]

44 More specifically, there is a collective principal, in this case the dispersed shareholders. This should be distinguished from the case of multiple principals who each have separate contracts with the agent, i.e. the firm's manager.

45 Even in systems where ownership is concentrated among professional institutional investors, collective action problems can arise if those institutions' incentives become aligned with those of managers. In this case, the agency problem is between the individuals who invest in the collective investment scheme (the principals) and the institutional investors (the agents) who decide where to invest their money. More formally, delegated asset management involves a layering of agency relationships. For example, in a mutual fund there are two agency relationships: the *internal relationship* between individual fund managers and the fund management firm, and the *external relationship*, involving the ultimate investor and the fund management firm.

46 Further country details are presented in Barca and Becht (2001).

Table 7 Corporate ownership structure in different countries

Country	No. of companies	Largest voting block: median	2nd largest voting block: median	3rd largest voting block: median
Austria	50	52	2.5	0 [1]
Belgium	140	56	6.3	4.7
Germany	372	57	0 [1]	0
Spain	193	34.5	8.9	1.8
France	40	20	5.9	3.4
Italy	214	54.5	5	2.7
Netherlands	137	43.5	7.7	0 [1]
Sweden	304	34.9	8.7	4.8
UK	207	9.9	6.6	5.2
US	-	-	-	-
NYSE	1,309	5.4	0 [1]	0 [1]
NASDAQ	2,831	8.6	0 [1]	0 [1]

Source: ECGN (European Corporate Governance Network) as detailed in Barca and Becht (2001).
Note: The table reports the size of the largest, 2nd largest and 3rd largest median voting blocks for non-financial companies listed on an official market. For France, the main stock price index (CAC40) is covered.
1) No 5%+ voting block.

A particular feature of European financial systems, certainly compared with the US, is the prominent role of banks as providers of both debt and equity finance to non-financial companies. For example, some reports suggest that German banks hold around 10% of the country's corporate equity, compared with US banks that hold less than 2% of corporate equities.[47] In a number of European countries, banks exert significant influence over firms' behaviour, even without owning large equity stakes, for two main reasons. First, banks may often act as custodians for customers who own equities, and are commonly given voting rights for these shares.[48] Second, banks in Europe frequently exert control on firms through their direct involvement in the management of the firm.

Problems can nonetheless arise with the stakeholder model if the insiders' private benefits of control outweigh the shared benefits that accrue to minority shareholders. The shared benefits of control arise from the better monitoring (through information sharing and the substantial collation of decision rights) and wealth effects that come from large-block ownership (Holderness, 2003). However, blockholders also have the incentive to use their voting power to their own advantage and to the detriment of minority shareholders.[49] These are the private benefits of control, and can be either pecuniary (for example exploiting synergies of production) or non-pecuniary, such as the amenities that may be associated with controlling the firm. In similar fashion to the shareholder model, market discipline can be undermined by the existence of such private benefits. That is, controlling shareholders essentially become "insiders" and direct the company to serve their own interests in the same way as company managers might in the shareholder model. This seems to have happened in the Parmalat case, for example, where the majority shareholders exercised considerable power over the firm to the detriment of the other owners and stakeholders.

47 Figures quoted from Schmidt-Bies (2003).

48 In Germany, the influence of proxy voting is increased by restrictions in many German corporate charters that cap the voting rights of shareholders, regardless of the amount of voting shares they may own. Typical caps are 5% or 10% of total voting shares. Although these restrictions limit the power of any large blockholder, including banks, the restrictions rarely apply to the proxy votes that banks may cast on behalf of dispersed shareholders.

