

THE CONFLICT BETWEEN DISCLOSURE IN SECURITIES MARKETS AND THE FIRM'S
NEED FOR CONFIDENTIALITY: THEORETICAL FRAMEWORK AND REGULATORY
ANALYSIS

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Abstract

This paper explores the relationship between disclosure in securities markets and the firm's need for confidentiality. Transparency plays a crucial role for both investor protection and the proper functioning of the stock market. Confidentiality protects the value of information which has been costly produced by the company and preserves private incentives for business and technological innovation. The requirement of too detailed or early disclosure in securities markets, even if aimed at greater investor protection and enhanced market efficiency, would be ultimately detrimental, since it would hinder the firm's competitive capacity and weaken the system of private incentives for innovation. Mandatory disclosure rules in both the U.S. and the EU protect the firm's interest in confidentiality and allow public companies to refrain from – or delay – the release of the most sensitive data. However, when information with competitive value is at the same time also of significance for securities markets, refraining from disclosure would damage the firm's capacity to raise finance and would make the process of resource allocation less efficient. Selective disclosure reconciles investors' demand for information and the firm's need for confidentiality, since it allows market prices to react to the information whilst also bypassing the need for a public release of the relevant contents. Reconciling the tension, in turn, constitutes a desirable outcome: the securities market would be more efficient and raising finance would become less costly, especially for the most "secrecy-sensitive" projects. At the same time, the system of private incentives for innovation would be fully preserved.

Summary: INTRODUCTION. – PART I. DISCLOSURE IN SECURITIES MARKETS: THEORETICAL FRAMEWORK. 1. Introduction. – 2. Problems of information production and the self-interest model for corporate disclosure. – 3. Critique of the self-interest model and the economic case for mandatory disclosure. – PART II. THE FIRM'S NEED FOR CONFIDENTIALITY AND THE CONFLICT WITH DISCLOSURE. 1. Some preliminary remarks. – 2. Elements that shape the tension: multi-audience setting;

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analytical vs. synthetic information. – 2a. *A short digression: the IPO process and venture capital financing in the light of the conflict between disclosure and confidentiality.* – 3. Information in the area of patents and trade secrets in the light of the conflict between disclosure and confidentiality. – 3.a *Information belonging to the patent area: the case of R&D races.* – 3.b *Trade secrets.* – 4. Competitive harm as an inter-firm cost and the “trade-off between transparency and innovation”. – 5. High-disclosure scenarios and *ex post* effects of weakened competition and enhanced innovation. – PART III. THE CONFLICT IN ITS REGULATORY DIMENSION. 1. Introduction. – 2. Segment reporting. – 3. EU ongoing mandatory disclosure provisions. – 3.a *SEC v. Texas Gulf Sulphur.* – 3.b *The ECJ’s Axel Springer case.* – PART IV. INSTRUMENTS FOR RESOLVING THE CONFLICT. 1. Introduction. – 2. Insider trading. – 3. Selective disclosure. – CONCLUSION.

INTRODUCTION

This paper explores the relationship between disclosure in securities markets and the need for confidentiality of the firm. The disclosure by public firms of as much information as investors need is a desirable goal – from a social welfare perspective – since it enhances stock price accuracy and leads to a more fine-tuned distribution of resources among productive units. Disclosure, however, can be extremely harmful for the firm. Too detailed or early dissemination of information could benefit competitors and counterparties, at the expense of the company and its investors. The issue is thus whether – and to what extent – pursuing the goal of extensive disclosure in financial markets could jeopardize the firm’s interest in confidentiality.

The beneficial effects of disclosure are both internal and external to the company: on the one hand, it constitutes an instrument to curb the agency problem arising between managers-agents and shareholders-principals in large corporations. On the other hand, it is a fundamental tool for the well-functioning of the securities market.

As for disclosure, the protection of the firm’s need for confidentiality has straightforward importance for public interest: secrecy often constitutes an essential instrument for the protection of the company’s intellectual property and represents one of the basic tools whereby firms protect the value of their investments against various forms of free-riding. As a device for a full appropriation of the value of information, secrecy protects private incentives in the production of information in the first place. Confidentiality thus belongs to the set of devices aimed at promoting inventive activities and innovation more generally. Excess disclosure in securities markets – while enhancing market efficiency – weakens this system of incentives, with detrimental side-effects on both the dynamics of competition in the product market and the well-functioning of the whole process of innovation.

The magnitude of the tension between disclosure and confidentiality depends on the extent of the overlap between information that a company is typically interested in maintaining confidential and

information that the capital market needs for stock price determination. Such an overlap is potentially broad and embraces – at least conceptually – almost the full range of corporate information.

Apart from its theoretical implications, the conflict has also a more concrete regulatory relevance: securities regulation in both the U.S. and EU recognizes its existence and provides protection for the company's need for confidentiality against the threat represented by the set of mandatory disclosure duties. The adoption of accounting principles aimed at a more fine-tuned informativeness of financial statements – such as segment reporting – has raised concerns about the potential competitive harm that public companies may experience as a consequence of the release of disaggregated data. Moreover, the conflict has also arisen on the judicial level, although infrequently and often only incidentally.

Finally, there appear to be some instruments that are able to resolve the tension: insider trading and selective disclosure convey to the market the value of information through indirect means that protect the firm's interest in confidentiality.

The paper is organized as follows: part I briefly addresses the issue of disclosure and information production in securities markets, with specific focus on the dynamics of information production. The analysis recalls the economic reasons that make disclosure an organizational feature spontaneously arising as a consequence of competitive pressures and that determine the failure of the system of private incentives in providing the optimal amount of information.

Section II is devoted to the analysis of the conflict, mainly in its theoretical dimension. It investigates the extension of the overlap between sensitive corporate data and information that the capital market needs in order to determine the company's value. It then examines the conflict between disclosure and confidentiality with specific regard to trade secrets and technological information protected by patents: two areas of corporate information for which the company retains a “qualified” interest in confidentiality. Finally, the analysis moves to the tension between disclosure and innovation that underlies the whole issue.

Section III addresses the regulatory dimension of the issue, through an analysis of those “hotspots” in which the tension emerges more explicitly. Segment reporting and EU ongoing mandatory disclosure rules are at the core of the analysis, as examples of the emergence of the conflict within the regulatory system. The review of two particularly illustrative court cases, *SEC v. Texas Gulf Sulphur* and the ECJ's Axel Springer case, follows.

Section IV is finally devoted to the analysis and reciprocal comparison of insider trading and selective disclosure: two instruments that may be able to resolve – or at least mitigate – the tension.

PART I. DISCLOSURE IN SECURITIES MARKETS: THEORETICAL BACKGROUND

1. Introduction

Problems associated with information in financial markets can be traced back to two general cases of market failure, which are reciprocally interrelated but conceptually different. From a static perspective, the equilibrium of asymmetric distribution of information among traders leads to well known problems of quality uncertainty and adverse selection which hinder the allocative function of the market.¹ From a dynamic perspective, information's public-goods like character creates incentives for free-riding and prevent market forces from supplying the right amount of information.²

As a result, information that is useful in order to determine a firm's value will tend to be under-produced, and its uneven distribution among traders will make high-quality firms progressively shy away from the market.

Problems of adverse selection are typically addressed with anti-fraud rules, various signalling devices and the intervention of independent third parties with a view to controlling the truthfulness of financial statements and prospectuses.³ Problems related to information production and dissemination are mainly addressed through disclosure.

Disclosure can be defined in very broad terms as a form of information communication, directed from the issuer to the public of investors, having the features of the widespread publication of data and which is almost always carried out in accordance with a set of positive duties established by the law (mandatory disclosure rules). It constitutes one of the most prominent organizational features of public companies and an important instrument for information production and dissemination in

¹ See George A. Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 Q. J. Econ. 488 (1970). The problem of quality uncertainty and adverse selection in securities markets is widely recognized in the literature. See, *inter alia*, William H. Beaver, *The Nature of Mandated Disclosure*, in *ECONOMICS OF CORPORATION LAW AND SECURITIES REGULATION* 316, 325 (Richard A. Posner & Kenneth E. Scott eds., 1980). Frank H. Easterbrook & Daniel R. Fischel, *Mandatory Disclosure and the Protection of Investors*, 70 VA. L. REV. 669 (1984). Black, *The Legal and Institutional Preconditions for Strong Securities Markets*, 48 UCLA L. Rev. 781 (2001), 786-7. Bainbridge, *Mandatory Disclosure, a Behavioral Analysis*, 68 U. Cin. L. Rev. 1023 (2000), at 1032-4.

² See the next paragraph.

³ See Easterbrook & Fischel, *supra* note 1, 675-7. Black, *supra* note 1, at 787, and in greater detail at 789-804.

securities markets.⁴ From a corporate governance perspective, it represents a critical instrument in curbing the agency problems typical of large corporations.⁵

Disclosure can be interpreted as an evolutionary organizational feature adopted by firms in response to the failure of a fully decentralized system, in which the task of producing information is left to investors' uncoordinated actions. On the contrary, disclosure by itself does not constitute an antidote to the adverse selection problem. Indeed, quality uncertainty is not dissipated by the fact that the company commits itself – no matter here how spontaneously or as compliance with a set of positive legal duties – to providing investors with a certain amount of information regarding its performance and business activity, given that such a commitment neither involves nor addresses the conceptually different issue of whether the informational contents disclosed are “true” or “complete”.⁶

2. Problems of information production and the self-interest model for corporate disclosure⁷

The major problems associated with information production in securities markets can be traced back to information's public goods-like character and to the collective action problem arising as a consequence of the absence of coordination among investors. The economic incentives for disclosure arise in response to such problems.

Information is deemed to have many features of a public good: it is non-rival, given the possibility to duplicate at almost zero cost any newly generated informational content. Non-rivalry leads to well-known incentives to free-ride, which induce potential buyers to underpay for information. The fact that it is impossible to capture the full value of information, in turn, will discourage its

⁴ From this standpoint, disclosure is a means of enhancing price accuracy in securities markets: see, *inter alia*, Wolfgang Schön, *Corporate Disclosure in a Competitive Environment - The ECJ's Axel Springer Case and the Quest for a European Framework For Mandatory Disclosure* (ECGI Law Working Paper No. 55, 2006), at 14 (who also recognizes the dual function of disclosure as a means of both price accuracy enhancement and for mitigating agency problems: see note below); Edmund W. Kitch, *The Theory and Practice of Securities Disclosure*, 61 *Brooklyn L. Rev.* 763 (1995) (for a detailed analysis of the issue).

⁵ See generally Paul J. Mahoney, *Mandatory Disclosure as a Solution to Agency Problems*, 62 *U. Chi. L. Rev.* 1047 (1995); Merritt B. Fox, *Retaining Mandatory Securities Disclosure: Why Issuer Choice is not Investor Empowerment*, 85 *Va. L. Rev.* 1335 (1999), 1363-9.

⁶ See Bainbridge, *supra* note 1, at 1033-4. For an opposite viewpoint stressing the importance of mandatory disclosure as a means for addressing informational asymmetry see Franco, *Why Antifraud Prohibitions Are Not Enough: the Significance of Opportunism, Candor and Signalling in the Economic Case for Mandatory Securities Disclosure*, 2002 *Colum. Bus. L. Rev.* 223 (2002).

⁷ The expression is taken from Easterbrook & Fischel, *supra* note 1.

production. As a result, information in securities markets will tend to be produced in sub-optimal amounts.⁸ Alongside under-production, the absence of coordination among investors gives rise to opposite problems of *redundant* production and duplicative investment. This somehow paradoxical dualism is effectively pointed out by Easterbrook and Fischel: “If information is worth one hundred dollars to investors as a group, but no one can capture more than ten dollars of gains, then no one will obtain more than ten dollars worth of information. Investors produce too much information, though, if several create the same ten dollars bit of information [...]”⁹

Decentralized dynamics of information production reveal further problems. Given that most of the information significant for the securities markets arises naturally within the firm, much of the individual efforts toward the acquisition of new information would appear to be spent not in the actual production of new information, but in a race aimed at obtaining early access to data already existing within the company, but not yet publicly available. Such dynamics resemble rent-seeking and lead to mere distributional effects among traders, with few or no real welfare improvement on aggregate level.¹⁰ Furthermore, given that especially within large and liquid markets the value of

⁸ For an analysis of the public good features of information see generally John C. Coffee, Jr., *Market Failure and the Economic Case for a Mandatory Disclosure System*, 70 Va. L. Rev. 717 (1984); see also Easterbrook & Fischel, *supra* note 1, at 680-687; Frank H. Easterbrook, *Insider Trading, Secret Agents, Evidentiary Privileges, and the Production of Information*, 1981 Sup. Ct. Rev. 309 (1981), 313; brief remarks in Arrow, *Economic Welfare and the Allocation of Resources for Invention*, in SCIENCE BOUGHT AND SOLD – ESSAYS IN THE ECONOMICS OF SCIENCE, Philips Mirowsky and Esther-Mirjam Sent eds., Chicago, The University of Chicago Press, 2002, 170 et seq. Besides the problem of the public good, information production in securities markets shows further anomalies: for instance, any potential sale of information has to deal with the fact that it is impossible to determine the value of an item of information before having gained access to its contents. Having access to its contents, in turn, requires that the transaction for which the estimation has to be made has been already completed. The value of the information can thus be ascertained only *after* information has been acquired, so that any hypothetical “sale” of information has to take into account this specificity. For a similar argument relating to securities research see Coffee, *supra*, at 727-8. In the same vein, any attempt to capture the value of information through direct trading activity has to take into account the fact that part of such value will be appropriated by third parties who will infer the informational contents through the observation of the producer’s trading activity. See Easterbrook-Fischel, *supra* note 1, at 681. It is the case of the so called derivatively informed trading: see Ronald J. Gilson & Reinier H. Kraakman, *The Mechanisms of Market Efficiency*, 70 Va. L. Rev. 549 (1984), 572-579.

⁹ Easterbrook & Fischel, *supra* note 1, at 681-2; see also Kitch, *supra* note 4, at 774-5; Coffee, *supra* note 8, at 733-4. It has been also pointed out that information has further attributes that make it different from the “pure” model of a public good. For instance, contrary to what is supposed to happen in relation with any non-rival trait, information in securities markets can be easily and rapidly “used up” [Easterbrook & Fischel, *supra* note 1, at 681]. Indeed, as an instrument for making differential gains, the value of information diminishes as it is progressively incorporated into stock prices through the trading activity of informed traders. Once prices have fully incorporated the information, its value is exhausted, since its contents are no longer able to give investors an advantage over the rest of the market. On the mechanisms for incorporating information into stock prices see *generally* Gilson-Kraakman, *supra* note 8. From this perspective far from being a non-rival good, information is a good characterized by fast obsolescence, and its value strictly depends on the degree of “priority” by which it is acquired with respect to the other investors.

¹⁰ Indeed, most of the time investors’ efforts would be aimed at the search of information regarding the occurrence of future events that are imminent and bound to be publicly observable soon (an important

any piece of information that is able to confer even a slight advantage is expected to be tremendous, the corresponding amount of resources individually devoted to such a race should be equally impressive.¹¹

Disclosure addresses these problems. It centralizes the dynamics of information production, eliminating duplicative efforts and most of the wasteful effects caused by investors' uncoordinated action.¹² The public release of information puts all market participants in an equal position that "burns" instantaneously any concurrent private value that the same informational contents may have, and thus eliminates any incentive toward their private acquisition.¹³ At the same time, disclosure addresses effectively the under-production problem associated with information's public goods-like character. Indeed, in contrast to the position for individual investors, the firm is better able to internalize the value of information and therefore will have stronger incentives to produce it in the first place.¹⁴

Firms are also cheap information producers. Corporate information arises spontaneously within the company as a by-product of its business activity.¹⁵ Most of the time, the data have already been collected, registered and organized for managerial purposes, so that their subsequent external delivery causes almost no additional costs. The individual investor, by contrast, is in a position of greater distance with respect to corporate information: he is an outsider, and in order for the information to be produced he has to incur substantial costs. Disclosure addresses these problems: it constitutes a cost-effective organizational feature which allocates the task of information production to the subject that is closest to the contents that have to be produced.

