

Lecture 5: Mandatory disclosure.

Mandatory disclosure relates to the set of standards and rules imposing in capital markets a duty to disclose information to the public of investor.

Information asymmetries and disclosure.

In order to understand mandatory disclosure we need to go back to the problem related to asymmetry of information and more precisely we should go back to the idea of adverse selection, meaning the fact that when information is asymmetric the party with less information will discount the probability of being cheated on the price offer to the party with more information, and therefore the party with more information will be enforced to offer its product or service for a lower price to try to overcome the behaviour of the other party.

Information asymmetries introduce adverse selection into capital markets influencing investment decisions. We have to distinguish what happen in the primary market from what happen in the secondary market.

In the primary market (where securities of new issuance are sold to investors) investors have less information than the issuers about the quality of the securities and of the issuers. Therefore, investors (filing a lemon) may discount the price asked for buy the issuance because of the probability of being cheated. A different price from that offered by the issuer is proposed by investors. As a consequence, in the primary market a firm:

- a) may pass up profitable investment opportunities because the return required by uninformed investors is too high and therefore the cost of capital is too high, or
- b) has to underprice its securities to ensure the participation of uninformed investors in the offering (phenomenon known as underpricing).

In the secondary market (where securities previously issued are bought and sold) two investors are dealing with each other and each of them may think that the other has more information. Both parties do not know exactly the amount of information that the other party has. Therefore, each party could try to price protect him/her-self asking for a higher or a lower price vis a vi the right price. Both parties, the seller and the buyer, offer a different price from the right price to protect themselves against possible losses due to the presence of a better informed investor: the seller asks for a higher price and the buyer offers a lower price. This form of price protection when buying or selling shares introduce a bid-ask spread (that is the difference between the price which is offered - bid- and the price which is asked for -ask-) due to asymmetric information which reduces the number of share that uninformed investors are willing to trade. As a result, the bid-ask spread reduces the liquidity of shares market and imposes trading costs on investors for which they need to be compensated through a higher required rate of return, and thus increases the cost of capital

Once again, in secondary market asymmetry of information determines a significant number of problems different from the problem in primary market, but in both cases, it impacts the cost of capital and reduces the possibility of cash flows between issuers and investors.

If these are the problems with asymmetric information in primary and secondary markets, they result in market failures and may be corrected by disclosure of information from the more informed party to the less informed party:

In the primary market, disclosure may favour optimal asset allocation for the investors and lower the cost of capital of the firm. The more information is available the less there is a need of underpricing or asking for a ton higher return by investors. In the secondary market, disclosure may increase market liquidity by levelling the playing field among market investor, thus lowering the cost of capital.

Other benefits and costs of disclosure

Disclosure still has many other benefits which are additional to the ones related to asymmetric information.

In some situations, investors with very few information may not be aware of the firms available in the economy for investment. Therefore, disclosure by these lesser known firms can make investors aware that profitable firms exist and enlarge the investor base for smaller issuers, which in turn improves risk sharing and lowers the cost of capital. So, disclosure allows a broader range of firm, especially the lesser known to participate to the market, to enlarge the investor base, and therefore to improve risk sharing and lowering the cost of capital.

Disclosure impacts also the agency problems between managers and shareholders because it has the potential to change firm value by affecting managers decisions and hence altering the distribution of future cash flows. More precisely, transparency increases firm value by improving managers decisions and by reducing the amount (of resources of the company) that managers appropriate for themselves. Therefore, by reducing the room for opportunistic behaviours by managers, disclosure reduces the cost of capital, because people financing the company are more available to ask for less as return of investments if they are sure there is no cheating by managers.

Obviously, disclosure is characterized by costs together with benefits. Two kinds of cost of disclosure can be distinguished: direct and indirect costs.

The direct costs are basically the costs for the preparation, certification, and dissemination of accounting reports or any other information which is supposed to be disclosed. This kind of costs may be substantial, especially considering the opportunity costs of those involved in the disclosure process, and are typically fix costs. Therefore, direct costs could be competitive disadvantage for smaller firms, because the relative impact of disclosure could be much higher for smaller firms than for larger ones.