49 Private benefits may also be negative if, for example, blockholders incur personal costs from monitoring the firm.

Furthermore, it is not always clear that blockholders (especially institutional investors) have greater incentives to monitor actively and influence both management actions and corporate governance mechanisms in the firms in which they invest. On the one hand, because blockholders have more bargaining power over company management than individual investors, they will derive more benefits from mitigating corporate malfeasance. On the other hand, index fund managers may have no interest in shareholder activism, since they merely adjust their holdings when the mix of the index changes and only want to follow the index, not influence it. Furthermore, institutional shareholders may have conflicts of interest that encourage a passive approach. Activism by a mutual fund or pension fund manager could strain its relationships with corporate clients. For example, a fund manager bidding for the management of a firm's pension scheme may be reluctant to vote against the board of directors' proxy recommendations. These sorts of arguments may go some way to explain why over recent years, even though institutional investors have enjoyed greater access to information, more possibilities to analyse this information accurately, and significant voting power, they nevertheless failed to insist on better financial accounting information and governance practices.

Overall, it is difficult to assess a priori the effect of ownership structures on financial market dynamics. Prices and quantities could become volatile if large blockholders pursue policies that ultimately make firms more vulnerable. However, such investors may equally be more active shareholders, keeping in close contact with firms' management to exercise control of their behaviour and promoting good corporate governance. In doing so, they may be able to prevent companies taking on inappropriate amounts of risk.

2.4.2 EMPIRICAL FINDINGS

A number of studies have investigated whether ownership concentration directly affects firms' market values, but with generally mixed results. A 1998 summary of the results of 20 empirical studies of the effects of formal shareholder proposals and private negotiations with firms' management reported evidence of little or no effect on shareholder value.[50] However, a more recent paper by Gompers and Metrick (2001) found that stock returns over the period 1980-1996 were higher for companies with greater institutional ownership, suggesting that blockholders (or at least large institutions) may indeed be playing a valuable monitoring role – one that translates into higher stock prices.

In part the mixed empirical results may reflect difficult conceptual issues. For example, differences in a firm's value may reflect the effects of other systematic factors such as the degree of competition faced by the firm rather than its ownership structure. Likewise, ownership concentration may arise as a result of differences in firm valuation rather than the other way round – investors may choose to accumulate blocks of shares in high-value firms. However, the inconclusive results also reflect a weakness in the design of the research. Most studies have looked at the relationship between ownership concentration and the stock valued at the exchange price. This ignores the private benefits that might accrue to investors who take up a large block shareholding in a firm. In doing so, the studies have not adequately investigated how far these private benefits can undermine market discipline. For example, there is a suspicion that mechanisms that reduce the contestability of control (pyramid structures, cross-shareholding, voting agreements, shares with multiple voting rights, etc.) also undermine market discipline. Such corporate structures can imply that often the only effective option for minority shareholders is to sell stock to signal their dissatisfaction, which can lead to belated and sometimes extreme financial reactions. The recent Parmalat case has reinforced these suspicions – according to a report by PricewaterhouseCoopers, the company's new auditor, Parmalat's thirty-three distributors in Italy were controlled by a chain

50 See Karpoff (1998).

of nine holding companies. At the top of the pyramid were two companies which were in turn controlled by the majority shareholders.

Moreover, there are other specific examples where ownership structure does seem to have had an important influence on financial market outcomes, at least temporarily. For example, the changes in ownership in some European telecommunications companies in the late 1990s, including the various privatisation programmes, clearly had an effect on European financial markets in general as investors assessed how far these companies potentially represented the start of a new paradigm in the exercise of corporate control in Europe. That is, the takeover represented a test case as to how far the balance of power had shifted towards shareholders and away from other stakeholders.

At the same time, the lack of any conclusive and systematic empirical relationship between ownership structure and market prices is perhaps not surprising. A significant proportion of firms in Europe are not quoted. This is partly due to the fact that euro area economies have a relatively large proportion of small and medium-sized enterprises (SMEs).[51] Furthermore, it is typically the case for a number of firms in continental Europe that, beyond the initial public offering, little equity is sold, so that the company's stock may be largely illiquid. Non-financial corporations hold a much larger proportion of shares in the euro area than in the United States, which partly reflects the importance of corporate cross-shareholdings in the euro area. The *direct* impact on financial market dynamics may therefore be limited.

