

# Is corporate disclosure necessarily desirable? A survey

Etienne Farvaque<sup>\*</sup>, Céline Gainet<sup>†</sup>, Catherine Refait-Alexandre<sup>‡</sup>, Dhafer Saïdane<sup>\*\*</sup>

**Abstract.** This article reviews the recent literature on the consequences of disclosure for listed firms. Though some studies show that disclosure is desirable for shareholders because it reduces the cost of capital, and increases the value created, others provide more mixed results. The conclusion on the collective advantages is even less convincing; it is not at all certain that disclosure can improve the stability of financial markets. To explain these results, it is necessary to invoke the costs and pernicious effects of disclosure. Disclosing information is expensive: because of the communication and audit costs, strategic information given to competitors and because disclosure can increase managers' suboptimal behavior. But corporate disclosure also generates informational costs, because it is not certain that it improves the information held by third parties. Indeed, a firm can disclose information that is false, manipulated, too complex or too extensive. In this case, disclosure can increase information asymmetry between agents. Finally, disclosure can reduce actors' incentives to look for information about the firm; it can reduce the knowledge that the market has at its disposal. Disclosure can therefore lead to an illusion of knowledge, increasing the instability of the financial markets instead of reducing it.

**Keywords.** Disclosure; Information Asymmetry; Governance; Cost of Capital; Financial Stability

## 1. Introduction

At the beginning of the first decade of the 21st century, the bursting of the “new technologies” bubble was marked by several corporate frauds: debt concealment, false announcements of good results, and manipulation of all kinds of information. These malpractices have been considered as proof of the failure of the then prevailing models of corporate governance, and of the dangers of a lack of disclosure. Since then, regulation, in Europe and across the Atlantic, has responded by attempting to impose new mechanisms of governance, and by forcing firms to disclose more information to third parties, notably through the Sarbanes-Oxley Act in 2002 in the United States. Lack of disclosure is once again at the heart of the current crisis, with opacity affecting above all investment banks. The G20 major economies have highlighted the dominant role of transparency in measures to fight the crisis. The manipulation of information, via the complexity of structured products resold in the markets, and plain fraud, are again being investigated. Information asymmetry between the firm and third parties, whether these are investors, creditors, employees or the public authorities, is therefore always at the centre of actors' concerns.

The problems of information asymmetry have long been highlighted in the academic financial literature (Berle and Means, 1932, Jensen and Meckling, 1976). These information asymmetries oppose on the one hand those who are commonly called insiders: managers and majority shareholders, and on the other hand the outsiders: minority shareholders, creditors, and other stakeholders. One could also include the regulatory authorities among these outsiders, and information professionals - the rating agencies and financial analysts. As part of a separation between the ownership of capital and oversight, information asymmetries pose the problem of the ex post oversight by shareholders of the choice of managers. The response provided by the traditional literature relating to corporate gover-

<sup>\*</sup>etienne.farvaque@univ-lille1.fr, EQUIPPE, Université de Lille 1, Faculté des Sciences Économiques et Sociales, 59655 Villeneuve d'Ascq Cedex

<sup>†</sup>celinegainet@gmail.com, IAE Paris, 21, rue Broca - 75005 Paris

<sup>‡</sup>Corresponding author – catherine.refait@univ-lille2.fr, EQUIPPE, Université Lille 2, Faculté de Sciences Juridiques, politiques et sociales, 1 Place Déliot 59000 Lille

<sup>\*\*</sup>dhafer.saidane@univ-lille3.fr, EQUIPPE and Lille School of Management Research Center, Université Charles-de-Gaulle-Lille 3, UFR de Mathématiques, Sciences Économiques et Sociales Domaine universitaire du Pont de Bois BP 60149, 59653 Villeneuve d'Ascq Cedex

nance was the definition and implementation of incentive contracts. These were supposed to solve the following two problems: first, the cost of perfect information and, second, the inability of shareholders to process information correctly (which is the major reason for delegating power). However, incentive mechanisms, whose objectives are to make manager's interests coincide with those of shareholders, have shown their pernicious effects (see in particular Shleifer and Vishny, 1997, and witness the Enron affair). Since the 1990s and the first decade of the 21st century, then, the solution to the problem of information asymmetry seems to be disclosure, supported by an apparent consensus between the academic literature, economic actors, public authorities and the media. Disclosure, whether voluntary or mandatory, would have the virtue of reducing information asymmetries and of allowing effective oversight of managers, and (re-)establishing good governance.

A rich literature about the advantages of disclosure, both for firms' shareholders and the economy as a whole, has flourished since the 1990s. However, very quickly, and particularly following the Sarbanes-Oxley Act, the disadvantages of regulation that is over restrictive in terms of information disclosure came to light. The costs of establishing disclosure, and the pernicious effects of it, have increasingly been highlighted by a revival of the literature on the subject.

The objective of this article is to review this recent literature. By emphasizing its main results, we provide responses to the following questions: is corporate disclosure desirable? Or, to put it another way: is total disclosure a panacea? Should we be careful of too much disclosure? And, is there an optimal level of disclosure?

Disclosure has been at the heart of other surveys. The closest to our work are Healy and Palepu (2001), Verrecchia (2001) and Vishwanath and Kaufmann (1999) which provide a wide empirical survey about the consequences of disclosure. Healy and Palepu (2001) list managers' motivations for transparency. They raise the question of the real effectiveness of disclosure in resolving agency problems, pointing out two major problems: the credibility of the information disclosed and the real need for disclosure for third parties. They therefore question the need and the usefulness of regulation imposing this disclosure. Verrecchia (2001) also studies managers' motivations, analyzing the consequences of disclosure and the kind of information that it is necessary to disclose. He emphasizes the positive consequences of financial disclosure, which represents a solution to information asymmetries. Vishwanath and Kaufmann (1999) are more critical. They maintain that disclosure can increase credit rationing and price volatility, and highlight the cost of collecting and organizing information. They mainly consider the macroeconomic consequences of transparency at country level.

Our first contribution in this article is to build on the more recent literature, that has appeared during the last decade and which emphasizes the disadvantages of disclosure. We also focus on disclosure for listed companies. This is justified first by the fact that these companies are the more acutely concerned, and second because the new legislation was intended mostly for them. The second contribution of our review is to show how the literature has contributed to the vagueness of the concept of disclosure, which may have added to the difficulties in implementing it, and ensuring that it brings net social benefits. Third, we consider not only the private costs and benefits of disclosure, but also take the social point of view into account. A fourth, contribution, is to insist on the informational issues linked to disclosure, revealing the paradoxical effect of disclosure obligations leading to higher information asymmetries.

We start by defining disclosure, and describing the different forms it takes (Section 2.) A preliminary step to a clear understanding of the costs and disadvantages of disclosure is to understand its *raison d'être* (Section 3). Why do so many legislators and actors in economic and financial life demand for transparency? We detail the benefits that the firm itself can derive from disclosure, and then the benefits for society at large. This part is essential from a positive point of view, for an understanding of the total impact of disclosure. It is also essential from a prescriptive point of view. If it turns out that disclosure is beneficial both for the firm and for the economy, and that the advantages of disclosure are both private and collective, then the need for strict restrictive regulation will no doubt be less strongly felt. If disclosure actually induces positive external effects,

then economic analysis provides theoretical legitimacy for the legal obligation for disclosure. We then turn to the costs of disclosure (Section 4). As before, we emphasize the costs for the firm first. They can explain why, spontaneously, managers do not fully disclose certain information, acting against shareholders' interests. These costs are mainly the costs of establishing disclosure, and competitive costs. There is a third problem for shareholders: disclosure, by affecting manager's earnings, can change their behavior, and lead to sub-optimal decisions. A final general kind of cost, linked to any form of regulation, is the risk of economic rent capture: in this case, the obligation for disclosure creates a distortion of competition, generally to the detriment of smaller firms. The final costs of disclosure are probably the most dangerous because they inhibit its primary objective: to improve the information held by third parties. These are costs linked to by-products that we describe as informational issues (Section 5). The fact that the firm assumes a semblance of disclosure, voluntarily or compulsorily, can paradoxically reduce the available information. Fraud and concealment do in fact remain possible. The firm can also manipulate information in order to make it difficult for third parties to use it, by making it too extensive or very complex. But disclosure, by reducing the profitability of the work of knowledge producing actors, can also reduce the amount and quality of information that is globally available. A final potential pernicious effect is the increase in information asymmetries between agents. In the end, these informational costs create an illusion of knowledge for third parties, a feeling of overconfidence, which, far from resolving the problems of financial instability and informational bubbles, can increase them. Our conclusion (Section 6) synthesizes our results and concludes that, given the trade-off that disclosure entails, there is an optimal level of disclosure, which in some cases may be below what the law demands from firms.

## **2. What is disclosure?**

In this section, we present the different forms that disclosure can take, whether imposed or voluntary, financial or not financial.

### **2.1. Disclosure and transparency**

The literature provides many operational definitions of the terms disclosure and transparency. Verrecchia (2001) describes them as a mixture of definitions, each one specific to a given economic and industrial environment, and none able to offer a general definition of the concept. On the whole, the literature uses these two terms, which refer to the public dissemination of information (see Aksu and Kosedag, 2006, Calderon et al., 2007), indiscriminately.

The first references on the subject mainly mentioned the concept of disclosure (Gietzmann and Trombetta, 2003, Bushee and Noe, 2000, Lang and Lundholm, 1993, Indjejikian, 1991). Today, the term *transparency* is gradually replacing that of disclosure (Aggarwal and Kyaw, 2009, Bhat et al., 2006, Yu, 2005, Anctil et al., 2004). But as the later is still the term most widely used, and because transparency is also used in other fields with a different meaning (for example, transparency is the terminology adopted in studies of central banking - see Blinder et al., 2008), we use the term disclosure.

Generally speaking, disclosure can be defined as the communication of information allowing economic actors to obtain information on a firm's activities and condition (Dubbink et al., 2008). Another definition proposed by Bushman et al. (2004, p. 207) is "firms making available specific information to people outside publicly-traded firms". This second definition adds important elements: the concepts of information asymmetry and public offering, which fuel contemporary debates on disclosure.

## **2.2. Financial and non financial disclosure**

Two main categories of definition of the term disclosure emanate from the literature: the standard and the broader. This distinction is based on the opposition between financial and non financial disclosure, voluntary and mandatory disclosure and, to a lesser extent, quantitative and qualitative disclosure (cf. table 1).

There are two major categories of disclosure: financial and non-financial. Financial disclosure corresponds to the most standard definition of disclosure (see Stanga, 1976, for one of the first definitions of this kind of disclosure, including only information relating to financial management). Financial disclosure refers to information relating to company accounts. More recent definitions also include information relating to the interests of a company's shareholders, such as stock options or managers' pay (Healy and Palepu, 2001).

Non-financial disclosure is less circumscribed and therefore less closely defined. It includes information relating to the company's social and environmental responsibility as well as information relating to the firm's operating methods or to managers' health (Healy and Palepu, 2001). For example, Marshall, Brown and Plumlee (2007, p. 46) have defined "voluntary environmental disclosure" as "non financial information relating to environmental issues beyond what the law requires". Their definition indicates a possible distinction between financial and non-financial information and also between mandatory and voluntary disclosure (these two categories are often related).

## **2.3. Voluntary and mandatory disclosure**

Analytically we can distinguish voluntary from mandatory disclosure. Voluntary disclosure is generally presented as a measure of self-regulation or as a response to the expectations of stakeholders and civil society for more disclosure (Chandler, 1997).

Mandatory disclosure results from legislation or regulation. For example, since the 1970s, regulation specific to publicly-traded companies has been established in the United States, under the supervision of the Securities and Exchange Commission (SEC), strengthened in 2002 by the Sarbanes-Oxley law which applies to all companies listed in the American market (e.g. Gillis, 1978, Forker, 1992, Romano, 2005). One piece of information that often forms part of the mandatory disclosure of different western legislative systems is managers' pay, disclosure of which is supposed to increase management efficiency (Lo, 2003).

Disclosure is not only called for by shareholders and investors to analyze the relevance of their investments, but also by the other stakeholders, particularly for information about corporate social and environmental policies. Disclosure for potential shareholders and investors is usually financial and mandatory, while that for other stakeholders is most often voluntary and non financial (see table 1.). Some new regulations tend to remove this distinction.