The second set of costs are costs which are indirect, because when a firm discloses information to capital markets, these information may be use by other parties, typically competitors, for goals which are nothing to do with asymmetry of information and investments. A specific application of this problem could be seen in the distinction between the relationship-based system and arm-length system, and more precisely when a firm which is financed by a bank decides to disclose information to the public capital market. In this case, the more transparency could be very costly for the bank. Relationship-based financing requires some private information flows between the firm and its bank in order to protect relationship-specific investments that make financing arrangements viable either in good time when the firm pays above market or in bad time when in return obtains credit. If the firm discloses information to capital markets, this private source of information for the bank disappears. Therefore, the relationship with the bank will not survive the force of competition in bad times, because in this case the firm will not benefit from the protection of the bank.

Voluntary vs mandatory disclosure

Because firms have incentives to voluntarily provide information any time that the benefits of disclosure exceed its costs, there is no need for the law to mandate disclosure, and so to justify mandatory disclosure.

Without corporate disclosure, investors are unable to distinguish between good and bad firms (adverse selection and market for lemon problem) and therefore offer a price that reflects the average value of all firms. So, firms with an above-average value have an incentive to disclose on a voluntary base private information about their true value, because otherwise they are gone suffer adverse selection. This behaviour will be a signal to the public of investors about their high-quality. Once these firms disclose, investors rationally infer that the average value of all non-disclosing firms is lower and adjust the price to reflect this expectation. This reaction in turn will trigger the remaining non-disclosing firms with values above the newly set market price to disclose information about their private value, and so on.

Such argument relies on a number of simplifying assumptions, because for example it assumes that disclosure of private information and its verification is basically costless, and investors must know that firms possess private information. Without these assumptions, the described full disclosure equilibrium may not prevail. However, even if these assumptions are violated, the general spirit of this argument still applies: firms are expected to voluntarily provide information any time the net benefits to disclose are positive, because they ultimately will bear the costs of withholding information.

Any time that disclosure has a net benefit for the company, there is an incentive to disclose and therefore the firm will disclose information on a voluntary basis without require the law to step-in to mandate.

In order to decide whether we need mandatory disclosure or voluntary disclosure is enough, we could apply the Coase theorem. Following the Coase theorem, the efficiency of mandatory disclosure depends on the relevant transaction costs. So, mandatory disclosure could be efficient any time the transaction costs are high.

In general, voluntary disclosure is affected by significant transaction costs, and this justifies mandatory disclosure. Suppose for example a situation in which investors are many (as an initial public offering), in this case an agreement on the quantity and the quality of the information to be disclosed, the disclosure mechanism and the sanctions for undisclosed information may be so burdensome to make negotiation unfeasible. Therefore, the law is required to give an efficient solution. Another example is based on investors' cognitive limitations. Investors' cognitive limitation may affect both the feasibility of an agreement and the effectiveness of voluntary disclosure.

However, there are other cases in which transaction costs may be lower and mandatory disclosure might not be needed. Imagine for example an offer to few relevant investors which are all specialized (as investment in a private equity fund), in this case investors can negotiate the optimal level of information and therefore mandatory disclosure may be needless.

Mandatory disclosure is needed any time the transaction costs, implied in a specific situation, are enough high and significant to make a negotiation inefficient. When negotiation is efficient mandatory is needless and voluntary disclosure could be more efficient.

The role of mandatory disclosure

After discussing why disclosure is needed and when mandatory disclosure is required, we focus on the role of mandatory disclosure in order to understand what its functions are.

Mandatory disclosure is supposed to protect the ordinary investors: because of the presence of asymmetric information, through mandatory disclosure investors may have available all the relevant information and therefore they could decide properly whether to invest in a certain company. This assumption is completely disconnected from reality, because it does not consider that collecting and processing information is a very costly activity, and for the everyday investors its cost may outweigh the relevant benefits. In other words, it is too costly for a single investor to read all the disclosed information, to understand them properly and to organize them and finally to take a decision consistent. Therefore, the function of mandatory disclosure is not to protect the ordinary investor by providing all the relevant information. Rather, the ultimate goal of mandatory disclosure is to attain an efficient financial market, meaning a market where prices are accurate and liquidity is high, and thereby improve allocation of resources in the economy.