However, the presence of a large-percentage shareholder can have *indirect* affects through the latter's influence over major corporate decisions, which in turn can affect the degree of vulnerability to sudden movements in market sentiment or external shocks. In particular, the concentration of ownership may affect executive compensation, the degree of leverage assumed by the firm and the likelihood that the firm could be acquired. Of course, the indirect influence of stakeholders need not be detrimental to the firm. Indeed, one possible reason why fewer corporate scandals have so far arisen in Europe could be related to the significant role played by banks in the governance of firms. Specifically, acting as "delegated monitors" and armed with better information about firms' activities, banks may have been able to prevent the worst examples of corporate malpractice. In contrast, in the US market-based financial system, the control of firms' management is exercised by shareholders that rely very heavily on the delegated auditing role of reputational intermediaries. That said, the fact that the actions of many firms may not be frequently scrutinised directly by financial markets suggests that an alternative, less sanguine assessment cannot be excluded – the more bank-oriented European system may suffer from the same kind of "diseases", but the symptoms are typically suppressed or are revealed more slowly, because corporate excesses are dealt with internally through bank-client relationships or the actions/influence of large blockholders.

51 66% of all employees in Europe are employed by SMEs, compared with 46% in the United States. Partly as a consequence of this, many euro area companies either resort to banks to finance their activities, or use extensively unquoted shares. See Hartmann, Maddaloni, Manganelli (2003).

3 OFFICIAL RESPONSES SO FAR

In the wake of the recent corporate scandals and evidence of market abuses (especially the role of investment banks in deliberately trying to inflate asset prices), a number of policy initiatives have taken place. In the United States, the authorities have responded with increased formal regulation. Most of this is enshrined in the Sarbanes-Oxley (S-O) Act and the related subsequent changes to the US Securities and Exchange Commission (SEC) rules. One key change brought about by the S-O Act is the requirement that firms' CEOs and CFOs must personally certify their financial reports. Specifically, each CEO and CFO must submit a written statement to accompany each annual and quarterly report filed with the SEC. These statements are subject to significant criminal penalties for false certification. These new rules come on top of Regulation Fair Disclosure (Reg FD) in the US, implemented in August 2000, which sought to reduce information disparities between individual and institutional market participants. For example, Reg FD requires that any advance warning about earnings telephoned to a security analyst must also be immediately released to the public through a press release, open conference call, or other public communication.

More recently, the SEC has also initiated new rules that require securities analysts to certify that their research reports and public comments reflect their personal views and that they have not been paid by the covered issuers. And on 28 April 2003, a global settlement was announced between the US SEC and ten leading investment banks, involving the payment of around 1.4 billion US dollars, and ending a year-long investigation into the research advice provided by these banks to their clients. Part of the settlement implied that, in the future, investment banks will be required to adopt new operating procedures aimed at separating their research functions from their underwriting business. At the same time, privileged placement of IPO shares to clients will generally not be allowed.

In Europe, a number of regulatory changes were already in the pipeline before the recent corporate scandals as part of the Financial Services Action Plan (FSAP) to develop and strengthen the single European market. The episodes of corporate malfeasance that have recently come to light have given greater impetus to this process and have indeed been influential in framing changes to the proposed regulations. The lack of transparency in financial account reporting, and information disclosure more generally, has been recognised as a particular weakness in Europe, and a number of EU directives are now coming onstream. These include:

– a Regulation on the application of the International Accounting Standards (IAS) adopted in July 2002 and further complemented in May 2003, which will make the application of the IAS to the drawing up of annual accounts mandatory for all companies (including banks) whose securities are admitted to trading on a regulated market and which prepare consolidated accounts from 2005 onwards[52];

– the *Directive on Market Abuse* (adopted in January 2003), which, inter alia, requires issuers to publish inside information. The existing ad hoc disclosure requirements of price-sensitive information are to be replaced, thereby strengthening disclosure requirements;

– the *Directive on Prospectuses* (adopted in July 2003), which deals with initial disclosure requirements by corporations at the point of public offer of securities/ their admission to trading on a regulated market.

