

# POLITICAL PRESSURES AND THE EVOLUTION OF DISCLOSURE REGULATION

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## Abstract

This paper develops a framework that describes the political processes that drive the formation and evolution of mandatory disclosure. In equilibrium, changes in the regulation depend on the status-quo, standard-setters' independence and underlying objectives, and the cost-benefits of disclosure. We investigate whether political activism may lead to insufficient or excess disclosure from the perspective of users and, in some cases, predictable regulatory cycles. Elaborating on the institutional constraints faced by standard-setters, the analysis provides a tractable setting capturing why, when and how disclosure regulations come to be.

*Keywords:* disclosure, political, certification, financial reporting, mandatory, standard, positive economics.

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Most of existing research takes disclosure regulations as part of an exogenously-given environment. Even though we commonly think about voluntary disclosure as endogenously determined, this logic is mostly absent when it comes to disclosure regulation or standard-setting. Being agnostic about regulatory choice, however, is conceptually unsatisfying and leaves unaddressed a number of fundamental questions. Which underlying factors cause changes to disclosure regulations? Are these changes always desirable to some constituencies and not to others? How does the nature of the institution affect regulatory choice? Why and how do regulations evolve over time? Our knowledge of the emergence of regulations is at best limited and, as such, existing theories do little to understand the actions of standard-setters and their efforts to resolve disclosure problems: developing a more complete theory of regulated disclosure requires us to examine the regulatory institutions and the constraints present in the environment in which they operate.

Mandatory disclosure regulations are not of the same nature as voluntary disclosures, mainly because they have redistributive consequences and aggregate the preferences of parties with possibly different objectives. This idea is summarized by Sunder (1988) who emphasizes the political economy that surrounds standard-setting efforts and notes that: “it is necessary to compromise and consider both the total costs and benefits as well as the distribution of the costs and benefits of a standard across individual members of society. In other words, we cannot completely ignore the size of the pie. Nor can we completely ignore who gets how large a piece of it.” Perhaps unsurprisingly, when it comes to new disclosure regulations being passed, there have been persistent disagreements with respect to what constitutes desirable accounting standards. Many of the disagreements come at the center stage of political debates, in which the opinions of standard-setters may or may not be followed by domestic regulators.

Many former and current standard-setters have commented on the political pressures faced by the standard-setting institution. Dennis Beresford, former chairman of the Financial Accounting Standard Board (FASB), recalls that some firms and members of Congress strongly opposed certain FASB positions during congressional hearings: “The FASB often is on the defensive because these hearings are generally convened when certain companies, industry associations, or others allege that pending FASB positions will cause serious economic harm if adopted as final accounting standards” (Beresford (2001)). Sir David Tweedie, chairman of the International Accounting Standard Board (IASB), casts similar views about the political involvement during the 2008 financial crisis: “Last October, we suddenly discovered the Euro-

pean Union was going to put through amendments to the law to allow European companies to reclassify out of fair-value categories down to cost categories. We discovered with five days - it was going through parliament - they had the votes” (Tweedie (2009)). Political interferences in standard-setting is not a new phenomenon. The Securities and Exchange Commission and Congress must (sometimes tacitly) approve any new accounting standard. The FASB regularly participates to Congressional hearings (on average once every two years) and many projects have been significantly amended or delayed due to political activism (see, among other examples, the 1976 Metcalf Report, FAS 19 on Exploration Costs, FAS 123 on stock options).

These observations bring us to the main research question examined in this paper. If standard-setters are active players constrained by political pressures when designing new standards, we must start assembling a new paradigm in which the regulation is an endogenous solution to a constrained social choice. In a world with information asymmetries, disclosure regulation improves investors’ information about the environment. As such, the formation of new standards faces competing pressures from firms that benefit and firms that lose from more transparent disclosures. By describing these pressures, their evolution over time and their effects on implemented standards, we propose a simple positive theory that provides some salient predictions about regulatory choice. Understanding these political constraints is a first step toward defining the potential frictions present in the environment that may prevent regulators from implementing what they may target as desirable high-quality disclosures.

We develop these ideas within a simplified model that, we hope, will illustrate a few economic trade-offs within a stylized environment. It is not our objective to be descriptive of *all* possible accounting problems or institutional forms, but to obtain some key insights in a simplified setting that would likely apply to reasonable settings. The paradigm of endogenous disclosure regulations is rich in questions and mostly unexplored and, certainly, more research in the area will be needed to confirm some of the intuitions and broaden the analysis to other environments and confounding factors.

As one important aspect of our study, we limit our scope to mandatory disclosure forms that require disclosure over (comparatively) unfavorable events. More precisely, in our model, future cash flows below a certain level must be disclosed. This form is sometimes tagged as “prudence” and is in line with most, if not all, observed financial reporting rules (see, for examples, Moonitz (1951), Basu (1997), Watts (2002)).<sup>1</sup> We study how the disclosure threshold may vary over

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<sup>1</sup>More correctly, various forms of prudence have been present as part of generally-accepted accounting conven-

time, consistent with many observed changes to the amount of disclosure over the twentieth century. We do not discuss here the interesting, but much more primitive, questions as to the reasons why accounting standards take this particular form. Specifically, lower-tail disclosures have been a maintained property of accounting practice since its very inception and we are not aware of many rules in which, for two events that are similar except for their future cash flows, the more favorable would be mandatorily disclosed while the less favorable would not.

The basic elements of our model are described next. We have in mind a new project, which gives rise to future cash flows which are not yet known to outside investors. As in the financial reporting literature, the owner is short-lived and must resell the project prior to the cash flow date (by the end of the period). Prior to the sale, the owner makes a mandatory disclosure about the continuation value of the project. In addition, the owner terminates the project early, when the liquidation cash flow is greater than the post-disclosure market price. In this environment, the deadweight costs of inefficient liquidations and continuations decrease as disclosures become more informative. There are costs to disclose, which imply an interior “investor-preferred” level of disclosure; this level serves as the natural benchmark against which we may naturally compare the outcome of the regulatory process.

Agents in the economy cannot commit ex-ante to disclose (or, equivalently, delegate standard-setting to a benevolent dictator free from political interference). Instead, the regulatory choice occurs by the time some owners have received private information about future cash flows and may pressure in favor or against certain disclosure regimes. There is a standard-setting institution which has a preference for a “target” level of disclosure. The standard-setter may propose new standards, set an agenda, and/or support some proposals. In the tradition of Stigler’s classic work on regulatory capture ( Stigler (1964, 1971) , Peltzman (1976)), we assume that the domestic regulator (e.g., the SEC or Congress) is responsive to the pressures exerted by owners and the influence of the standard-setter.<sup>2</sup>

It is important to emphasize that the group that we label as “owners” is meant to describe tions even prior to the SEC Act (Basu and Waymire (2008)). Over the early twentieth century, many firms did not report the potential value of their intangible assets (e.g. patents or know-how); famously, General Electric wrote down its intangibles to \$1 in its published financial statements. Although the accounting conventions had not yet been centralized by the Securities and Exchange Commission, they formed a set of rules that were implicitly required from preparers. Many of these conventions were centralized by the accounting profession, after receiving input from their clients.

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<sup>2</sup>We make a conceptual distinction between the “regulator” and the standard-setter. Strictly speaking, the standard-setter is a non-governmental body and does not regulate: it proposes new accounting standards which can be accepted - often tacitly - or vetoed by an official governmental body. The distinction is also made to fit Stigler’s framework of the regulator as an institutional process, which would be discordant with labeling the standard-setter with an objective function as a regulator.

the most active or vocal groups involved in exerting political pressure. Casual observation of comment letters or interventions in Congress strongly suggests that firms (preparers) and their management are, by far, the group that is the most politically organized.<sup>3</sup> We also view banks with reporting motives as special cases of owners, given that the vast majority of banks' political intervention on accounting standards has been relative to their own disclosures. There is also a possibility that banks could pressure as users, and favor more informative reporting to improve their lending practices. We do not model this here for two reasons. First, in practice, the hypothesis that banks exert significant political pressures over non-bank related reporting issues is contrary to fact; over the last half of the twentieth century, banks have not been a major politically-active group (as compared to preparers) over issues that do not concern reporting of their own financial statements. Second, conceptually, whether banks would gain or lose from disclosure is ambiguous; banks typically acquire their own information, and their ability to generate excess profits relies on their informational advantage over public disclosures.<sup>4</sup>

By comparison to owners, there are other groups which are a clear target constituency considered by standard-setters but are less politically represented. One well-known example is individual diversified or uninformed investors, who tend to be smaller and highly disseminated.<sup>5</sup> The accounting profession (auditors, professional accountants) is well-represented from within the standard-setting institution - accountancy firms supply the majority of staff members - but it is less directly influential in the political scene.<sup>6</sup> More generally, the standard-setter's objective function may represent the other various constituencies that are potential users of information.