Finally, disclosure reduces transaction costs and enhances liquidity. In a world without disclosure, each individual seller of "good" securities has to incur costs for the collection, processing and

transaction such as a merger or an acquisition, the company's quarterly earnings, and so on). The gains realized by the winners of such a race correspond to the losses of the respective counterparties, with few benefits in terms of the enhanced informational efficiency of market prices. The expenditures that have been made for the production or derivative acquisition of such information, however, constitute real costs, so that the net social value of these activities is negative. See Easterbrook-Fischel, *supra* note 1, at 682; Beaver, *supra* note 1, at 324. Coffee, *supra* note 8, at 733-734. An early theorization of such an argument has been elaborated by Jack Hirschleifer, *The Private and Social Value of Information and the Reward to Inventive Activity*, 66 Am. Econ. Rev. 561 (1971).

¹¹ Easterbrook-Fischel, *supra* note 1, at 682.

¹² See Easterbrook-Fischel, *supra* note 1, at 682-683.

¹³ See Schön, *supra* note 4, at 25-26; see also Douglas W. Diamond, *Optimal release of Information By Firms*, 40 J. Fin. 1071 (1985), for a formal model.

¹⁴ Easterbrook-Fischel, *supra* note 1, at 683.

¹⁵ See Zohar Goshen & Gideon Parchomovsky, *On Insider Trading, Markets, and "Negative" Property Rights in Information*, 87 Va. L. Rev. 1229 (2001), at 1247. Kitch, *supra* note 4, at 775-6. Incidentally Arrow, *Economic Welfare and the Allocation of Resources for Invention*, *supra* note 8, at 170;

certifying of information. Disclosure relieves sellers of these tasks and provides markets with a thick and reliable informational framework in which trading can take place.¹⁶

Investors are thus better off in many respects with disclosure and would be willing to have it as an organizational feature of the company. In turn, insofar as it is valuable for investors, disclosure is correspondingly valuable for the firm itself. Indeed, structuring the company as a transparent firm will enable managers and promoters to obtain a comparatively higher share price at the IPO stage. Competition among firms for financial resources will finally make disclosure a dominant trait of the public company. Therefore, the argument concludes, a strong spontaneous incentive toward voluntary disclosure exists.¹⁷

The strength of this basic self-interest model for disclosure is further corroborated by the “unravelling” results obtained in the economic theory.¹⁸ Since the release of “good news” lowers the firm’s cost of capital, there is a natural interest in the disclosure of positive information. For the same reasons, an equal and reverse incentive to refrain from disclosing “bad news” exists, since to do so would increase the company’s cost of financing. In more general terms, there will be a natural tendency toward a somehow distortive disclosure policy, tending to emphasize or overexpose the positive information regarding the firm and at the same time to conceal the negative information.¹⁹

We have already pointed out that external devices such as anti-fraud rules and reputational intermediaries tend to assure the substantial completeness and truthfulness of the information released: the unravelling result predicts that firms in equilibrium will disclose all information, irrespective of whether it is favourable or unfavourable, and provides therefore a further argument for a spontaneous outcome of complete and fully revealing disclosure. The mechanics whereby this result is achieved can be roughly summarized as follows: when taking financing decisions, investors anticipate the existence of the incentive to withhold unfavourable information, so that they will interpret any failure to disclose as a signal of undisclosed bad news. Firms, expecting such a reaction, will tend to disclose both good and bad news, except extremely disadvantageous information. Investors will in turn anticipate such an outcome, so that they will always “assume the

¹⁶ Easterbrook-Fischel, *supra* note 1, at 684.

¹⁷ For similar considerations, see *Id.*, at 682-5.

¹⁸ Early formalizations of the model are contained in Sanford J. Grossman, *The Informational Role of Warranties and Private Disclosure about Product Quality*, 24 J. L & Econ. 461 (1981); and Paul R. Milgrom, *Good News and Bad News: Representation Theorems and Applications*, 12 Bell J. Econ. 380 (1981). See also Schön, *supra* note 4, at 16-17, for a comprehensive account of the main results and implications of the model; Gertner, *Disclosure and unravelling*, in *The new Palgrave Dictionary of Economics and the Law*, London, McMillan, 1998, at 605.

¹⁹ Such an outcome is a common feature of every competitive market, and can be viewed as the result of the natural tendency that any seller has to *promote* his product, rather than to make a fully revealing and unbiased description of its features.

worst” where there is a failure to disclose.²⁰ The company recognizes this potential result, so that a final equilibrium is reached in which all – unless perhaps exceptionally negative, “end of game”-like information – is fully revealed.²¹

3. Critique of the self-interest model and the economic case for mandatory disclosure.

The major arguments supporting the self-interest model of disclosure – the solution it gives to investors’ collective action problems and the unravelling dynamics – have both been criticized, and today there seems to be general agreement upon the desirability of a mandatory disclosure system.²² Curiously, the case against a system of voluntary disclosure lies on the same ground on which such a self-interest model is built: while the negative effects associated with the absence of coordination *among investors* constitute the principal theoretical pillar of any equilibrium of full voluntary disclosure by the firm, the absence of coordination *among firms* – and thus another collective action problem – constitutes the major weakness in the self-interest model of disclosure.

²⁰ Easterbrook-Fischel, *supra* note 1, at 683.

²¹ See Schön, *supra* note 4, 16-17.

²² The issue of the desirability of a mandatory disclosure system – as opposed to market-based approaches to the issue of information production in capital markets – has been the object of a long-lasting debate, which started with the seminal contributions of George Stigler and George Benston, who both adopted a critical perspective on the U.S. federal securities regulation enacted in 1933 and 1934 in response to the 1929 market crash. See George J. Stigler, *Public Regulation of the Securities Market*, 37 J. Bus. 117 (1964); George J. Benston, *Required Disclosure and the Stock Market: An Evaluation of the Securities Exchange Act of 1934*, 63 Am. Econ. Rev. 132 (1973). Another early and influential contribution that shares the same critical perspective is the one of Henry Manne, which ignited the debate on insider trading. Manne, *Insider Trading and the Stock Market*, (New York, Free Press ed., 1966). As noted above, today there seems to be general agreement among scholars on the desirability of such regulation as a means both of protecting investors and further developing securities markets. Rather than being definitively extinguished, however, the debate has somehow shifted from its original terms: in the U.S. today the dilemma is no longer between mandatory disclosure and full deregulation, but rather between a model of centralized, federal regulation and a Delaware-like model, based on the issuer’s choice between different and competing regulatory options. See Roberta Romano, *Empowering Investors: A Market Approach to Securities Regulation*, 107 Yale L.J. 2359 (1998) [hereinafter *Empowering Investors*]; Id., *The Need for Competition in International Securities Regulation* (Yale ICF Working Paper no. 258, 2001), available at <http://papers.ssrn.com/abstract=278728> [hereinafter *The Need for Competition*]; Fox, *supra* note 5; Stephen J. Choi & Andrew T. Guzman, *National Laws, International Money: Regulation in a Global Capital Market*, 65 FORDHAM L. REV. 1855 (1997). See also Bainbridge, *supra* note 1, for a review of the debate (at 1028-34) and another perspective on the issue); further viewpoints are offered by Edward Rock, *Securities Regulation as Lobster Trap: a Credible Commitment Theory of Mandatory Disclosure*, 23 Cardozo L. Rev. 675 (2002); Mahoney, *supra* note 5. Finally, a comprehensive survey of the empirical literature is provided by Healy-Palepu, *Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature*, 31 J. Acct. & Ec. 405 (2001).

The argument is usually stated in terms of externalities associated with a firm's decision to disclose.²³ For further clarity, it is useful to group such externalities into three different categories: (a) externalities arising from the release of information useful for competitors, (b) externalities arising from the usefulness of information for investors of different firms and (c) externalities arising from the usefulness of the information for prospective investors.²⁴ At first, a firm's decision to disclose might be beneficial for its competitors: they might gain useful insights about specific strengths and weaknesses of the company, future plans, strategies, technological advancements, and so on. The public release of this information reinforces the competitive position of rival firms and harms the disclosing firm to the same degree.²⁵ Information is valuable for competitors and they would pay the company to have access to such information, yet as free-riders they cannot be charged. The disclosing firm fully bears the costs associated with disclosure, but it cannot capture the whole value of the information. The usual outcome of this mismatch is the under-production of information.

Similar externalities arise in the relations between investors and the disclosing firm: in many instances, a company's disclosure will be beneficial for investors in competing firms or, more generally, in firms whose business is related to that of the company.²⁶ Thanks to disclosure, investors in related firms will be better able to elaborate comparisons and therefore to assess more precisely the value of such related entities. Related companies, in turn, will indirectly receive some benefits – in terms of increased liquidity of their shares and decreased cost of capital – without bearing the relevant costs. Even in this case, information with comparative value is important for third-party investors – and they would pay for it – but in fact they free-ride on the company's

²³ In the literature the argument is stated in various ways and using various terminologies: see, e.g., Easterbrook & Fischel, *supra* note 1, at 685-7 (using the expression "third-party effects"); Fox, *supra* note 5, at 1345-55. Romano, *Empowering investors*, *supra* note 22, at 2368 and 2380-1. See also Anat R. Admati & Paul Pfleiderer, *Forcing Firms to Talk: Financial Disclosure Regulation and Externalities*, 13 Rev. Fin. Stud. 479 (2000), for a formal model that takes into account the presence of such externalities for a firm's decision to disclose.

²⁴ Another useful taxonomy is the one adopted by Ronald A. Dye, *Mandatory versus Voluntary Disclosures: The Cases of Financial and Real Externalities*, 65 Acct. Rev. 1 (1990), at 2, who distinguishes between real and financial externalities associated to disclosure:

"A disclosure by one firm is said to create a real externality for other firms if the disclosure alters those firms' cash flows. For example, the disclosure of a firm's trade secrets generates positive real externalities for its competitors. In contrast, a disclosure by one firm generates only financial externalities on other firms if the disclosure has the potential of altering the equilibrium prices of those firms without altering the actual distributions of their cash flows. Financial externalities arise when one firm's disclosures affect only investors' perceptions of the distributions of other firms' cash flows".

²⁵ See *infra*, note 36 and accompanying text.

²⁶ See Easterbrook & Fischel, *supra* note 1, at 685-6; Sharon Hannes, *Comparisons Among Firms: (When) Do They Justify Mandatory Disclosure?*, 29 Iowa J. Corp. L. 699 (2004).

disclosure, with the familiar outcome of under-production. The same dynamics affect the relationship between the disclosing firm and prospective investors: they receive a benefit from the company's decision to disclose, since this activity enhances their evaluation of the firm's stock and helps them in their decision over whether or not to invest in the company. However, as "potential" investors, they do not pay for such benefits and, contrarily to current shareholders, they do not bear the costs associated with disclosure.²⁷

The externalities associated with disclosure lead to a divergence between the private and social value of the firm's activity of information dissemination, which in turn causes information to be produced for a socially suboptimal amount.²⁸

The strength of the self-interest model of disclosure has been questioned from different standpoints as well. First, with regard to the truthfulness of the information disclosed, it has been pointed out that the absence of coordination among firms leads to a "prisoner dilemma" equilibrium, so that the dominant strategy for each company would appear to be to engage in some degree of "cheating", rather than full and voluntary compliance with high standards of transparency.²⁹

Secondly, some scholars cast doubts on the reliability of the application of the unravelling model to disclosure in securities markets, due to the fact that many of the assumptions on which the model is based are in fact absent in a "real" market environment. Indeed, once we take into account the fact that in certain situations the costs of releasing information are systematically greater than the marginal gain associated with disclosure, the signal conveyed by the decision to withhold information is no longer unambiguous for investors, who are therefore no longer able to infer bad news from silence. Consider the example of information concerning a significant technological breakthrough. The company which discovers the new technology would be willing to disclose the news immediately, since to do so would decrease its cost of capital. However, competitors' early access to the information would destroy most of its value. The possibility that due to competitive harm the cost of disclosing such "good news" exceeds the benefits makes the equation "no news" = "bad news" no longer valid, since in this case "no news" actually means "good news".³⁰ Investors

²⁷ This last dimension of the externality argument is less sound than might appear at a first glance: after all, it is in the best interest of current shareholders to keep potential investors on the same informational level as they are. This symmetry would facilitate transactions between current and prospective shareholders and thus make exit less costly. An easier exit is desirable *ex ante* and therefore value-enhancing for both the company and its current investors. Considerations of this sort, however, do not apply to the first two hypotheses of externality pointed out above, so that a strong case for market failure still holds.

²⁸ See *infra*, Part II, par. 4, for further considerations.

²⁹ Jonathan R. Macey, *Efficient capital markets, disclosure and Enron*, 89 Cornell L. Rev. 394, 414-7 (2004).

³⁰ See Schön, *supra* note 4, at 17. *Incidentally*, G. A. Feltham & J. Z. Xie, *Voluntary financial disclosure in an entry game with continua of types*, 9 Contemp. Acct. Res. 46, 49 (1992). See also Joshua Ronen & Joshua Livnat, *Incentives for Segment Reporting*, 19 J. Acct. Res. 459, 475 (1981). Easterbrook & Fischel, *supra*

will be no longer able to unravel the meaning of a firm's denial to disclose and the mechanics of unravelling will inevitably deviate from the desired outcome of a comprehensive disclosure.³¹

II. THE FIRM'S NEED FOR CONFIDENTIALITY AND THE CONFLICT WITH DISCLOSURE

1. Some preliminary remarks

Despite mandatory regulation and market pressures in favour of disclosure, public companies are never fully transparent: they usually retain large amounts of data and often release only the information that is strictly required by regulation, refusing to give further details of what has already been made public in accordance with their duties.

The lack of transparency of public companies is usually associated with opportunistic behaviour: a firm's failure to disclose or its attempt to refrain from the communication of further details and specifications is often read as a signal that something has gone wrong, and which management is trying to conceal. By the same token, mandatory disclosure is almost always interpreted as one of the most prominent and powerful instruments for achieving effective investor protection.³² By itself however, non-transparency is not necessarily tantamount to acting against shareholders' interests, nor is it a way to avoid communicating bad news or "truths" that management's self-interest would like to keep hidden from the knowledge of investors. On the contrary, secrecy is often a powerful instrument in the pursuit of the interests of shareholders.

More specifically, depending on the kind of information that is kept secret – and correspondingly to the kind of third party that would benefit from the access to it – confidentiality constitutes a means

note 1, at 677. Indeed, disclosure is usually modelled as costless: see Fishman-Hagerty, *Mandatory disclosure*, in *The new Palgrave dictionary of economics and the law*, Peter Newman eds., London, Macmillan, at 605; Gertner, *supra* note 18, at 608 (highlighting the fact that the disclosure of performance information by the firm might lead to a failure of the unravelling mechanisms). Furthermore, in a real world scenario a firm's silence might also mean "no news", in the sense that no new relevant data have arisen yet: see Masako N. Darrough, *Disclosure Policy and Competition: Cournot vs. Bertrand*, 68 *Acct. Rev.* 534 (1993), at 537.

³¹ See Easterbrook & Fischel, *supra* note 1, at 687-8; Michael D. Guttentag, *An Argument for Imposing Disclosure on Public Companies*, 32 *Fla. St. U.L. Rev.* 123 (2004), at 153-154.

³² See Easterbrook-Fischel, *supra* note 1, at 693-5, for a critical view to this approach.

of: **(a)** strategic contractual interaction,³³ as it is the case of a firm's relations with employees, customers and suppliers. We may take as an example the information regarding production costs and earnings of a certain line of business: if it is known that a specific line of business is particularly profitable, this will lead employees to ask for higher wages, suppliers to bargain for more generous contractual terms and customers to demand lower prices.³⁴ Here confidentiality protects bargaining power,³⁵ since it prevents counterparties from inferring strategically important information, such as the company's reservation price.

(b) protection of a firm's competitive position in the product market: in contrast to the previous example, here the need for confidentiality does not refer to a contractual relationship between the company and a stakeholder pursuing an opposite interest within a negotiation process. In this case confidentiality provides a way of protecting the firm's competitive position against rivals, whose access to sensitive information would put the company at a competitive disadvantage (competitive harm).³⁶ Recalling the previous example, keeping the information concerning abnormal line-of-business profitability confidential delays the entry of new competitors into the relevant market. Without disclosure they have to discover first the existence of the area, and they must do this using their own means. Therefore, by maintaining this information secret the company is able to shield its earnings from immediate competitive pressure and to protect its sources of profitability for a longer period of time.