52 In September 2003 the Commission adopted a Regulation endorsing the IAS, with the exception of IAS 32 and IAS 39, pending the finalisation of these standards by the International Accounting Standards Boards (IASB). See also Enria et al. (2004). The adoption of the IAS was overall endorsed by EU finance ministers at the ECOFIN meeting in July 2003. However, there is still much debate, especially concerning the IAS for the recognition and measurement of financial instruments (IAS 39), which is currently under review by the IASB.

The Directive should provide for a European passport for a prospectus;

– the future *Directive on Transparency* (proposal approved by the European Parliament (EP) in March 2004), which will require share issuers to publish their annual financial reports within three months and to provide more detailed half-yearly financial reports and less demanding quarterly financial information for the first and third quarter of a financial year. In addition, it will introduce half-yearly financial reporting to issuers of only debt securities which are currently not subject to any interim reporting requirements.

In addition, in May 2003 the EC communicated an Action Plan for "Modernising Company Law and Enhancing Corporate Governance in the European Union" to the Council and the EP, which was open for public consultation until 31 August 2003. The adoption of an Action Plan on Company Law and Corporate Governance had been requested by the Brussels European Council of March 2003.[53]

There is no proposal to form an EU-wide corporate governance code, and corporate governance guidelines will therefore remain predominantly on a national basis. Nonetheless, the Action Plan advocates a common EU-level approach with respect to a few essential rules, and calls for adequate coordination of corporate governance codes across countries. More specifically, in the area of corporate governance, the action plan suggests measures to:

– enhance disclosure. In particular, institutional investors should be obliged to disclose their investment policy and their policy with respect to the exercise of voting rights in companies in which they invest;

– strengthen shareholders' rights in listed companies across the EU (e.g. the right to ask questions, to table resolutions, to vote in absentia, etc.). This should be achieved by the provision of comprehensive information and the development of facilities to ensure that existing rights can be effectively exercised;

– modernise company boards. Certain minimum standards of independence for board members should be established at the EU level. In particular, minimum standards should apply to the creation, composition and role of the nomination, remuneration and audit committees.

So far the EU authorities have not defined their stance on how to operationalise the Action Plan, but initiatives are expected in the second half of 2004. However, following the Parmalat affair, the Commission decided to strengthen its earlier proposals for auditing standards, and on 16 March 2004 the Commission outlined a new *Directive on Statutory Audit* in the EU. The Directive includes provisions for auditors' responsibility for the full group of companies, obligatory independent audit committees for listed companies, external quality assurance of auditing firms, and the adoption of international auditing standards. The Directive also proposes that an audit regulatory committee comprised of Member State representatives be created so that the Directive can be rapidly implemented in detail or modified.

To the extent that these measures collectively improve the quality and flow of information to investors and, in particular, facilitate comparability across firms in Europe, they are likely to enhance the efficiency of financial markets and strengthen market discipline. It is therefore important that the momentum behind

53 The Action Plan on Company Law is a follow-up to the work of the High Level Group of Company Law Experts (the so-called Winter Group) which was published in November 2002 with a view to introducing new regulation. The Winter Group report considered corporate governance arrangements in Europe generally, but some of the issues are the same as those addressed in the S-O Act. In particular, recommendations were made to establish collective responsibility of company directors for misinformation.

the FSAP and Action Plan on Company Law does not wane. The FSAP itself is due to be implemented by 2005.

However, it should be remembered that greater transparency in financial reporting will not of itself prevent fraudulent accounting behaviour of the sort highlighted in the Enron and Parmalat cases. Moreover, increased information need not necessarily imply less volatility in financial markets. For example, recent research by Bailey, Li, Mao and Zhong (2003) has found that following the adoption in the US of Regulation Fair Disclosure in August 2000, market behaviour around earnings releases displayed no significant change in return volatility. Greater information disclosure does not necessarily imply greater transparency. Instead, greater transparency implies information that allows understanding of a firm's exposures and risks without distortion. Consequently, effective market discipline requires firms not only to provide information but also to place that information in a context that makes it meaningful, and in ways that accurately reflect the risks it has taken on.