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<sup>3</sup>The assumption is based on several conversations that we had with people with prior experience in standard-setting institutions; they told us that the preparers were the most politically active group. This idea is non-controversial and is also consistent with public statements made by prior standard-setters (e.g., Beresford (1995), Beresford (2001), Zeff (2005), Tweedie (2009)). The evolution of standard-setting bodies toward greater representation of corporate bodies has also been consistent with this view. In the US, the Accounting Principles Board (APB), a branch of the American Institute of Certified Public Accountants (AICPA), was replaced by the Financial Accounting Standard Board (FASB) to reflect objectives wider than those of the accounting community. Similarly, the International Accounting Standards Committee (IASC) was previously formed of delegates sent by domestic accounting bodies and was replaced in 2001 by the International Accounting Standards Board (IASB).

<sup>4</sup>We asked a prior member of a standard-setter's advisory board if banks sometimes pushed for particular accounting rules to be imposed on their clients, and were told that such cases rarely if ever happened. For the same reasons, large money management firms do not seem politically active and, as their performance is driven by their private information, would not clearly support more disclosure. A more extensive discussion of the banking sector is provided in Bertomeu and Magee (2010). The paper shows that, under the assumption of a competitive banking sector, banks are price-protected on their new loans and only value reporting motives on their pre-existing loans. If the banking sector is not perfectly competitive, privately-informed banks would demand strictly less disclosure than socially-optimal.

<sup>5</sup>Several standard-setters have commented to us that, while it is relatively easy to bring preparers to roundtable discussions, it is quite difficult to solicit investor groups. During the IFRS roadmap, for example, there were fewer than ten comment letters from professional investors and investor groups, but hundreds from preparers.

<sup>6</sup>Auditors have a pre-existing links to their clients and often cannot openly oppose a standard that is strongly favored by the preparer community. In practice, most of auditor's political actions are relative to auditor regulations or auditor liability, which are not in the scope of our study.

Our analysis examines how political pressures affect changes in the regulation, and whether the regulations that emerge from the institution are attractive to standard-setters and the investor community. We show that when standard-setters are sufficiently (but not necessarily entirely) insulated from political intervention, the amount of disclosure increases over time, until it attains the level preferred by the standard-setter. Disclosure increases more slowly (upward rigidity) when the standard-setter is less politically influential, has less control over the agenda, or when the current status-quo already induces high levels of disclosure. In the short-run, the implemented disclosure will be below the level preferred by the standard-setter. As an important special case of the model, we find that the regulation will always evolve to the investor-preferred regulation if the preferences of the standard-setter coincide with those of diversified investors.

The evolution of the regulation is very different when disclosure is more costly and in the absence of sufficiently independent standard-setters. Then, the standard-setter must rely on the support from a subset of owners who push for greater transparency. Perhaps counter-intuitively, we show that non-transparent firms are precisely those that support more disclosure, because some small amount of extra disclosure may increase their market stock price (while prior disclosing firms do not benefit any further from regulatory changes). Following this logic, greater disclosure progressively shrinks the fraction of non-disclosers and, over time, works to reduce the political support for further increases in disclosure. Simultaneously, this evolution increases the fraction of disclosing firms, who may benefit from becoming non-disclosers. There is a point in time at which the political pressures from disclosers willing to cut disclosure overcomes the influence of both the standard-setter and the remaining non-disclosers. Political pressures force the institution to cut back on disclosure, leading to a fall-back to low disclosure requirements.

We predict that such regulatory cycles, when they occur, have a distinctive form, namely phases of increases in disclosure, periodically interrupted by bursts of deregulation. For empirical applications, we predict that mandatory disclosure is unstable and mean-reverting: it tends to decrease when the status-quo is high and increase when the status-quo is low. From the perspective of diversified investors, periods prior to the deregulation feature excess disclosure and, if political independence is low enough, periods post deregulation feature insufficient disclosure. Even in the long-run, the regulation does not achieve the standard-setter's or investor's preferred disclosure level.

Taken together, we hope that our study will illustrate that there are clear "political costs" associated to the process of standard-setting. These costs can be short-term or long-term,

but overall have important consequences for mandatory disclosure. We further discuss several potential institutional mechanisms that could help offset these costs, some of them are partly in place and others may be the object of future evolutions. In particular, we consider the role of independence, the agenda-setting process, the set of rules under consideration and the objectives of the standard-setter. At the essence, we believe that a more complete case could be made that disclosure regulation should *not* be political (see discussions on these subjects by Beresford (2001) and Dye and Sunder (2001)). Instead, standard-setters may be given a formal mandate to pass socially desirable disclosure regimes without requiring approval from political bodies, perhaps more similar to the institutional models for the Supreme Court or Central Banks.<sup>7</sup>

**Related Literature.** Given the wide-ranging consequences of accounting standards on the financial system, there has been surprisingly little research on their formation. In particular, the existing literature in regulatory economics has not picked up on some of the distinctive features of *disclosure* regulation, despite a fair amount of evidence that accounting standards are subject to considerable political activism (e.g., Watts and Zimmerman (1978, 1979), Sunder (1988), Beresford (2001), Zeff (2005)). Several recent empirical studies are beginning to provide consistent evidence that firms pressure regulators strategically, in response that the perceived market consequences of regulation proposals (Deakin (1989), Lo (2003), Ramanna (2008) and Hochberg, Sapienza, and Vissing-Jorgensen (2009)). While these studies have made researchers aware of the key role of political pressures, we do not have yet many formal predictions about the effects of pressures on disclosure standards.

Relating to these issues, a strand of the literature has examined the influence of various parties in the standard-setting process (Amershi, Demski, and Wolfson (1982), Fields and King (1996)); our research focus here is different in that we take influence as the starting point and study how it may affect regulatory choice. There are studies that have looked at mandatory disclosure (Melumad, Weyns, and Ziv (1999), Ewert and Wagenhofer (2005), Demski, Lin, and Sappington (2008)) or whether particular forms of disclosure have desirable effects on economic efficiency (Kanodia (1980, 2007), Liang and Wen (2007), Plantin, Sapra, and Shin (2008)); the core focus of these studies is normative in nature in that they focus on the economic desirability

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<sup>7</sup>There are two important differences between monetary policy and accounting regulation. First, central banks can set their own monetary policy, at least for the entire duration of a mandate. This may involve highly-unpopular high-interest policies which politicians cannot reverse, even if they want to (e.g., protests against Volcker during the early eighties). By contrast, any new accounting standard can be blocked by domestic regulators, which may - and does - also pass its own disclosure regulations. Second, the mission of the central banks is clearly defined as maintaining economic stability, and with specific tools (monetary and not fiscal policy). By contrast, the definition of the standard-setter's mission, or the constituencies it represents, is less precisely stated.

of disclosure rules. By contrast, our focus here is on the institutional determinants of mandatory disclosure which may, potentially, lead to undesirable economic outcomes from a social perspective. As a related study, Bertomeu and Magee (2010) recently show that reporting quality may vary coincidentally with economic cycles; yet, their primary focus is on exogenous shocks to the quality of projects in the economy.

Finally, the analysis of endogenous mandatory disclosure should be read in parallel to the rich existing literature on voluntary (unregulated) disclosures. Starting from Grossman and Hart (1980), prior literature has looked at the determinants of voluntary disclosure. Similar to our focus on the evolution of mandatory disclosure, several recent studies show that past disclosures are endogenously related to future disclosures (Einhorn and Ziv (2008), Beyer and Dye (2009), Marinovic (2010)); in these models, past disclosures are informative on the level of managerial discretion over financial reporting. Other studies discuss how exogenous changes to mandatory disclosure may affect voluntary disclosure. Lundholm (1991) shows that public disclosures may affect incentives to acquire information. Einhorn (2005), Langberg and Sivaramakrishnan (2008), Cheynel (2010) and Bertomeu, Beyer, and Dye (2011) describe various environments in which the characteristics of the mandatory disclosure can dramatically affect the voluntary disclosure strategy. Our study provides one direction to endogenize the mandatory disclosure in place. Since most of the intuitions are best explained with mandatory disclosure only but are robust to voluntary disclosure, we develop in Section 5 a simple extension of the model to voluntary disclosure.

We develop the model in several incremental layers. The underlying environment in which the regulation takes place is stated first, and is the object of Section 1. We describe, in Section 2, the political pressures exerted by informed owners. Section 3 explains how such pressures constrain the regulatory choices made by the standard-setter. We elaborate on the multi-period extension of the model in Section 4 and describe the short-run and long-run dynamics of the regulatory choice. Section 5 develops several extensions of the model, in particular it provides additional considerations relating to over-regulation, voluntary disclosure and other disclosure forms.