## **2.4. Quantitative and qualitative information**

Disclosure can be either quantitative, when it is based on quantifiable elements (for example, the disclosure of managers' pay), or qualitative (for example, the company's social responsibility policies). Financial disclosure assumes a large amount of quantitative data while non-financial disclosure is mainly based on qualitative data. Nevertheless, with the increase in disclosure linked to governance, mandatory financial disclosure increasingly includes qualitative data, for example information relating to managers' health.

**Table 1. Comparison of the two categories of definitions of disclosure**

<i>Standard definitions</i>	<i>Broader definitions</i>
- Financial disclosure - Mandatory disclosure - Mainly quantitative - Directed towards potential shareholders and investors	- Non-financial disclosure - Voluntary disclosure - Mainly qualitative - Directed towards stakeholders in the broad sense

Table 2 shows definitions of disclosure used in the academic literature. As the table shows, one of the difficulties in determining a general definition of the term is that definitions are adapted by authors to the specific contexts they study.

**Table 2. The different definitions of the concept of disclosure**

<b>Definition or model proposed</b>	<b>References</b>	<b>Characteristics</b>	<b>Themes</b>
Disclosure of <u>financial information</u> through annual reports or other official documents addressing the issues of <u>financial management</u> but not <u>management practices</u> or corporate <u>social responsibility</u> .	Billings and Capie (2009) Henry (2008) Hill (1981) Stanga (1976)	Financial Voluntary Quantitative	Information asymmetry Effectiveness of information Annual report
“Information on the key areas for <u>shareholders</u> to evaluate the company’s future <u>financial performances</u> ” (Gaved (1998), p.122). This definition refers both to financial and non financial information likely to have an impact on financial results.	Branch and Rubright (1982) Gaved (1998) Forker (1992)	Financial or non-financial Mandatory Quantitative or Qualitative	Information asymmetry Effectiveness of information
“ <u>Accounting activity</u> involving human and non human resources or techniques as well as the interaction between the two”. Perera (1994) p.268, quoted by Haniffa and Cooke (2005) This definition does not give any detail on the resources and techniques mentioned, nor to whom they are addressed.	Haniffa and Cooke (2005) (Perera, 1994)	Financial Voluntary or Mandatory	Accounting activity
“ <u>Non mandatory information</u> contained in managers’ speeches and in the analysis of the annual report (Eng and Mak (2003) p.328).” Although Eng and Mak (2003) do not expand this definition any more, this could have been extended to forms of publications other than the annual report.	Black (1991) Eng and Mak (2003) Shafer (2004) Stiles and Taylor (1993)	Financial Voluntary Quantitative or Qualitative	Voluntary dissemination of information Management communication generated by a particular event
Disclosure true to reality and made at an opportune moment, relating to <u>financial and operational information</u> , including information on the history of the firm and on its strategic objectives.	Bauwhede and Willekens (2008) Holder-Webb, Cohen, Nath, and Wood (2008) Ernst (2004) Uang, Citron, Sudarsanam and Taffler (2006)	Financial and non-financial Voluntary or Mandatory Qualitative or Quantitative	Freedom of information Increase in disclosure Annual report
Dissemination of information on internet sites allowing stakeholders to easily access, analyze and understand <u>information</u> . This definition of the term disclosure is not further specified, but one can understand that it includes information from the <u>annual reports as well as quarterly information and other quantitative data</u> .	Bergöf and Pajuste (2005) Durnev and Kim (2007) Kelton and Yang (2008)	Financial and non-financial Voluntary Qualitative or Quantitative	Information for stakeholders Information asymmetry Internet use
Dissemination of information linked to an	Ho, Tower, and	Financial and non-	Dissemination of

event or to a <u>program specific</u> to the company. (There may be planned events such as the publication of annual reports or unexpected events such as the replacement of key posts or others).	Barako (2008) Karamanou and Vafeas (2005) Kent and Stewart (2008) Laidroo (2009) Mohd Gazali and Weetman (2006) Rose and Rose (2008)	financial Voluntary Qualitative	information linked to a particular event
Dissemination of information relating to the <u>company's results and its governance</u> , including financial and non financial data aimed at expanding the opening up of the company and of the markets in general.	Andres and Theissen (2008) Clarkson, Van Beuren, and Walker (2006) Craighead, Magnan, and Thorne (2004) Kenyon (2008) Parum (2005)	Financial and non-financial Mandatory Qualitative and Quantitative	Disclosure Information asymmetry Effectiveness of information
Dissemination of information by the firm on its <u>financial and non financial performance</u> in order to increase efficiency, reduce information asymmetries and improve the firm's stock market performance	Akhigbe, Martin, and Newman (2008) Bauwhede and Willekens (2008) Cai, Keasey, and Short (2006) Khurana, Pereira, and Martin (2006)	Financial and non-financial Voluntary or Mandatory Qualitative and Quantitative	Effectiveness of information Information asymmetry Improvement of stock market performance
Dissemination of information relating to the <u>profitability</u> of the firm and to other factors aimed at reducing the <u>particular risks</u> (risks particular to the firm to which the market is not subjected) and to make the information more effective (This definition refers more particularly to investors anxious to evaluate the condition of the firm and the risk premiums needed for investment and information linked to inopportune claims or to errors that are voluntarily corrected)	Aksu and Kosedag, (2006) Cianci and Falsetta, (2008) Djankov, La Porta, Lopez-de-Silanes, and Schleifer, (2008) Ferreira and Laux, (2007) Ferreira and Rezende, (2007)	Financial Voluntary Qualitative and Quantitative	Information asymmetry Reduction in risks Improvement in stock market performance
Dissemination of information to third parties in order to draw the appropriate conclusions relating to <u>the financial and operational efficiency</u> of the firm and to determine economic actors' other concerns	Ali, Chen, and Radhakrishnan (2007) Bushman, Piotroski, and Smith (2004) Chevallier, Ielpo, and Mercier (2009) Rawlins (2009)	Financial and non-financial Voluntary Qualitative and Quantitative	Effectiveness of information Improvement in stock market performance

### 3. The private and collective advantages of disclosure

In this section, we examine why disclosure is currently desired by private actors and public authorities. What are the expected benefits for the firms themselves, and for their shareholders? What are the advantages of this for the community?

#### 3.1. The private benefits of disclosure

Disclosure, whether it is imposed on the firm by regulation or supplied voluntarily by the firm gives shareholders advantages. First we examine the private advantages of disclosure, that is, the advantages of insiders as opposed to collective advantages, which concern the other stakeholders

and the whole of the economy. Then we explore the different reasons for this, which can be synthesized in three groups: reduction in informational problems, changes in managerial behavior and modifications of investors' behavior.

### ***3.1.1. Demonstrating the private advantages of disclosure***

In accordance with financial theory, disclosure established by managers is beneficial to shareholders if, in the end, it creates shareholder value. How can we measure this value creation empirically? Four methods have been used in the literature: event studies to assess the market's expectations of value creation; measures of the changes in the cost of capital resulting from more disclosure; quantification of the difference in share valuation linked to disclosure and finally, estimates of the additional investments created by disclosure.

- **Event studies**

Event studies one method used in order to verify whether disclosure creates value. Of course, as with any event study, the response of the share price takes account of shareholders' expectations and not, ex post, of the real creation of value. There will be a positive cumulative return if shareholders expect that the advantages for the firm will exceed the costs of disclosure, particularly the costs of setting this up, which we discuss below. Two kinds of events are examined in the literature: establishing new regulation (for example the introduction of the Sarbanes-Oxley Act - see Akhibe and Martin, 2006 - or the disclosure obligation introduced in 1964 in the United States - see Ferrell, 2007) or the firm spontaneously changing its disclosure policy (for example the change in accounting standards, which Marquardt and Wiedman, 2007, consider to be a reduction in disclosure).

Most of the studies reveal the expected result: that the increase in disclosure creates value for shareholders, while opacity destroys it. This is true whether the disclosure is voluntary or imposed by regulation. However, it has to be noted that event studies are relatively rare. The reason for this is no doubt the difficulty of clearly determining the date on which the market knows that disclosure policy will change. For example, Akhibe and Martin (2006) consider six different events, beginning in April 2002 with the adoption of the Oxley bill by the House Financial Services Committee and ending in July 2002 with the promulgation of the law.

- **Measuring the cost of capital**

Does disclosure allow a firm to reduce the cost of its capital? There is a rich literature on this issue, but the question is sensitive because of measuring the cost of capital (e.g. Botosan 2006). The cost of capital depends, in fact, on the profitability rate required by shareholders. Yet this is not directly observable, as it depends on expectations of share prices and dividends: the equilibrium price of a share covers such a value because it provides shareholders with the profitability that they require, given their expectations of dividends and future share prices. In particular, the ex post profitability of the share does not represent a satisfactory estimate of the profitability required. An indirect estimate, based on a theoretical relationship, is therefore needed.

Several methods exist, the top two of which are based on the fundamental CAPM (Capital Asset Pricing Model) relationship and on an evaluation model of the share (Discounted Dividend Model - Botosan and Plumlee, 2002 for example - or Expected Earnings Growth Valuation Model - Cheng et al., 2006 - Botosan, 2006) Expectations of the share price and dividends are needed, and those supplied by financial analysts are often used (see Francis et al., 2008).

The great majority of the studies show that greater disclosure allows firms to reduce their cost of capital. Some studies arrive at the opposite result, and to explain this they point to the increase in the resulting share price volatility. We return to the implications of this for cost of disclosure later.

## Valuing firms

Another expression of the positive effect of disclosure is an increase in share prices. We do not discuss here the increase following the announcement of a rise in disclosure, and which is the subject of event studies. We are concerned with a better long-term valuation, which disclosure allows. Better valuation is of course linked to a reduction in the cost of capital: a lower requirement for profitability by shareholders leads to an increase in the share price, all things being equal. Goncharov et al. (2006) show that German firms that comply with the regulation relating to disclosure (according to the 'comply or explain' principle) enjoy a higher share price, over a period of a year. Patel and Dallas (2002) show that a firm's disclosure (measured by Standard & Poor's rating) increases the price to book ratio, that is the relationship between the market value and the firm's book value. MacNeil and Li (2006) demonstrate a very interesting result: not respecting regulation is punished by a lower share price valuation, unless the results announced by the firm are very good. This leads us to think that investors seek information when things go badly. Restricting ourselves to positive impacts for the time being, it seems that most of the studies show that greater disclosure increases firms' valuation.

- Measuring investments financed thanks to disclosure

Finally, a last demonstration of the benefits that a firm can gain from its own disclosure is the additional investments that it may be able to implement. Khurana et al. (2006) measure the part of a firm growth that is financed externally. They show that the more transparent a firm is, the higher this share will be. The underlying idea is that disclosure facilitates external financing, and investments and growth. Similarly, Utrero-Gonzalès (2006) shows that a strong regulatory requirement for disclosure is expressed by lower debt levels: greater disclosure would allow firms to raise equity capital more easily.

To sum up, it seems that, whatever the methodology, the empirical literature shows that a policy of disclosure can have positive effects for the firm itself, in terms of value creation, a fall in the cost of capital, better share valuation and greater possibilities for investment. But what are the sources of these positive effects? Three main sources have been revealed in the literature: the reduction in information asymmetries, i.e. the improvement in information held by third parties, the change in managers' behavior and the change in investors' behavior.

### ***3.1.2. Improvement in information held by third parties***

The reason why disclosure generates private benefits is that it improves the information held by third parties from which the firm will benefit, whether this information is favorable or not. This reduction in information asymmetries between the firm and third parties drives the private advantages mentioned above. But it can apply directly, as we will see here, or indirectly, *via* the behavior of opposing actors, as we will see later. How can this reduction in information asymmetry be obtained? And how can its direct impact be measured?

- Improving financial analysts' forecasts

A more accurate forecast by financial analysts represents evidence of a real improvement in the information acquired through increased disclosure. Furthermore, it constitutes the guarantee that this surplus information is correctly processed, and that it is converted by analysts into information that is directly usable by investors. The accuracy of financial analyses is measured *ex post* by comparison with the real profitability of shares. In an international comparison, Bhat et al. (2006) show that regulation favoring disclosure vis-à-vis governance improves the accuracy of forecasts.

Through an inter-firm comparison, Hope (2003) shows a positive link between the quality of financial forecasts and the firm's degree of disclosure. Byard and Shaw (2003) expand this result by showing that the disclosure of annual and quarterly documents increases the quality of forecasts; but private discussions between analysts and managers don't. This observed improvement in analysts' forecasts will not be directly profitable for the firm, but indirectly, via the surplus information (or confidence) that it gives participants in the financial market.