As far as addressing the issues relating to conflicts of interest facing investment analysts, to the extent that the various new rules that have followed the S-O Act apply to foreign participants in US capital markets, then European issuers should already meet the US provisions. In addition, the new Market Abuse Directive and the revised Investment Services Directive will go some way towards addressing issues of market manipulation and insider dealing as well as conflicts of interest between investment firms and investors.

More generally, the uncertainty in financial markets created by the recent wave of corporate scandals may mean that similar initiatives are voluntarily adopted by firms in Europe as a way of reducing investor nervousness. The provisions may as a result become industry practice, especially by those institutions wishing to attract foreign investors. Firms may thus have an incentive to improve accounting disclosure practices to reduce their financing costs.

In addition to these market-led solutions, a number of official bodies in Europe are currently investigating or have responded with more formal regulations. In particular, the UK's Financial Services Authority (FSA) issued a consultation document in February 2003 setting out proposals to strengthen the regulatory regime for investment banks that undertake investment research and participate in new issues of securities. The key principle adopted by the FSA is that "regulated firms should have systems and controls in place to ensure their own interests do not improperly influence the content of research reports." The International Organisation of Securities Commissions (IOSCO) also set up a task force to examine conflict of interest issues surrounding research dissemination by sell-side analysts. Similarly, regulators in Germany, France and Italy have all adopted new rules with varying levels of severity. In Italy, the authorities have introduced new measures that limit and prevent opportunistic behaviour by analysts in addition to the requirement that all research reports be filed with the regulatory authority. And German regulators now demand that any involvement as a manager or co-manager of an offering in the subject company in the previous five years should be disclosed.

In January 2004 in France the Louis Vuitton group (LVMH) successfully sued Morgan Stanley for losses caused by "gross misconduct" in relation to allegedly tainted financial analysis favouring Morgan Stanley's client, and LVMH's rival, Gucci. The French court ordered the bank to pay 30 million euro and held out the possibility of further compensation; an independent expert will estimate how much LVMH had to spend from 1999 to 2002 to compensate for the damage it suffered. The judgement, which is subject to appeal, is the first European court decision on the liability of investment banks in relation to financial analysis, and could pave the way for similar actions in other jurisdictions.

At the EU level, the European Securities Committee (ESC) established a Forum Group on Financial Analysts[54] to make recommendations on the best regulatory and market practices for financial analysts. This initiative was the Commission's response to the conclusions of the informal ECOFIN meeting at Oviedo in April 2002. The final report of the group was published in September 2003. An overarching theme running throughout the report is the promotion of a "principles-based regime, emphasising transparency and self-governance, rather than a rules-based regime".

Overall, the measures adopted by regulators seek to address situations that may give rise to potential conflicts of interest. These situations are not new. In the recent past, they have been controlled largely by market participants' self-regulation. Recent events however have undermined confidence in the effectiveness of such a regulatory approach, and have prompted calls from some quarters for a complete separation of activities which, when combined, can create perverse incentives. The SEC regulations go further in this direction than the new rules adopted in Europe, at least so far. It is not clear whether the EU will need to move closer to the US model. The Parmalat affair has reignited debate in the EU about the possible need for further regulation in this area and in corporate governance more generally, and may have hardened views about the limitations of self-regulation. Furthermore, the LVMH case confirms that court action may follow if financial institutions fail to manage conflicts of interest adequately.

In recent testimony to the European Parliament on 11 February 2004, Commissioner Bolkestein suggested that it was critically important for the financial industry to put its own house in order – industry leaders should "stand up and take charge: to clear out the crooks, expose their unscrupulous practices and curb excessive greed." If this does not happen, tougher regulations may have to be implemented. In particular, he suggested that the role and regulatory control of offshore centres needs to be tightened. The proposal for a Third Money Laundering Directive is expected to play a crucial role in this context.