# 1. The Environment

## 1.1. Agents and Technology

In the baseline model, the economy is populated by a continuum of firm-projects indexed by  $i \in [0, 1]$  and with total mass normalized to one.<sup>8</sup> There is one “economic event” which will generate future cash flows  $\tilde{v}_i$  and is the object of a new disclosure regulation. To make the intuitions as clear as possible, we assume that  $\tilde{v}_i$  is distributed uniformly on  $[0, 1]$ .<sup>9</sup> In what follows, we use the notation  $\tilde{v}$  (dropping the indexation on  $i$ ) to refer to the stochastic cash flow for one firm and denote  $v$  the realization of that random variable.

An agent or a set of agents, whom we refer to as the “owner,” have some ownership in the firm and privately observe the realization  $v$  prior to actual cash flows. To be more concrete, owners may represent management, certain employees, or undiversified large investors. There are no portfolio considerations and an owner has ownership in one firm only.<sup>10</sup> After  $\tilde{v}$  is realized and a reporting regulation is in place, the owner can make a decision to liquidate the project early. The firm’s owner learns the liquidation cash flow  $\tilde{c}$  where, for simplicity,  $\tilde{c}$  is assumed to be uniformly distributed on  $[0, 1]$ . Within our model, it is irrelevant if  $\tilde{c}$  is privately observed by the owner or publicly observable. The owner may choose to terminate the project, in which case the project yields an observable cash flow  $\tilde{c}$  immediately. Otherwise, the project continues and termination is no longer an option.<sup>11</sup> As in the reporting literature (e.g., Grossman and Hart (1980), Jovanovic (1982), Verrecchia (1983), Dye (1985)), the owner has a horizon shorter than that of the project and must resell the project on a competitive market prior to cash flow date. Prior to the sale, the owner makes a mandatory disclosure, as described next.

## 1.2. A Class of Disclosure Standards

Firms communicate their information through an accounting classification which is referred to, in short-hand, as a reporting regime. For now, we assume that firms have no other means to

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<sup>8</sup>The use of a “large” number of firms ensures that there is no aggregate uncertainty in the model. See Bertomeu and Magee (2010) for a discussion of the effect of macroeconomic shocks on regulatory choice.

<sup>9</sup>The Uniform distribution, for modeling purposes, takes out distracting considerations about the placement of the mean vs. the median (or skewness), which may imply demand for more or less disclosure depending on whether the median firm has above-average cash flows. As is usual in such models, it is without any consequence if cash flows are also a function of some information that is public or of an extra noise term (in this latter case, we can relabel  $\tilde{v}_i$  as the expected future cash flow).

<sup>10</sup>We do not discuss here more complex issues that relate to capital structure, which would require modeling two different set of owners (e.g., debt and equity); see Bertomeu, Beyer, and Dye (2011) for a discussion of voluntary and mandatory disclosure with capital structure choices.

<sup>11</sup>The model does not pre-assume that all agents in the economy are informed owners. There may be a set of owners who are diversified or uninformed; in fact, later on, we refer to these other owners as “investors.”

voluntarily report their information; this is common in studies that focus primarily on mandatory disclosure (e.g., Dye (2002), Goex and Wagenhofer (2008)) and, here, meant to keep the model as parsimonious as possible.<sup>12</sup> The model does not critically hinge on this restriction: as will be formally shown in Section 5, voluntary disclosure offers considerations that are mostly incremental to those present in the baseline. Because our research question is not about corporate frauds, we also make the simplifying assumption that ex-post investigations by the regulator and potential penalties are significant enough to prevent outright misreporting.<sup>13</sup>

An accounting classification provides some information system about the private information  $\tilde{v}$ , which we represent as a partition on the set of signals (e.g., Demski (1980), Dye (2002), Christensen and Demski (2003)). In a recent study, Dye (2002) examines classifications that take the form of two classes, a “good” class  $\{\tilde{v} \geq A\}$  and a “bad” class  $\{\tilde{v} < A\}$ . We extend this idea by considering classes that take the form of an asymmetric disclosure of comparatively unfavorable events. Assume that the firm makes a public disclosure of  $v$  when  $v < A$ , and we refer to those cases as “disclosure.” For the remaining firms that report a coarser signal  $\{v : v \geq A\}$ , we use the term “no-disclosure.”<sup>14</sup> In other words, the accounting classifications that we focus on here do not recognize early favorable news, delaying them until real cash flows occur.

The restriction to lower-tail (prudent) disclosures is important but, since our interest is specifically on accounting institutions and not just any certification, it fits well with what we view as a ubiquitous characteristic of accounting regulations. The form is consistent with the conceptual statements of accounting standards, in that accounting numbers should exert “a degree of caution in the exercise of judgments needed in making the estimates required under conditions of uncertainty” (conceptual statement of International Accounting Standards).<sup>15</sup> In

<sup>12</sup>It is not guaranteed that, in practice, voluntary disclosure would always be credible or available. Rogers and Stocken (2005) show that there is a fair amount of variability in the credibility of voluntary forecasts and non-GAAP numbers may be not fully understood by investors and be sensitive to financial reporting motives (Doyle, Lundholm, and Soliman (2003)). By contrast, mandatory financial numbers are always audited and feature much more regulator supervision. Ziv (1993) discusses some of the costs associated to (voluntarily) truthfully disclosing information and Stocken (2000) suggests that credibility may require sufficient reputational concerns.

<sup>13</sup>One possibility is considered in Dye (2002), who specifically focuses on manipulations of coarse classifications. In his model, the manager may misreport to attain the higher-value class. While we do not explicitly consider misreporting here, an extension to misreporting would imply that the no-disclosure market price would be lower due to investors inferring, in equilibrium, some amount of managerial discretion.

<sup>14</sup>The terminology at the firm’s level is not essential in our discussion given that our main objective is to characterize the aggregate level of information in the marketplace. The dynamics of the threshold in our model would be very similar if we were to adopt Dye’s assumption of only two classes. However, Dye’s formulation rules out (by construction) very informative classifications and is more appropriate as a model of audit certification (since auditors generally issue either a qualified or an unqualified opinion). It is also worth noting that our analysis and results are very different from Dye (2002); namely, we are interested in pressures in favor of classification (while Dye looks at classifications that may not be manipulated).

<sup>15</sup>Recall, for that matter, that one may view  $v$  as being the expected future cash flows; in that respect, the

practice, the vast majority of accounting rules require more disclosure over comparatively unfavorable events, such as - to name only a few examples - asset revaluations (constraints on upward revaluations), revenue recognition (future loss-making revenues recognized early), or inventory valuation (minimum of cost or market). This aspect is well-known to be a “deep” parameter of accounting standards (Moonitz (1951), Basu (1997), Watts (2002)). This disclosure form is also presented in Goex and Wagenhofer (2008). Explaining this general form in accounting is an interesting fundamental question. For example, one could theoretically imagine new standards requiring assets to be reevaluated upward, but never downward. Such regimes seem at odds with both conceptual statements and decades of accounting principles and unlikely even to be considered anytime in the near-future. More importantly, it is a question that is inherently different from that examined here: this study is not about *why* accounting has the form it currently has, or even whether there *should* be, extra disclosure for low events, but rather about the effects of political pressure on a particular type of reporting structure.<sup>16</sup> For completeness, some discussions of alternative disclosure rules are provided in Section 5.

The threshold  $A$  represents how much information is conveyed about the economic event; it is very coarse when  $A \approx 0$  and very precise when  $A \approx 1$ . As part of the frictions that make it difficult to simply adopt full-disclosure, we assume that firms bear some costs when disclosing, which reduce the value of continuing the project by  $\theta \in (0, 1/8)$ .<sup>17</sup> The cost is meant to capture the cost-benefit trade-offs faced by standard-setters when choosing the appropriate level of disclosure. Conditional on an implemented standard  $A$ , let  $\mathcal{P}(v; A)$  denote the continuation market price. It is equal to  $\mathcal{P}(v; A) = P_{ND}(A) = \mathbb{E}(\tilde{v} | \tilde{v} \geq A) = .5(A+1)$  if  $v \geq A$  (no-disclosure) and  $\mathcal{P}(v; A) = v - \theta$  if  $v < A$  (disclosure). The owner liquidates the project to maximize expected cash flows, i.e. whenever  $c > 1_{v \geq A} P_{ND}(A) + 1_{v < A} (v - \theta)$ .<sup>18</sup>

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actual cash flow may still be uncertain even conditional on knowing  $\tilde{v}$ .

