



Financial Disclosure and Market Transparency with Costly Information Processing

Posted by R. Christopher Small, Co-editor, HLS Forum on Corporate Governance and Financial Regulation, on Wednesday February 4, 2015

Editor's Note: The following post comes to us from [Marco Di Maggio](#) of the Finance and Economics Division at Columbia University and [Marco Pagano](#), Professor of Economics at the University of Naples Federico II.

In our paper, [Financial Disclosure and Market Transparency with Costly Information Processing](#), which was recently made publicly available on SSRN, we provide new insights about the effects of financial disclosure and market transparency. Specifically, we address the following question: can the disclosure of financial information and the transparency of security markets be detrimental to issuers? On the one hand, there is an increasing concern that, in John Kay's words, "there is such a thing as too much transparency. The imposition of quarterly reporting of listed European companies five years ago has done little but confuse and distract management and investors." On the other, insofar as disclosure reduces adverse selection and thus increases assets' issue prices, it should be in the best interest of asset issuers: these should spontaneously commit to high disclosure and list their securities in transparent markets. This is hard to reconcile with the need for regulation aimed at augmenting issuers' disclosure and improving transparency in off-exchange markets. Yet, this is the purpose of much financial regulation such as the 1964 Securities Acts Amendments, the 2002 Sarbanes-Oxley Act, and the 2010 Dodd-Frank Act.

In this paper, we propose one solution to the puzzle: issuers do not necessarily gain from financial disclosure and market transparency if (i) it is costly to process financial information and (ii) not everyone is equally good at processing it. Under these assumptions, disclosing financial information may not be beneficial, because giving traders more information accentuates the informational asymmetry between more sophisticated and less sophisticated investors, thus exacerbating adverse selection. The basic idea is that not all the information disclosed to investors is easily and uniformly digested—a distinction that appears to be increasingly central to regulators' concerns, and squares with a large body of empirical evidence.

Specifically, we present a simple model where the issuer of an asset places it with one of many competing dealers, who sell it to investors through a search market that randomly matches him with buyers. The price at which the issuer can initially place the asset with the dealer depends on the expected price on this search market. The sale of an asset-backed security (ABS) is one example: the ABS is placed by its originator (e.g. a bank wishing to offload a loan pool from its balance sheet) with an underwriter who searches for buyers via an Over-The-Counter (OTC) market. Another example is that of a company that hires a broker to sell its shares via a private placement to investors, who can trade them on the Pink Sheet market or the OTC Bulletin Board.

Before the asset is initially placed with investors, the issuer can disclose fundamental information about the asset (e.g., data about the loan pool underlying the ABS). If information is disclosed, investors must decide how much attention to devote to it, balancing the benefit to their trading decisions against the cost of paying more attention. We show that when investors differ in processing ability, disclosure generates adverse selection: investors with low processing ability will worry that if the asset has not already been bought by others, it could be because more sophisticated investors, who better understand the price implications of new information, concluded that the asset is not worth buying. This depresses the price that unsophisticated investors are willing to pay; in turn sophisticated investors, anticipating that the seller will have a hard time finding buyers among the unsophisticated, will offer a price below the no-disclosure level.

Hence, issuers may have a good reason to reject disclosure, but they must weigh this concern against an opposite one: disclosure also helps investors avoid costly trading mistakes, so that it stimulates their demand for the asset. Hence, issuers face a trade-off: on the one hand, disclosure attracts speculators to the market, as it enables them to exploit their superior information-processing ability and so triggers the pricing externality just described, to the detriment of issuers; on the other hand, it encourages demand from hedgers, because it protects them from massive errors in trading.

The decision discussed so far concerns the disclosure of information about the asset via the release of accounting data, listing prospectuses, and so on. But in choosing the degree of disclosure, the issuer must also consider the transparency of the security market, i.e. how much investors know about the trades of others. A key novelty of our framework is to highlight how market transparency might amplify the pricing externality triggered by financial disclosure, as it increases unsophisticated investors' awareness of the trades of the sophisticated, and in this way fosters closer imitation of the latter by the former. In equilibrium, this increases the price concession that sophisticated investors require, and asset sellers will accordingly oppose transparency of the trading mechanism. Hence, the interaction between financial disclosure and

market transparency makes the two substitutes from the asset issuers' standpoint: they will be more willing to disclose information on cash flows if they can expect the trading process to be more opaque. This analysis of the interrelationship between financial disclosure and market transparency is novel, as typically these two forms of transparency are analyzed separately, even though they are naturally related, and both have come under the spotlight in the recent financial crisis, especially in connection with asset-backed securities.

The model also helps to address several pressing policy issues: if a regulator wants to maximize social welfare, how much information should be required when processing it is costly? When are the seller's incentives to disclose information aligned with the regulator's objective and when instead should regulation compel disclosure? How does mandatory disclosure compare with a policy that prohibits unsophisticated investors from buying complex securities?

First, we show that there can be either under- or over-provision of information. Intuitively, under-provision may occur when issuers know that they have less bargaining power in trading with a speculator than with a hedger, so that they prefer to deter trading by speculators by not disclosing information about the asset. However, this may be socially efficient, so that regulatory intervention for disclosure is required: this is likely to occur if hedgers would devote little attention to the information, if released: hence, releasing the information does not lead them to spend too many resources. When instead hedgers devote much attention to information, the issuer has either the same incentive to disclose as the regulator or even greater incentive to do so, as he does not give any weight to the resources that hedgers spend to study the disclosed information, while the regulator does. In this case, over-provision of information can occur.

Second, we show that in markets where the information-processing costs of unsophisticated investors are high, so that issuers may engage in over-provision of information, it may be optimal for the regulator to license market access only to sophisticated investors, as this saves the processing costs that unsophisticated investors would otherwise bear. Thus, when information is difficult to digest, as in the case of complex securities, the regulator should allow placement of the asset only with the "smart money", not to all comers.

The full paper is available [here](#).