In both cases confidentiality is in the plain interest of shareholders and constitutes an instrument for protecting the firm's costly investments from free-riding by rivals or counterparties.³⁷ From this

³³ Contract law usually forbids parties to give each other false information during the negotiations, but it generally acknowledges the need to retain a certain lack of transparency. More specifically, in some circumstances it allows parties to refrain from disclosing significant information that would have been useful for the counterparty. Such a right of non disclosure – especially when granted to the buyer – is aimed at protecting private incentives for the acquisition of new information: see Kronman, *Disclosure, Mistake, and the Law of Contracts*, 7 J. Legal St. 1 (1978), 2, 13-18; Shavell, *Acquisition and Disclosure of Information Prior to Sale*, 25 RAND J. Econ. 20 (1994), esp. 21, 33. See also Levmore, *Securities and Secrets: Insider Trading and the Law of Contracts*, 68 Va. L. Rev. 117 (1982), 132-144.

³⁴ See note 88 and accompanying text.

³⁵ Admati-Pfleiderer, *supra* note 23, at 480.

³⁶ The threat of competitive harm as a consequence of excess disclosure is recognized by many authors: see, e.g., Schön, *supra* note 4, at 19-22; Fox, *supra* note 5, at 1345; Easterbrook-Fischel, *supra* note 1, at 686; Admati-Pfleiderer, *supra* note 23, at 480. Kahan, *Games, Lies and Securities Fraud*, 67 N.Y.U.L. Rev. 750 (1992), at 777-8; Oved Yosha, *Financing Innovation: is Transparency a Two-Edged Sword?* 7 (Tel-Aviv University Working Paper No. 14, 2003); Kitch, *supra* note 4, at 848, also for an analytical recognition of the firm's interest in confidentiality in the light of the threat posed by a mandatory disclosure regime oriented to price-accuracy goals (846-857), and historical references (865-874).

³⁷ The firm's decision to disclose in the light of the threat to give rivals and counterparties competitive advantages has been modelled by Alfred Wagenhofer, *Voluntary Disclosure with a Strategic Opponent*, 12 J. Acct. & Econ. 341 (1990); Masako N. Darrough & Neal M. Stoughton, *Financial Disclosure Policy in an Entry Game*, 12 J. Acct. & Econ. 219 (1990); Newman & Sansig, *Disclosure Policies with Multiple Users*,

standpoint, confidentiality is a *de facto* means of coping with information's public goods-like nature, so as to achieve a full-appropriation outcome that protects *ex ante* the system of private incentives to search for and produce new information. Indeed, as we will see in greater detail below, protecting the firm's interest in confidentiality is often aimed at protecting the private incentives for business and technological innovation, and has therefore a straightforward dimension of social utility.³⁸

2. Elements that shape the tension: multi-audience setting; analytical vs. synthetic information.

The scope and magnitude of the conflict between disclosure and confidentiality are shaped in general terms by two major elements: first, the emergence of the conflict depends on the “multi-audience setting”³⁹ in which information communication in securities markets takes place. Disclosure basically consists of a widespread *publication* of data which by definition does not allow the issuer to retain any control over the subsequent circulation of the information. Once a piece of information has been disclosed (made public), the issuer loses any capacity to keep those parties in respect of which it seeks to maintain confidentiality outside the area of the potential recipients of the information. On the contrary, bilateral forms of information release do not create problems of this sort, since in this case no public disclosure occurs and the firm can effectively protect its interest in confidentiality by way of a confidentiality agreement with counterparties. From this perspective, private financing shows a clear comparative advantage compared to public financing, through debt or equity public offerings: the investor can obtain all the information it needs for an accurate estimation of the risks and returns associated with the investment, while the firm does not experience any cost in relation to the release of the information, due to the fact that its interest in

31 J. Acct. Res. 92 (1993). Greg Clinch & Robert E. Verrecchia, *Competitive Disadvantage and Discretionary Disclosure in Industries*, 22 Australian J. Mgmt. 125 (1997). Gil Sadka, *Financial Reporting and Product Markets: Learning from Competitors*, unpublished manuscript, on file at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=556183. Feltham & Xie, *supra* note 30. Ronald A. Dye, *Proprietary and Nonproprietary Disclosures*, 59 J. Bus. 331 (1986). Empirical research on the theme has been conducted by Yong-Chul Shin, *The Effect of Product Market Competition on Corporate Voluntary Disclosure Decisions* (2002); Sanjeev Bhojraj, Walter G. Blacconiere and Julia D. D'Souza, *Voluntary Disclosure in a Multi-Audience Setting: An Empirical Investigation*, 79 Acct. Rev. 921 (2004). See also the empirical work of Sidney J. Gray; Lee H. Radebaugh; Clare B. Roberts, *International Perceptions of Cost Constraints on Voluntary Information Disclosures: A Comparative Study of U.K. and U.S. Multinationals*, 21 J. Intl. Bus. Stud. 597 (1990), analyzing managers' perception of disclosure-related costs, and showing – among other results – how competitive harm is perceived as the most prominent form of harm (605-606).

³⁸ See *infra*, par. 4.

³⁹ The expression is taken from Bhojraj-Blacconiere-D'Souza, *supra* note 37.

confidentiality is effectively protected via contract. Therefore, all things being equal, with regard to private financing the amount of information disclosed is expected to be greater than that ordinarily disclosed in public markets.⁴⁰

Were it possible for the company to communicate with securities markets through more protective means, then the tension would disappear. As will be explained in greater detail in part IV, insider trading and selective disclosure are practices that reconcile the conflict, due to their capacity to sidestep the multi-audience setting problem. Indeed, they allow market prices to react to the information whilst at the same time by-passing the need for a parallel widespread publication of its contents.⁴¹

Secondly, confidentiality and disclosure end up coming into conflict insofar as the information which the firm is interested in maintaining confidential is the same as that which the market needs in order to assess the value of the company. There must be a certain degree of overlap between that which a firm is interested in keeping confidential and that which the market needs for price determination. In many cases, the different degree of “specificity” which usually characterizes the information that the company is interested in maintaining confidential (usually highly “analytical”) and the information requested by the market (less specific; “synthetic” rather than analytical) makes the tension disappear, or at least contributes to keeping it latent.⁴²

For instance, firms are typically interested in maintaining confidentiality over that set of technical data which might allow competitors to copy complex products or production processes (*enabling knowledge*⁴³), while more often than not they are indifferent to the disclosure of information concerning the cash flow effects associated with the sale of a new product or from the exploitation of a new technique, which is precisely what financial markets are interested in. Financial markets, in turn, are not directly interested in the chemical formulae of a new drug, or in the precise steps whereby a faster microprocessor can be produced at a cheaper price, which is exactly the information that the company is interested in keeping confidential (unless patent protection is achieved). By contrast, their interest covers related but different profiles, such as the efficacy of the new drug, as compared to competing products, or the precise extent of the reduction in production costs achieved by the new manufacturing technique. This mismatch in fact neutralises the tension

⁴⁰ See Guttentag, *supra* note 31, at 151-153; Campbell, *Optimal Investment Financing Decisions and the Value of Confidentiality*, 14 J. Fin. & Quantitative An. 913 (1979), esp. 920-1, for similar considerations.

⁴¹ See Easterbrook-Fischel, *supra* note 1, 687 et seq. More analytical considerations *infra*, part IV.

⁴² Such last notation refers mostly to the information belonging to the intellectual property area: see *infra*, par. 3 and 3.a.

⁴³ The expression is taken from Anton-Yao, *Little Patents and Big Secrets: Managing Intellectual Property*, 35 RAND J. Econ. 1 (2004) 1.

and allows firms to protect with safety their most sensitive data without any need to reject investors' demands for information.

However, recognizing the existence of this *de facto* divergence is a far cry from saying that no conflict exists. Indeed, there are strong theoretical reasons to believe that even the most analytical and technical contents – such as those relating to patents – are in principle relevant for capital markets. If we assume a “pure” scenario in which the interaction between the firm and outside investors is not mediated by the intervention of any third party and the issuer has to persuade the general public directly of its high-quality features, the interaction inevitably leads to the disclosure of all the significant information retained, no matter how technical it is and hence out of kilter with the standard financial information which is deemed to be what securities markets expect, as a result of the attempt to dissipate the natural scepticism of outside investors.⁴⁴ Absent any third party offering certification services and serving thus as a device to signal quality, the issuer will have to disclose all the available information upon which the alleged superior quality is based, since any failure to give investors further details will tend to be interpreted as a negative signal.⁴⁵ When, in turn, the high-quality features depend on some superior technology, the issuer will have to explain the factors that make that technology superior than the existing ones and demonstrate to the public that the embodying product or process actually works and achieves better results than rival products or processes. The interaction thus inevitably leads to the disclosure of most part of the information upon which the technology is based (*enabling knowledge*), with no chance to protect the firm's competitive position, in the absence of patent protection.⁴⁶

⁴⁴ After all, “disclosing more” is widely recognized as one of the most prominent instruments whereby firms try to influence their cost of capital: see the empirical study of Roger Debreceeny, Asheq Rahman, *Firm-specific determinants of continuous corporate disclosures*, 40 Intl. J. Acc. 249 (2005), esp. 252-256, also for further references and a comprehensive survey of the issue. On the other hand, the same beneficial effects for a firm's cost of capital are related to the “quality” of disclosed information, as represented, for instance, by the quality of accounting standards: see Lambert, Leuz, Verrecchia, *Accounting Information, Disclosure, and the Cost of Capital*, 45 J. Acct. Res. 385 (2007). Further empirical evidence in Richard Frankel, Maureen McNichols, G. Peter Wilson, *Discretionary Disclosure and External Financing*, 70 Acct. Rev. 135 (1995). Leuz & Schrand, *Disclosure and the Cost of Capital: Evidence from Firms' Responses to the Enron Shock*, available at <http://ssrn.com/abstract=1319646>; Schrand-Verrecchia, *Information Disclosure and Adverse Selection Explanations for IPO Underpricing* (2005) available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=316824.

⁴⁵ Nor will justifying the denial to disclose by the occurrence of competitive harm help the firm, since there are no devices to conclude univocally that the issuer is telling the truth. This is a plain application of the unravelling dynamics. See part I, notes 18-21, 30-31 and accompanying text.

⁴⁶ Of course, in the real world the company can still remain silent and refuse to provide investors with further details: more specifically, the firm will halt disclosure when competitive harm will outweigh the decrease in the cost of capital at the margin. Rejecting investors' demand for information, however, will inevitably increase the company's cost of capital and cause a mismatch between perceived quality (as represented by market pricing) and the “real” quality of the project. This divergence, in turn, will determine an undue financing difficulty for the disclosing firm. See *infra*, final part of par. 3.a. Indeed, the so called “funding

Moreover, from an opposite perspective even the most generic disclosures in securities markets show some degree of utility for a firm's competitors.⁴⁷ A "basic" financial statement like the balance sheet, for example, is the paradigm of that kind of information which we referred to above as what markets usually "ask" for and consider relevant for the purposes of price formation. At the same time it is equally emblematic of those kinds of data that firms are supposed to disclose "safely", with no concern about their competitive position. Nonetheless, the balance sheet conveys detailed information about a firm's size, production costs, assets and liabilities, and so on. These data are clearly significant for competitors, even simply due to the fact that they give a "raw picture" of the size of the rival. For the same reasons, it is reasonable to argue that their widespread publication causes some competitive harm for the disclosing firm.

All of these considerations suggest that any taxonomic approach to the issue of the conflict between disclosure and confidentiality is hardly practicable, and may even be misleading to some extent. Once we recognize that every kind of disclosure displays a certain degree of utility for a firm's competitors, and that almost every piece of information produced within the corporation is in principle valuable for financial markets, the key approach becomes the one that interprets disclosure choices not as the result of a preliminary distinction between what information has relevance for securities markets and what does not, or between which data have competitive relevance and which do not, but rather one that interprets these choices as being governed by an ongoing trade-off between the benefits deriving from disclosure (or – conversely – the costs related to any choice not to disclose) and the costs associated with competitors' (or counterparties') access to the information.⁴⁸

2a. A short digression: the IPO process and venture capital financing in the light of the conflict between disclosure and confidentiality.

The multi-audience setting in which disclosure takes place, in conjunction with the large overlap between information that is relevant for securities markets and information that the firm cannot

gap" for R&D activities is also explained in the light of the impossibility to conciliate disclosure – aimed at explaining the project's quality and thus at receiving funds at the "right" price – and the need to preserve confidentiality, aimed instead at preserving the project's future profitability. See Bronwyn H. Hall and Josh Lerner, *The Financing of R&D and Innovation* (2009), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1469119, esp. 9-10.

⁴⁷ See Darrough-Stoughton, *supra* note 37, at 221.

⁴⁸ See Masako N. Darrough, *Disclosure Policy and Competition: Cournot vs. Bertrand*, 68 *Acct. Rev.* 534 (1993), at 535.

disclose for competitive reasons, helps to explain some noticeable features of today's securities markets. More specifically, both the actual organization of the IPO process and the development of venture capital as a form of equity financing external to public securities markets can be explained also in the light of the tension between disclosure and the company's need for confidentiality. The development of market institutions specialized in sponsoring the firm during its floatation process can be explained not only as a result of economies of scale in the elaboration, processing and verification of information, but also as a consequence of the firm's need to protect some data from widespread publication.⁴⁹ Economies of scale explain the development of specialized institutions which perform these tasks professionally, but do not give any account of the fact that such tasks are carried out in a strictly confidential manner.

Recalling the previous hypothetical, when the high-quality/high-tech firm decides to go public, it can withdraw from fully revealing disclosure by hiring one or more reputational intermediaries. They will be granted access to all the relevant information with no limitation, since in such a setting of "customized" information communication the company can effectively protect its interest in confidentiality of the most sensitive data and then leave to the signalling power of the reputational dynamics the task of credibly communicating its superior quality features, with no need to give the public an over detailed – and thus harmful – explanation.⁵⁰

On the contrary, if there were no conflict between disclosure and the firm's need for confidentiality – i.e., recalling our initial line of reasoning, if there were no overlap between information that financial markets request and information that the company has to keep secret for competitive reasons – the IPO process would unfold in a different manner. More specifically, the process of information elaboration and verification that today few IPO sponsors carry out within a context of a marked confidentiality would be performed publicly by market analysts. An alternative process of this sort would be preferable compared to that based on restricted access to information by a few intermediaries, given the inherent stricter degree of accountability of a system in which any "reverse engineering" of the analysts' estimation can be effectively carried out, due to the public availability of all the relevant information upon which the evaluation is built. As noted above, if IPOs do not have such transparent features it is also because the firm cannot disclose to the general public all of the data which it retains.

⁴⁹ See Campbell-Kracaw, *Information Production, Market Signalling and The Theory of Financial Intermediation*, 35 *J. Fin.* 863 (1980), for a more comprehensive analysis of the economic rationale for financial intermediation, recognizing the role played by the need to protect the firm's interest in confidentiality. See also Gilson-Kraakman, *supra* note 8, at 604-605 (recognizing incidentally the role played by the issuer's need for confidentiality) and at 613-621, for a more extensive analysis of financial intermediation.

⁵⁰ See Easterbrook & Fischel, *supra* note 1, at 688.

Similarly, the firm's need to communicate its high quality features through means that protect it against competitive harm can explain the recent rise of venture capital as a form of equity financing completely external to public securities markets. So far, venture capital has been explained with reference to the solution it offers for the specific problems of informational asymmetry and moral hazard associated with the financing of high-tech, newly established companies.⁵¹ Indeed, the effective screening of innovative projects, the accurate selection of the ones that show the best chances of success and the close monitoring of the efforts that the recipient of the financing puts in developing the project require high expertise and the structuring of a customized financial relationship, capable of curbing more effectively-opportunistic temptations of unparalleled severity. These features can explain the rise of specialist intermediaries and many of the identifying features of the financing relationship. However, the "demand" for an effective reaction to quality uncertainty and agency problems does not explain, on its own, the fact that venture capital financing developed, albeit with all the special features highlighted above, *outside* public securities markets. The company's interest in confidentiality, which is particularly intense especially when the firm is in the start-up stage and operates in high technology industries, explains – at least partially – such a sharp diversion. Indeed, the bilateral nature of the financing relationship allows the venture capital firm to obtain all the information it needs in order to make an accurate assessment of the proposed project, without any risk of third-party access to the data that the firm is releasing.⁵² Within a public markets setting, such a complete informational flow cannot take place, given the competitive value of much of the information that the venture capital firm obtains. The disclosure of an amount of information that is lower than the optimal level, in turn, makes the option of a financing channel external to securities markets preferable for both parties. Indeed, the start-up company will be able to communicate the quality of its project more accurately, and the venture capital firm will be able to distinguish more precisely between good projects and "bad apples".⁵³

⁵¹ See generally, *inter alia*, Black-Gilson, *Venture capital and the structure of capital markets*, 47 J. Fin. Econ. 243 (1998); Klausner-Litvak, *What Economists Have Taught Us About Venture Capital Contracting*, in BRIDGING THE ENTREPRENEURIAL FINANCING GAP (2001); Gilson-Schizer, *Understanding Venture Capital*, 116 Harv. L. Rev. 874 (2003); see also Hall-Lerner, *supra* note 46, at 24-39, for a comprehensive survey of the literature.