Efficient regulation requires regulatory responses to be proportionate to the level of market failure occurring. It also requires transparency and accountability in regulatory decision-making. A balance needs to be struck between addressing identified market failures and allowing market participants the freedom to transact so that capital may flow to the most productive opportunities. Moreover, regulators and legislators need to be alert so as to avoid inadvertently introducing additional problems to the ones they are seeking to overcome.

One area where the official policy response has so far been quite limited, both in Europe and the US, is in relation to the role of rating agencies. These intermediaries have become much more influential in financial markets in recent years – a successful issue of securities is pretty much reliant on the securing of a favourable rating – and yet the development of their role and activities has brought forth a number of policy issues.[55] As previously argued, rating agencies' analysts may face similar types of conflicts of interest as their investment bank counterparts, and these too could have been influential in inflating asset prices in the late 1990s. It is not clear how much these conflicts of interest were genuinely influential: as with investment bankers, it may be that analysts at rating agencies were simply guilty of over-optimism. Nonetheless, a number of observers have seriously questioned the value of rating agencies following their failure to provide advance warning of impending problems at WorldCom, Enron et al. They downgraded these companies only after their financial insolvency was almost a certainty. Furthermore, while analysts, auditors

54 The Forum Group was composed of practitioners, independent consultants, regulators and professional bodies.

55 Among other things, the use of rating triggers by companies has intensified the possible negative effects of rating downgrades on companies' solvency positions. Furthermore, the new Basel Accord seems likely to propose external ratings as an indicator of the solvency of banks' credit clients. Both features underline the increasing importance of ratings in financial systems.

and most financial institutions operate in highly competitive markets, rating agencies seem to enjoy oligopolistic power – the three major US-based agencies dominate the global market.

Regulators in the US and Europe are currently considering possible changes to the rules relating to rating agencies. In particular, the Commission is currently developing its stance on this issue, taking into account a recent European Parliament Resolution as well as any possible regulatory action on the part of the SEC.[56] It is likely that concrete regulatory proposals will be made public in autumn 2004.[57]

56 Consideration of the role of rating agencies was explicitly excluded from the mandate of the Forum Group's investigation into financial analysts. Nonetheless, it was recognised that analysts working for rating agencies may face similar types of conflicts of interest as investment bank analysts, and may potentially have an important influence on financial markets. The Forum Group report recommended that further investigation into the role of rating agencies be undertaken, although it also suggested that analysts employed by credit rating agencies should be subject to similar ethical principles as other financial analysts.

57 On 10 February 2004, the European Parliament adopted the final version of the EMAC report on credit rating agencies. The European Parliament backed away from previous controversial proposals that would have required rating agencies in Europe to be regulated by a central authority, and which could have led to the agencies being broken up into smaller specialist companies. A softer compromise proposal, which called on the Commission to carry out a cost-benefit analysis of the effects on European capital markets of creating such a regulatory authority, also failed to win majority support. Instead, the European Parliament called upon the Commission to monitor and assess the situation and to report on any perceived need for regulation by July 2005.

4 CONCLUDING REMARKS

Given the complex nature of financial markets, it is difficult to draw any firm conclusions about the underlying forces driving market outcomes, as any empirical analysis is unlikely to be able to control for all the possible relevant factors so as to isolate the influence of the issue at hand. Nonetheless, the evidence presented above would seem to indicate that two market features, namely the potential for conflicts of interest and the inadequacy of information disclosure, may well have played a contributory role in the recent swings in financial asset prices.