- Reducing informed trading

One of the first effects of better information is the reduction in information asymmetry that prevails among investors. The microstructure of the financial markets offers plenty lessons in this respect. Some actors (informed agents) have relevant information about the firm's activity while others (uninformed agents) do not. This asymmetry allows informed agents to make profits to the detriment of uninformed agents, through the trading of shares known as informed trading. Market makers increase their bid-ask spread to protect themselves from informed trading. If disclosure succeeds in reducing information asymmetry, then it reduces the volume of informed trading, and the market makers' bid-ask spread. This reduction in the bid-ask spread represents a factor in reducing the cost of capital, which is beneficial to the firm.

By measuring the volume of informed trading, it is possible to know the effectiveness of disclosure in reducing information asymmetry. One of the methods used consists of analyzing the range of market makers in order to uncover the part relating to the existence of information asymmetries in the financial markets. The initial results of the literature took in this direction: Hasbrouck (1991), for example, shows a reduction in informed volume following the introduction of Regulation Fair Disclosure in 2000. But more recent studies do not confirm this result. For example, Collver (2007) shows that the volume of informed trading does not decrease following announcements (earning announcements) made by managers, after disclosure regulation was introduced. Therefore this may not reduce information asymmetry in the financial market, as we expand on in Section 4.

- Reducing the beta of the share

Enhancing the information received by investors in the financial market allows them to improve their expectations in relation to future share prices. Increasing information reduces the uncertainty to which investors are subject. Hence, a reduction in the informational risk premium should be observed. More precisely, the more transparent a firm is, the more actors in the market have information that is specific to the share. In this case, share developments will depend less on the general market trend, and more on reasons peculiar to the firm. Thus, the share price is less correlated with trends in other shares; its market risk, or systematic risk, decreases. The share's market risk is measured by beta. A lower beta signifies a reduced shareholder demand for profitability, and therefore a lower cost of capital. Lambert et al. (2007) theoretically show that greater accounting disclosure reduces the firm's cost of capital via the fall in the share's beta.

This result has been verified empirically, notably by Patel and Dallas (2002): a more transparent firm (measured as such by Standard and Poor's) benefits from a reduction in its beta. Ferrell (2007) and Lambert et al. (2007) also show that disclosure leads to a reduction in the volatility of returns. Akhigbe and Martin's (forthcoming) analysis is more qualified. They also observe a reduction in long-term risk. But it is the total risk and the specific risk share that decrease, and not the systematic risk. Shareholders' demand for profitability will therefore not be influenced by disclosure in the long term. On the contrary the authors observe an increase in three types of risk in the short term: total, specific and systematic. If uncertainty is reduced in the long term, on the contrary it is increased in the short term. And the beta, so in fine the cost of capital, increases in the short term.

### ***3.1.3. Investors' behavior and increased share liquidity***

The fall in the cost of capital is also explained by increased share liquidity. Diamond and Verrecchia's (1991) theoretical analysis shows that more disclosure increases market liquidity, by reducing information asymmetries and the volume of informed trading. In fact, informed trading produces a strong variation in the share price. However if information is diffuse, the price variations will be smoothed out, and the market will be more liquid. Increased liquidity attracts investors to the market. The market makers will therefore increase the price at which they offer the share, which leads to a fall in the cost of capital. Coates (2007) puts forward another argument: the role played by confidence. According to Coates, the introduction of the Sarbanes-Oxley Act allowed fraud to be reduced and managers to gain private benefits. Once investors felt more confident, they become more numerous. The market becomes more liquid, which, according to Coates, is expressed by a greater quoted depth, and by a reduced bid-ask spread. The depth of the market is its ability to absorb offers to buy and sell without a sudden variation in price. It can be measured by the size of the order book, for example. The cost of capital could then decline.

These theoretical results are largely confirmed by empirical studies. Leuz and Verrecchia (2000) thus show that the adoption of IAS standards, supposed to increase the firm's accounting disclosure, does indeed lead to a lower bid-ask spread and to a higher transaction volume (linked to the depth of the market). In the same way, Heflin et al. (2003) show that the higher the firm's disclosure, the lower its bid-ask spread. Even if, at the same time, the market depth is lower, overall liquidity increases with disclosure, something that is also confirmed by Krishnamurti et al. (2005).

### ***3.1.4. Change in managerial behavior: better governance and a fall in agency costs***

One of the objectives of disclosure regulation is to improve corporate governance. Thanks to better information given to third parties, supervision of management can be carried out more efficiently. The decisions taken by the executive will therefore be more in line with shareholders' interests, and agency costs will be reduced.

The theoretical literature is relatively consensual on this point. According to Barlev and Haddad (2003), the passage to fair value accounting should enable these objectives to be achieved, while Hermalin and Weisbach (2007), for example, emphasize supervision of the executive management by the board. Moreover, improving the decisions taken by managers affects the cost of capital. Lambert et al. (2007) show that managers reduce their private profits, that is, they secure part of the cash flows. This therefore reduces the correlation between the company's cash flows and those of other firms (correlation caused in particular by attempts at concealment); the share beta and therefore the company's cost of capital are lower.

Empirical demonstration of the fall in agency costs is difficult. Studies resort to proxies, or to indirect methods of taking these costs into account. Khurana et al. (2006) (see above) interpret their result in this way: According to them, a more transparent firm reduces its agency costs. It can therefore resort more easily to external financing (see in particular the pecking order theory of Myers and Majluf, 1984). This explains why Khurana et al. (2006) observe a positive link between corporate disclosure and growth. In the same way, Marquardt and Wiedman (2007) explain their result in terms of agency costs. Changing the method of accounting entries produces negative cumulative returns because it increases agency costs. Finally, in a study concerning the subsidiaries of multinational firms, Hope and Thomas (2008) suggest measuring these costs by the strong growth in exports achieved by these subsidiaries. This policy is considered as an over-investment, and therefore as a suboptimal decision for shareholders. The authors show that if the multinational firm is transparent about its profits by geographical zone, these over-investments are reduced. For Hope and Thomas as well, then, disclosure is a source of reduction in agency costs.

All in all, disclosure seems to improve the information held by participants in the financial market. The financial analyses are more accurate and information asymmetries are reduced between the firm and the third party, and between participants in the market. Governance works better, agency costs are reduced, and decisions taken by managers are more in line with shareholders' interests. Investors are attracted, and the liquidity of the share increases. Finally, the cost of capital falls thanks to three main factors: the increase in share liquidity, the reduction in uncertainty for investors, and the watering down of possible private benefits for managers. But none of the studies confirms these mechanisms and it is not certain that disclosure is systematically conducive to such idyllic scenes.

### **3.2. The collective advantages of disclosure**

We now consider the advantages that disclosure offers for all the firm's partners and for civil society. The three main advantages are to avoid financial scandals, to increase the stability of financial markets and to limit informational bubbles.

#### ***3.2.1. Avoiding financial scandals***

One of the supposed collective advantages of disclosure is avoiding financial scandals by adopting good governance and by firm's civic-minded and socially responsible attitude.

Transparent corporate governance should avoid the risk of financial scandals for large companies. Holder-Webb, Cohen and Wood (2008) try to verify this assertion. They note that the last few years have been marked by regulatory action that led to the development of corporate governance. These are responses to financial incidents caused by limits to some managerial practices. Defenders of corporate governance and institutional investors have in fact called for strengthened governance based on voluntary disclosure. Holder-Webb, Cohen and Wood (2008) study the disclosure of a sample of 50 American firms from 2004. They find significant differences in the structure of governance. Small firms provide less information on their independence and their procedures for selection, supervision and management (including whistle-blowing procedures). In contrast, large firms supply more information about their independence standards, audit committees, their management supervision systems and whistle-blowing procedures. However, compared to small firms, large ones do not appear to have superior information about their environment. The results again raise questions at the heart of the financial scandals of the last few years, particularly relating to the difficulty of complying with regulatory demands and the problem of conflicts of interests between managers and directors.

**Table 3. Summary – Expected consequences of disclosure – Theoretical literature**

References	Type of literature	Definition of disclosure	Expected consequence
Barlev and Haddad (2003)	Accounting	Passage to fair value	Reduction in agency costs, improvement in management efficiency, improvement in the information held by shareholders and employees
Coats IV (2007)	Economic study	Introduction of the Sarbanes-Oxley Act	Reduction in fraud, private benefits for managers Increase in the depth of the market and reduction in the bid-ask spread
Diamond and Verrecchia (1991)	Market microstructure	Information given to the financial markets	Increases share liquidity, therefore attracts investors, therefore increases the share price and reduces the cost of capital
Hermalin and Weisbach (2007)	Corporate governance	Information given by the manager	Better oversight of the manager by the board
Lambert <i>et al.</i> (2007)	Market microstructure	Accounting disclosure	Fall in the cost of capital via the fall in covariance between the company's cash-flows and those of others (directly and via investment choices)

**Table 4. Summary – Consequences of disclosure – Empirical literature**

References	Sample	Measurement of transparency	Explained variable	Measured impact of disclosure
Akhigbe and Martin (2006)	American financial firms in 2002	Introduction of the Sarbanes- Oxley law	Cumulative abnormal returns (event study)	Positive
		Detail of financial conditions		Positive
Akhigbe and Martin (forthcoming)	American financial firms before and after 2002	Introduction of the Sarbanes-Oxley law	Short term total, specific and systematic share risk	Positive
			Long term total and specific share risk	Negative
Bhat, Hope and Kang (2006)	Firms from 21 countries, from 1992 to 2002	Disclosure relating to governance. Index by country	Details of financial analysts' forecasts	Positive
Botosan (1997)	American industrial firms in 1990	Disclosure index based on the voluntary disclosure of information in annual reports	Cost of capital	Negative
Botosan and Plumlee (2002)	American industrial firms from 1985 to 1996	Disclosure index based on annual reports	Cost of capital	Negative
		Disclosure index based on information provided during the year		Positive

Byard and Shaw (2003)	American firms	Disclosure in annual and quarterly reports	Details of financial analysts' forecasts	Positive
		Private information given to analysts by managers		n.s.
Cheng et al. (2006)	American firms from 2001 to 2002	Financial disclosure	Cost of capital	Negative
Collver (2007)	The largest capitalizations of the NYSE from 1999 to 2002	Announcements made by managers following disclosure regulation	Volume of informed trading	n.s.
Ferrell (2007)	American firms in 1964	Introduction of disclosure obligation in 1964	Volatility of returns on the OTC	Negative
			Cumulative abnormal returns	Positive
Francis et al. (2008)	American firms in 2001	Disclosure index put together by the authors from financial reports and corporate tax returns	Cost of capital	Positive if not corrected
				Zero if corrected by performance
Goncharov et al. (2006)	German firms in 2002 and 2003	Degree of respect for disclosure regulation	Share valuation	Positive
Hasbrouck 1991	American firms	Disclosure Rate	Volume of informed trading	Negative
Heflin et al. (2003)	American firms	Disclosure Rate	Quoted depth	Negative
			Bid-ask spread	Negative
			Share liquidity (overall impact)	Positive
Hope (2003)	Firms in 22 countries in 1991 and 1993	Degree of disclosure of annual reports	Details of financial analysts' forecasts	Positive
Hope and Thomas (2008)	American firms over 10 years	Geographic earning disclosure	Agency costs	Negative
Khurana et al. (2006)	American firms between 1984 and 1994	Disclosure rating given by financial analysts	Company growth financed externally	Positive
Krishnamurti et al. (2005)	Firms from emerging countries cross-listed in 2000	Disclosure scores developed by Credit Lyonnais Securities Asia (CLSA)	Bid-ask spread	Negative
			Share liquidity	Positive
Leuz and Verrecchia (2000)	German DAX 100 firms in 1998	Adoption of IAS standards	Bid-ask spread	Negative
			Trading volume	Positive
MacNeil and Li (2006)	FTSE 100 firms from 2000	The fact of not respecting disclosure regulation	Share valuation	Negative, unless

	to 2004			good results
Marquardt and Wiedman (2007)	Issuers of contingent convertible securities from 2000 to 2004	Change in the financial reporting requirements for contingent convertible securities	Cumulative abnormal returns (event study)	Negative
Patel and Dallas (2002)	American firms in 2003	S&P's ranking	Share valuation	Positive
			Share beta	Negative
Picou and Rubach (2006)	American firms from 1994 to 2000	Announcement of change in governance	Cumulative abnormal returns (event study)	Positive
Utrero-Gonzalès (2006)	International comparison	Degree of demand for regulatory transparency	Debt leverage	Negative

The recent fraud scandals (Enron, WorldCom, Global Crossing, Xerox, Adelphia, Global Crossing, Parmalat, Lucent, Tyco etc.) have eroded public confidence in financial reporting. Audits are usually undertaken to avoid problems related to the credibility of financial statements. Yet, according to Rezaee (2004), fraud and scandals have undermined public confidence in the audit process. Rezaee explains that false statements have generated losses of more than \$500 billion to investors in recent years. This has resulted in a loss of credibility in the financial statements.