<sup>16</sup>We do not use here the terminology of conservatism, given its many uses and interpretations in the empirical and theoretical accounting literature: our primary focus here is on the amount of information available to investors. Conservatism is a much more complex issue in that it is generally used as an aggregate concept applied to entire financial statements (i.e., large set of transactions). A conservative information system may imply that, as bad imprecise outcomes are disclosed, the disclosure may be *less* precise on low events. Our focus here is on the accounting for one particular transaction (as is usually the case in new standards drafted): after an impairment, for example, an outside investor would know of the decrease in the asset value but would have no information on increases in the value of the asset (similar to Goex and Wagenhofer (2008)). This said, we solved the model with upper-tail disclosures only (which is available on request) and it presents similar intuitions as the baseline.

<sup>17</sup>The assumption that  $\theta < 1/8$  is made to avoid some special extra cases specific to very large disclosure costs. The analysis is mostly unchanged, but some different (non-substantive) characterizations of the equilibrium may then occur; these are available from the authors on request. We have also examined a version of the model with some costs associated to non-disclosure. The analysis is entirely robust to such cases.

<sup>18</sup>We make two technical remarks. First, neither post-disclosure market prices nor final cash flows will be negative in this model. If post-disclosure market prices were to be negative, termination would always be chosen. If final cash flows were to be negative, it would be the case that  $v$  would have been disclosed, which in turn would

The timeline of the model is summarized next: (i) owners receive private information about  $\tilde{v}$ ; (ii) a regulation  $A$  is chosen and implemented, (iii)  $\tilde{c}$  is observed and owners may terminate the project early; (iv) continuing projects make a mandatory disclosure; (v) firms are sold in a competitive market.<sup>19</sup>

### 1.3. Preliminaries

An informed owner obtains a surplus  $\mathbb{E}(\max(\tilde{c}, \mathcal{P}(v; A))|v)$  by the time a new regulation  $A$  is chosen (but prior to  $c$  being known). An owner has some chance to obtain  $\mathcal{P}(v; A)$  and, thus, quite importantly, prefers a regime  $A$  that maximizes the continuation market price  $\mathcal{P}(v; A)$ .<sup>20</sup>

This property of the model is illustrative of the fundamental tension between the preference of the informed sector and the ex-ante surplus. Informed owners are primarily driven by financial reporting motives and push for regulations that maximize  $\mathcal{P}(v; A)$ ; as a result, they do not internalize the (ex-ante) decision-usefulness of the mandatory disclosure. The social value of information is asymmetrically incorporated in the owners' preferences: on the one hand, the continuation market price may internalize the costs of disclosure; on the other hand, it does not internalize the value of the termination option. This would suggest, at least at first sight, that informed owners would likely push for *less* disclosure than the level that maximizes ex-ante surplus. Yet, a confounding reporting incentive is also in place. Non-disclosing informed owners do not incur disclosure costs but receive a benefit in the no-disclosure market price  $.5(A + 1)$  when  $A$  increases. This offsetting concern implies that informed owners may also push for excessive disclosure. Keeping these two reporting incentives in mind, we will discuss them more formally as we examine the model. At this stage, we simply remark that private information and reporting motives distort each individual preference away from the ex-ante surplus.

The ex-ante investor surplus created by all projects is given by  $IS(A) = \mathbb{E}(\max(\tilde{c}, \mathcal{P}(\tilde{v}; A)))$ ; it fully balances the costs and benefits of disclosure. We solve for the level of disclosure that 

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imply that termination would have been chosen. Second, the decision to continue does not depend on the actual realization of  $v$  beyond the fact that  $v \geq A$ , thus  $P_{ND}(A)$  is correctly obtained as  $.5(A + 1)$ .

<sup>19</sup>There is some extra complexity if we assume that  $c$  is observed prior to the regulation choice. This is because, then, firms with high-enough liquidation value know that they will liquidate and become completely indifferent. However, this indifference is somewhat of a knife-edge case in the context of this model, because it requires firms to be *certain* that they will not continue.

<sup>20</sup>A formal proof is given here. The owner expects a surplus  $\mathbb{E}_{\tilde{c}}(\max(\tilde{c}, \mathcal{P}(\tilde{v}; A)))$ . Suppose that there are two standards  $A_1$  and  $A_2$ , with  $\mathcal{P}(\tilde{v}; A_1) > \mathcal{P}(\tilde{v}; A_2)$ . Then,  $\mathcal{P}(\tilde{v}; A_1) = .5(A_1 + 1) \in (0, 1)$ , which implies that  $\mathbb{E}_{\tilde{c}}(\max(\tilde{c}, \mathcal{P}(\tilde{v}; A_1))) > \mathbb{E}_{\tilde{c}}(\max(\tilde{c}, \mathcal{P}(\tilde{v}; A_2)))$ .

maximizes the ex-ante surplus  $IS(A)$  of a diversified investor (or uninformed owner).

$$IS(A) = \int_0^A \int_0^1 \max(c, v - \theta) dv dc + \int_A^1 \int_0^1 \max(c, .5(A + 1)) dv dc \quad (1.1)$$

$IS(A)$  is a third-degree polynomial in  $A$  with a unique interior maximum  $A^*$  given by:<sup>21</sup>

$$A^* = 1 + 4\theta - 2\sqrt{\theta(2 + 3\theta)} \in (0, 1) \quad (1.2)$$

The relationship between  $A^*$  and  $\theta$  is intuitively apparent. As the cost of disclosure increases, less disclosure is desirable to investors. Indeed, as disclosure costs become close to zero, the preferred level of disclosure converges to one. Later on, we refer to  $A^*$  as the “investor-preferred” level of regulation. This said, we do not make welfare claims about the social desirability of  $A^*$ ; in practice, disclosure has welfare consequences on many other users that are not necessarily investors (such as, employees, product market regulators, consumers, the accounting profession, etc.) The level  $A^*$  remains useful as a benchmark to capture the particular interest of the investor community. The difference between  $A$  and  $A^*$  has also a simple interpretation in terms of the ex-ante cost of capital required from an uninformed entrepreneur to finance a new project. An owner soliciting ex-ante some external capital for a new project from an uninformed investor would be quoted a price that is less than the maximal value of the project (similar to Bertomeu, Beyer, and Dye (2011)) due to the inefficiency in continuation decisions.<sup>22</sup> Since the development of this first-stage financing decision is straightforward in this model, we do not expand on it further here.

We present next the preference of the standard-setter. As noted earlier, the standard-setter represents the interest of various constituencies. In addition, the standard-setter may have its own philosophy over what constitutes the right disclosure threshold and/or may not perfectly know all parameters of the economy.<sup>23</sup> In this study, given no clear empirical guidance on standard-setters’ actual objective function or the weight assigned to each constituency, we remain reasonably general and assume that the standard-setter has a single-peaked preference  $\mathcal{U}(\cdot)$

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<sup>21</sup>The derivation is technically straightforward, but unfortunately quite lengthy and has been omitted to save space. A complete algebraic derivation is available from the authors on request.

<sup>22</sup>It would also be possible to consider a version of the model in which the owner needs financing and is informed (Beyer and Guttman (2010)). A share of the firm would be issued to an uninformed investor supplying the initial capital. To the extent that we do not necessarily require the “owner” in our model to be the sole owner of the firm, our main results would carry over to cases in which there is an ex-ante capital issue.

<sup>23</sup>As one example, Beresford (2001) notes that considering all economic consequences of disclosure are beyond the role of standard-setting and, rather, the institution’s underlying mission is to provide more decision-useful information.

with a preferred “bliss” regime  $A^S \in [0, 1]$ . We interpret  $A^S = A^*$  as a special case in which the standard-setter is aligned with investors. It is clear, however, that  $A^*$  is not necessarily a perfect representation of standard-setters’ preferences: although the institution has recently evolved toward greater focus on “capital providers,” standard-setters do not mention only investors as the sole relevant constituency.<sup>24</sup> The accounting profession - well-represented within standard-setting organizations - has been known to support more high-quality reporting: many, if not all, standard-setters openly favor greater information quality as an underlying objective.

## 2. Analysis of Political Pressures

### 2.1. Individual Preferences

We examine next the preferences of the informed sector in favor or against new regulations. We denote as  $A$  and  $A'$  two alternative potential regimes. Later on, we will more specifically interpret one alternative as the status-quo (current regime in place) and another alternative as a new proposal; however, for now, we are interested in comparing the preferences of the informed sector between  $A$  and  $A'$ . Given that the roles of  $A$  and  $A'$  are entirely symmetric, we assume with no loss of generality that  $A' > A$ .

As noted earlier, owners support the regime that maximizes the continuation market price. Depending on the placement of the information  $v$  relative to  $A$  and  $A'$ , a firm may support either  $A$  and  $A'$ . Specifically, we make the following claims: (i) that non-disclosers under both standards prefer the more informative standard  $A'$  (which leads to greater non-disclosure price  $P_{ND}(A')$ ), and (ii) that new disclosers under  $A'$ , prefer to disclose only if their information is sufficiently favorable, i.e.  $v - \theta > P_{ND}(A)$ . Disclosers under both standards obtain the same market price and are entirely indifferent.