⁵² It is worth recalling that venture capital firms not only have a comparatively deeper access to information that is relevant for the adoption of the financing decision, but are able to compare the data gathered within the context of each single operation. It is not unreasonable to expect that such internal "pooling" increases over time the forecasting ability of the VC firm and gives it unparalleled expertise in the specific industry sector in which she operates.

⁵³ From this perspective, venture capital arises as a solution to the "funding gap" problem affecting R&D-intensive firms: see Hall-Lerner, *supra* note 46, at 9. Of course, many other reasons explain the development of venture capital as a form of equity financing external to the public securities market. One of them, perhaps

3. Information in the area of patents and trade secrets in the light of the conflict between disclosure and confidentiality.

Patents and trade secrets refer to two types of information costly developed by the firm, for which the legislative recognizes a special proprietary interest, and consequently offers legal protection. The protection of the company's interest, however, is radically different in the two cases: as far as the information falling within the scope of patent protection is concerned, the regulatory structure is characterized by the entitlement to proprietary rights over the invention and the imposition of a parallel duty to disclose the information upon which the invention is based. With regard to trade secrets, the protection available is direct protection of the firm's interest in confidentiality, so that unauthorised release or theft of data and its subsequent unlawful exploitation are prohibited and punished. What the two have in common is the fact that the company's claim to exclusive rights to exploit the information is explicitly recognized and granted by the law (albeit through somehow opposite means, as noted above).

Obviously, the different structure of protection in the two areas affects the emergence of the conflict in its regulatory dimension. As regards the information covered by patents, there is no tension: the disclosure of the enabling knowledge constitutes a fundamental prerequisite for the award of patent rights, so that any provision that also requires disclosure to the financial markets by definition does not interfere with the set of rules which govern this form of intellectual property protection.

Matters are different, on the other hand, as regards the relationship between mandatory disclosure regulation and trade secrets law. In this case a rule which has the function of reconciling the conflicting effects of the two regimes is needed every time securities regulation leads to the disclosure of information covered by trade secrets protection. The U.S. legal system has a rule of this sort: indeed, issuers of securities in public markets are provided with a safe harbour that protects the firm's trade secrets from any potential interference arising from the set of disclosure duties in financial markets.⁵⁴ EU law on the other hand seems to favour the interest in disclosure in a more intense and unconditional manner.⁵⁵

In any case, however, the establishment of a safe harbour against disclosure obligations cancels out the friction on a regulatory level, but does not eliminate the natural pressure toward disclosure coming from financial markets. Indeed, when information covered by trade secrets protection is also significant for the securities market, each firm must nonetheless strike a balance between

the most prominent one – is that the costs of an IPO (and those related to the status of a public corporation more in general) are in any case too large for small start-up firms.

⁵⁴ See note 64 for further references.

⁵⁵ See *infra*, part III, par 3.

“pleasing” investors’ desires and preserving its competitive position in the product market. As for many other “business dilemmas”, the decision will be driven by a cost-benefit evaluation of the two alternatives.

3.a Disclosure and confidentiality with respect to the information belonging to the patent area: the case of the R&D races.

Much of the information in the area of patents is not of any direct relevance for financial markets. As noted above, securities markets usually request data of a financial or business nature. *De facto*, they are not interested in information with strict technological contents, which is exactly what the firm is interested in maintaining confidential on the one hand, and which constitutes the proper scope of patent protection on the other hand.

However, the tension tends to re-emerge when the company prefers to waive the protection offered by the patent and opts out for secrecy because, for instance, the latter is deemed to offer greater protection.⁵⁶ More importantly, in many instances the firm’s interest in confidentiality goes beyond the scope of patent protection and expands to different but related areas, for which patent protection is clearly not available. It is with regard to these areas that the tension with investors’ demands for information arises explicitly.

Especially within high-technology industries, firms are usually interested in maintaining the strictest degree of confidentiality over their R&D activities, at least during the early stages of development of the new product or process, and in general until they obtain legal protection for them. Even the release of extremely vague information, such as the specific research path followed and the estimated probabilities of success could be particularly harmful for the disclosing firm. This is especially true in the context of R&D races, typical of the pharmaceutical and electronics industries.⁵⁷

The rise of a manifest interest in confidentiality, however, is not an automatic outcome of the competitive pressure generated by the race. It depends on the specific signal that the disclosure of

⁵⁶ Sometimes secrecy can also be used as a complementary tool with respect to patent protection, as in the case of the intermediate results in an R&D race: see Cheung, *Property Rights in Trade Secrets*, 20 *Econ. Inquiry* 40 (1982), at 42.

⁵⁷ See Sudipto Bhattacharya and Jay R. Ritter, *Innovation and Communication: Signalling with Partial Disclosure*, 50 *Rev. Econ. Stud.* 331 (1983), for a formal model of the trade-off between giving competitors valuable information and obtaining better financing terms through the disclosure of technological information. See Guo-Lev-Zhuo, *Competitive Costs of Disclosure by Biotech IPOs*, 42 *J. Acct. Res.* 319 (2004) for an empirical analysis of competitive costs related to disclosure in the biotech industry.

information with competitive value sends to competitors. Within the context of a multistage R&D race for instance, a firm's disclosure of its success in achieving an intermediate step will inform competitors that the gap between them and the disclosing firm has grown larger. The increased distance, in turn, may discourage rivals and make them leave the race, leading to weaker competitive pressure for the disclosing firm. *Ex ante*, this should give the company an incentive to disclose the advance. However, the very act of disclosure may also have the opposite effect of increasing competition, because the good news about the firm's advance will inform competitors that the underlying technological problem can actually be resolved. Rivals are induced to reassess more optimistically their individual chances of success and thus encouraged not to abandon the race.⁵⁸ When disclosure is expected to produce an effect of this nature the firm making the advance has an obvious incentive to conceal the good news, even if the information is directly significant – as it is reasonable to suppose – for stock price determination in the securities market.

A parallel reasoning can be made for the opposite situation of information concerning failures. Disclosure may spread pessimism and induce rivals to abandon the race, to the benefit of the disclosing firm. However, at the same time it may also be harmful, because it indicates to competitors what the “wrong” way is, so that they are given the opportunity not to make the same mistake and to reallocate their resources in a more efficient manner.⁵⁹

No matter how the strategic interaction develops in each individual case, there are scenarios in which the value maximizing strategy for the firm will be to retain the information regarding the progression of its R&D activities. At the same time however, this information is clearly relevant for capital markets and is often able to have a direct and significant effect on stock prices. Information concerning significant advances or failures helps investors to adjust profitability forecasts and thus determines price reactions. Detailed information regarding the projects undertaken by the company is useful in order to evaluate the business and industrial strategy and therefore to determine the firm's medium or long-term outlook, and so on. Thus, there is a parallel strong pressure in favour of disclosure.

The value maximizing choice is the one that “stops” disclosure when the costs associated with the dissemination of information with competitive value start to outweigh the benefits. Once such a threshold has been reached, the avoidance of competitive harm – and thus the withholding of information – will be the “right” decision.

⁵⁸ See Jay P. Choi, *Dynamic R&D Competition under "Hazard Rate" Uncertainty*, 22 RAND J. ECON. 596, 596 (1991).

⁵⁹ See Guo-Lev-Zhuo, *supra* note 57, at 323; Yosha, *supra* note 36, at 6-7 (citing R. Stevenson, *CORPORATIONS AND INFORMATION*, Baltimore and London: The Johns Hopkins University Press, New-York: Free Press, 1980).

However, from now on the firm will experience an undue difficulty in raising finance. Suppose that company X's engineers have just overcome a critical obstacle in the development of an important R&D project, but that the estimated costs of disclosing the good news to the market outweigh the benefits. The company knows that its project now has more chances of success than before, given the emergence of new positive information, but such a newly optimistic revision cannot be translated into a subsequent stock price adjustment, since it would require disclosing the information to the public, and in doing that the company would end up worse-off. From now on, the "incremental" external financing of the project will be more difficult, given the mismatch between real and "externally perceived" chances of success caused by non-disclosure.

The existence of a trade-off of this sort has obvious importance from a social welfare perspective. Indeed, due to the impossibility of the disclosure of the "right" amount of information, external financing will be excessively costly and some projects will not be pursued by the company, even if such a choice would have been economically sound.⁶⁰

3.b Trade secrets

In the area of trade secrets the tension between disclosure and confidentiality is even more intense than for patents. Indeed, most of the information usually covered by trade secret protection – e.g. lists of customers, distribution of revenues among different geographical areas, marketing techniques, etc. – proves to be of direct significance for securities markets.⁶¹ More specifically, all of the information which a firm holds concerning the structure and features of its product's market share is of direct importance in estimating the stock value, which means that there is a strong pressure in favour of disclosure. In parallel, this information is particularly valuable for rival firms, since it strengthens their competitive position at the expense of the disclosing firm.⁶² Consider as an example the information concerning the scheduled dates for the launch of a new product, such as an upgraded laptop with a new operative system: the information is particularly valuable for financial

⁶⁰ See note 46.

⁶¹ For a law and economics analysis of trade secrets see generally William M. Landes & Richard A. Posner, *THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW* 354-371 (Harvard University Press ed., 2003); Sidak, *Trade Secrets and the Option Value of Involuntary Exchange*, (2004). For a comprehensive comparison of trade secret protection with respect to other forms of intellectual property see Friedman, Landes, Posner, *Some Economics of Trade Secret Law*, 5 J. Econ. Persp. 61 (1991); Cheung, *supra* note 56, esp. 49-50; Besen-Raskind, *An Introduction to the Law and Economics of Intellectual Property*, 5 J. Econ Persp. 3 (1991), 23-25. See also Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J. L. & Econ. 265 (1977), at 275-280.

⁶² See Kitch, *supra* note 4, at 848.

markets, since it allows investors to estimate more accurately the firm's future cash flows. The premature disclosure of this information, however, might be extremely harmful: customers would learn of the new product and many of them would prefer to wait for the new version of the laptop instead of buying existing ones. Competitors will be given the chance for a timely (and thus more effective) reaction.

Similarly, the knowledge that the company operates with few major customers is clearly significant for securities markets, given that the degree of business concentration influences the distribution of future cash flows and makes it more dependent on the events which affect each individual relationship and counterparty. The estimation of the value of the firm, in turn, would be even more fine-tuned where the identity of each individual customer is known. In many cases however, keeping this kind of information confidential will have clear competitive importance for the company and such an interest is often directly covered by trade secret protection.⁶³

In the area of trade secrets the tension between disclosure and confidentiality reaches probably its highest level. As will be explained in greater detail below, the controversy that surrounded the adoption of segment reporting gives clear evidence of such an abnormal tension and represents a paradigmatic example of its emergence.

However, regulators are almost always aware of the existence of the tension and try to strike a balance between the two conflicting interests: as we shall see in greater detail below, U.S. securities regulation provides public companies with a safe harbour, in order to protect them from the harmful effects that disclosure obligations may produce on their competitive position,⁶⁴ and a parallel protection – perhaps less intense – is also provided under the recent EU prospectus directive, as well as under the regulation requiring the ongoing disclosure of price-sensitive information.⁶⁵

⁶³ Indeed, customer lists are usually protected as trade secrets.

⁶⁴ See, e.g., Regulation S-K, Item 101, 17 C.F.R. § 229.101(c)(ii) and NYSE Listed Company Manual § 202.06(A), last paragraph (available at <http://nysemanual.nyse.com/lcm/>). Further references in Romano, *Empowering Investors*, *supra* note 22, at nt. 64 and accompanying text; Kahan, *supra* note 36, note 133 and accompanying text. See also Kitch, *supra* note 4, at 846-874, for a comprehensive account of such trade-off.

⁶⁵ See part III, par. 3, for further references.

4. Competitive harm as an inter-firm cost and the “trade-off between transparency and innovation”⁶⁶

Competitive harm has been traced back to the set of externalities justifying mandatory disclosure. More specifically, it has been viewed as an inter-firm cost: the harm suffered by firm A as a result of the disclosure of sensitive information corresponds to a benefit for firms B and C. Conversely, the disclosure of a corresponding piece of information by firms B and C leads to an advantage for firm A. Therefore, on an aggregate level the costs that each firm individually bears as a result of disclosure are systematically offset by the corresponding benefits it receives when parallel disclosures are made by competitors.⁶⁷

From a social welfare perspective, the proper significance of such inter-firm costs is that they lead to a divergence between the private and social costs associated with disclosure, which in turn leads to a market failure.⁶⁸ In such situations, firms as a whole would be indifferent to the disclosure of information with competitive value, since the relevant costs would be systematically offset when all firms engage in the disclosure of the same amount of information. Moreover, insofar as the release of sensitive data is valuable for investors, firms as a whole would even have a “positive” interest in disclosure, because it would lower their cost of capital and increase their market value. Therefore, if they were able to coordinate their behaviour, they would agree to a contractual arrangement that imposed such a high level of transparency. Society as a whole would be also better off, given the enhanced market efficiency, and therefore the more precise allocation of resources associated with such a high-disclosure scenario.

Absent any coordination among firms however, the predictable outcome is the opposite: it is in the best interest of firm A not to disclose and try instead to free-ride on the different choice made by its peers, firms B and C. Firms B and C, in turn, will predictably opt-out for the same choice, hoping that firm A will not do the same, so that the dominant equilibrium will be non-disclosure. While

⁶⁶ The expression belongs to Hopt, *Company Law Modernization: Transatlantic Perspectives*, in *Rivista delle Società*, 2006, at 913. The potential trade-off between transparency and innovation is explicitly recognized, among others, by Yosha, *supra* note 36, at 1, Schön *supra* note 4; Guttentag, *supra* note 31, at 141-142 (arguing that the threat is eventually less severe than it might appear); and stated by Kitch, *supra* note 4, at 857.

⁶⁷ Fox, *supra* note 5, at 1345-6, who gives the following definition of inter-firm costs:

“Inter-firm costs [...] are costs only to the individual firm. They are not social costs because the inter-firm disadvantages to the issuer from the disclosure are counterbalanced by the advantages disclosure confers on the other firms”.

See also Guttentag, *supra* note 31, at 146-163, for an extensive critical analysis.

⁶⁸ Fox, *supra* note 5, at 1345-6.

such a choice is optimal for each individual firm, the weak-disclosure equilibrium that it generates is however socially sub-optimal, as highlighted above: financial markets will be less efficient than in the alternative, high-disclosure scenario; each firm's value will be lower.

At this point of the reasoning the claim for regulation arises: mandatory disclosure addresses this collective action problem and the consequent market failure, aligning the amounts of information produced to the social optimum.

Enhanced disclosure would also have a beneficial side-effect in the product market, in terms of enhanced competition and reduction of the areas characterized by abnormal returns and monopolistic rents: disclosure of profitable business segments, for instance, helps potential competitors to detect and then enter the relevant market, driving prices more quickly to competitive equilibria.⁶⁹ Following this line of reasoning, enhanced disclosure has not only the positive effect of increasing financial market efficiency, but also creates positive externalities in the product market.

If the financial-market side of this argument can probably be accepted without many reservations, the product-market side is by contrast more controversial. Indeed, the *ex post* benefits of enhanced competition have to be weighted against the negative effects that such a regime would have *ex ante*, in terms of the block on incentives in investing in innovation.

Consider as an example the disclosure of detailed information concerning firm A's future marketing strategies which this kind of hypothetical high-disclosure regulation would require: disclosure surely leads to *ex post* enhanced competition, since it allows firm A's competitors (B and C) to plan a more effective reaction to firm A's business strategy. Moreover, since the regulation establishes a level playing field for all firms, firm A is expected to have benefited from the parallel disclosures made by firms B and C, and therefore to have established a more effective business plan in the first place.

However, it is equally reasonable to expect that in this high-disclosure scenario the individual incentives in favour of business innovation would be weakened: indeed, given the possibility of easy free-riding, firm A might choose to invest less – or not to invest at all – in the search for new profitable lines of business. The same applies when information that has to be disclosed falls within the area of the company's R&D, as would be the case if the company were required to disclose information concerning the course of its R&D activities in excessive detail.⁷⁰

When excess disclosure leads to a sufficient level of free-riding, firm A's competitive strategy will turn from investing in innovation to a more "passive" behaviour, where waiting instead of "making the first step" increasingly becomes the value maximizing choice. As for firm A, such a passive

⁶⁹ See Schön, *supra* note 4, at 22.