One of the main objectives of the disclosure of financial statements is to inform internal and external users on the economic and financial situation of an organization. After the pioneering works of Ball and Brown (1968) and Beaver (1968), there was a consensus that the disclosure of financial statements reduces the information asymmetry between internal and external actors. Since then, it has been accepted that the information published in the financial statements is both useful and credible.

It had become urgently necessary to find mechanisms to fight against fraud (Tuner, 1999). Information technology can be useful. It can change how the financial statements are prepared, tested and used (Zhao, Yen and Chang, 2004). Thus, Flowerday and von Solms (2005) suggest that auditors are developing new technologies to verify the financial reports. The idea is with the use of technology, auditors and accountants can develop more transparent mechanisms. These informational mechanisms should then allow better financial statement audits to be established and frauds to be prevented.

We note that corporate social responsibility (or CSR) based on transparent financial communication serves as a defense for the company seeking a “financially compliant” and “socially correct” image. Gelb and Strawser (2001) report that many studies have shown that firms that provide more information and which are more transparent succeed in reducing their costs of capital further than others. The authors try to verify empirically another explanation: firms resort to disclosure because it allows them to be recognized as a socially responsible company. This status is highly coveted for its usefulness in communicating an ethical image to shareholders and consumers. Gelb and Strawser (2001) examine empirically the relationship between corporate disclosure assessed by the AIMRCIC (Association for Investment Management and Research Corporate Information Committee) and indicators of social responsibility provided by the CEP (Council on Economic Priorities). The results indicate that there is a positive relationship between the level of disclosure and corporate social responsibility. Firms that engage in socially responsible activities provide more information and disclosure than firms that are less focused on promoting social objectives. These results favor the idea that increased disclosure is a socially responsible form of behavior.

Some approaches also consider that corporate social responsibility based on disclosure improves the financial results of the “ethical” company. DeTienne and Lewis (2005) note that several studies have shown that in the opinion of shareholders, disclosure and CSR soften the negative image from which some companies can suffer in the eyes of the public. The authors focus in particular on the Nike Company. The global dimension of multinational companies makes the public increasingly aware of the importance of social and environmental conditions in developing countries. Hence the need and the requirement to be transparent, ethical and socially responsible are constantly increasing for these global actors (Robertson and Nicholson, 1996). These criteria have become firms priorities. They are as important as production, financing and the marketing of products and services. Firms should find a balance between CSR’s moral demands for disclosure and the constraints of profitability imposed by the business world. DeTienne and Lewis (2005) point out that much recent research concludes that ethical operations are profitable. Indeed, more and more investors study the annual trends in CSR practice within firms before investing in them.

Finally, CSR based on disclosure improves shareholders, consumers and employees loyalty. Firms that are transparent and explain their sustainable development practices can increase investor loyalty and strengthen their reputation, as well as the value of their brand (Clikeman, 2004). In the end, the costs of being socially responsible are minor compared with the losses from damage to the

environment, the negative attitude of employees, consumer boycotts or product recalls. But corporate social responsibility, as reported by Holder-Webb, Cohen and Wood (2008), is not felt in the same way in large and small businesses. Transparent financial reporting on CSR is desirable within corporate firms in order to serve their interests and their quest for an image of a "socially correct" firm. Probably due to different financial and communication strategies, the effect would be different in small businesses.

### ***3.2.2. Increasing the stability of financial markets and reducing the bubbles***

The second collective advantage of disclosure lies in the financial stability that it provides. In order to preserve the security, and strength of the banking system, and to ensure the stability of the financial system, the banking supervisor should facilitate disclosure. The regulator collects a large amount of information on the financial institutions. He examines the balance sheets, operations and their management. He studies reports drawn up by the banks. There is a very high cost to collect this information. In the United States, the supervisor spent almost \$3 billion for that purpose in 2005 (Prescott, 2008).

This information is useful for anyone who wants to carry out a financial operation. But it remains confidential and the supervisor does not want to disclose it or to authorize the banks to disclose it without his approval.

Given that this information is costly to collect and that the market can usefully use this to reduce the risks, Prescott (2008) asks why not require the supervisor to disclose it or to authorize the bank to do so voluntarily? Such disclosure would help potential investors to assess a financial intermediary and would avoid the costly duplication of the collection of information and analysis.

Prescott estimates that retention of information and lack of disclosure are dangerous for the stability of the system. Yet the information that concerns market security is like a public good, in that it is useful for everyone. . Indeed, its use by one person does not reduce its value for someone else.

Moreover, banking crises are less likely to happen in financial systems producing comprehensive financial reports characterized by disclosure. Tadesse (2005) shows that market discipline ensures the stability of the financial systems and markets in countries that adopt such reports. He also examines the impact of banking disclosure in limiting the systemic risk of a banking crisis. In a study on the banking systems of 49 countries during the 1990s, he shows that the instability of systems and the underlying risks are lower in countries that ensure the promotion of financial information disclosure.

The third collective advantage of disclosure is its ability to reduce information bubbles and to relate the valuation of the firm to its fundamental value. Disclosure can reward firms that go to the financial markets. Akhigbe and Martin (forthcoming) show significant changes in the evaluation of risks for the financial markets following the adoption of the Sarbanes-Oxley law in the financial services sector. The authors conclude that the financial market rewards firms that are strongly transparent and that have a high level of governance, and conversely.

The market therefore favors firms that play the disclosure game. Bushee and Noe (2000) indicate that the firms that accept greater disclosure are owned by the largest international investors, who are attracted by the quality of their information. These investors have a long-term view of investment and therefore they do not apply volatility to the returns of the firms acquired. However, the annual improvements in disclosure encourage transitional holdings by institutions, characterized by strategic purchases of the short-term "hit and run" type, leading to volatility of returns.

Over a long period, disclosure remains essential for firms that pass through the financial market and who desire stability in their results. Few empirical studies have looked at the impact of disclosure requirements on the capital markets. Ferrell (2007) points out that the disclosure requirement for firms listed on the stock market represents the heart of securities regulation in the United States. The author empirically analyzes the impact of disclosure requirements on volatility and stock

market returns. The study concludes that mandatory disclosure is associated with a spectacular reduction in the volatility of stock market returns.

World Bank economists in particular have endorsed the virtues of disclosure as regards financial stability. Vishwanath and Kaufmann (1999) point out that promoting greater disclosure is directly aimed at financial stability. It contributes to the development of sound institutional infrastructures, drawing up standards and reliable accounting practices, improving incentives to disclose information and reducing to the minimum perverse incentives produced by safety nets, such as deposit insurance.

Transparency has undeniable advantages. Over a long period, it is essential for companies that can afford it. However, the quest for transparency presents a cost that not all organizations can bear. As such, the collective net benefits may be questioned, a problem to which we now turn.

#### **4. The costs of disclosure**

This section sets out the costly aspect of disclosure. This was not necessarily observed in the first generation of papers, but it has become more and more apparent in the literature. The common assumption among economists and observers is in fact that more information improves the working of the market and, beyond this, the economy. If the benefits of disclosure can be real, as we have seen, however, an evaluation of the costs of disclosure still allows doubts to persist about the net benefit to be expected (see Coates, 2007, Litvak, 2007, or Zhang, 2007, the latter showing that the Sarbanes-Oxley law has actually had a negative outcome). As an illustration, it should be noted that the financial managers' view coincides with such doubts, as the results of some surveys reveal: surveyed in 2006, 85% of finance directors still thought that the costs of the Sarbanes-Oxley law were higher than its benefits.

##### **4.1. Practical costs**

As for corporate governance, the very fact that there is no definitive consensus concerning the content of disclosure, and that its definition (and firms' obligations on this matter) varies in space and in time, allows us to think that disclosure leads to costs that the political decision-makers are more or less ready to impose on their firms (without ignoring the fact that through lobbying these can make known their ability to bear these costs). In relation to corporate governance, Doidge et al. (2007) thus show that national characteristics explain the variance in existing measures more than firm characteristics. A country's level of development matters much more than the legal environment or the level of financial development. Doidge et al. (2007) also show that firms' characteristics are nevertheless more important in the case of developed countries, and for firms in developing countries that have access to the international market. Moreover, there is also variance in governance scores for developing countries. There are therefore no norms or standards for governance.

To put it more bluntly, the question is the following (see Admati and Pfleiderer, 2000): if disclosure is so positive, why do firms not engage in it spontaneously? The sheer fact that firms have been forced to reveal information by one (or more) specific pieces of legislation is in itself revealing.

For an economist, the reason for such behavior is found in the costs of revealing information. The very cost of producing and disseminating information cannot be ignored. Even if the permanence of the legal obligation allows procedures to be standardized and economies of scale to be implemented, the direct cost of disclosure remains a factor. Bethel (2007) thus quotes the EDGAR information system used by the Securities and Exchange Commission (SEC), through which the equivalent of three million pages passes every day, knowing that before this system existed, every page could be obtained at a cost of \$0.15. The fact that since 2000 the SEC has moved from a

periodic information system to a continuous system strengthens this trend still more.

In the same way, as Coates (2007) points out, the direct costs of implementing the Sarbanes – Oxley law can seem low (\$1,000 in 2004 for the monitoring costs required by the new institution overseeing auditors, the PCAOB). But firms do not disclose the costs involved in ensuring compliance for their documents and procedures, and the auditing costs have increased considerably since the beginning of the decade (The reasons for this are not especially clear, whether it is to do with the passage of the Sarbanes–Oxley law or the reduction in competition following the collapse of Andersen, see e.g. Asthana et al., forthcoming). The figure of 1 million auditing costs by billion of revenue is often quoted by the press, with annual reductions (that can be attributed to initial fixed costs and to economies of scale) varying from 15% to 40%. As for the indirect costs (linked to the opportunity cost of the managers concerned, to growing risk aversion, etc.), they are more difficult to measure, even if we can think that they can disappear over time as long as the actors assimilate the law (Verrecchia, 2001, Coates, 2007).

Moreover, we can assume (as do Admati and Pfleiderer, 2000) that the more details is required from firms, the more the cost of producing the information increases. Furthermore, looking at the situation from the viewpoint of the recipient of information, it would be possible to argue that more accurate information is not necessarily less costly to assimilate, even if it can be easier to decipher (see Myers and Majluf, 1984, for a discussion linked to this point). The written rules (the Plain English rules prescribed by the SEC in 1998 for example) do not necessarily lessen this problem. The temptation to use information distributed by some firms to evaluate other firms whose activity (or value) is correlated with the one disseminating the information, leads to an amount of information that is lower than the social optimum. In this case, forcing firms to reveal information can be useful, on condition however that the regulation is adapted to the firms' characteristics (i.e. size, membership of a sector and so on), which obviously makes it more difficult to define, or even to apply.

The "financial industry" case, studied by Akhigbe and Martin (2006) is moreover enlightening on this point. The authors study the impact of the Sarbanes-Oxley law in order to assess whether recommendations aimed at reducing the opacity of financial statements have, in net terms, been costly or beneficial. The choice of the sector studied is linked to an assessment of a higher than average opacity (see Morgan, 2002, for example). Akhigbe and Martin's estimate of gains is based on an evaluation of the variation in value for the shareholder, and on the hypothesis that this variation should be lower in sectors in which the information or compliance will be the most difficult to produce. (The hypothesis of a link between disclosure and shareholder value has been verified by Bloomfield and Wilks, 2000, in particular, see Section 2). The authors show that there are wealth creation effects in the financial industry, apart from investment brokers. But their estimates reveal that the gains are not explained by variables linked to disclosure, but by those linked to governance. While encouraging clear differentiation of the impacts of these two concepts, these results do not show net gains associated with disclosure. The positive results that Akhigbe and Martin (2006) associate with disclosure derived in fact from a grouping of variables. It is therefore relatively surprising that the authors do not question their data more, as their separate impact leads to a neutral or negative impact on disclosure, and jointly to a positive impact.