**Lemma 2.1.** *Let  $A$  and  $A'$  be two alternative regimes with  $A < A'$  and consider a firm with private information  $v$ ,*

- (i) *If  $v \geq A'$  (i.e., the firm does not disclose under both regimes),  $A'$  is supported over  $A$ .*
- (ii) *If  $v \in [A, A')$  (i.e., the firm does not disclose under  $A$  but discloses under  $A'$ ),  $A'$  is supported over  $A$  if  $v > .5(A + 1) + \theta$  and  $A$  is supported over  $A'$  if  $v < .5(A + 1) + \theta$ .*

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<sup>24</sup>We have discussed this objective with a former standard-setter who has told us that the institution has a broad “economic” definition of decision-usefulness, in that it may concern all economic agents that may make better decisions. This may involve investors but also, among other examples, employees choosing a new job, or suppliers who may decide whether or not to extend credit.

Lemma 2.1 contains the one intuition that we will repeatedly put to work throughout the rest of the analysis. There are two key dimensions of private information that determine attitudes toward a change in the regulation. First, owners whose information falls in the non-disclosing region tend to support increasing mandatory disclosure when, post-regulation, they remain in the non-disclosure region (part (i)). Owners are opportunistic in their demands for disclosure, to the extent that they support stricter disclosure rules over unfavorable items that would not appear in their own firm’s financial statements. This aspect is specific to mandatory disclosure: owners push for transparency rules that affect *other* firms. Further, and somewhat paradoxically, it is precisely owners of firms that remain non-transparent under two alternative regimes that support the more informative of these two regimes, simply because more transparency may be valuable to those whose information is not disclosed.

The second part of the Lemma conforms more closely to the intuitions already present under voluntary disclosure. Owners who shift to a disclosure regime prefer transparency only if their information is sufficiently favorable (part (ii)). The less disclosure there is, the less attractive it is for a firm of a given value to retain information. Something worth noting here is that when  $A$  is close to (but below)  $A'$ , then new disclosers under  $A'$  tend to lose a fair amount of market value. We thus predict that small changes in the regulation tend to be opposed by all new disclosers.

## 2.2. Collective Preferences

We develop next a simple aggregate metric that proxies, at a conceptual level, for the total political pressures exerted in favor or against a new regulation. We define  $L(A', A)$  as the fraction of all owners that support  $A'$  over  $A$  (in case of indifference, an owner supports either standard with equal probability).<sup>25</sup> For parsimony, we assume that the weight of owners in each firm is not correlated to  $\tilde{v}$ , i.e. all realizations of  $\tilde{v}$  have the same weight in  $L(A', A)$ . In essence, this assumption means that we focus on situations where the realizations of the private information are mostly idiosyncratic and uncorrelated to political influence (unlike, say, in Bertomeu and Magee (2010)).<sup>26</sup> We adopt this measure of political support because it is the most widely-used

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<sup>25</sup>This assumption is desirable in our model because it implies that the total directional pressure in favor of one regime over another is diluted - relative to standard-setters’ influence - as more owners become indifferent. We derived very similar results in the case where indifferent firms do not vote and what matters is the majority over non-indifferent firms.

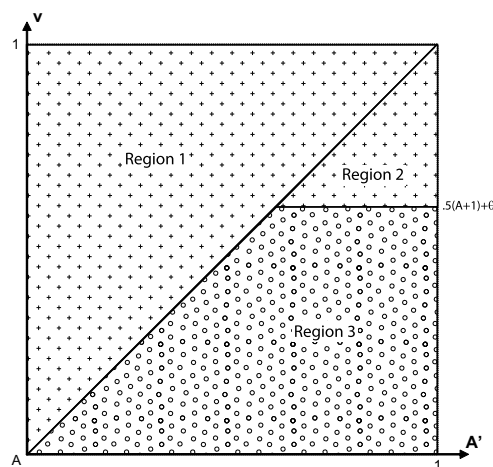
<sup>26</sup>It is not conceptually problematic to extend the model to a political power that depends on the realization of  $\tilde{v}$ ; essentially, this would imply that if ownership is positively (negatively) correlated to  $\tilde{v}$ , then the informed sector would tend to demand more (less) disclosure. In practice, it is unclear that firms with lower or greater  $\tilde{v}$

metric in the social choice literature (e.g., Black (1948), Plott (1967), Simpson (1969), Kramer (1977), Caplin and Nalebuff (1988)).<sup>27</sup>

Our model of political weight is meant to operationalize various informal channels used by preparers or opportunistic informed investors to influence accounting standards, e.g., private communications, letters to Congress or pressure groups. As this seems the most plausible, our working assumption is that capital markets do not have access to these informal channels and do not directly observe the preferences of firms over standards.<sup>28</sup> In the next two subsections, we interpret  $A$  as the status-quo (which may be in place from a prior period) and examine how different alternatives affect  $L(A', A)$ .

### More Disclosure

We begin with a change from the status-quo that prescribes an increase in disclosure, or  $A' > A$ . To illustrate the intuition, the argument is represented graphically in a cartesian plane  $(x, y)$  in Figure 1. For any status-quo  $A$ , the box plots the set of locations  $(A', v)$  such that  $v$  favors  $A'$  over  $A$  (+ regions) or favors  $A$  over  $A'$  (o regions).



**Figure 1.** Preferences for More Disclosure,  $A' > A$

have on average more influence. Many companies that ultimately fell under major accounting scandals were very active political activists.

<sup>27</sup>As in this literature, we assume that voting is truthful. However, in our setting, there would be no purpose in voting for the alternative that does not increase the market price, unless owners could credibly commit to a vote at the agenda-setting stage.

<sup>28</sup>Comment letters are one channel where a firm's identity could be observable. However, in practice, few preparers send comment letters and, in many cases, letters are actually signed by non-public firms, external preparers or lobby groups. Further, comment letters are available online in digital format only since 1997 (and only include current exposure drafts). It seems also that firms, for reasons that may be understandable, avoid venues that would publicly convey that certain accounting treatments would place their cash flow in an unfavorable light.

There are three relevant regions in the box  $(A, v)$ . Region 1 features  $v \geq A'$ , i.e. firms that do not disclose under both standards. As noted in Lemma 2.1, such owners always support the more informative standard  $A'$ . In Figure 1, this corresponds to the area that lies above the diagonal (region 1). Region 2 is given by  $v \in [.5(A+1) + \theta, A')$ , i.e. firms that disclose under the new standard and have “above-average” (net of disclosure costs) information to report. Owners are better-off disclosing information and support  $A'$ . In Figure 1, we draw the horizontal line defined by  $v = .5(A+1) + \theta$  and select the area above this line (region 2). Region 3 is given by  $v \in (A, .5(A+1) + \theta)$ , i.e. firms that disclose under the new standard and have “below-average” information to report. Their owners are better-off keeping their information unknown under  $A$ . This last region corresponds to the remaining locations (region 3).

The total pressure  $L(A', A)$  is given by the portion of the vertical line at  $x = A'$  that intersects + regions. To this, we add  $.5A$  for the half of the set of  $v$ 's in  $[0, A]$  outside of the box. We break down the analysis into two subcases.

Consider a large increase in the threshold, or  $A' \geq .5(A+1) + \theta$ . Then:

$$L(A', A) = .5A + (1 - .5(A+1) - \theta) = .5 - \theta \quad (2.1)$$

The support for the new standard does not depend on the placement of the new standard  $A'$ . When  $A'$  becomes large enough, the choice process features a direct comparison between the fraction above-average (net of disclosure costs) vs. below-average firms. Informed owners are mindful of the redistributive consequences of disclosure, especially for those owners who would rather keep their unfavorable information hidden from the capital market. In the absence of disclosure costs, half of all firms would be above-average and half below-average. That is, informed owners do not internalize the benefits of disclosure and, therefore, view the disclosure as inherently redistributive. When factoring in disclosure costs, however, an extra fraction of the new disclosers - those close to the average - opposes the regulation so that  $L(A', A) < .5$ . As is intuitively apparent, the greater the disclosure cost, the greater the informed sector's push against more disclosure.<sup>29</sup>

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<sup>29</sup>One other aspect that emerges from Equation (2.1) is that political pressures, at least when  $A'$  is set very high, convey information to the standard-setter about the disclosure cost  $\theta$  borne by firms. This may be precisely the reason why standard-setters solicit many comment letters when issuing exposure drafts, i.e. not necessarily to know whether a proposed disclosure is more or less informative or useful, but because the resistance is indicative of the costs borne by firms. In fact, costs are one of the most common concerns noted in comment letters. We focus here primarily on the case in which  $\theta$  is known to the standard-setter, but it would be possible (and interesting) to extend the analysis to  $\theta$  unknown.