⁷⁰ See Guttentag, *supra* note 31, at 143-145, for similar considerations. See also Fox, *supra* note 5, note 20.

strategy will in turn be the value maximizing one also for firms B and C.⁷¹ The overall amount of innovation that is produced – and the benefits for society that it usually brings with it – would thus be less than in the alternative weak-disclosure environment, in which each firm can effectively protect the value of its investments.

5. High-disclosure scenarios and ex post effects of weakened competition and enhanced innovation.

In the previous paragraph we have highlighted the existence of two major relations: at first, enhanced disclosure seems to be able to generate *ex post* stronger competition in the product market. Secondly, high disclosure may hinder *ex ante* the firm's incentives for business and technological innovation, due to the larger free-rider effects associated with rivals' broader access to sensitive data. Enhanced disclosure, however, may also weaken competition in the product market, and empower innovation. The former effect occurs in two different cases: at first, high disclosure facilitates the adoption of predatory practices against the disclosing firm. This is what happens when the company has an already weak competitive position in the product market and rivals take advantage of the access to the firm's financial data. The German Axel Springer case gives an excellent example of this scenario.⁷² Secondly, high disclosure could favour anti-competitive behaviour, such as collusive agreements, since it increases the amount of information shared between rival firms. This is especially true when excess disclosure takes place within a context of oligopolistic competition in the product market.⁷³

The second type of relationship – high disclosure as a factor of enhanced innovation – is associated with the beneficial effects that disclosure produces *ex post* on the inventive process as a whole. High disclosure leads to a larger level of information sharing between inventive units. The increase in the level of information sharing in turn speeds up the inventive process and makes its functioning more smooth and efficient⁷⁴. Moreover, the larger amount of knowledge reciprocally shared reduces

⁷¹ For a similar reasoning with specific focus on trade secrets see Sidak, *supra* note 61, at 15-20.

⁷² See *infra*, part III, par. 3.b

⁷³ A more comprehensive analysis of the issue is contained in Schön, *supra* note 4, esp. 29-32 e 39-40. The point is also made – albeit in passing – by Masako N. Darrough, *Disclosure Policy and Competition: Cournot vs. Bertrand*, 68 *Acct. Rev.* 534 (1993), at 535. See also Carl Shapiro, *Exchange of Cost Information in Oligopoly*, 53 *Rev. Econ. Stud.* 433 (1986).

⁷⁴ This is precisely the rationale that underlies the “exchange” offered by the law between disclosure of the enabling knowledge and attribution of a right of exclusive exploitation to the inventor in patent law (the idea of the exchange is well-recognized in the Italian literature on intellectual property rights: see, e.g., Spada, *Parte generale*, in *Diritto industriale. Proprietà intellettuale e concorrenza*, edited by Auteri et al., 3rd edn,

the detrimental effects associated with the non-uniform distribution of information, leading to an overall more efficient allocation of resources for R&D.⁷⁵

Obviously, such benefits of *ex post* enhanced innovation have to be weighted against the corresponding detrimental effects that are likely to occur *ex ante* when too much information is disclosed. As highlighted in the previous paragraph, beyond a certain threshold excess disclosure leads to an “equilibrium of paralysis” where waiting becomes the value maximizing strategy and nobody has sufficient incentives to innovate. If such an equilibrium prevails, the circulation *ex post* of larger amounts of information is of scarce utility, since nobody will produce new knowledge in the first place. Within the context of intellectual property regulation, any disclosure requirement is strictly related to the attribution of a parallel right of exclusive exploitation to the inventor, so that private incentives are protected while a broad diffusion of knowledge is guaranteed at the same time.⁷⁶ On the contrary, any hypothetical high disclosure regime in securities markets would reduce

Torino, Giappichelli, 2009, 22). Indeed, the award of the patent can be interpreted as an incentive to forgo secrecy and opt out for disclosure, based on the premise that the granting of full and unlimited access to the enabling knowledge cannot be but beneficial for society’s further technological advancement. See, *inter alia*, Anton-Yao, *Patents, Invalidity, and the Strategic Transmission of Enabling Information*, 12 J. Econ. & Mgmt. Strategy 151 (2003), 151-152; Suzanne Scotchmer and Jerry Green, *Novelty and Disclosure in Patent Law*, 21 RAND J. Econ. 131 (1990), at 132 (also for a formal model of the firm’s decision to disclose/withhold the incremental innovation); Suzanne Scotchmer, *Standing on the Shoulders of Giants: Cumulative Research and the Patent Law*, 5 J. Econ. Persp. 29 (1991), at 39; Besen-Raskind, *supra* note 61, at 6; E. Harison, *Intellectual property rights, innovation and software technologies*, Elgar eds., Cheltenham-Northampton, 2008, 9 et seq, esp. 9-10. A different interpretation of the disclosure requirement is that offered under Kitch’s prospect theory of patent protection. See Kitch, *supra* note 61, esp. 287-288. The market power that the patent grants to the inventor over the innovation - and related exemption from pure competition in the relevant product market – can be interpreted as the price that society must pay in order to obtain not only the right amount of incentives *ex ante*, but also the right amount of information dissemination *ex post*. However, the benefits associated with a larger amount of information circulating *ex post* must be weighed against the negative effects that the grant of the patent in the first place might have on the process of incremental development. Indeed, any subsequent incentive for “inventing around” – on the basis of the “disclosed” enabling information – will be shaped by the power and amount of control that the patent grants to the original inventor over any subsequent development. This problem is particularly severe if it is assumed that the innovative process as essentially cumulative. On this kind of trade-off see Scotchmer, *Standing on the Shoulders of Giants, supra*.

⁷⁵ Therefore, for instance, the disclosure of detailed data regarding firm A’s success in the reach of an intermediate step of an R&D race puts all the other “inventive units” engaged in the development of the same research path in a situation of being able to discern the right way to be followed and thus to concentrate resources on the most promising option. Similarly, the disclosure of detailed information regarding R&D failures alerts others participants to the existence of a dead-end to be avoided and allows a timely reallocation of funds toward different avenues. In both cases, disclosure is harmful for the individual firm. However, accordingly to a pattern already encountered above, the disclosing firm should have benefited, in the planning of her R&D strategies and spending, from the corresponding disclosure made by its competitors, and thus from having adopted better decisions in the first place. The detrimental effects that nondisclosure produces *ex post* on the process of innovation are recognized – with regard to trade secrets as opposed to patents – by Robert G. Bone, *A New Look at Trade Secret Law: Doctrine in Search of Justification* 86 Cal. L. Rev. 241 (1998), at 266-267; Cheung, *supra* note 56, at 47.

⁷⁶ See *infra*, note 74.

the area of non-transparency whereby firms achieve a *de facto* privatization of the information produced at great cost,⁷⁷ without providing them with a functional substitute in order to protect their private incentives.⁷⁸

III. THE CONFLICT IN ITS REGULATORY DIMENSION

1. Introduction

We have already recalled the reasons underlying the desirability of a mandatory disclosure regulation and the counterarguments made in favour of alternative solutions that rely on firms' incentives and market pressures.⁷⁹ From the standpoint of the conflict between disclosure and confidentiality, the major advantage of a market-driven system of corporate disclosure is that it leaves the choice between what to make public and what to keep confidential to the subject who bears the economic consequences of this decision: the disclosing firm. Assuming that a strong incentive for disclosure exists even in the absence of mandatory provisions, and assuming that the firm will disclose both positive and negative information,⁸⁰ the equilibrium will be that of full and continuous disclosure up to the point at which the marginal cost of releasing a further piece of information exceeds its benefits.⁸¹ Thus, the decision whether or not to disclose will be governed by

⁷⁷ See Guttentag, *supra* note 31, at 129, who defines confidentiality as the “simplest form of intellectual property protection”. See also *Id.*, note 70.

⁷⁸ Some commentators believe that strong forms of proprietary protection of information – such as the patent system as currently shaped, especially in the U.S. – are ultimately counterproductive, and thus advocate its reform. See generally Mark A. Lemley, *Ex ante versus ex post justifications for intellectual property*, 71 U. CHI. L. REV. 129 (2004); Wu, *Intellectual Property, Innovation and Decentralized Decisions*, 92 Va. L. Rev. 123 (2006), also for a recognition of the debate (at 132-134) and further references. Similarly, some others point to the benefits of enhanced innovation and enhanced competitiveness associated with systems of weak intellectual property protection and larger information sharing: see Gilson, *The Legal Infrastructure of High Technology Industrial Districts: Silicon Valley, Route 128, and Covenants not to Compete*, 74 N.Y.U.L. Rev. 575 (1999). For the risks of the “anticommon tragedy” related to the excessive proliferation of patents in the biotech industry, see Heller-Eisemberg, *Can Patents Deter Innovation? The Anticommons in Biomedical Research*, 280 *Science* 698 (1998). However, even accepting the idea that the system of intellectual property – as currently shaped – should be weakened, there seems to be no dispute over the fact that the need for confidentiality should be protected in any case. On the contrary, it is reasonable to assert that such an interest should be protected even more in a legal environment in which patent protection has been weakened or removed.

⁷⁹ See part I, par. 2-3.

⁸⁰ In accordance with the unravelling result: see *infra*, notes 18-21 and accompanying text.

⁸¹ See note 48 and accompanying text.

a cost-benefit evaluation that takes into account the impact of any negative consequence – also in terms of competitive harm – related to the disclosure of corporate information.

A regulatory system in which the choice over how much information to disclose is left to the firm's evaluation is thus a system which by definition protects the company's interest in confidentiality. Moreover, assuming the market-driven incentives for disclosure work properly, the area of non-transparency is likely to be residual and would constitute the exception – rather than the norm – compared to disclosure. Indeed, the firm will refuse disclosure only for the most detailed and sensitive data (those informational contents for which the expected benefits associated with disclosure are clearly not capable of offsetting the costs), while it will be willing to disclose any other less specific information.⁸² In equilibrium, the amount of information disclosed will be always value-maximizing for both the firm and its investors. Thus, to leave to the firm the choice over what to disclose and what to maintain confidential seems to offer an efficient solution to the “dynamic” management of the tension between disclosure and confidentiality.⁸³

However, it would appear to be excessive to remove any positive duty to disclose only on the basis of these last considerations: after all, even accepting that the self-interest model offers an efficient solution to the trade-off between disclosure and confidentiality, the general arguments in favour of mandatory disclosure still hold, at least from a purely conceptual standpoint. More specifically, the self-interest model still suffers from the externalities and collective action problems associated with information production that we have already highlighted.⁸⁴ More importantly, once we take into account the existence of a certain level of “non-transparency in the interest of shareholders”, some

⁸² Competitive harm is likely to be positively correlated to the degree of specificity of the information disclosed, on the one hand, and to the promptness of its disclosure, on the other. Accordingly, securities markets can be deemed to be “more informed” when they receive information in greater detail (see Bipin B. Ajinkya, *An Empirical Evaluation of Line-of-Business Reporting*, 18 J. ACCT. RES. 343 (1980), at 344, for further references), on the one hand, and when they receive information earlier, on the other hand. Market pressures move in the direction of seeking both more detailed information and more timely disclosure. Competitive harm moves along the same two parallel tracks in the opposite direction. The cost-benefit trade-off will thus operate on both the degree of specificity of the information disclosed and the “timeliness” of its public release.

⁸³ As already seen, from this standpoint the issuer's lack of transparency or refusal to disclose does not constitute necessarily the symptom of “something wrong” going on within the company, nor the signal of management's disloyal or opportunistic behaviour that is being perpetrated at the detriment of investors. Similarly, “transparency” and the decision to disclose are not always and necessarily in the best interest of investors. See the example given in Easterbrook and Fischel, *supra* note 1, at 696. Instead, the concealing of some information from the securities market might offer a way of protecting the value of some of the company's assets against rivals' (or counterparties') expropriation, in the purest interest of the shareholders.

⁸⁴ See *infra*, part I, par. 3, for further considerations and bibliographical references. Of course, when the information that is “under-produced” in securities markets due to the externality problem is the one that has competitive value – as seems to be the case when the costs associated with its disclosure are interpreted as inter-firm costs – such an argument appears weaker than it was at a first glance. Indeed, it is precisely mandatory disclosure that – while addressing the collective action problem – at the same time weakens the system of private incentives for its production in the first place.

of the most important assumptions upon which the self-interest model used to rely on turn out to be lacking, as is the case for the unravelling dynamics. This newly reinforced weakness of the market-driven solution adds in turn a new “element” of desirability to the competing choice in favour of a regime of positive duties to disclose.

The costs of disclosure regulation have often been viewed as essentially represented by compliance and enforcement costs: on the private side of the issuers, the costs of hiring lawyers and consultants to avoid litigation and fines, as well as the opportunity costs represented by the managers’ diversion from their tasks; whilst on the public side of government and regulators, the costs of administering and enforcing the rules. Once we take into account the fact that compliance with too strict disclosure rules might also be the source of severe competitive harm for the issuer, and once we assume that such an outcome is a negative one, from a social welfare perspective, we have to add a new “figure” into the whole cost-benefit analysis that determines the desirability of a specific regulation, with respect to competing choices.⁸⁵

Regulation so far has always been quite careful in imposing too broad or unconditioned disclosure duties on public companies. Nonetheless, there are some “hotspots” in which the tension emerges clearly. The next paragraphs will be devoted to the analysis of these hotspots, as mainly represented by the accounting principles on segment reporting and the EU mandatory disclosure regulation on price-sensitive information. They will be followed by the analysis of two cases, which are highly illustrative of the consequences and implications of too broad or undifferentiated disclosure duties.

2. Segment reporting

Segment reporting is an accounting principle which requires firms to disclose disaggregated information in their financial statements, such as earnings distribution among different geographical areas or lines of business.⁸⁶ Supporters of the interests of disclosing firms have repeatedly expressed

⁸⁵ Related considerations are also contained in Mahoney, *Technology, Property Rights in Information, and Securities Regulation*, 75 Wash. U. L.Q. 815 (1997), text accompanying note 6.

⁸⁶ The literature on segment reporting is mainly empirical. Many authors focus on the correlation between segment reporting and accuracy in stock market prices, and on its effects in terms of increased competitive harm. See Ajinkya, *supra* note 82; Philip B. Berger & Rebecca Hann, *Segment Disclosures, Proprietary Costs, and the Market for Corporate Control* (2002), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=357780; J. L. Birt, C. M. Bilson, T. Smith & R. E. Whaley, *Ownership, Competition and Financial Disclosure* (2006), available at <http://ssrn.com.ezp-prod1.hul.harvard.edu/abstract=907852> (2006); Christine A. Botosan & Mary Stanford, *Managers’ Motives to Withhold Segment Disclosures and the Effect of SFAS No. 131 on Analysts’ Information Environment*, 80 Acct Rev. 751 (2005); Richard R. Simonds & Daniel W. Collins, *Line of Business Reporting and Security Prices: An Analysis of an*

concern over the competitive harm that may result as a consequence of the implementation of the principle. Disaggregated financial information constitutes a powerful instrument for competitors' access to the company's product market. Accordingly, the disclosure of disaggregated financial data would help rival firms to detect those areas where the company earns abnormal returns.⁸⁷

The detrimental effects of segment reporting may also go beyond the relations between the company and its competitors. Segment reporting could convey strategic information that many constituencies of the firm can exploit in order to gain more bargaining power. Disaggregated financial data regarding line-of-business profitability or the geographical distribution of earnings could indirectly reveal the firm's reservation price and give thus employees, customers and suppliers a strategic advantage in their negotiations with the company.⁸⁸

In response to these objections, proponents of segment reporting have highlighted the importance of enhancing the efficiency of financial markets,⁸⁹ as well as the *ex post* beneficial effects that the disclosure of disaggregated financial data produce on competition within the product market. Indeed, areas characterized by abnormal returns are areas characterized by *weak competition*. The disclosure of disaggregated financial information will make it easier for rival firms to discover – and thus subsequently enter into – such areas. This in turn will reduce supra-competitive rents in the product market. In the U.S., where segment reporting principles were first adopted, the importance of disaggregated financial disclosure for product market competitiveness – and therefore indirectly for antitrust and consumer protection purposes – was perceived by the regulator at the very outset,

SEC Disclosure Rule: Comment, 9 Bell J. Econ 646 (1978); Pamela Edwards & Richard A. Smith, *Competitive Disadvantage and Voluntary Disclosure: the Case of Segmental Reporting*, 28 Brit. Acct. Rev. 155 (1996); Michael Ettredge, Soo Young Kwon & David Smith, *The Effect of SFAS No. 131 on Numbers of Reported Business Segments* (2000) available at http://papers.ssrn.com/paper.taf?abstract_id=208549; Mary S. Harris, *The Association between Competition and Managers' Business Segment Reporting Decisions*, 36 J. Acct. Res. 111 (1998); Bertrand Horwitz & Richard Kolodny, *Line of Business Reporting and Security Prices: An Analysis of an SEC Disclosure Rule*, 8 BELL J. ECON. 234 (1977); Maines, McDaniel, Harris, *Implications of Proposed Segment Reporting Standards for Financial Analysts' Investment Judgements*, 35 J. Acct. Res. 1 (1997); C. Leuz, *Proprietary versus Non-Proprietary Disclosures: Evidence from Germany*, in THE ECONOMICS AND POLITICS OF ACCOUNTING: INTERNATIONAL PERSPECTIVES ON RESEARCH TRENDS, POLICY AND PRACTICE, C. Leuz, D. Pfaff, and A. Hopwood (eds), Oxford University Press, 2004, 164-197. Theoretical analyses of the issue have been carried out by Hayes & Lundholm, *Segment Reporting to the Capital Market in the Presence of a Competitor*, 34 J. Acct. Res. 261 (1996); Ronen & Livnat, *supra* note 30; Greg Clinch & Robert E. Verrecchia, *supra* note 37.