In contrast, there is little evidence that particular trading or investment strategies have had a particularly influential, or at least long-lasting, effect on financial market dynamics in recent years. Similarly, there is little evidence that firms' ownership structure has had a *systematic* effect on market outcomes, although this topic is not covered particularly well in the available empirical studies. Consequently, it would be unwise to rule out important links between ownership structure and market dynamics, particularly when there have been specific examples where it appears to have been influential, at least temporarily.[58] In the wake of the Parmalat case, questions have been raised about pyramid holdings and other such corporate structures, which enable an entity with a relatively small amount of capital in the underlying major company to control it through layers of other companies in the pyramid.

In the light of these overall conclusions, what policy implications might ensue? Traditional economic analysis suggests that intervention to improve the functioning of markets should be considered when there is evidence of market failure and where such intervention can be assessed to potentially improve the situation. In the context of financial markets, such intervention might be justified on three grounds:

– potential for systemic risk; i.e. widespread failure of financial institutions or disruption of financial markets.

– investor protection; i.e. actions to prevent uninformed agents unwittingly taking on excessive risks.

– market integrity; i.e. the ability of certain market participants to interfere with/dominate/manipulate market outcomes.

Despite the widespread debate about the failings of capital markets generated by the recent wave of corporate failures, so far little evidence suggests that the weaknesses uncovered in market practices threaten the stability of the financial system. Even in the case of the two largest-ever corporate failures, Parmalat and Enron, worries about the knock-on implications for systemic stability have been limited, not least because of the peculiar nature of the problems faced by these firms.[59] Furthermore, the spillovers to the financial sector from corporate failures have so far been quite modest, although admittedly the ramifications of the recent stock market instability may not yet have been fully revealed.[60] Indeed, some commentators have suggested that such corporate failures have demonstrated the self-correcting nature of the market. Investors have sought to identify fraudulent or failing companies more actively and are now insisting upon higher standards of corporate behaviour and auditing. Similarly, the market is now more suspicious of earnings management and other ways of manipulating stock prices.

58 The transparency of the structure of firm ownership and organisation is also arguably important. Transparent structures may help demonstrate to investors that conflicts of interest have been appropriately addressed.

59 The limited impact on system-wide stability could also simply reflect the resilience of the global financial system and the efficiency in global risk-sharing. See for example Castren, Miller and Stiegert (2003). In this context, the role played by financial derivatives in spreading losses from corporate defaults is particularly important.

60 For example, the bursting of the 1990s stock market bubble reduced the net worth of a number of insurance companies and pension funds across Europe. Even without significant institutional insolvencies, the recent weakness in financial markets is likely to have resulted in declines in individuals' and firms' wealth (both directly and through their claims on institutional investors). This may also have implications for developments in the real economy if, as a result, consumption and investment plans are amended.

However, to the extent that small investors are unable to draw up contracts that provide an incentive for intermediaries/advisers to act in investors' interests, policy intervention may be required for their protection. This is especially true given the trend in recent years, especially in continental Europe, from public towards private pension provision. Non-professional investors may simply be unaware of the potential conflicts of interest that might prejudice any investment advice they receive. They might perceive insurance products as being effectively "riskless" financial assets, and treat them as a close substitute for bank deposits. Similarly, the lack of reliable and relevant information about firms' activities and exposures, and in particular the recent cases of firms restating their accounts, have led to calls for improved disclosure standards for firms. In particular, investment banks, rating agencies and auditors ought to reveal their own interests in the firms they are proposing to investors. Armed with better information, investors should be better able to evaluate the risks attached to their investments. It is also argued that *mandatory* disclosure might go some way towards preventing firms hiding or embellishing financial accounting information in an attempt to deceive investors or manipulate financial market responses.[61] However, it should also be noted that the provision of more information is no panacea: financially unsophisticated investors may still take on inappropriate levels of risk. For these types of investor, greater disclosure needs to be accompanied by better investor education.[62]

To some extent, market-led solutions are likely to emerge. Financial intermediaries rely to large extent on their reputations; however, recent events have shaken investor trust in a number of established intermediaries, and they now have an incentive to adopt practices to restore this trust. For example, investment banks are now likely to investigate ways to strengthen the firewalls between departments, if only to satisfy investors' worries about conflicts of interest, let alone to avoid legal reprisals. Similarly, rating agencies have already implemented a number of procedures designed to assure the independence and objectivity of the rating process – e.g. requiring rating decisions to be made by rating committees, imposing investment restrictions, and adhering to fixed fee schedules.