Things are slightly different for a small increase in the threshold, i.e. when  $A' \in (A, .5(A + 1) + \theta)$ . Then, all new disclosers oppose the regulation  $A'$  regardless of their value. We obtain the following expression for  $L(A', A)$ .

$$L(A', A) = .5A + 1 - A' \tag{2.2}$$

Small increases in the disclosure threshold introduce a new strategic element that does not exist when  $A'$  is large. As the disclosure threshold  $A'$  is increased away from  $A$  up to  $.5(A + 1) + \theta$  (i.e., moving a vertical line  $x = A'$  rightwards), the new standard loses the support from some previous non-disclosers who are now forced to disclose (comparatively bad) information. In turn, this implies that, over this region of potential standards  $A'$ , the collective support for  $A'$  is decreasing as  $A'$  grows - and more disclosure is proposed - as noted next.

**Proposition 2.1.** *Let  $A \in [0, 1]$  be the status-quo and  $A' \in (A, 1]$  be a new regime that increases disclosure. Then, the total pressure by the informed sector  $L(A', A)$  in favor of  $A'$  is (weakly) decreasing in  $A'$  and  $\theta$ .*

Given that the agenda-setting game will be formally tied to the standard preferred by the informed sector, it is convenient for us to define  $Inc(A)$  as the upper bound on the support that any increase in disclosure  $A' > A$  may receive. Following Proposition 2.1, this upper bound corresponds to a small increase of the threshold above  $A$ , or  $Inc(A) = \lim_{A' \rightarrow A^+} L(A', A) = 1 - .5A$ . In other words, the informed sector most supports very small increases in disclosure. Such small increases in disclosure raise the market price for nearly all non-disclosers, while facing a minimal political opposition from those forced to disclose.

The result is illustrative of a rather intriguing consequence of political activism on the formation of new standards. For any given status-quo, the informed do support some increase in disclosure over the status-quo, i.e.  $Inc(A) > .5$ . That is, the standard-setter always bears some pressure from the informed sector that it may not providing sufficiently high-quality disclosure. Such demands, while they may seem well-meant, do not necessarily reflect investors' preference. In fact,  $Inc(A)$  will always be strictly greater than  $.5$ , even if the current status-quo disclosure  $A$  is greater than the investor-preferred  $A^*$ . Indeed, what is distinctive here is that the demands are made by those firms that are the least transparent (in the non-disclosure region).

A problem appears if the standard-setter proposes to follow through with this recommendation to disclose more. Although the informed sector demands more disclosure over the status-

quo, it will be extremely quick to disavow any large increase in disclosure (as  $L(A', A)$  is decreasing in  $A'$ ). To an external observer, this reversal may seem ex-post surprising but, at a more fundamental level, the analysis indicates that the institution must strike a delicate balance in order to meet the desires of the informed sector (as noted by Beresford (1997)). Indeed, nearly all of the more controversial accounting projects in the US began exactly in this manner, with a request to disclose more made by constituents to the FASB, followed by a negative response after the institution proposed an exposure draft (e.g., oil and gas, stock options, acquisition accounting).<sup>30</sup>

**Corollary 2.1.**  $Inc(A) = 1 - .5A \geq .5$  is decreasing in the status-quo  $A$ .

We may now translate Corollary 2.1 into the first of two main economic forces that will drive the dynamics of the regulation. It is the non-disclosers in the informed sector that push for more mandatory disclosure. They do so for strategic (or self-interested) reasons because tighter classifications allow them to pool with other firms of greater value. In turn, the smaller the fraction of non-disclosers (i.e.,  $A$  is large), the fewer the remaining non-disclosers, and thus the less the collective support  $Inc(A)$  for further mandatory disclosure. This provides our first key observation: that increases in mandatory disclosure, as captured by a higher status-quo  $A$ , feature a negative reinforcement effect that progressively weakens the support for further increases. Would that imply that decreases in disclosure could be preferred to increases when the status-quo induces too much disclosure? This is the question that we discuss next.

## Less Disclosure

We turn next to the case of a decrease in mandatory disclosure relative to the status-quo, or  $A' < A$ . Similar to the previous case, we illustrate preferences in a cartesian box for  $A' \in [0, A]$  and  $v \in [0, 1]$  in Figure 2.

As before, we examine the locations such that  $A'$  is preferred to  $A$ . The model features three regions. Region 1, with  $v \geq A$ , captures non-disclosers under both regimes, who prefer the more informative regime  $A$ . Region 2, with  $v \in [.5(1 + A') + \theta, A)$ , captures higher-value new non-disclosers, who also prefer the more informative regime  $A$  in which they would disclose their

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<sup>30</sup>Beresford explains in a sequence of articles in *Accounting Horizons* that there is a fair amount of confusion about the actions of the FASB (see Beresford (2001) and earlier contributions). The institution spends most of time listening to the requests and opinions of the private sector, and does not act or attempt to impose new standards on its own.

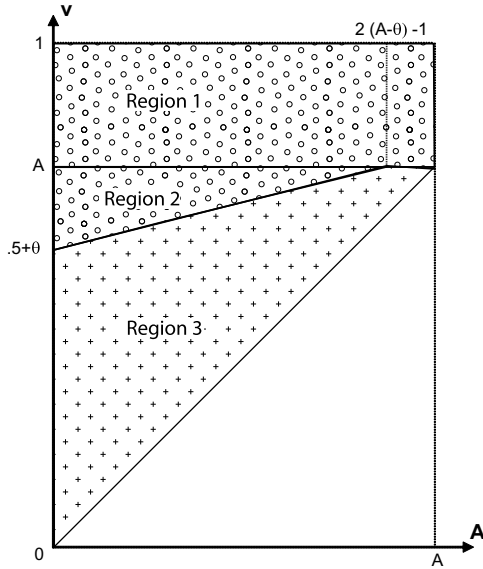


Figure 2. Preferences for Less Disclosure,  $A' < A$

good information. Region 3, with  $v \in [A', .5(1 + A') + \theta]$ , captures lower-value new non-disclosers, who benefit from pooling and prefer the less informative regime  $A'$ .

It is again useful to break down the analysis into special cases, depending on whether the decrease in disclosure is large or small. Assume a small decrease in disclosure, so that  $.5(1 + A') + \theta \geq A$ . Rewriting this condition in terms of  $A'$ , we can view a small decrease in disclosure as:  $A' \geq 2A - 1 - 2\theta$ . This condition is always met when  $A'$  is close to  $A$  and may also be met by no-disclosure  $A' = 0$  if  $A$  is sufficiently small. Then, all new disclosers support the new standard  $A'$  while all non-disclosers oppose it because the lower transparency reduces their market price.

$$L(A', A) = .5A' + A - A' = A - .5A' \quad (2.3)$$

For  $A'$  slightly below but very close to  $A$ , the informed sector tends to oppose the new standard, or  $L(A', A) < .5$ . Why? The non-disclosers under  $A$  oppose the new regulation as one large block, while only a small minority of new disclosers,  $A - A'$ , supports it. Applying that intuition somewhat further, decreasing  $A'$  away from  $A$  collects the support from increasingly more low-value previous disclosers who have an interest in keeping their information hidden from the market, and thus raises the support for the new lower-quality standard  $A'$ . In other words, *small* decreases in disclosure are always rejected by the informed sector, but the greater the decrease in disclosure, the more it is supported.

As a simple economic intuition, what occurs here is redistribution through regulatory capture

of mandatory disclosure. Higher-value non-disclosers (with  $v \geq A$ ) subsidize the no-disclosure market price now granted to a larger fraction of firms; by adding some extra disclosers, the surplus from these high-value firms is redistributed across a larger fraction of owners. The wider this redistribution, which means that  $A'$  is set lower, the more collective support the regulation receives.