More broadly, some studies show that if some legal measures favoring transparency increase the dissemination of information, the quality and the quantity of the information disseminated is not necessarily improved, hence an increased cost of capital for firms and their shareholders. See for example Ahmed and Schneible (2007) and Collver (2007): The two studies concern the impact of Regulation Fair Disclosure, enacted by the SEC in 2000, which defines the kind of information that should enjoy the maximum circulation, rather than selective circulation. Such results therefore argue in favor of very sophisticated regulation of the measures and targeted coverage in terms of the sector, the size of firms, etc. This obviously creates doubt about the relevance of this type of regulation.

Here again, implementation of the Sarbanes–Oxley law provides a useful point of reference for

analysts, and the results converge to estimate that the cost of disclosure falls more than proportionally on small and medium-sized enterprises, in view of the fixed costs to be borne to implement the procedures and publications required by the law (Holmstrom and Kaplan, 2003). Thus, both Engel et al. (2007) and Kamar et al. (forthcoming) show that the smallest firms tend to withdraw their stock market listing or abandon market entrance, anticipating the costs of complying with the new law. However, the results relating to the influence of the law on the entry or exit of foreign firms are more ambiguous (see for example Litvak, 2007, and Doidge et al., 2008, for contrasting results). Wintoki (2007) also shows a more negative impact on small firms, young firms, those whose activity is narrower, who are facing more uncertainty, etc.

These results on the application of the Sarbanes–Oxley law agree with those obtained on the SEC’s implementation of rules changing the obligations to notify transactions in the securities markets, between 1999 and 2000. It emerges from Bushee and Leuz’s study (2005) that, following the introduction of new rules, smaller firms with lower external financing requirements prefer to transfer to less formal markets than to bear higher disclosure costs. In the same spirit, the results of Gomes et al. (2007) reveal an increase in the cost of capital for the smallest firms at the time of the implementation of Regulation Fair Disclosure by the SEC in 2000.

The costs of disclosure are therefore not only high, but they are not distributed in an equal fashion because the smallest firms, and some sectors of activity, bear the costs of this more heavily. The "one size fits all" approach is probably deficient. In the same way, defining the "good" rules relating to disclosure is not simple at all, which is confirmed, for example, by Rodrigues and Stegemoller (2007). These authors analyze the rules of the SEC relating to the announcement by a listed company of the acquisition of a non-listed company. According to recommendations defined by the SEC, listed firms should communicate their acquisition strategy if the target is significant in terms of size. Even with the SEC’s definition of what represents a "significant" target, the authors show that 80% of acquisitions that are not classified as significant nevertheless have significant effects on the valuation of acquiring firms.

#### **4.2. Competitive costs**

The fact that the rules about disclosure are probably not appropriate for all the companies that they cover increases their problematic nature as regards fair competition.

Indeed, as transparency leads to the disclosure of information, competitors can use this strategically; leading to an erosion of the firm’s competitive advantage (Admati and Pfleiderer, 2000). Other strategic partners (unions, suppliers, subcontractors and so on) can also use the same information against the firm. Therefore its negotiating power is reduced. We note that this last point is more difficult to evaluate. The disclosure of information on the financial health of, let’s say, Wal-Mart, can increase the incentive for its employees to unionize. The net social benefit of this change in the balance of power is difficult to assess: if unionization leads to an increase in salaries and sales prices, this would be done at the expense of consumers. Estimating the net gain is therefore an empirical question.

On the other hand, it is clear that the same rule applied to all firms, whatever their age, their financial condition, their capital structure, their size, etc., imposes a differentiated cost, offering a strategic advantage to some at the expense of others. Here again, the net result is probably difficult to evaluate, but there is nothing to indicate that this is necessarily positive as regards disclosure rules.

#### **4.3. Governance costs**

The potential costs of disclosure within firms, in terms of governance and managerial behavior, are now being taken more and more into consideration in discussions. Indeed, a very large part of the literature shows that an increase in disclosure allows a reduction in information asymmetry, and

therefore agency costs (see for example Aggerwal and Kyaw, 2009; Hope and Thomas, 2008; Huang and Zhang, 2008; Attiq, Fong, Gadhoun and Lang, 2006). Some authors are, however, modifying this position.

Coates (2007), analyzing the costs linked to the establishment of the Sarbanes-Oxley law, suggests that the mandatory increase in disclosure involves two potential costs. On the one hand, opportunity costs are generated because of the additional time spent by managers and their teams on producing the information. On the other hand, greater risk aversion results from pressure to provide stricter financial standards. Coates (2007) nevertheless considers that these costs would only be linked to establishing the new information required, arguing that the additional attention required from managers and their teams is only necessary when new measures are implemented, and that risk aversion reduces once the degree of the increase in responsibilities has been better understood.

For some authors, the costs of governance linked to the increase in legal obligations on disclosure can go well beyond those identified by Coates (2007). Leuz, Triantis and Wang (2008) draw on a study analyzing the effects of the Sarbanes-Oxley law, demonstrating that the cost resulting from the law increases the tendency of managers to make their activities opaque in order to protect their private gains and to reduce external monitoring, in particular when the legal and regulatory protection of investors and managers is weak. Strengthening demands on disclosure even leads some firms to withdraw their stock market listing and so exempt themselves from most of the disclosure obligations – see for example Leuz et al. (2008); Coles (2008); Coates (2007).

A certain number of studies have also confirmed that managers analyze the cost of disclosure. Duemes and Knechel (2008) show the existence of a negative relationship between managerial ownership rights and disclosures linked to internal controls. A second study confirms that the presence of a large number of owners with no link to the management reduces the negative association between voluntary disclosure, the separation of cash flows from operations and regulation (Lee, 2007).

Perhaps the question is not so much one of disclosure as one of the level of disclosure. Hermalin and Weisbach (2007) show that there is an optimal level of disclosure. As well as the cost of producing information, and the problem of disclosing information to competitors or to the regulator, the increase in disclosure required by the law is changing relationships between the board of directors or the supervisory board and managers and their teams. It is certain that the increase in disclosure allows the board of directors or the supervisory board to have better supervision of directors. But that can also generate reductions in profit, accelerate the turn-over in managers in an inefficient way and increase the remuneration of managers who demand compensation for a career that is more unstable because of the increase in risk. Furthermore, the risk that managers will falsify information to their advantage increases.

#### **4.4. Regulatory capture**

If it is difficult to define optimal rules on disclosure, even in a second-best world, existing rules should attract firms and capital to the markets for which these rules are defined. But such a measurement of the usefulness of rules (even without mentioning the optimality) remains limited to firms and their owners. Yet if the vision is extended to all stakeholders, the definition of rules becomes still more difficult.

As Smith (2007) comments, many of the losers in the Enron affair were not shareholders of the firm, but employees, suppliers or others. The impact of the loss of firm value should not only be measured by Enron's shareholder value. Not to mention the fact that the most spectacular bankruptcies sometimes lead to intervention by the State (Savings and Loans yesterday, Fanny Mae, Freddy Mac and AIG today), which give all taxpayers a vested interest in defining adequate transparency rules.

Of course, it is much easier for firms to organize themselves into lobbies to try to influence the

definition of rules. The phenomenon of regulatory “capture” by agents who are the most concerned by its application has been known since Olson (1966). Stigler (1971) and Peltzman (1976), then, have developed the theory by integrating the diversity of interest groups, the rule becoming the outcome of the strategic game between the different groups concerned. The rule cannot therefore comply exactly with what would agree with the social optimum.

Consequently, as Mulherin (2007) notes, we must distrust the illusion of Nirvana already indicated by Demsetz (1969): we should avoid comparing a positive cost linked to regular market activity with a zero cost of government intervention. For Mulherin (2007, p. 433), this sophism is particularly likely to be present in the case of the Sarbanes–Oxley law, which aims to resolve the agency costs of corporate governance using public agents who are apparently benevolent. The risk of regulatory capture increases the possibility, beyond the theoretical and practical difficulties already reported, that the defined rule has unexpected negative consequences, despite all the apparent good intentions. In this context, the fact that small firms are consistently losers in the regulatory game accords with Peltzman and Stigler’s predictions, as the large firms are better able to organize themselves and to influence the definition of rules than the smaller, younger firms.

## **5. The informational issues of disclosure**

As well as the costs of establishing disclosure, there are others, more problematic regarding the objective sought: informational costs. Indeed, some recent studies, in the methodological tradition of those mentioned in section 2, show that it is not certain that disclosure imposed by regulation actually increases the information held by the financial markets. The microstructure of financial markets allows us to know the size of informed trading, and thus the degree of information asymmetry between the different participants. Collver (2007) shows that disclosure regulation has not caused a reduction in informed trading, and therefore that it has not improved the information available to the market. Several studies observe a significant volume of trading following announcements made by companies but, according to Collver (2007), this trading volume is not due to better overall information for investors, but to the significant increase in the volume of activity that the financial markets have experienced in the recent period, independently of regulation. Trading is “rumored” and not informed. Using measurement of the volume of informed trading, Ahmed and Schneible (2007) show that American regulation imposing disclosure has reduced the average quality of information available in the market. Indeed, this regulation has only had an impact for small firms and innovative firms. And if the information asymmetry affecting them is effectively reduced, it is at the expense of the overall level of information available.

Why such results? Why should imposed disclosure not create information for participants in the financial market? Worse still, why should it be a source of destruction of information? Several arguments are at work. First, the obligation to disclose information does not do away with the problem of fraud. It also does not deal with information that does not fit with regulation, manipulation and excessive disclosure, which creates a gap in information disclosed compared with what is really necessary for market investors to base their decision. Moreover, disclosure reduces agents’ incentive to seek information because it reduces the benefit that they can derive from it. It is possible therefore that the overall volume of information available decreases. It is also possible that the information available is distorted, to the detriment of small companies in particular. Finally, and most seriously, disclosure can generate an illusion of knowledge, a feeling of over-confidence, and may have consequences as serious as the lack of disclosure.

### **5.1. Fraud and concealment: when disclosure does not provide information**

The first problem is that it is not certain that disclosure, whether it is voluntary or imposed, actually provides information for the financial markets, and this for several reasons.

### **5.1.1. *Fraud and concealment***

Disclosing information does not mean disclosing true information. Fraud remains a threat that hangs over investors, as the experiences of the last decade have shown. Referring to US cases of frauds in this period, Rezaee (2005) analyses the reasons, the means and the consequences of communicating falsified accounting documents, which in the huge majority of cases requires the collusion of leading managers and auditors (Enron is the prime example). In the case of WorldCom for example, the managers, the finance director and the auditors were complicit in publishing fraudulent accounting documents. The objective was to overestimate results, so that shares were over-valued and difficulties concealed. Responsibility is shared between “greedy” managers, “irresponsible” governance and “incompetent” auditors (Rezaee, 2005). This fraud led to the bankruptcy of WorldCom and charges against its managers.

It is thus clear that imposing disclosure is not enough to avoid fraud. According to Rezaee (2005), better governance is necessary, notably with independent directors, as well as re-establishing real oversight by the auditors. This point is moreover an integral part of the Sarbanes-Oxley Act. Criado-Jiménez et al. (2008) study the implementation by Spanish firms of the obligation for a communication on environmental reporting. They show that the companies try to conceal information that is unfavorable to them. The more regulation requires disclosure, the more companies establish concealment strategies that are complex to detect and to prove. Criado-Jiménez et al. believe that this reveals a first perverse effect of the requirement for disclosure.

### **5.1.2. *Limit of regulation***

A final argument fuels the theory that disclosure does not necessarily increase the information disclosed by the firm to third parties. Principally, in regulation, it is not mandatory to communicate elements that are off-balance sheet. Auger and Lander (2008) point out this problem, emphasizing another perverse effect of regulation: firms are encouraged to develop their off-balance sheet activity, to escape their legal obligations on disclosure.

## **5.2. Manipulation and too much disclosure: when disclosure does not give relevant information**

So disclosure is not necessarily synonymous with more information given by the firm to investors. But it is also possible that the information the firm gives investors is not the information they need.