⁸⁷ See Botosan-Stanford, *supra* note 86, at 752; Harris, *supra* note 86, for consistent empirical evidence. The threat of competitive harm as a consequence of the disclosure of financial disaggregated data is highlighted, *inter alia*, by Kitch, *supra* note 4, at 858-859. See also notes 88 and 36.

⁸⁸ The potential utility that financial disclosure might present for a firm's constituencies has been highlighted by Fox, *supra* note 5, at 1345; Schön, *supra* note 4, at 15; Ettredge, Kwon & Smith, *supra* note 86, at 3.

⁸⁹ The most recent empirical literature confirms the effects of price accuracy enhancement associated with segment reporting: see Durnev, Fox, Morck, Yeung, *Required Line of Business Disclosure and Share Price Accuracy* (2007), also for a comprehensive survey of past empirical research on the issue (26-37).

as it is illustrated by the fact that the legislation requires disclosing companies to provide disaggregated information also to the Federal Trade Commission.⁹⁰

In support of the defenders of segment reporting, there is empirical evidence which suggests that firms refrain from disclosing disaggregated financial data in order to protect their position in weakly competitive business segments.⁹¹ The threat of competitive harm foreshadowed by those who oppose segment reporting is thus the threat of enhanced competition in product market areas where the firm has some sort of market power.

The beneficial effects of segment reporting – in terms of both *ex post* enhanced competition in the product market and enhanced share price accuracy – are thus indubitable. Few commentators, however, have focused on the *ex ante* effects, in terms of reduced incentives for business or geographical expansion in the product market, associated with the disclosure of disaggregated financial information.⁹² Sometimes a firm’s market power in certain business or geographical segments could have been achieved through costly investments in the search of new geographical areas or product lines in which to expand. As pointed out in the previous paragraphs, it might well be that within a context characterized by too early and detailed disclosure, each firm might lack sufficient incentives to “take the first step”.⁹³

3. EU ongoing mandatory disclosure provisions.

The EU securities regulation requires listed companies to disclose all price-sensitive information they retain on an ongoing basis. More specifically, Article 6(1) of the market abuse directive requires that all price-sensitive information emerging over time must be disclosed as soon as the contours of

⁹⁰ See Horwitz & Kolodny, *supra* note 86, at 235; brief mention is also made in Ajinkya, *supra* note 82, at 343. An example discussing the various consequences associated with the disclosure of disaggregated data about a company’s revenues is provided by Guttentag, *supra* note 31, at 166-169.

⁹¹ Harris, *supra* note 86.

⁹² See Schön *supra* note 4, at 8-9 and 11-12. Fox, *supra* note 5.

⁹³ There is no doubt that this line of reasoning probably adapts better to business than to geographical expansion, given that usually the company’s decision to enlarge the geographical scope of its business is based on information – such as data about a country’s growth rate – produced by third parties and almost always publicly available. On the other hand, however, it is equally true that before undertaking any significant expansion firms tend to gather more specific and tailored information. They normally hire consultants in order to obtain advice and receive reports for a more well-grounded decision. All such activities are clearly costly for the firm and subsequent too detailed disclosure might weaken the incentives toward this kind of investment.

such information become sufficiently definite.⁹⁴ The firm can opt out for confidentiality and delay disclosure “such as not to prejudice his legitimate interests”, but this safe harbour does not apply to cases in which some “informational leakage”⁹⁵ has occurred (e.g., market rumours), and in any case when to do so would mislead the market.⁹⁶

Besides its explicit anti-insider trading rationale⁹⁷ the rule has also an indirect efficiency-based function: the effect is that of enhancing price accuracy and thus the overall efficiency of the securities market.⁹⁸

It is difficult to predict the effects that the provision will have over time on the issuer’s disclosure policy, as well as the level of costs it adds to the public corporation *status*. As for many other cases in which regulators prefer general principles to the adoption of more detailed rules, much will depend on the “law in action”. More specifically, most of the actual severity of the rule will be determined by the prevailing attitude of regulatory agencies. Given the almost “natural” aversion that they traditionally have against any quest for less transparency advanced by the issuer, it is not

⁹⁴ See Article 6(1) of directive 2003/6/EC of the European Parliament and of the Council on insider dealing and market manipulation (market abuse) (28 January 2003) (*market abuse directive*).

⁹⁵ The expression is taken from Gilson-Kraakman, *supra* note 8, at 572.

⁹⁶ More specifically, Article 6(2) of the *market abuse directive* provides that “An issuer may under his own responsibility delay the public disclosure of inside information [...] such as not to prejudice his legitimate interests provided that such omission would not be likely to mislead the public and provided that the issuer is able to ensure the confidentiality of that information. Member States may require that an issuer shall without delay inform the competent authority of the decision to delay the public disclosure of inside information”. See Di Noia-Gargantini, *The Market Abuse Directive Disclosure Regime in Practice: Some Margins for Future Actions*, in *Rivista delle società (DeJure electronic file)*, 2009, 782, for a more comprehensive analysis. A correspondingly broad provision is established with regard to prospectuses: according to Article 5(1) of the prospectus directive (directive 2003/71/EC of the European Parliament and of the Council on the prospectus to be published when securities are offered to the public or admitted to trading and amending Directive 2001/34/EC (4 November 2003) “ [...] the prospectus shall contain all information which, according to the particular nature of the issuer and of the securities offered to the public or admitted to trading on a regulated market, is necessary to enable investors to make an informed assessment of the assets and liabilities, financial position, profit and losses, and prospects of the issuer and of any guarantor, and of the rights attaching to such securities. [...]”. Mirroring the provisions of the market abuse directive concerning ongoing disclosure duties, the prospectus directive establishes a parallel safe harbour aimed at protecting the issuer’s need for confidentiality. Indeed, according to Article 8(2)(b), “The competent authority of the home Member State may authorise the omission from the prospectus of certain information [...] if it considers that [...] disclosure of such information would be seriously detrimental to the issuer, provided that the omission would not be likely to mislead the public with regard to facts and circumstances essential for an informed assessment of the issuer, offeror or guarantor, if any, and of the rights attached to the securities to which the prospectus relates”.

⁹⁷ Indeed, the provision is part of a regulatory intervention aimed at tackling market abuses and it explicitly refers to the definition of “inside information” provided in the 2003/6/EC directive for the prohibition of the insider trading. See respectively Article 1(1) and Article 2 of the *market abuse directive*.

⁹⁸ Using the words of Mark Gordon, it is a “price perfecting” rule (Mark Gordon, *Governance Failures of the Enron Board and the New Information Order of Sarbanes-Oxley*, Harvard Law School Center for Law, Economics, and Business, Discussion Paper No. 416, 2003, at 4. See also Di Noia-Gargantini, *supra* note 96, text accompanying notes 31-32.

unreasonable to expect that the implementation and enforcement of the rule will be strongly biased in favour of disclosure.

As pointed out above, the rule does not unconditionally require disclosure. The company can delay the release of price-sensitive information, so that its need for confidentiality receives some protection. Accordingly, despite the potentially unlimited scope of the primary disclosure duty, the basic choice between what to disclose and what to keep secret – at least temporarily – is still left to the discretion of the issuer. Moreover, the severity of the rule is further limited by the very notion of “inside information”, which refers not to any kind of data which could in theory be liable to produce some price reaction, but only to information that is “likely to have a *significant* effect” on market prices.⁹⁹

The company’s right to delay disclosure does not apply to cases in which some informational contents have nonetheless reached the market, and where to delay disclosure would be “likely to mislead the public”.¹⁰⁰ In these cases the firm cannot simply remain “silent”, or issue a “no comment”. Instead, the firm has to carry out prompt and full disclosure of all the relevant information. The rationale for the first exception appears to be that of dissipating the inherent uncertainty – and related deceptive power – which tends to be associated with any unofficial circulation of price-sensitive information. Similarly, the second exception has its justification in the need to give prevailing protection to the integrity of the market: where “silence” is misleading, the private interest in protracting the situation of non-transparency – even if based on competitive reasons – must give way.

In its literal formulation the rule seems to be well-balanced and should not be capable of causing any unreasonable constriction of the private interest in confidentiality. As highlighted above however, the actual “toughness” of the rule will be mostly determined by regulatory agencies. Especially if they interpret too severely the conditions for access to the safe harbour, the firm’s need for confidentiality might end up being excessively jeopardized, with all the negative effects associated with such an outcome. The facts before the U.S. second circuit Court of Appeal in *SEC v. Texas Gulf Sulphur* – analysed in greater detail below – provide an extraordinarily useful framework against which to test the effects of such a rule within a real world scenario.

3.a *SEC v. Texas Gulf Sulphur*

⁹⁹ See Article 1(1) of the market abuse directive, quoted *supra* note 96 [italics added].

¹⁰⁰ See Article 6(2) of the market abuse directive, quoted *supra* note 96.

SEC v. Texas Gulf Sulphur (hereinafter *TGS*) is a leading U.S. case on insider trading.¹⁰¹ In the 1960s Texas Gulf Sulphur, a mineral company, discovered an area in Ontario which was extremely rich in mineral resources.¹⁰² The exploitation of the deposits would have had a strong beneficial impact on the company's earnings. For this reason, the discovery should have been kept confidential until the company had acquired the rights to exploit the area from the landowners. However, many employees of the company started trading in the firm's stock as soon as they became aware of the discovery. *TGS* is an insider trading case, and so the Court of Appeal mainly focused on issues of insiders' liability and did not directly address the problem of the company's need for confidentiality. The facts, however, are a powerful illustration of the tension between investors' demands for information and the firm's need for confidentiality. Therefore, they provide many interesting cues for further considerations, especially with regard to the effects of any hypothetical early disclosure duty, such as that established by the EU ongoing mandatory disclosure provisions referred to above.

If the company had been required to disclose the discovery in advance, it would have suffered the damages resulting from counterparties' and competitors' early access to the information: landowners would have raised the sale price and rival firms would have entered the negotiations, triggering an auction for the award of the exploitation rights.¹⁰³ With hindsight, the effects of such an early disclosure are clearly beneficial: informational symmetry between contracting parties and the rise of an auction for the award of the land would undoubtedly have led to an optimal pricing of the property. Moreover, even assuming that the company had retained full confidentiality on the discovery, it is reasonable to expect that the landowners would have nonetheless inferred that something was going on and that the firm was probably concealing part of the truth.¹⁰⁴

The discovery of the mineral deposits was however costly for the disclosing company, while no corresponding costs were incurred by either competitors or landowners, who would therefore have been free-riding on the investments made by a third party. From an *ex ante* perspective, the outcome correlated to any "early disclosure" rule is the same "wait and free ride" equilibrium encountered many times throughout this analysis: if *TGS* were mandated to disclose all information

¹⁰¹ *SEC v. Texas Gulf Sulphur Co.*, 401 F.2d 833 (2d Cir. 1968) (en banc), *cert. denied*, 394 U.S. 976 (1969).

¹⁰² See Macey, *From fairness to contract, The New Direction of the Rules Against Insider Trading*, 13 Hofstra L. Rev. 9 (1984), 17-18 and 43-47 et seq, for further references and a comprehensive analysis of the case.

¹⁰³ See Macey, *supra* note 102, at 44. Macey-Miller, *Good Finance, Bad Economics: An Analysis of the Fraud-on-the-Market Theory*, 42 Stan. L. Rev. 1059 (1990), 1071; Levmore, *Securities and Secrets: Insider Trading and the Law of Contracts*, 68 Va. L. Rev. 117 (1982), 132-133.

¹⁰⁴ After all, the very fact that a mineral company starts negotiations for the purchase of the area should alert landowners to the possible existence of some mineral resources and thus constitutes a powerful signal of some undiscovered value of the asset.

relating to the value of the land at an early stage, then its dominant strategy would have been to avoid the “first step” (in our example, incurring the costs of exploring for new mineral deposits), since it would have been more convenient in any possible scenario to wait and, where convenient, free-ride on the efforts undertaken by another.¹⁰⁵ Indeed, in such a scenario each player is always better-off by paying a competitive price for the exploitation of the mineral deposits without having incurred the costs of their discovery, than paying that competitive price after having incurred those costs.

However, whilst waiting is the value-maximizing strategy at the firm’s level, the same is not true from a social welfare perspective: in our example, the discovery would never have been made, and the mineral resources would never have been exploited. As pointed out above, similar reasoning can be easily extended to the discovery of new technologies and the development of new products or productive processes, as well as to the expansion to new geographical areas or business segments.

EU ongoing disclosure duties will not result in such scenarios as long as the major condition to access the safe harbour – the fact that the company’s “silence” may not mislead the market – will be interpreted consistently with the need to guarantee some space for the protection of the company’s interest in confidentiality. A market that does not embody in its prices – albeit temporarily – the good news represented by the discovery of the mineral deposits is surely less efficient than one that instantaneously reflects such an information. Is such a market “deceived” by the company’s silence? It is fundamental not to make the mistake of admitting such a coincidence, in order otherwise to prevent the actual extent of the safe harbour – set up exactly to delay the disclosure of *price-sensitive* information and thus implying by definition the occurrence of this temporary deviation from full efficiency – from in practice being eliminated.¹⁰⁶ However, the risk of such a “circular” interpretation is high, given the natural tendency of regulatory agencies to expand, rather than contract, the scope of disclosure duties.

As further justification for recommending a prudent implementation of the EU disclosure duties, it is also interesting to analyse the reaction that would have occurred in our example within an efficient stock market following the disclosure of price-sensitive information with competitive value. As pointed out above, the discovery of a rich mineral deposit constitutes by itself “good news” capable of driving market prices up. At the same time however, the premature disclosure of

¹⁰⁵ See Macey-Miller, *The Fraud-On-The-Market Theory Revisited*, 77 Va. L. Rev. 1001 (1991), at 1008. Similar line of reasoning is also followed in Remarks by Chairman Alan Greenspan Before the Society of Business Economists, London, U.K. September 25, 2002: “Regulation, Innovation, and Wealth Creation”, reported in Yosha, *supra* note 36, at 3-4 and available also at <http://www.federalreserve.gov/BoardDocs/Speeches/2002/200209252/default.htm>.

¹⁰⁶ See Di Noia-Gargantini, *supra* note 96, text accompanying notes 87-88.

this information would destroy most of its value. The reaction of an efficient stock market should thus be able by definition to reflect such a negative component. Indeed, “early disclosure” of the discovery conveys a different message from the one that the same piece of information would have conveyed had disclosure not occurred prematurely. In the *TGS* example, the real news embodied in the hypothetical early disclosure would not have been simply that “the company discovered a rich mineral deposit”, but rather that “the company has just lost the opportunity for a profitable exploitation of the discovery it made (and for which certain costs have been incurred)”.