Compare this last observation to  $A'$  above but close to  $A$  (slightly more disclosure). In contrast to small increases in disclosure - which are always strictly supported - small decreases are always opposed by the informed sector. This property has an interesting implication for the elements of a proper due process that may be required by standard-setters. If the standard-setters could exogenously restrict the set of standards that could be considered in each period to those close-enough to the status-quo, then no decrease in disclosure will be demanded by the informed sector. That is, an exogenously-imposed rigidity on standard-setting could shield the regulatory process against political pressures to reduce disclosure. Indeed, to a certain extent, such mechanisms do exist in practice (in fact, standard-setters are often blamed for “too much” institutional rigidity). The very existence of conceptual statements is itself designed to avoid very large fundamental changes to the regulation.<sup>31</sup>

Another plausible institutional scenario is that the standard-setter may be perfectly committed not to reduce disclosure (although this has not always been exactly true over the twentieth century). Understanding decreases in disclosure in that environment would then require us to reinterpret the model slightly, by assuming that an exogenous process of financial innovation and/or new transactions “depreciate” the status-quo to  $\delta A$ , with  $\delta \in (0, 1)$  if the standard-setter does not update the standard. In other words, it is quite possible that what we actually mean in the model by decrease in disclosure may not be actively drafting a bad standard or deleting entire sections of existing standards, but rather failing to adapt to financial innovations or new transactions. This interpretation leaves the predictions unchanged if  $\delta$  is small. However, if  $\delta$  is higher, it would bound the maximal possible decrease in disclosure by  $A' \geq \delta A$ . Taking into account our previous observations, this interpretation would then imply that decreases in disclosure - when such institutional “brakes” are solidly in place - may only occur in economies

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<sup>31</sup>It is worth noting that such commitments to rigidity may sometimes be only partially effective. Tweedie (2009) narrates that, after the 2008 financial crisis, elected officials met to discuss accounting rules, over-stepping the standard-setter’s due process. In this speech, he notes that the IFRS conceptual statements allowed the standard-setter to prevent even more major changes to accounting standards during this period. Yet, even if one views a conceptual statement as an accounting analogue to a “Constitution,” a sufficiently large political pressure may still amend it.

with high rates of innovation.<sup>32</sup>

As our main focus here is to describe the consequences of political pressures when institutional restraints are not in place or sufficiently effective, we consider now the case of large decreases in disclosure, i.e.  $A' < 2A - 1 - 2\theta$ . There is now a region of higher value new disclosers that would be better-off disclosing than bearing the (low) market price implied by non-disclosure under  $A'$ .

$$L(A', A) = .5A' + (.5(1 + A') + \theta - A') = .5 + \theta \quad (2.4)$$

**Proposition 2.2.** *Let  $A \in (0, 1]$  be the status-quo and  $A' \in [0, A)$  be a new standard that decreases disclosure. Then, the total pressure by the informed sector  $L(A', A)$  in favor of  $A'$  is (weakly) decreasing in  $A'$  and (weakly) increasing in  $\theta$ .*

Following Proposition 2.2, the most supported decreases in disclosure is given by either  $A' = 0$  or any  $A' \in (0, 2A - 1 - 2\theta)$ , i.e. a large deregulation. We then define  $Dec(A) = L(0, A)$  as given by Equation (2.3) and (2.4), as the total political support in favor of no-disclosure.

**Corollary 2.2.**  *$Dec(A) = \min(.5 + \theta, A)$  is (weakly) increasing in  $\theta$  and  $A$ .*

The term  $Dec(A)$  has some useful comparative statics. Similar to common models of voluntary disclosure, disclosure costs play a central role in generating demands for less disclosure; yet, how costs affect the model is very different under mandatory disclosure. The pivotal voter that leads to  $L(0, A) > .5$  owns the average firm. In the absence of costs, this voter tends to be mostly unaffected by less disclosure and, thus, the opposition from status-quo non-disclosers is sufficient to oppose any reduction in disclosure. With costs, however, this voter prefers to pool rather than engage in - from its private perspective - wasteful redistributive disclosures. That is, the average owner may convey to the regulator that, in its view, the costs of disclosure exceed the benefits. Pursuing this intuition, the greater the cost, the more average owners tend to support less disclosure.

In addition, the greater the disclosure under the status-quo  $A$ , the fewer the fraction of non-disclosers that remain to oppose  $A' = 0$ , thus the greater the support in favor of non-disclosure. This property is a version of the first main economic force given earlier: that too

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<sup>32</sup>We do not explore this aspect formally - not because it is necessarily unrealistic - but because it would affect our results in the unconstrained model in an entirely straightforward manner.

much disclosure, by reducing the fraction of non-disclosers supportive of more regulation, also increases the demand in favor of non-disclosure.

The observation also has an interesting implication in terms of a poorly-understood institutional benefit of non-disclosure of favorable events. As long as  $A \leq .5$ , i.e. *no* unconditionally favorable events are disclosed, the support for decreasing disclosure is  $Dec(A) \leq .5$ ; more than half of all firms are non-disclosers who naturally block any decrease in disclosure. A highly prudent regime, while it may not be entirely informative, provides some political discipline to the informed sector and is one more manner to shield the institution against demands for less disclosure. As noted before, however, such an environment will not be shielded against further increases in disclosure. Said slightly differently, predominant political demands for less disclosure are a symptom of environments where some unconditionally favorable outcomes are disclosed. As one casual example, it is particularly interesting to note that demands by banks to relax loan disclosures post-2008 occurred only after expansions of fair-value considerations under US-GAAP and international standards allowed more “above-average” disclosures (and after many banks supported greater neutrality of disclosures).

Because  $Dec(A)$  is increasing in  $A$  and  $Inc(A)$  is decreasing in  $A$ , there exists a minimum level of the status-quo above which  $Dec(A) \geq Inc(A)$ . We call this level  $A^{back}$  (where “back” stands for “back to no-disclosure”) which, after solving for  $A^{back}$ , yields the following Corollary.

**Corollary 2.3.**  *$Dec(A) > Inc(A)$  if and only if  $A > A^{back} = 1 - 2\theta$ . Further,  $A > A^{back}$  implies that  $Dec(A) = .5 + \theta$ .*

**Proof:**  $Dec(A^{back}) = Inc(A^{back})$  implies that  $1 - .5A^{back} = \min(.5 + \theta, A^{back})$ , i.e.  $A^{back} = \max(2/3, 1 - 2\theta) = 1 - 2\theta$  (because  $\theta < 1/8$ ).□

Comparing  $Dec(A)$  and  $Inc(A)$ , we find that the threshold  $A^{back}$  - the level where the informed sector’s support for decreasing the standard dominates increasing it - is strictly greater than the investor-preferred level  $A^*$ . This means that, somewhat surprisingly, the informed sector pushes in the same direction as diversified investors when investors would be better-off with more disclosure. This result may seem surprising; after all, informed owners do not internalize the ex-ante benefits of more efficient continuations and, as also shown, they oppose large-enough increases in disclosure. The resolution of this paradox is tied to the reporting consequences of non-disclosure, as briefly hinted earlier. The non-disclosers overly value disclosure because

disclosure separates them from other lower-value firms; however, they do not internalize the costs of disclosure imposed on firms forced to disclose. This observation is an important consideration for regulators: political pressure to raise disclosure do not necessarily imply that more disclosure would increase the value to diversified investors. The converse makes this idea even clearer. Predominant pressures by the informed sector to decrease disclosure - even if such pressures are entirely self-interested and unrelated to productive efficiency - are always indicative that diversified investors would also be better-off with less disclosure.

Corollary 2.3 takes us to the second main economic force in our study. Simultaneous to the shrinking fraction of non-disclosers, an increase in the status-quo works to expand the fraction of firms that disclose. Their owners, as we noted in Lemma 2.1, tend to weakly support less disclosure because it may potentially pool them with firms of greater value while saving on some of the disclosure costs. Indeed, one of the most supported decreases in disclosure is one in which all disclosers in the status-quo standard stop disclosing altogether. This concludes our second observation: namely, that the point at which decreasing the standard becomes preferred by the majority may feature an abrupt deregulation.

### **3. Regulatory Choice**

#### **3.1. The Due Process in Practice**

Having derived preferences for regulation, we examine next the regulatory choice problem; however, before we state the formal model, it is useful to set the stage by taking a quick look at one existing due process in a standard-setting institution.

Accounting standards in the US are written by the Financial Accounting Standard Board (FASB), a non-profit organization founded in 1973 whose members represent preparers and users of financial statements. The due process for a new standard normally includes several steps. First, the FASB receives recommendations from staff members. In many cases, these recommendations originate from advisory boards such as the Financial Accounting Standards Advisory Council (FASAC) or from requests by the Securities and Exchange Commission (SEC) or Congress. The FASB is composed of five full-time members and requires a simple majority vote to put a new issue on the agenda. Second, the FASB writes and publicly circulates an exposure draft (sometimes preceded by a white paper). The circulation usually takes between three to six months and comment letters are invited. The FASB is not legally bound to follow

these letters but, for the more sensitive issues, Congress often directly legislates over accounting issues, in general directing the SEC to take particular actions.<sup>33</sup> Third, the FASB drafts a final standard and may pass it based on a simple majority vote. As part of a tacit agreement with US regulators, the new standard is incorporated as part of US GAAP; however, the FASB is not a governmental institution and thus the Securities and Exchange Commission has the legal authority to veto any standard it does not approve or, for that matter, directly write financial reporting regulations.