### **5.2.1. *From information to knowledge***

The question posed here is about how the information received by the investor is transformed into usable knowledge, that is, knowledge that can be used to value the firm. In fact, in the end, disclosure is desirable in order to allow shareholders to exert control, by voting or by leaving, and to justify their decisions about the purchasing and selling of shares. The objective of disclosure is not to give real and exhaustive information, but to enable investors to value the share and to assess the firm’s ability to create value. For Fagotto et al. (2006), there is only real disclosure if the information provided by the company is used by the person who receives it in daily decision-making. For Indjejikian (1991), disclosure only has value if investors understand and interpret the information they receive. According to his theoretical analysis, the less investors are able to process the available information, the more firms should be transparent, that is to say, to provide quality information.

### **5.2.2. *Manipulation, complexity and too much disclosure***

As well as fraud, firms have a formidable tool in disclosure, perhaps the more pernicious because it is perfectly legal: to make the information provided unusable. How? First by manipulating it. The

first kind of manipulation, perhaps the oldest and the best known, is accounting manipulation: using accounting standards in order to reveal the most favorable balance sheet. For example, the method that consists of omitting all the unfavorable accounts and cleaning up the balance sheet, in a year in which results are poor. The results can only improve subsequently. There are also strategies to smooth out the results. Thanks to a survey carried out amongst corporate managers, Graham et al. (2005) even show that managers go as far as sacrificing long-term profits in order to smooth out their results. The objective is to transfer information on future profits to shareholders, and to avoid price volatility. This point is extremely important: for a long time, managers have known two things. First, being completely transparent creates volatility, which is desired by neither investors nor companies. Second, being completely transparent provides less information on the firm's ability to create value than a policy of smoothing out results or dividends. Transparency can lead to information being destroyed. Moreover, investors are not misled: Lang and Lundholm (1996), using American data, show that shareholders poorly receive a sudden increase in the frequency of disclosure. In the same way, Botosan and Plumlee (2002) find that while firms' cost of capital decreases with the disclosure of annual reports as we saw earlier, it is increased by an over-active communication policy over the year. Here, the argument is simply that of "too much information kills information"; more mundanely, the manager tries to "cloud the issue". Too much disclosure therefore constitutes another, legal, strategy to conceal the information.

Finally, the complexity of the information provided allows some concealment. This is Damodaran's argument (2006). He emphasizes the discretionary power companies have over the financial information they disclose. In particular, they can choose to make it complex and therefore difficult for investors to use. One method consists of frequently changing the accounting methods used (Damodaran shows that the market punishes this practice). Another, which accords with the idea of too much disclosure, is to multiply the number of items appearing in the balance sheet, making it difficult to read, or to multiply very detailed and incomprehensible notes at the foot of pages. Damodaran (2006) also considers the number of pages of the financial report to be a factor of complexity: the relevant information will be difficult to find.

If the company provides information that is too extensive, or too complex, investors will be unable to use it, and disclosure will be pointless. Again, disclosure is not synonymous with more information given to third parties. But how is the information processed? How is it transformed into knowledge?

### **5.3.Reduction in the incentive to create information and decline in the level of information available: when disclosure destroys information**

The distinction between information firms provide and knowledge investors can use drives us to question the production of this knowledge. Work on processing and interpretation is needed, for example to move from a 300 page financial report to expectations of price. Some actors play a particular role in this respect: financial analysts and agents informed about the financial market. It is they who have the strongest incentives to look for information, as they derive a direct benefit from it: financial analysts, by selling the knowledge that they have produced and informed agents by making gains at the expense of uninformed agents.

#### **5.3.1. *The role of financial analysts***

Financial analysts play a fundamental role in producing knowledge in the financial markets. Indeed, a high number of investors, in particular small shareholders, have neither the time nor the necessary competence to interpret the raw information provided by the firm. They therefore delegate this task to financial analysts. Thus Lang and Lundholm (1996) in particular, using American data, show that the most transparent companies are those which are monitored the most by financial analysts. As we

have seen above (see paragraph 2.2.), these companies benefit from more accurate forecasts of their result, and a lower heterogeneity between these different forecasts. The information is therefore improved. But other recent studies lead to a more qualified result. Thus, Tong (2007) shows that if the most transparent companies do indeed benefit from higher quality forecasts, they suffer from a fall in the number of analysts. Indeed, greater communication by companies reduces the incentive for financial analysts to invest in an informed way: the profitability of the investment is lower, as the information is more easily accessible for all. Finally, improvements in the available information which results from regulation on disclosure are weak, even zero.

### **5.3.2. *The role of informed agents***

The idea here is quite similar: acquiring knowledge requires costly informational investment by investors. Boot and Thakor (1998) consider that, as well as viewing the information disclosed by the firm, agents can look for costly information themselves. They will only do this if they can benefit from it, thanks to a transaction at the expense of uninformed agents, i.e. those who have not made this informational investment. If firms increase their disclosure, trading with uninformed agents will be less beneficial. The incentive to look for information is therefore reduced. Finally, more disclosure leads to less available information, and therefore less information transmitted in the share price. According to Boot and Thakor (1998), it is not certain that it is in shareholders' interest for the company to be too transparent.

Verrecchia (2001) also takes up this idea. Unlike Lang and Lundholm (1996) who envisaged a representative investor, Verrecchia emphasizes the heterogeneity of participants in the market. If the cost of acquiring information is heterogeneous (because of different competences, of access to different information etc.) then Boot and Thakor's argument (1998) fully applies. Disclosure will reduce the information that is globally available; this phenomenon is near the Grossman-Stiglitz paradox.

To conclude, we emphasize that a similar mechanism affects market liquidity. Diamond and Verrecchia (1991), or again Heflin et al. (2005), show that disclosure increases liquidity, and so reduces the profit that market makers are hoping for. Disclosure reduces the incentive of market makers to drive the share, and can therefore reduce liquidity. Finally, the impact of disclosure on liquidity and therefore on the cost of capital is ambiguous.

## **5.4. Distortion of available information: when disclosure increases information asymmetries**

If the transformation of information provided by the firm into usable knowledge requires time, competences, money, and heterogeneous agents, then corporate disclosure will not reduce information asymmetries but will rather increase these. This problem will be more pronounced for small companies, creating a distortion between firms.

### **5.4.1. *Distortion between informed agents and uninformed agents***

The microstructure of financial markets again contributes interesting empirical elements. For example, Kim and Verrecchia (1994), studying trading volumes at the time of announcements made by managers, show that this disclosure increases information asymmetries. Indeed, the announcements will be transformed into knowledge that is usable by agents capable of processing the information that they contain. The latter will transform this into private information, a source of informed trading and profits.

Barron et al. (2005) confirm this result: the information announcements made by managers during the year create information asymmetry in the market. This enables us to explain Botosan and Plumlee's result (2002) mentioned earlier: such announcements increase the cost of capital because

they increase information asymmetry between investors.

#### **5.4.2. *Distortion between shareholders in large companies and shareholders in small companies***

The role of financial analysts in the production of knowledge has another consequence: an asymmetry between large and small companies. Botosan (2000) shows that for large companies that are already the focus of attention for several financial analysts, the strength of disclosure does not have an impact on the cost of capital. On the contrary, the gains from disclosure are highest for small firms. Analysts provide little information about them, and communicating allows them to reduce their cost of capital, because that will really provide information for the market.

Gomes et al. (2007) observe an opposing result. Regulation on disclosure in the United States has created a contradictory distortion, by prohibiting “selective communication”, which consisted of disclosing information to certain financial analysts and institutional investors before making it publicly available. The loss of this advantage made monitoring small companies comparatively uninteresting for financial analysts. The work of financial analysts focuses more on large companies, to the detriment of small companies that, as a result, see their cost of capital increase. Once again, regulation on disclosure works to the detriment of the smallest companies (See Section 4).

#### **5.5. Illusion of knowledge and overconfidence: when disclosure gives an impression of knowing**

Finally, it appears that corporate disclosure does not inevitably lead to shareholders having better knowledge of the company’s ability to create value. It is possible that the company discloses false information, conceals important information, or manipulates information to make it more favorable. It is also possible that the company communicates very frequently and in a very complex way, to make it more difficult to interpret the information provided. Furthermore, as disclosure makes the informational investment of financial analysts and informed agents less profitable, it is possible that it reduces the information that is globally available. Finally, because of the heterogeneity of agents’ ability to process information, it is possible that information asymmetries are increased between shareholders.

The fact that communication by companies does not create knowledge or even that it reduces the information available to shareholders is very pernicious. When companies do not communicate much, shareholders know that they do not have information at their disposal, and, as we have seen in particular with Boot and Thakor (1998), they will try to acquire this in a costly way. Managers will try, through credible signals like smoothing results or dividends, to supply information on future profits. But if shareholders have the impression of having information, because of an imposed or voluntary communication policy, they will be much less vigilant. They will simply have an illusion of knowledge, rather than a real knowledge. They will therefore take decisions wrongly believing that they have the relevant information. They will be overconfident: they will think that they have good share price expectations, whereas they are mistaken; they will under-estimate their capacity for error. As Tsoukas (1997) and Ripken (2007) emphasize in articles reflecting on the dangers of disclosure, too much information can reduce knowledge and understanding, and thus reduce the rationality of decisions.

This excess of self-confidence by participants in the financial market fuels speculative bubbles, and destabilizes the markets, as behavioral finance shows and the current crisis illustrates. Imposing disclosure, far from providing the financial stability desired, can on the contrary cause crises.

## 6. Conclusion

The aim of this article was to review the recent literature relating to the consequences of disclosure. In the light of its results, two major conclusions emerge.

First, it seems that the advantages of disclosure for shareholders are easier to show than its advantages for the economy as a whole. Indeed, disclosure allows a firm's cost of capital to be reduced, providing a better valuation of its shares and stronger growth, via different channels. The improvement in financial analysts' forecasts guarantees better market knowledge of the firm. Thus, there is less informed trading, and the market makers bid-ask spread is reduced. This phenomenon is increased by higher share liquidity and the arrival of new investors, attracted by disclosure. Furthermore, as expectations on the future share price improve, the beta is reduced, as is the cost of capital. And of course, as disclosure improves governance, the discipline imposed on managers allows the profitability that shareholders require to be reduced. However, negative elements restrict the interest in disclosure for shareholders. Setting up disclosure is costly, because to produce, certify and circulate information has a significant cost. Furthermore, circulating strategic information can be harmful because it is beneficial to competing firms. Finally, if the company becomes transparent, managers lose private benefits. They will therefore develop strategies to keep part of the benefits in spite of everything, making their activities opaque. The result is ambiguous in terms of governance and optimality of management decisions.

It is of course still more difficult to show that disclosure improves the financial stability of the financial markets or that it limits the appearance of informational bubbles. If some studies show that transparent companies benefit from less volatile shares in the long term, very few succeed in showing an overall macro-economic benefit. If it turns out that disclosure does not have positive external effects, it will become more difficult to justify the legislation that imposes it. This is fundamental and all the more true if such legislation generates economic rent capture, at the expense of small companies.

The other major conclusion is that it is not at all obvious that disclosure, whether mandatory or voluntary, actually increases the knowledge that economic actors have of the company. First, being transparent does not necessarily mean providing information, since third parties are not shielded from disclosures of fraudulent information or the concealment of important information. Furthermore, current regulation does not include all the data relating to the firm; it is not obligatory to communicate the off-balance sheet, which can be essential to measure a company's real risk. Second, it is not certain that a firm will give investors the information they need to take decisions. The company can manipulate the information communicated; it can deliberately make it more complex, or it can make it very extensive and difficult to interpret. Transforming information communicated by the company into knowledge usable by investors requires a great deal of work. If disclosure makes this work less profitable for financial analysts and informed agents, it is possible that the overall knowledge of the company will be reduced. Finally, as some investors are better than others at this processing, disclosure can increase the asymmetry of information that exists among the different shareholders. What will happen if third parties do not have more information while companies display a policy of disclosure? Investors are victims of a knowledge illusion. They think they know the company but this is not the case. They will therefore show an excess of self-confidence when deciding whether to buy or sell: they will under-estimate the probability that they are mistaken. Such behavior, far from reducing the instability of financial markets, risks increasing information bubbles, and may worsen their consequences when they burst.

## Acknowledgement

The authors would like to thank Jean-Baptiste Desquilbet for his comments.

## Notes

1. [http://www2.financialexecutives.org/files/spacer.cfm?file\\_id=2110](http://www2.financialexecutives.org/files/spacer.cfm?file_id=2110).