Nonetheless, policy-makers have also responded with more increased regulation. So far at least, the new rules in Europe are less severe than in the US. To some extent, this reflects the fact that global market participants may adopt US practices as the de facto industry standard. It may also reflect the smaller role of private (i.e. non-professional) investors in Europe: the level of investments held directly by individuals is much lower, and institutional investors are more prevalent. However, EU regulators need to monitor how far the new rules are effective in changing behaviour without unduly impeding market efficiency, or whether stronger regulation is required. The Parmalat case could prove a watershed in this respect, demonstrating as it did that corporate malfeasance is not solely a US problem. Moreover, this affair has raised question marks with regard to how far self-regulation is effective in tackling the sorts of malpractice revealed.

61 Survey evidence suggests that, post-Enron, the awareness of potential deficiencies in disclosure by European corporates has increased. In a survey undertaken by PeopleSoft/CFO Europe (an Economist Group publication) in September 2002, more than 95% of the 235 European executives surveyed felt that it was important to provide more financial information to executive management, non-executive directors and shareholders to improve corporate accountability. As well as greater financial disclosure, nearly all survey respondents believed that financial accountability ought to be extended to line management to support corporate reform. A further 84% cited the need for faster management reporting as another key initiative that could improve corporate accountability. Similarly, in another survey by PR Newswire published in Autumn 2002, the majority of European companies supported the idea of an enhanced pan-European disclosure standard; only 12% of respondents advocated no change to the current regulations.

62 Even then, a more general policy dilemma concerns how much risk can be borne by individuals. Typically the asset allocation of professionally-managed defined-benefit pension funds often has a much lower equity content than that of funds where individuals choose how much to invest and in what. This means that individual investors may be vulnerable to increased volatility in equity markets, even though they are not particularly well-equipped to deal with such financial market volatility.

One area where the official response has so far been quite limited is in relation to rating agencies, whose role in financial markets has become increasingly more influential. A number of official reviews are currently underway, with a view to introducing policies that will foster greater competition in the market and promote improvements in market practices. However, the issue is not straightforward. If policy actions encourage rating agencies to change their ratings to reflect the latest developments in a firm's financial health, this itself could present potential problems. In particular, the purpose of ratings is often to provide a long-term view on the ability of the company to repay the investor. If ratings become more responsive to short-term news about firms, this in itself might impart greater volatility to financial markets. For example, such "point-in-time" ratings may encourage greater pro-cyclicality, so that firms could find it even harder to obtain market financing during cyclical downturns.[63]

To sum up, under any system of control other than owner management, there are a number of potentially intractable agency relationships – between the notional controllers of the company and senior management, between investors and their advisers, etc. The unique knowledge possessed by management leads to asymmetric information. Those who bear the risk must rely on somebody else to act on their behalf, perhaps relying on advice from others. This creates the principal-agent dilemma. In addressing this issue, regulators need to strike a balance between allowing market participants the freedom to transact, so that capital may flow to the most productive opportunities, while at the same time preventing serious market abuses. The corporate failures of recent years provide a stark demonstration of how incentive structures can become destabilising and of the weaknesses of self-regulation. The regulatory response has been quite swift and visible in parts of Europe, and particularly in the US. The new rules, as well as those in the pipeline, will hopefully curb most examples of profligate behaviour. However, equally significant could be the response of investors themselves, who may seek more reassurance that their interests are being well served by firms' managers and advisers. Furthermore, it is important that regulators do not overreact to recent developments and thereby risk generating additional problems through their actions, albeit different ones, to the ones that they originally sought to address.

63 Similar arguments have been raised in the context of the new Basel II capital regulations.

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