These goals (meaning determine right efficient prices in the market) according to a very famous theorem typically known as the efficient capital markets hypothesis (ECMH) depend on the capacity of markets price to reflect all the available information. According to this theorem, in financial markets prices reflect all the available information. As a consequence, the price of a certain security embeds the relevant information provided to the market by issuers. This phenomenon can be explained by considering that in the market together with the ordinary investors, who invest a small amount of money, there are a significant number of informed sophisticated traders, which have the capacity because of their economies of scale to collect and process disclosed information efficiently and whose investment decisions may affect the trading volume and thus prices, countering the action of noise traders who invest irrationally affecting the market price mechanism.

Therefore, under the efficient capital markets hypothesis, the action of informed sophisticated traders is enough not only to set the price to an efficient level but also at countering the action of noise traders who invest irrationally. As a consequence, mandatory disclosure is functional to give to these sophisticated traders the information needed to do their job and determine efficient prices which are good for everyone.

This model was put into discussion during the financial scandals at the beginning of the century and during the global financial crisis.

The first graph describes the credit default swap for Lehmann Brothers between spring 2007 and September 2008 when it fails for bankrupt.



This graph reflects pretty much the assumption of the efficient capital markets hypothesis. There is a very flat curve more or less until June 2007 and then the curve goes up and down during the second half of 2007 with a peak in the early spring of 2008 when Northern Rock files for bankruptcy, which was the first signal that also major banks could default. Then the curve starts to go up and down until a new peak of September 2008 when Lehmann Brothers fails.

Credit default swaps are basically insurance contracts on the possibility of a failure by a certain entity (in this case a bank). So, the price (which is the curve) is lower when a company is safe and goes higher as much as the risk of bankruptcy becomes higher. Basically, this graph describes how the perception of the risk of bankruptcy for Lehmann Brothers by the market followed more or less the historical data and what actually happens in reality.

The second graph is about Parmalat, a direct company in Italy which went bankrupt in 2003. As we can see, the graph shows that from one day to the other Parmalat defaulted and went bankrupt. However, until the very last day before bankruptcy apparently nobody knew it. The level of price is more or less stable for more than five years, until the day before the bankruptcy of Parmalat. As a consequence, it seems that the market didn't have any information about the risk of default. It sounds quite strange considering the fact that its bonds were traded by the largest banks in the world, and especially looking at its balance sheet in the two-three years before the bankruptcy. It is possible to see that Parmalat was characterized by an incredible amount of liquidity but at the same time the company was asking for loans more and more. This can be explained by the fact that the liquidity written in the balance sheet was completely false.



In this case the efficient capital markets hypothesis didn't work because otherwise the information available could have suggested that there was a problem.

One possible explanation is related to the conflicts of interest between a number of information traders which didn't act accordingly to the problems that could be identified in the balance sheet. After the failure of Parmalat, was discovered that some of the information traders which didn't do anything about the price before the bankruptcy were the same banks who provided the loans to Parmalat for very high returns.

Summarizing, the efficient capital markets hypothesis may not work when there are conflicts of interest or may not work when there is too much noise. If the efficient capital markets hypothesis does not work, prices may be determined not by available information but by something else, conflicts in the case of Parmalat and in general by irrational behaviours of investors (noise).

Mandatory disclosure can be understood in its function much better with the efficient capital markets hypothesis because it gives the rational and the framework for mandatory disclosure. The more information traders exist in a certain market and the more the cost for them by analysing information may be lower, the higher is the expected efficiency of the market. The better informed traders can counter price discrepancies caused by noise traders, the more efficient the market is.

From this perspective, it is clear that efficient pricing is a matter of degree. Improving the efficiency of the market thus requires enhancing the ability of informed trades to counter price deviation by minimizing the costs of searching for, verifying, and analysing information.

Mandatory disclosure may be justified under this rational and the insights of the ECMH help to understand its function better.