## References

- Admati, A. and Pfleiderer, P. (2000) Forcing Firms to Talk: Financial Disclosure Regulation and Externalities. *Review of Financial Studies* 13: 479-551.
- Ahmed, A. and Schneible, R. (2007) The impact of regulation fair disclosure on investors' prior information quality — evidence from an analysis of changes in trading volume and stock price reactions to earnings announcements. *Journal of Corporate Finance* 13: 282–299.
- Aggarwal, R. and Kyaw, N. (2009) International variations in transparency and capital structure: Evidence from European firms. *Journal of International Financial Management & Accounting* 20 (1): 1-34.
- Asthana, Sh., Balsam, S. and Kim, S. (Forthcoming) The Effect of Enron, Anderson and Sarbanes-Oxley on the Market for Audit Service. *Journal of Accounting and Public Policy*.
- Akhigbe, A. and Martin, A.D. (2006) Valuation impact of Sarbanes–Oxley: Evidence from disclosure and governance within the financial services industry. *Journal of Banking & Finance* 30: 989–1006.
- (forthcoming) Influence of disclosure and governance on risk of US financial services firms following Sarbanes-Oxley. *Journal of Banking & Finance*.
- Akhigbe, A., Martin, A.D., and Newman, M. (2008) Risk shifts following Sarbanes-Oxley: Influences of disclosure and governance. *Financial Review* 43(3): 383-401.
- Aksu, M. and Kosedag, A. (2006) Transparency and disclosure scores and their determinants in the Istanbul Stock Exchange. *Corporate Governance: An International Review* 14(4): 277-296.
- Ali, A., Chen, T. and Radhakrishnan, S. (2007) Corporate disclosures by family firms. *Journal of Accounting & Economics* 44(1/2): 238-286.
- Ancil, R., Dickhaut, J., Kanodia, C. and Shapiro, B. (2004) Information transparency and coordination failure: Theory and experiment. *Journal of Accounting Research* 42(2): 159-195.
- Andres, C. and Theissen, E. (2008) Setting a fox to keep the geese - does the comply-or-explain principle work?. *Journal of Corporate Finance* 14(3): 289-301.
- Attiq, N., Fong, W., Gadhoum, Y. and Lang, L. (2006) Effects of large shareholding on information asymmetry and stock liquidity. *Journal of Banking & Finance* 30(10): 2875-2892.
- Auger, K. and Lander, G. (2008) The Economic Impact of the Lack of Transparency in Financial Reporting. *Atlantic Economic Journal* 36: 105–116.
- Ball, R. and Brown, Ph. (1968) An empirical evaluation of accounting income numbers. *Journal of Accounting Research* 6(2): 159-178
- Barlev, B. and Haddad, J.R. (2003) Fair value accounting and the management of the firm. *Critical Perspectives on Accounting* 14: 383–415.
- Barron, O., Harris, D. and Stanford, M. (2005) Evidence on the existence of private event-period information around earnings announcements. *The Accounting Review* 80: 403-421.
- Bauwhede, H. and Willekens, M. (2008) Disclosure on corporate governance in the European Union. *Corporate Governance: An International Review* 16(2): 101-115.
- Bhat, G., Hope, K. and Kang, T. (2006) Does corporate governance transparency affect the accuracy of analyst forecasts?. *Accounting & Finance* 46(5): 715-732.
- Beaver, W. (1968) The information content of earnings announcements empirical research in accounting: selected studies. *Journal of Accounting Research* 6: 67-92.
- Berger, P. and Hann, R. (2007) Segment profitability and the proprietary and agency costs of disclosure. *Accounting Review* 82(4): 869-906.
- Berglöf, E. and Pajuste A. (2005) What do firms disclose and why? Enforcing corporate governance and transparency in Central and Eastern Europe. *Oxford Review of Economic Policy* 21(2): 178-197.
- Berle, A.A. and Means, G.C (1968) *The Modern Corporation and Private Property*, New York, Harcourt, Brace & World.
- Bethel, J. (2007) Recent changes in disclosure regulation: Description and evidence. *Journal of Corporate Finance* 13: 335 – 342.
- Billings, M. and Capie, F. (2009) Transparency and financial reporting in mid-20th century British banking. *Accounting Forum* 33(1): 38-53.
- Black, B. (1991) Disclosure, not censorship: The case for proxy reform. *Journal of Corporation Law* 17(1): 49-86.
- Blinder A. S., Ehrmann M., Fratzscher M., De Haan J., Jansen D.-J. (2008) Central Bank Communication and Monetary Policy: A Survey of Theory and Evidence. *Journal of Economic Literature* 46(4): 910- 945
- Bloomfield, R.J. and Wilks, T.J. (2000) Disclosure effects in the laboratory: Liquidity, depth, and the cost of capital. *Accounting Review* 75: 13–41.
- Boot, A.W. and Thakor, A. V. (1998) The many faces of information disclosure. *University of Michigan Business School* working paper.
- Botosan, C.A. (1997) Disclosure level and the cost of equity capital. *Accounting Review* 72(3): 323-349.

- (2000) Evidence that Greater Disclosure Lowers the Cost of Equity Capital. *Journal of Applied Corporate Finance* 12(4): 60-69.
- (2006) Disclosure and the cost of capital: what do we know?. *Accounting and business research* 36: 31-40.
- Botosan, C.A. and Plumlee, M.A. (2002) A Re-examination of Disclosure Level and Expected Cost of Equity Capital. *Journal of Accounting Research* 40(1): 21-40.
- Branch, G. and Rubright, J. (1982) Integrity of management disclosures under the Federal Securities Laws. *Business Lawyer* 37(4): 1447-1483.
- Bushee, B.J. and Leuz, C. (2005) Economic consequences of SEC disclosure regulation: evidence from the OTC Bulletin Board. *Journal of Accounting and Economics* 39: 233-264.
- Bushee, B. J. and Noe, C. F. (2000) Corporate Disclosure Practices, Institutional Investors and Stock Return volatility. *Journal of Accounting Research Supplement: Studies on Accounting Information and the Economics of the Firm* 38: 171-202.
- Bushman, R., Piotroski, J. and Smith, A. (2004) What determines corporate transparency?. *Journal of Accounting Research* 42(2): 207-252.
- Byard, D. and Shaw, K.W. (2003) Corporate Disclosure Quality and Properties of Analysts' Information Environment. *Journal of Accounting, Auditing, and Finance* 18(3): 355-378.
- Cai C., Keasey, K. and Short, H. (2006) Corporate governance and information efficiency in security markets. *European Financial Management* 12(5) : 763-787.
- Calderon T., Ofobike, E. and Cheh, J. (2007) Is there transparency in auditor change disclosures?. *Journal of Applied Business Research* 23(3): 61-73.
- Chandler, R. (1997) Accountability and disclosure: Director's remuneration in privatized utilities. *Public Money & Management* 17(2): 43-48.
- Cheng, C.S., Collins, D. and He Huang, H. (2006) Shareholder rights, financial disclosure and the cost of equity capital., *Review of Quantitative Financial Accounting* 27: 175-204.
- Chevallier J., Ielpo, F. and Mercier, L. (2009) Risk aversion and institutional information disclosure on the European carbon market: A case study of the 2006 compliance event. *Energy Policy* 37(1): 15-28.
- Cianci, A. and Falsetta, D. (2008) Impact of investors' status on their evaluation of positive and negative, and past and future information. *Accounting & Finance* 48(5): 719-739.
- Clarkson, P., Van Beuren, A. and Walker J. (2006) Chief executive officer remuneration disclosure quality: Corporate responses to an evolving disclosure environment. *Accounting & Finance* 46(5): 771-796.
- Clikeman, P. M. (2004) Return of the socially conscious corporation. *Strategic Finance* 85(10): 22-27.
- Coates IV, J. (2007) The Goals and Promise of the Sarbanes-Oxley Act. *Journal of Economic Perspectives* 21(1): 91-116.
- Coles, J. (2008) Disclosure policy: A discussion of Leuz, Triantis and Wang (2008) on "going dark". *Journal of Accounting & Economics* 45(2/3): 209-220.
- Collver, C. (2007) Is there less informed trading after regulation fair disclosure?. *Journal of Corporate Finance* 13: 270-281.
- Craighead, J., Magnan, M. and Thorne, L. (2004) The impact of mandated disclosure on performance-based CEO compensation. *Contemporary Accounting Research* 21(2): 369-398.
- Criado-Jiménez, I., Fernandez-Chulian, M., Husillos-Carques, F.J. and Larrinaga-Gonzalez, C. (2008) Compliance with Mandatory Environmental Reporting in Financial Statements: The Case of Spain (2001-2003). *Journal of Business Ethics* 79: 245-262.
- Damodaran, A. (2006) The Value of Transparency and the Cost of Complexity. *Stern School of Business* January.
- Demsetz, H. (1969) Information and efficiency: another viewpoint. *Journal of Law and Economics* 12: 1-22.
- De Nicolò, G., Laeven, L. and Ueda, K. (2008) Corporate governance quality: Trends and real effects. *Journal of Financial Intermediation* 17: 198-228.
- DeTienne, K. B. and Lewis, L. (2005) The Pragmatic and Ethical Barriers to Corporate Social Responsibility Disclosure: The Nike Case. *Journal of Business Ethics* 60(4) 359-376.
- Diamond, D. and Verrecchia, R.E. (1991) Disclosure, liquidity and the cost of capital. *Journal of Finance* 46: 1325-1349.
- Djankov, S., La Porta, R., Lopez-de-Silanes, F. and Schleifer, A. (2008) The law and economics of self-dealing. *Journal of Financial Economics* 88(3) : 430-465.
- Doidge, C., Karolyi, G.A. and Stulz, R.M. (2008) Why Do Foreign Firms Leave U.S. Equity Markets? An Analysis of Deregistrations Under SEC Exchange Act Rule 12h-6. *NBER Working Paper* n° 14245.
- Dubbink, W., Graafland, J. and Liedekerke, L. (2008) CSR, transparency, and the role of intermediate organisations. *Journal of Business Ethics* 82(2): 391-406.
- Dumes, R., and Knechel, W. (2008) Economic incentives for voluntary reporting on internal risk management. *Auditing* 27(1): 35-66.
- Durnev, A., and Kim, E. (2007) Explaining differences in the quality of governance among companies: Evidence from emerging markets. *Journal of Applied Corporate Finance* 19(1): 16-24.
- Eng, L. and Mak, Y. (2003) Corporate governance and voluntary disclosure. *Journal of Accounting & Public Policy* 22(4) 325-345.