If the market is efficient – as we assume in this hypothetical situation – it should be able to unravel the full meaning of the message, and react to it accordingly, so that the actual response should be a price drop, instead of a price increase. The reason for such seemingly paradoxical outcome is plain: early disclosure of the mineral discovery would have made it impossible for the disclosing company to take any first mover advantage from the “privileged” knowledge of the real value of the asset. Since most of the expected returns related to investments in the exploration for the deposits are derived from such first mover advantages, the *ex post* effect of early disclosure would be to waste a potentially profitable business opportunity. If in turn – as we assume – the expected value of the company’s exploration activities (which we have thus far assumed to have been positive) had previously been efficiently reflected in its market price, the market reaction to early disclosure could not be anything other than a fall in price, all other things being equal.¹⁰⁷

In the *TGS* case, as well as in any other similar scenario, confidentiality therefore constitutes a means of protecting the value of information which has been costly produced by the disclosing company. Early disclosure – on the contrary – is nothing other than a value-destroying activity that is inherently not dissimilar to any other kind of more “material” waste of corporate assets.

What then would shareholders prefer *ex ante*? The answer is less straightforward than it might appear at a first glance. If we adopt a purely “firm-specific” perspective, they would obviously ask management to refrain from early disclosure: on the one hand, it destroys value, as noted above,¹⁰⁸ on the other hand, it does not produce any marginal enhancement in informational efficiency, given that in an already efficient stock market the release of information that is detrimental to the firm constitutes a different message from the hypothetical price-increasing “good news” that the same

¹⁰⁷ Similarly, the price reaction to some “bad news” might even be positive, insofar as its disclosure enhances the position of the company in the product market. This is the case where the release of bad news serves as a signal to convey information about the existence of high entry barriers to potential competitors, so as to discourage their decision to enter the market. See Darrough-Stoughton, *supra* note 37, at 220.

¹⁰⁸ See D.W. Carlton, D.R. Fischel, *The Regulation of Insider Trading*, 35 *Stan. L. Rev.* 857 (1983), 867-868.

piece of information would have conveyed had disclosure occurred at the right moment.¹⁰⁹ However, shareholders usually hold diversified portfolios: since the harm that the firm experiences as a result of early disclosure is normally an inter-firm cost, it might well be that they will be indifferent with regard to a hypothetical choice in favour of early disclosure.¹¹⁰

The reality is however different: first, diversification strategies are usually structured on a cross-segment basis, while offsetting inter-firm costs would require “intra-segment” diversification (i.e.: holding stocks of all the companies operating in a specific industry sector instead of holding stocks in firms operating in different segments, as any principle of effective diversification would require¹¹¹). Secondly, if we accept the fact that early disclosure might discourage first moves and lead to an equilibrium in which nobody invests in innovation, the aggregate value of all firms would be less than under a scenario in which each single firm has the right incentives to innovate. Therefore, even a hypothetical perfectly diversified shareholder, able to fully neutralize inter-firm costs at the portfolio level, would be worse-off.

3.b *The ECJ’s Axel Springer case*

Three different features make the ECJ’s Axel Springer case significant for our analysis. First, in this case the European Court of Justice directly addressed the issue of the conflict between disclosure and the need for confidentiality (resolving it without much hesitation in favour of the former), while in *TGS* this was only an incidental issue.

Second, the law applicable in this case was not the “efficiency-oriented” disclosure regulation implemented within the most recent European reforms of securities regulation, but a provision properly belonging to the traditional core of corporate law.

Third, the facts before the court are themselves particularly interesting. The court was confronted with a case in which a mandatory disclosure provision had been exploited by a large company in an attempt to carry out a predatory action against a smaller competitor.

Axel Springer AG is a large German conglomerate operating in the newspaper industry. In 2002 it tried to enforce against *Zeitungsverlag Niederrhein GmbH & Co. Essen KG* – a small competitor

¹⁰⁹ On the possibility of even lying to the market in the interest of shareholders, see Macey-Miller, *supra* note 103, esp. 1072-1076. For a critical view see Ayres, *Back to Basics: Regulating How Corporations Speak to the Market*, 77 Va. L. Rev. 945 (1991). A comprehensive analysis of the issue of corporate lying, aimed at strategic or competitive reasons, in the light of securities regulation prohibiting fraud, is provided by Kahan, *supra* note 36.

¹¹⁰ See Romano, *Empowering Investors*, *supra* note 22, at 2368.

¹¹¹ Fox, *supra* note 5, at 1350 et seq.

company operating on a local basis – the rule requiring every limited liability company (and every partnership with a limited company as a general partner) to file its annual financial statements with the commercial register. Axel Springer asked the court to impose a fine on its competitor, which did not comply with the rule. The case went before the European Court of Justice which upheld Axel Springer’s claims and provided for a broad and unlimited interpretation of the EU regulation on which the disclosure duties are based.¹¹²

The rule requiring the filing of the balance sheet with the commercial register is clearly external to the area of securities regulation and irrelevant for its typical purposes. It falls outside the scope of investor protection in securities markets, and does not have any efficiency-enhancing rationale. Indeed, it refers to both private and public companies and constitutes a typical corporate law provision, which existed in many national jurisdictions well before harmonization. It is a device of “basic transparency” established in the interest of the general public and mainly intended to provide protection for creditors.¹¹³

Axel Springer’s successful attempt to force the disclosure of its competitor’s financial data was clearly aimed at extracting useful information about the strengths and weaknesses of the rival, which was instead trying to protect the confidentiality of this information – particularly precious given the disproportion in size between the two firms – in order to resist the competitive pressure and “survive” in the product market.

The facts in *Axel Springer* represent a clear attempt to carry out anticompetitive behaviour through the enforcement of a transparency rule set up for different purposes and perhaps which was drafted too broadly. As pointed out in the literature, the *Axel Springer* case casts doubts on how really persuasive the view is that increased disclosure always carries with it the benefit of enhanced competition in the product market, even when it causes competitive harm to the disclosing firm.¹¹⁴

Axel Springer however suggests further considerations: first, the competition-enhancing effects associated with transparency do not constitute an automatic outcome for any “strong-form” system of mandatory disclosure, but are heavily dependant on the type of competition characterizing each particular segment. If the market has a level playing field, including many firms with similar weight, these competition-enhancing effects are likely to occur. Indeed, the release of sensitive information by one player cannot be exploited for mere “predatory” purposes by the others, because

¹¹² See Schön, *supra* note 4, at 1-12 for a more comprehensive analysis of the case and further references to the relevant regulation. See also Yosha, *supra* note 36, at 9, for an account of a U.S. case involving again two companies operating in the newspaper industry, exceptionally similar to ECJ’s *Axel Springer*.

¹¹³ For further considerations see Schön, *supra* note 4, at 3-9 (who also points out how the rule does not establish a level playing field for all business entities, since partnerships and individual entrepreneurs are exempted from its application [at 7-8]).

¹¹⁴ For similar considerations see *Id.* at 29-32 and 39-40.

the size of the potential target is in any case too large for these attempts to be successful. This is not the case, however, where the structure of the market is uneven, with the result that disclosure, as in the *Axel Springer* case, might be used to force small competitors out of the market and therefore to reduce competition.

More importantly, undifferentiated disclosure rules always hinder competition from a dynamic perspective, since they create an indirect entry barrier which shields large incumbents from external competitive pressures. Such a barrier operates asymmetrically and proves to be more threatening for small and start-up companies,¹¹⁵ given the comparatively higher need for secrecy that each firm has in its early stages of development. As the *Axel Springer* case witnesses, whilst requiring the disclosure of even extremely generic information such as that contained in the balance sheet may be of negligible significance for large firms, it might be disruptive for small and newly born enterprises and might therefore discourage their entry in the first place.

When in turn the market structure is characterized by a dynamic start-up environment – providing for most product and process innovation – associated with the presence of few large incumbents focused on well-established products and technologies (as it is the case of many of the most innovative industrial sectors today) – undifferentiated disclosure rules are likely to have detrimental effects also on the innovative process as a whole, with evident drawbacks on social welfare.¹¹⁶

PART IV. INSTRUMENTS FOR RESOLVING THE CONFLICT

1. Introduction

One of the implicit assumptions we have relied on so far is that the conflict between disclosure and the firm's need for confidentiality essentially cannot be resolved: pursuing the goal of financial market efficiency right to the end would inevitably result in the sacrifice of the countervailing interest in confidentiality, with all the negative effects in terms of weakened incentives for innovation, while preserving such an interest against the opposing quest for disclosure would inevitably hinder the aim of financial market efficiency. The regulatory dimension of the conflict is less important than it might appear: as already pointed out, the law usually recognizes the importance of striking a balance between the two contrasting interests and explicitly protects the

¹¹⁵ See *Id.*, at 30.

¹¹⁶ See *Id.*, at 30, for similar considerations.

company's need for confidentiality with respect to those "hotspots" in mandatory disclosure regulation which might tangibly jeopardize such an interest.

The point, however, is that the tension between disclosure and confidentiality exists independently of regulation and the specific features it assumes. Leaving aside the existence (or absence) of any "exogenous" disclosure duty, so long as a piece of information that is useful for the determination of the share price is withheld from securities markets, there will be a natural "push" in favour of gaining access to it. Therefore, insofar as that piece of information has parallel competitive value, there will be tension between investors' quest for disclosure and the firm's countervailing interest in keeping that information confidential. The company's obvious resistance to such pressures constitutes in turn the major source of informational asymmetry in securities markets and the most prominent reason why it cannot be eliminated.

The existence of this tension, however, is strictly dependent on the multi-audience setting in which the flow of information from firms to investors occurs. Disclosure in securities markets – as for any other form of widespread publication of data – is a form of communication which prevents the firm from retaining any control over the array of subsequent information recipients. The inability to exclude third parties whose access to the data would be harmful for the firm creates the tension, since the decision to disclose must now take into account the detrimental effects associated with such unlimited access. Were it possible for the company to communicate with investors in a more selective manner, it would satisfy their demand for information completely, since there would be neither competitive harm nor any other negative effect associated with the release of information. The desirability of such an outcome is straightforward: given the larger amount of data released, securities markets would be more efficient and the process of resource allocation would as a result be more accurate. Problems of adverse selection would be addressed more effectively, since firms would be able to signal their quality in a more comprehensive (and thus compelling) manner; financing innovative projects – especially those for which strict confidentiality is necessary to preserve future success – would become easier; private incentives for innovation – and thus the overall proper functioning of the process of innovation itself – would receive full protection.

Communication without public disclosure therefore becomes the "key" mechanism. Insider trading and selective disclosure practices represent in turn the most prominent tools for achieving this goal. Indeed, in both cases no widespread publication of information occurs, so that the firm can retain control over the range of potential recipients. Information is then incorporated into stock prices due to the direct trading activity of insiders, or by way of a "synthetic" trading suggestion that protects the analytical contents over which the firm has an interest in confidentiality. Insider trading is currently prohibited, under both EU and U.S. securities regulation. Selective disclosure is a market

practice frequently objected to by regulatory agencies and limited by the law due to its discriminatory features.¹¹⁷

The capacity that each of these instruments shows as a means to reconcile the tension between investors' demands for information and the firm's need for confidentiality – pointed out in passing by a few scholars¹¹⁸ – constitutes a powerful argument in favour of their legitimacy. Obviously, it must be weighed up with the negative effects associated with such practices. The last part of this study will be devoted to sketching out the most prominent elements of this cost-benefit analysis.¹¹⁹

¹¹⁷ For further references to U.S. regulation, see Goshen & Parchomosvsky, *supra* note 15, at 1236. EU securities regulation does not impose an explicit prohibition on selective disclosure. Such a practice, however, seems to be largely incompatible with the duties to disclose information *publicly*, both on an ongoing basis and periodically (e.g., within prospectuses). See *infra*, note 96. See also Di Noia-Gargantini, *supra* note 96, text accompanying notes 47-52, for further considerations.

¹¹⁸ With regard to selective disclosure to the analyst community, see Daniel R. Fischel, *Insider Trading and Investment Analysis: an Economic Analysis of Dirks v. Securities and Exchange Commission*, 13 Hofstra L. Rev. 127, 142 (1984).

¹¹⁹ There is no doubt that, apart from the two major instruments represented by selective disclosure and insider trading, there are some other tools which achieve – in a more or less effective manner – the same result: firms can use signalling devices – such as high leverage, high dividend policies or large stock holdings by management – to convey information about overall future profitability without the need to disclose detailed data about the source of this expected performance, thus preserving the firm's need for confidentiality. See Easterbrook & Fischel, *supra* note 1, at 675-6, for a more detailed explanation and further bibliographical references. Even historical data are in principle useful in order to convey information that the firm cannot disclose in detail due to competitive reasons. For instance, a stable abnormal profitability with respect to rival firms might signal the existence of some superior productive technology or marketing technique. With the “right” informational set surrounding, markets will unravel the “meaning” of abnormal performance and then incorporate the information into stock prices, without any need for a corresponding detailed disclosure. These instruments, however, are far from being perfect: signalling is usually costly (as it is the case of high indebtedness), it works correctly as long as less-profitable rivals cannot replicate the signal at the same cost and does not always lead to unambiguous inferences. Moreover, it is a device more tailored to convey information about the “fundamentals” of a firm's value, like long-term profitability and management's overall quality, rather than the value of some specific information relevant for short-term price adjustments. On more general ground, these devices do not really address investors' demands for information: on the one hand, if the firm succeeds in triggering a market reaction to the existence of some “hidden” source of value, without having explained the dynamics through which such value is produced (which is exactly what the company needs to keep confidential, for competitive reasons), it is still releasing less information than it would be had the company actually given such an explanation. Insofar as such “noise” exists, the price reaction will inevitably be partial. On the other hand, where the signal is “perfectly” working, as if all of underlying information had been completely disclosed, that is because a previous external release of such information has already been made. As noted above, this is exactly what happens when investment banks or a venture capitalist act as sponsors in an IPO. Indeed, in both cases a previous *external* release of information – i.e., properly speaking, an event of selective disclosure – took place.

2. Insider trading

The role of insider trading as a means to enhance informational efficiency was pointed out long ago and today is widely accepted in the literature.¹²⁰ Insiders have privileged access to the information that the company creates during the course of its business, in the sense both of priority access (they have access to the new information before outsiders do) and the larger amounts of available data (they have access to “more” information than outsiders). Privileged access to information gives them an obvious advantage over other market participants: for instance, due to the early access to information that is about to be disclosed – such as quarterly earnings or M&A deals about to be completed – they can easily forecast short-term price movements and therefore make capital gains through the trading in the company’s stock. Insiders’ “greed”, in turn, will make prices adjust more quickly to the value of the information that is not yet publicly available.

Insider trading has usually been viewed as a functional substitute for mandatory disclosure provisions, so that the claim for its legitimacy has frequently been made in conjunction with a market-driven approach to the issue of transparency in financial markets. From our perspective, insider trading plays a less important role, as an instrument capable of generating a market reaction to information that the company cannot disclose early or in detail due to its competitive importance. When some price-sensitive information arises within the company but its public release would be too costly, due to the potential for competitive harm, allowing insiders to trade will cause stock prices to adjust to the new information despite the lack of disclosure. This, in turn, would provide securities markets with further informational efficiency.¹²¹ From this perspective, insider trading

¹²⁰ The point was originally made by Manne, *supra* note 22, and constituted in his analysis one of the major arguments in favour of insider trading. See *Id.*, *Insider Trading: Hayek, Virtual Markets, and the Dog that Did Not Bark*, 31 Iowa J. Corp. L. 167 (2005), 196-170, for a recent analysis reaffirming his position and further references; See also D.W. Carlton, D.R. Fischel, *supra* note 108, at 866-869; J.R. Macey, *INSIDER TRADING: ECONOMICS, POLITICS, AND POLICY*, The AEI Press, Washington D.C., 1991, esp. 7 et seq. Recognizing the efficiency enhancing component of insider trading does not mean, of course, advocating its legitimacy: today, instead, there seems to be wide acceptance of the current regulatory regime banning the privileged exploitation of information. See Goshen-Parchomovsky, *supra* note 15, at 1230-1233, for a survey of the pros and cons of the phenomenon, and further bibliographical references.