- Engel, E., Hayes, R. M. and Wang, X. (2007) The Sarbanes–Oxley Act and firms’ going-private decisions. *Journal of Accounting and Economics* 44(1-2): 116-145.
- Ernst, U. (2004) Methods for resolving problems of responsibility and transparency in the activities of SMEs in market economies: Models and results. *Corporate Ownership & Control* 1(3): 37-43.
- Fagotto, E., Fung, A., Graham, M. and Weil, D. (2006) The Effectiveness of Regulatory Disclosure Policies. *Journal of Policy Analysis and Management* 25(1): 155–181.
- Ferreira, D., and Rezende, M. (2007) Corporate strategy and information disclosure. *RAND Journal of Economics* 38(1): 164-184.
- Ferreira, M., and Laux, P. (2007) Corporate governance, idiosyncratic risk, and information flow. *Journal of Finance* 62 (2) 951-989.
- Ferrell, A. (2007) Mandatory Disclosure and Stock Returns: Evidence from the Over-the-Counter Market. *The Journal of Legal Studies* 36: 213-253.
- Flowerday, S. and Von Solms, R. (2005) Continuous auditing: verifying information integrity and providing assurances for financial reports. *Computer Fraud & Security* 24(7): 12-26.
- Forker, J. (1992) Corporate governance and disclosure quality. *Accounting & Business Research* 22(86): 111-124.
- Francis, J., Nand, D. and Olsson, P. (2008) Voluntary Disclosure, Earnings Quality, and Cost of Capital. *Journal of Accounting Research* 46(1): 53-99.
- Gaved, M. (1998) Corporate governance report: Closing the communications gap - disclosure and institutional shareholders. *Corporate Governance: An Internatoinal Review* 6(2): 131-122.
- Gelb, D. S. and Strawser, J. A. (2001) Corporate Social Responsibility and Financial Disclosures: An Alternative Explanation for Increased Disclosure. *Journal of Business Ethics* 33(1): 1-13.
- Gietzmann, M.B., and Trombetta, M. (2003) Disclosure interactions: accounting policy choice and voluntary disclosure effects on the cost of raising outside capital. *Accounting & Business Research* 33(3): 187-205.
- Gillis, J. (1978) Disclosure developments. *Financial Analysts Journal* 34(5): 14-16.
- Gomes A., Gorton, G. and Madureira, L. (2007) SEC Regulation Fair Disclosure, information, and the cost of capital. *Journal of Corporate Finance* 13: 300 – 334.
- Goncharov, I., Werner, J. R. and Zimmermann, J. (2006) Does Compliance with the German Corporate Governance Code Have an Impact on Stock Valuation? An empirical analysis. *Corporate Governance* 14(5): 432-445.
- Graham, J.R., Harvey, C. R. and Rajgopal, S. (2005) The economic implications of corporate financial reporting. *Journal of Accounting and Economics* 40: 3-73.
- Haniffa, R., and Cooke, T. (2005) The impact of culture and governance on corporate social reporting. *Journal of Accounting & Public Policy* 24 (5) 391-430.
- Hasbrouck, J. (1991) The summary informativeness of stock trades: an econometric analysis. *Review of Financial Studies* 4: 571–595.
- Healy, P.M. and Palepu, K.G. (2001) Information Asymmetry, Corporate Disclosure, and the Capital Markets: A Review of the Empirical Disclosure Literature. *Journal of Accounting and Economics* 31: 405-440.
- Heflin, F., Shaw, K. and Wild, J. (2005) Disclosure quality and market liquidity: Impact of depth quotes and order sizes. *Contemporary Accounting Research* 22(4): 829-865.
- Henry, D. (2008) Corporate governance structure and the valuation of Australian firms: Is there value in ticking the boxes?. *Journal of Business Finance & Accounting* 35(7/8): 912-942.
- Hermalin, B.E. and Weisbach, M.S. (2007) Transparency and corporate governance. *Working paper* available on <http://ssrn.com/abstract=958628>.
- Hill, P. (1981) Current issues between corporations and shareholders. *Business Lawyer* 36(2): 757-758.
- Ho, P., Tower, G. and Barako, D. (2008) Improving governance leads to improved corporate communication. *Corporate Ownership & Control* 5(4): 26-33.
- Holder-Webb, L., Cohen, J., Nath, L. and Wood, D. (2008) A Survey of Governance Disclosures Among U.S. Firms. *Journal of Business Ethics* 83(3): 543-563
- Holmstrom, B. and Kaplan, S.N. (2003) The state of US corporate governance: What’s right and what’s wrong. *Journal of Applied Corporate Finance* 15: 8–20.
- Hope, O.-K (2003) Disclosure practices, enforcement of accounting standard’s and analyst forecast accuracy : an internation study. *Journal of Accounting Research* 41: 235-273.
- Hope, O.-K. and Thomas, W. (2008) Managerial Empire Building and Firm Disclosure. *Journal of Accounting Research* 46(3): 591-626.
- Huang, P. and Zhang, Y. (2008) Does Enhanced Disclosure Really Reduce Agency Costs? Evidence from the Value of Corporate Cash Holdings and Dividends. *SSRN Working paper* <http://ssrn.com/abstract=1101454>.
- Indjejikian, R. (1991) The Impact of Costly Information Interpretation on Firm Disclosure Decisions. *Journal of Accounting Research* 29(2): 277-301.
- Jensen, M. C. and Meckling, W. H. (1976) Theory of the firm: managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics* 3: 305-360.
- Kamar, E., Karaca-Mandic, P. and Talley, E.L. (2008) Going-Private Decisions and the Sarbanes–Oxley Act of 2002: A

- Cross-Country Analysis. *Journal of Law, Economics and Organization* Advance Access published online.
- Karamanou, I. and Vafeas, N. (2005) The association between corporate boards, audit committees, and management earnings forecasts: An empirical analysis. *Journal of Accounting Research* 43(3): 453-486.
- Kelton, A. and Yang, Y. (2008) The impact of corporate governance on Internet financial reporting. *Journal of Accounting & Public Policy* 27(1): 62-87.
- Kent, P. and Stewart, J. (2008) Corporate governance and disclosures on the transition to International Financial Reporting Standards. *Accounting & Finance* 48(4): 649-671.
- Kenyon, T. (2008) Tax evasion, disclosure, and participation in financial markets: Evidence from Brazilian firms. *World Development* 36(11): 2512-2525.
- Khurana, I.K., Pereira, R. and Martin, X. (2006) Firm Growth and Disclosure: An Empirical Analysis. *Journal of Financial and Quantitative Analysis* 41(2): 357-380.
- Kim, O. and Verrecchia, R. (1994) Market liquidity and volume around earnings announcements. *Journal of Accounting and Economics* 17: 41-67.
- Krishnamurti, C., Sevic, A. and Sevic, Z. (2005) Voluntary disclosure, transparency, and market quality: Evidence from emerging market ADRs. *Journal of Multinational Financial Management* 15 435-454.
- Laidroo, L. (2009) Association between ownership structure and public announcements' disclosures. *Corporate Governance: An International Review* 17(1): 13-34.
- Lambert, R., Leuz, C. and Verrecchia, R. E. (2007) Accounting Information, Disclosure, and the Cost of Capital. *Journal of Accounting Research* 45(2): 385-420.
- Lang, M.H. and Lundholm, R.J. (1996) Corporate Disclosure Policy and Analyst Behavior. *Accounting Review* 71(4): 467-492.
- Lee, K. (2007) Corporate voluntary disclosure and the separation of cash flow rights from control rights. *Review of Quantitative Finance & Accounting* 28(4): 393-416.
- Leuz, C., Triantis, A. and Wang, Y. (2008) Why do firms go dark? Causes and economic consequences of voluntary SEC deregistrations. *Journal of Accounting & Economics* 45(2/3): 181-208.
- Leuz, Ch. and Verrecchia, R.E. (2000) The economic consequences of increased disclosures. *Journal of Accounting Research* 36: 31-40.
- Litvak, K. (2007) The effect of the Sarbanes-Oxley Act on non-US companies cross-listed in the US. *Journal of Corporate Finance* 13: 195-228.
- Lo, K. (2003) Economic consequences of regulated changes in disclosure: The case of executive compensation. *Journal of Accounting & Economics* 35(3): 285-314.
- MacNeil, I. and Li, X. (2006.) 'Comply Or Explain': Market Discipline and Non-Compliance with the Combined Code. *Corporate Governance: an International Review* 14(5): 486-496.
- Marquardt, C.A. and Wiedman, C.I. (2007) Economic consequences of financial reporting changes: diluted EPS and contingent convertible securities. *Review of Accounting Studies* 12: 487-523.
- Marshall, R., Brown, D. and Plumlee, M. (2007). Negotiated' transparency?. *Journal of Corporate Citizenship* 28: 43-60.
- Mohd Gazali, N. and Weetman, P. (2006) Perpetuating traditional influences: Voluntary disclosure in Malaysia following the economic crisis. *Journal of International Accounting Auditing & Taxation* 15(2): 226-248.
- Morgan, D.P. (2002) Rating banks: Risk and uncertainty in an opaque industry. *American Economic Review* 92: 874-888.
- Mulherin, J.H. (2007) Measuring the costs and benefits of regulation: Conceptual issues in securities markets. *Journal of Corporate Finance* 13: 421 - 437.
- Myers, S.C. and Majluf, N.S. (1984) Corporate Financing and Investment Decisions when Firms Have Information that Investors do not Have. *Journal of Financial Economics* 13: 187-221.
- Olson, M. (1966) *The Logic of Collective Action*, Harvard University Press.
- Parum, E. (2005) Does disclosure on corporate governance lead to openness and transparency in how companies are managed?. *Corporate Governance: An International Review* 13(5): 702-709.
- Patel, S.A. and Dallas, G. (2002) Transparency and Disclosure; Overview of Methodology and Study Results. *United States Standard & Poor's* New York October.
- Peltzman, S. (1976) Toward a more general theory of regulation. *Journal of Law and Economics* 19: 211-240.
- Perera, M. (1994) Cultural and international accounting - Some thoughts on research issues and prospects. *Advances in International Accounting* 7: 267-285.
- Picou, A. and Rubach, M.J. (2006) Does Good Governance Matter to Institutional Investors? Evidence from the Enactment of Corporate Governance Guidelines. *Journal of Business Ethics* 65: 55-67.
- Prescott, E. S. (2008) Should Bank Supervisors Disclose Information About Their Banks?. *Economic Quarterly* 94(1): 1-16.
- Rawlins, B. (2009) Give the emperor a mirror: Toward developing a stakeholder measurement of organizational transparency. *Journal of Public Relations Research* 21(1): 71-99.
- Rezaee, Z. (2005) Causes, consequences, and deterrence of financial statement fraud. *Critical Perspectives on Accounting* 16: 277-298.
- Ripken, S.K. (2007) The Dangers and Drawbacks of the Disclosure Antidote: Toward a More Substantive Approach to

- Securities Regulation. *Legal Studies Research Paper Series*. Chapman University. Paper no. 2007-08
- Robertson, D. C. and Nicholson, N. (1996) Expressions of Corporate Social Responsibility in U.K. Firms. *Journal of Business Ethics* 15(10): 1095-1106.
- Rodrigues, U. and Stegemoller, M. (2007) An inconsistency in SEC disclosure requirements? The case of the insignificant private target. *Journal of Corporate Finance* 13: 251 – 269.
- Romano, R. (2005) The Sarbanes-Oxley Act and the making of quack corporate governance. *Yale Law Journal* 114(7): 1521-1612.
- Rose, A. and Rose, J. (2008) Management attempts to avoid accounting disclosure oversight: The effects of trust and knowledge on corporate directors' governance ability. *Journal of Business Ethics* 83(2): 193-205.
- Shafer, W. (2004) Qualitative financial statement disclosures: Legal and ethical considerations. *Business Ethics Quarterly* 14(3) 433-451.
- Shleifer, A. and Vishny, R. (1997) A survey of corporate governance. *Journal of Finance* 52: 737-783.
- Smith, J.K. (2007) Evaluating the boundaries of SEC regulation. *Journal of Corporate Finance* 13: 189–194.
- Stanga, K. (1976) Disclosure in published annual reports. *Financial Management* 5(4): 42-52.
- Stiles, P. and Taylor, B. (1993) Benchmarking corporate governance: The impact of the Cadbury Code. *Long Range Planning* 26(5): 61-71.
- Stigler, G.J. (1971) The theory of economic regulation. *Bell Journal of Economics and Management Science* 2: 3–21.
- Tadesse, S. (2005) Banking Fragility and Disclosure: International Evidence. *Working Papers* -William Davidson Institute - University of Michigan Business School.
- Turner, L. (1999) Speech by SEC Staff: Panel on Audit Effectiveness. *U.S. Securities and Exchange Commission*.
- Tong, H. (2007) Disclosure standards and market efficiency: Evidence from analysts' forecasts. *Journal of International Economics* 72: 222–241.
- Tsoukas, H. (1997) The tyranny of light: the temptations and the paradoxes of the information society. *Futures* 29: 827-843.
- Uang, J., Citron, D., Sudarsanam, S. and Taffler, R. (2006) Management going-concern disclosures: Impact of corporate governance and auditor reputation. *European Financial Management* 12(5): 789-816.
- Utrero-Gonzalès, N. (2006) Transparency, institutional framework and capital structure: international evidence from industry data. in *Transparency, governance and Markets* M. Bagella, L. Becchetti and I. Hasan editors Elsevier
- Verrecchia, R.E. (2001) Essays on disclosure. *Journal of Accounting and Economics* 32: 91–180.
- Vishwanath, T. and Kaufmann, D. (1999) Towards Transparency in Finance and governance. *New Approaches and Their Application to Financial Markets. The World Bank Research Observer* 16(1): 41-57.
- Wintoki, M.B. (2007) Corporate boards and regulation: The effect of the Sarbanes-Oxley Act and the exchange listing requirements on firm value. *Journal of Corporate Finance* 13: 229–250.
- Yu, F. (2005) Accounting Transparency and the Term Structure of Credit Spreads. *CFA Digest* 35(3): 18-19.
- Zhao, N., Yen, D. and Chang, I. (2004) Auditing in the e-commerce era. *Information Management & Computer Security* 12(5): 389-400.
- Zhang, X. (2007) Economic consequences of the Sarbanes–Oxley of 2002. *Journal of Accounting and Economics* 44: 74–115.