¹²¹ The efficiency benefits of insider trading are of two kinds, as noticed above: on the one hand, it makes prices react *more promptly* to the new information. Often the firm’s interest in confidentiality is only temporary, as in the case of the negotiations for an M&A deal, for instance, or where the company simply needs the time to establish an advantage over her competitors, as in a *TGS*-like scenario. In these cases, allowing insider trading would make prices more “reactive” to the new information, and thus the market more efficient from a strictly short-term perspective. On the other hand, where insiders have access to “more” information than outsiders – especially in terms of more detailed and analytical information – insider trading would make prices reflect more precisely the value of the company, as a result of the larger set of data conveyed to the market. From this standpoint, allowing insider trading would be useful to communicate more accurately the value of “hard” sensitive data upon which the company retains a stable interest in

does not constitute a substitute for mandatory disclosure as such, but a sort of “residual” device that would operate where full and timely disclosure cannot take place.¹²²

It is difficult, however, to translate these considerations into a feasible policy proposal. The elimination of the prohibition *tout court* would appear to be excessive: insider trading is deemed to have several negative effects, on both the company’s governance and the proper functioning of the market. Scholars argue that it would create perverse effects on managerial choices, since it generates an incentive for the adoption of decision-making strategies oriented at increasing short-term price volatility, instead of long-term value maximization.¹²³ It is claimed to distort the company’s disclosure policy, since the timing and amount of information released will be increasingly driven by insiders’ profit opportunities.¹²⁴ It is also deemed to exacerbate the adverse selection problems associated with informational asymmetry, and thus to raise transaction costs and

confidentiality, as may be the case for trade secrets or some technological information the value of which is still not completely incorporated into market prices. As pointed out above, the value of a company’s technological strength should reach the market in any case, since this information should be reflected in some abnormal profitability compared to competing firms. However, the inference from financial statements that there is some unknown source of abnormal profitability – where it communicates the existence of some “hidden” value within the firm – is at the same time an extremely noisy signal, since the specific source of such an abnormal profitability is still unknown. Indeed, it could be a superior productive process, some proprietary technology, or simply the ability of a particularly skilled management. The availability of more detailed information allows for a more fine-tuned assessment and should lead to a different pricing, simply due to the very fact that “knowing more” helps to dissipate some of the uncertainty regarding the dynamics of cash flow production.

¹²² See D.W. Carlton, D.R. Fischel, *supra* note 108, at 868. Insider trading does not protect confidentiality perfectly. It puts the company’s interest in danger, at least compared to a situation in which no disclosure is made and no trading activity takes place. More specifically, third parties might infer the content of the information through the observation of the price movements generated by insider trading. See Manne, *supra* note 120, at 179-180, who recognizes – albeit implicitly and for different reasons – such a possibility. This is especially true when some informational leakage has occurred, but the company does not confirm the rumours. In the *TGS* hypothetical, for instance, if rumours about the discovery had leaked out, competitors and landowners could have easily inferred the existence of the mineral deposits through the observation of prices. In such a case, insider trading clearly fails to protect the firm’s interest in confidentiality. See Macey, *supra* note 102, at 46; Macey-Miller, *supra* note 103, at 1071; Kenneth E. Scott, *Insider Trading: Rule 10b-5, Disclosure and Corporate Privacy*, 9 J. Leg. Stud. 801 (1980), 804-805. Matters are different, however, in the absence of any rumour (and therefore in a context of “real” and full confidentiality): in this case it is very difficult for outsiders to infer the precise content of the information on which insiders are trading, given the low informational power of the price movement in the absence of any news circulating, albeit unofficially. Of course, the company can protect its interest via contract. More specifically, it can impose on insiders the duty to keep the information confidential while trading. Selective disclosure, however, seems to offer a more protective solution, since in such an eventuality the range of recipients with access to the information – and the right to use it – is far smaller than in the case of insider trading. See the next paragraph for a more comprehensive analysis.

¹²³ See Goshen & Parchomovsky, *supra* note 15, at 1247-8. Consistent empirical results in Julian Du & Shang-Jin Wei, *Does Insider Trading Raise Market Volatility*, IMF Working Paper (2003).

¹²⁴ Indeed, insiders might decide to delay disclosure without any justification because to do so would increase their trading opportunities. On the contrary, they might decide to disclose information too early for the same reasons. In both cases, the company’s disclosure policy will tend to deviate from shareholders interests.

to weaken the overall liquidity of stock markets, with detrimental effects on the company's cost of capital.¹²⁵ Finally, since analysts and more generally “professionally informed traders”¹²⁶ are those who suffer most from the presence of insider trading, removing the prohibition would drive them out of the market, with negative consequences for liquidity and the informational efficiency of market prices.¹²⁷

Another solution might be that of a selective relaxation of the current legal prohibition, through the establishment of a safe harbour when insider trading takes place in relation to information that the company cannot disclose due to its competitive or strategic value. Such an option would fit better in with the residual role assigned above to insider trading and would eliminate any interference with the mandatory disclosure regulation, given that trading in the company's stock would be allowed only when a parallel disclosure could not be made on competitive grounds.

Any selective relaxation of the prohibition, however, would appear to be difficult to implement. As a matter of fact, it would normally be impossible to establish whether insiders traded on the basis of sensitive data that the company needs to maintain confidential or instead on the basis of information that could have been disclosed without any threat against the company's interests, since almost always the insider's decision is based on evaluations that take into account and “mix” both kinds of information. Moreover, the assessment itself of the competitive value of information – and the subsequent decision between maintaining confidentiality and opting for disclosure – is a discretionary choice belonging to the core of the business judgement. The enforcement of the rule would require the judiciary to second guess the entire disclosure policy of the company, with all the negative effects arising out of any broad judicial intervention in the discretionary decision-making activity of the company.

Accordingly, the safe harbour would be easy to apply only at the extremes, with regard to facts – such as sharp business advancements (as the discovery of the mineral deposits in the *TGS* case, for instance) or the sudden emergence of new technologies – in which both the competitive importance of the information and its price sensitivity are equally self-evident.

¹²⁵ Goshen & Parchomovsky, *supra* note 15, at 1251 et seq; Utpal Bhattacharya & Hazem Daouk, *The World Price of Insider Trading*, 57 J. FIN. 75 (2002), for empirical evidence supporting this claim. A critical view in Stanislav Dolgoplov, *Insider trading and the Bid-Ask Spread: a Critical Evaluation of Adverse Selection in Market Making*, 33 Cap. U.L. Rev. 83 (2004).

¹²⁶ The expression is taken from Gilson-Kraakman, *supra* note 8, at 569-572.

¹²⁷ Contrarily to noise traders and liquidity traders, analysts are indeed the ones who systematically lose when trading against insiders. See Goshen & Parchomovsky, *supra* note 15, at 1241.

3. Selective disclosure

A less controversial instrument for reconciling investors' demands for information and the firm's need for confidentiality is that of selective disclosure. The expression refers to a market practice according to which the issuer releases information selectively to a particular recipient or group of recipients, usually one or few analysts or intermediaries.¹²⁸ Selective disclosure is thus a form of "customized" information communication, in which no widespread publication of data occurs and the information flow is directed towards a limited range of previously identified recipients, so that the issuer can retain control over the further circulation of the information. Such practices protect effectively the firms' need for confidentiality and allow a parallel price reaction to the information. The mechanics whereby this happens are plain: the information released selectively will be used by the recipients in order to elaborate price estimates, trading suggestions, earning forecasts or credit merit assessments. The specific contents of the information will thus remain confidential, but their price-sensitive potential will reach the market in any case, through the indirect means of the publication (or private circulation) of the reports prepared on the basis of those data.¹²⁹ Obviously, selective disclosure still jeopardises the company's interest in confidentiality. Indeed, giving analysts access to sensitive data increases the risk of informational leakages and thus the likelihood that competitors and counterparties will finally gain access to the information. With respect to the full disclosure scenario, however, the company is in a better position: contractual arrangements such as confidentiality agreements mitigate *ex ante* these risks and allow the company to recoup the damages suffered from any subsequent informational leakage.

Selective disclosure seems definitely less controversial than insider trading. However, the negative effects associated with its widespread use are not negligible. Allowing market analysts a systematic informative advantage over the rest of the market exacerbates informational asymmetries and adverse selection problems. Selective disclosure might distort the objectivity of analysts' evaluations¹³⁰ and create strong incentives for opportunistic behaviour. Indeed, the informational sources upon which the assessments are made are not publicly available, so that a "reverse-

¹²⁸ *Id.* at 1235-6, and at 1268 et seq, for a general case in favour of selective disclosure for small listed companies. See also the empirical survey of E. García-meca, I. Parra, M. Larrán, I. Martínez, *The Explanatory Factors of Intellectual Capital Disclosure to Financial Analysts*, 14 Eur. Acct. Rev. 63–94 (2005).

¹²⁹ See Goshen & Parchomovsky, *supra* note 15, at 1269; Easterbrook & Fischel, *supra* note 1 at 688-9; Fischel, *supra* note 118, at 141-2; Roger J. Dennis, *Mandatory Disclosure Theory and Management Projections: a Law and Economics Perspective*, 46 Md. L. Rev. 1197 (1987), at 1217.

¹³⁰ Analysts might be tempted to pay the issuer for the privileged access to the information. Such side payments can weaken their impartiality and create an incentive to "please" the issuer in their reports and evaluations, since being too "strict" could induce the issuer to exclude them from access to the information.

engineering”, *ex post* review of their reliability is no longer possible.¹³¹ More generally, the same problems of moral hazard which tend to arise in securities markets between the firm’s management and outside investors, far from being eliminated, simply shift to the relations between analysts and investors. For these reasons, regulatory agencies object to these practices and often expressly prohibit them.

However, the systematic occurrence of such detrimental consequences is unlikely: analysts – and the financial institutions in which they usually perform their tasks – are repeat players with strong reputational constraints, which means that the cost of any one-off misconduct would be far higher than any related benefit. In any case, the problem of moral hazard is much less severe than for the relations between investors and company management.¹³²

More importantly, the effects of price-accuracy enhancement – and therefore the contribution to the overall efficiency of the securities market – that selective disclosure might produce are in principle much greater than those generated by free insider trading: at first, and contrary to insiders, analysts have broad access to inter-firm data. Since most of a firm’s value is determined in relation to comparative benchmarks, their evaluation should in principle be more accurate than that embedded in management’s trading activity.¹³³ Second, analysts are highly skilled professionals who carry out their tasks within institutions that provide them with all the necessary “equipment” – evaluative models, databases, and so on – in order to perform these tasks most effectively.¹³⁴ Finally, analysts’ evaluations should in principle be less biased than those implicitly produced by insiders: in contrast to insiders, they are not involved in the company’s management and should thus be immune to the natural tendency towards optimism which influences insiders’ valuations.¹³⁵

Each recipient has the right skills and resources to manage the entire process. More specifically, each recipient is actually able to carry out each evaluative step that leads to a comprehensive and highly informative evaluation. Analysts currently produce most of the general market information, and so are naturally able to combine it with the firm-specific data they receive. Moreover, they are

¹³¹ See Goshen & Parchomovsky, *supra* note 15, at 1236.

¹³² Fischel, *supra* note 118, at 142.

¹³³ Within the company, only senior managers may have a comparably large availability of outside information. Middle level managers, however, engage in insider trading as well, and they surely do not have such broad access to information.

¹³⁴ See also Dennis, *supra* note 129, at 1216-1217.

¹³⁵ Insiders’ lack of objectivity has been pointed out by Goshen & Parchomovsky, *supra* note 15, at 1249. Moreover, problems of routinization might also negatively affect insiders’ forecasting ability, in the same way they can thwart their capacity to react to sweeping changes in the product market competition. See generally R. M. Henderson & K. B. Clark, *Architectural Innovation: The Reconfiguration of Existing Product Technologies and the Failure of Established Firms*, 35 Admin. Sc. Quarterly 9 (1990).

often specialized in particular industry sectors, so that their capacity to evaluate highly specific and analytical information correctly should be equally powerful.¹³⁶

Competition among analysts should finally prevent the negative effects associated with the monopolistic access to information. It should provide a broad array of different “products” (valuations) from which to choose and enhance the quality of each of them. Moreover, it should provide the right incentives for reciprocal monitoring, with the result that even the risk of opportunistic behaviour should be significantly reduced.¹³⁷

¹³⁶ In any case, should the informational contents display an insurmountable technical character, analysts may obtain additional external advice. Of course, due to its business expertise, management still retains an advantage in the evaluation of firm-specific information, especially with regard to the task of translating the most analytical data into a cash-flow prediction. However, we cannot rule out the possibility that analysts – once they have obtained broader access to firm-specific information – will develop similar skills and expertise over time, therefore reducing that gap.

¹³⁷ Even accepting that selective disclosure is preferable to insider trading, the company might still decide not to release any information with competitive value and try to convey its eventual price sensitivity through other means. We have already pointed out the role that signalling and historical data might play in communicating the value of information that the company cannot disclose for competitive reasons. Another instrument is that of managerial forecasts [see Dennis, *supra* note 129, esp. 1211-1218, for a more comprehensive analysis of managerial projections, even with respect to the competing choice in favour of selective disclosure]. Management’s estimations about the expected performance of the company build on the set of confidential information that the company decides not to disclose. Since the assessment is made by company insiders, it enjoys the same advantages – in terms of timely and unlimited access to all the information internal to the company – that insiders have with respect to outsiders when they trade in the company’s stock [see *Id.*, 1213. See also the empirical research of Stephen H. Penman, *A Comparison of the Information Content of Insider Trading and Management Earnings Forecasts*, 20 *J. Fin. & Quant. An.* 1 (1985)]. At the same time, since the assessment constitutes a “synthetic” judgement over the company’s “true” value, its public release does not entail any publication of data with competitive value and thus preserves the company’s interest in confidentiality. The mechanisms whereby the information is transmitted to stock prices are identical to those of selective disclosure, with the difference that in the case of managerial forecasts the assessment is elaborated internally, and neither public nor selective external release of information takes place. Managerial forecasts therefore constitute a further instrument for resolving the tension between the demand for information in securities markets and the company’s need for confidentiality. In a similar manner to the points made with regard to insider trading, internal evaluations are characterized by an increased risk of hazardous behaviour and tend to be affected by various biases, such as managers’ tendency toward optimism or routinization (see note 135 for further references). At the same time, managerial assessments benefit from the specific expertise – and therefore forecasting ability – that managers usually have compared to outsiders, due to the know-how that they develop in the day-by-day pursuit of their managerial functions [see Dennis, *supra* note 129, at 1213]. However, as already pointed out, there is no reason to believe that professional outsiders cannot develop comparable skills over time. Furthermore, managers do not have access to comparative data – or at least not to the same extent to which analysts do – and do not retain any comparative advantage in the processing tasks whereby “broad” market information is combined with firm-specific data: since much of a firm’s value is related to both comparative benchmarks, such as competitors’ performance, and exogenous factors, such as general economic trends, it is no longer obvious that the generally more fine-tuned knowledge that management has of the dynamics governing the company’s internal functioning will always result in an overall more accurate assessment of its value [see Goshen & Parchomovsky, *supra* note 15, at 1246-7]. Indeed, much of the analytical firm-specific data contained within the company “box” is of greater significance if pooled with the corresponding firm-specific information possessed by competitors. Selective disclosure allows such “pooling” and assigns the task of combining and processing the relevant data to specialized and professional third-parties.

CONCLUSION

The efficiency of financial markets is critical for the well-functioning of the economy and disclosure has traditionally been viewed as a prominent tool for achieving this result. More information released by firms means more accurate stock pricing which, in turn, corresponds to a more efficient allocation of financial resources among productive units.

Pursuing transparency unconditionally, however, is not feasible: as the analysis has shown, it would come at the cost of hindering innovation, and it does not seem to be a price that is worth paying.

Mandatory disclosure regulation usually recognizes the need to strike a balance between transparency and the firm's interest in confidentiality. Thus, it reserves some space for the company's choice against transparency. However, irrespective of the regulatory equilibrium chosen, the tension still remains. Every time a piece of information has both significance for securities markets and competitive value the firm will face a dilemma between satisfying the financial markets and fully protecting its competitive position. The value-maximizing strategy for the individual firm is the one that stops disclosure when the costs of communicating further information outweigh the benefits. In a certain sense, however, the relevant equilibrium represents a second best for society: rejecting investors' demand for information – even for such a residual extent – will to some extent hinder the firm's ability to raise funds and prevent a complete dissipation of quality uncertainty. This will be particularly detrimental for the most “secrecy-sensitive” projects, which are usually the most innovative ones, for which external financing will be uneasy. Incentives for innovation will be fully protected, but protecting these incentives will make it more difficult to finance innovation *ex post*.

There is a case here for the selective communication of information to the marketplace, since it offers a solution to the tension between disclosure and confidentiality which allows firms to satisfy investors' information demands fully without any parallel renunciation of confidentiality. Quality will be better communicated, with beneficial effects in terms of higher informational efficiency, easier financing of secrecy-sensitive projects and an overall more correct allocation of resources. At the same time, the firm's competitive capacity will be preserved and incentives for innovation fully protected.