In the description of the due process, there is little formal structure that articulates how new issues work their way up from the board's agenda. In practice, standard-setters do have some control over the agenda, because staff members prepare new standards, write an exposure draft or amendments, and board members take a vote before putting or removing a new item in the agenda. Yet, it is implausible that standard-setters would be able to use procedural rules to block any new agenda items that are heavily demanded. For example, many items are put on the agenda at the request of the Securities and Exchange Commission and in response to a Congressional bill, or originate from the Financial Accounting Standards Advisory Council where preparers are well-represented (about 1/3 of its members, currently the largest single group).<sup>34</sup>

### **3.2. A Representation of a Regulatory Choice**

In presenting a stylized model of regulatory choice, our objective is to capture some relevant aspects of the standard-setter's role, operationalizing how political pressures may constrain this role.

Since institutional research on standard-setting is relatively new and there is no pre-existing model we can pick up and extend, we develop here a parsimonious regulatory environment. What our theory intends to represent is, at the conceptual level, the main important forces that are at play and not all the formal and informal details of an actual process. Taking a conceptual - and not literal - view of the institution is ubiquitous in virtually all, widely-used, models

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<sup>33</sup>Over the last thirty years, congressional hearings have occurred on average once every two years (Beresford (2001)). In addition, Congress often directly legislates over accounting issues, in general directing the SEC to take particular actions. There is a large number of bills that mention accounting and the FASB. For example, in 2009, we could find five bills in which the FASB is mentioned, H.R.607, H.R.1349, H.R.1909, H.R.2664 and H.R.3817. As an example, H.R.2664 requires an oral annual testimony of the SEC and the FASB (passed 9/9/2009). H.R.1909 requires the SEC to suspend the application of mark-to-market accounting; this bill did not have to come to a House vote: the SEC decided on its own to allow asset reclassifications from mark-to-market to historical cost.

<sup>34</sup>In fact, most issues are taken out of the agenda in response to opinions from the private sector after circulating a preliminary white paper. Between 2004 and 2008, the FASB removed 17 items from the agenda, many of them after receiving unfavorable comment letters.

of institutional choices in economics and political science (e.g., among many examples, Stigler (1971), Peltzman (1976), Meltzer and Richard (1981), Aghion and Bolton (1990), Austen-Smith and Banks (2001)). Abstract institution models have been used for issues that are as complex as accounting standards, such as constitutional design, industry-specific regulations, international trade, tax policy and government budgets, or property rights.<sup>35</sup> In this respect, our basic approach closely follows the large existing literature in the area.

In order to describe the process in a game-theoretic manner, we present a few ingredients that we believe are of first-order importance. There is a pre-existing status-quo standard, which is the fall-back option if the current regulatory effort fails. For now, we take the status-quo as a given regime that has been inherited from a prior period. A proposal is made to replace the status-quo: this proposal may be made either by the standard-setter or may emerge directly from the informed sector. Finally, whether the new proposal is passed and implemented depends on the collective preference of the informed, as well as the political influence of the standard-setter.

We formally break down the due process into two steps, (i) the agenda-setting stage, and (ii) the choice between the status-quo and a new standard. Since we approach the model by backward induction, we first describe step (ii) and then move to step (i).

Stage (ii) begins once a new standard, call it  $A'$ , has been put on the agenda against the status-quo  $A$ . That may be, for example, once a final exposure draft has been drafted or during a Congressional hearing. Our working hypothesis is that the regulator follows a representative rule that aggregates the demand from the standard-setter and the informed sector. In this context, we define  $M(A', A)$  as the political weight in favor of  $A'$  over  $A$ ; we decompose  $M(A', A) = L(A', A) + 1_{A'=A^s}\lambda$  into two components, the influence of the informed sector  $L(A', A)$  (as defined in the previous Section) and the influence of the standard-setter  $\lambda$ . In this last term,  $\lambda > 0$  captures the political influence of the standard-setter (or the size of the constituencies it represents) and  $A^s$  is a regulation advocated by the standard-setter at stage (i). One useful analogy is that  $M(A', A)$  is a political barometer that captures how much demand there is for  $A'$  over a given status-quo  $A$ . At that stage,  $A'$  is implemented over  $A$  if  $M(A', A) > .5$ . For possible cases such that  $M(A', A) = .5$ , we assume as a tie-breaker rule that the standard preferred by the standard-setter is implemented.

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<sup>35</sup>Further, complexity of real environments is not even a problem inherent to institution analysis and is present in all other problems that are commonly studied with models, such as firm's private decision making or actual financial markets. Modeling is about conceptual, not factual representation, and serious modelers know that good models are those that bring simplicity and light into a complex real world, not ones whose assumptions factually list all aspects of reality (Rubinstein (1991)).

Stage (i) begins before  $A'$  has been chosen and determines which new standard will be placed on the agenda. We assume that the standard-setter optimally chooses which regime  $A^s \in [0, 1]$  to advocate.<sup>36</sup> In terms of more formally describing the agenda choice, we assume that the standard-setter may or may not have control over the agenda. In the US, for example, the agenda is sometimes set by the FASB but there are also cases in which an agenda item is requested by the SEC or Congress. As examples, the FASB solicits its constituencies for agenda items (as seen from “open” posted comment letters) and the IASB must justify its agenda items and process during yearly public consultations.

We model agenda control as a random variable  $\tilde{\mu}$  with support on  $\{0, 1\}$ .<sup>37</sup> When  $\tilde{\mu} = 1$ , the standard-setter has control over what regime to place on the agenda, but knows that a regime requires  $M(A', A) \geq .5$  to pass.

When  $\tilde{\mu} = 0$ , the standard-setter does *not* have discretion over the agenda and, rather, the proposal placed on the agenda is determined by  $M(A', A)$ . In this case, we assume that the standard that is the most supported is placed on the agenda, i.e.  $A' \in \arg \sup_{\hat{A}} M(\hat{A}, A)$ . Note that, even when the standard-setter does not have direct control over the agenda, he does have indirectly some effect on  $M(\cdot, A)$  through his own political influence. As this seems intuitively plausible, we assume that  $\tilde{\mu}$  is known when the standard-setter chooses  $A^s$ .<sup>38</sup>

Without loss of generality, we can reduce notation by assuming that the standard advocated is put on the agenda  $A^s \in \arg \sup_{\hat{A}} M(\hat{A}, A)$ .<sup>39</sup> In other words, in equilibrium, the standard-setter supports the regulation that will pass stage (ii). To reduce extra technicalities, we make the additional assumption that the standard-setter can always set the status-quo when  $\arg \sup L(A', A) = A$ , for example by proposing and passing very minor adjustments to the regulation.<sup>40</sup> In what follows, we refer to  $A^{imp}$  as the implemented standard, i.e. either the

<sup>36</sup>In terms of the basic findings, the model features conceptually similar behavior if we assume that, in the absence of commitment, the choice of  $A^s$  is made at stage (ii). However, making that assumption would suppose that lack of commitment affects the agenda-setting game which seems less realistic. Because the standard-setter is an institution (which plays the regulatory game along many issues) there are also reasons to believe that reputational mechanisms point more toward commitment.

<sup>37</sup>As far as our Propositions are concerned, it is entirely possible that the probability that  $\tilde{\mu} = 1$  could depend on  $A$ . One could have a broader model in which the probability that  $\mu = 1$  is written as a function of  $L(\cdot, \cdot)$ ,  $\lambda$  and  $\mathcal{U}(\cdot)$ . The comparative statics over these determinants would be conceptually immediate, so that we prefer to model  $\tilde{\mu}$  in reduced-form and instead focus on the less immediate aspects of the model.

<sup>38</sup>This assumption is not essential for the main argument but reduced some of the technical analysis. Similar results can be derived if  $\tilde{\mu}$  is unknown to the standard-setter.

<sup>39</sup>A quick proof of that statement is provided. Suppose the standard advocated is not put on the agenda and suppose the standard-setter moves to advocate the standard  $A'$  put on the agenda. After this change,  $A' = A^s$  will still put on the agenda, and thus the outcome of the regulatory process will be unchanged, achieving exactly equal utility for the standard-setter. In fact, a closer inspection of the results shows that doing so is actually *strictly* optimal.

<sup>40</sup>That is, we allow the standard-setter to “deadlock” the agenda when the informed sector supports a standard

status-quo  $A$  or the standard  $A^*$  advocated in equilibrium by the standard-setter.

In summary, the standard  $A^{imp}$  is the solution to the following constrained optimization: maximize  $\mathcal{U}(A')$  in  $A'$  subject to  $L(A', A) + \lambda \geq .5\mu + (1 - \mu) \arg \sup_{\hat{A}} L(\hat{A}, A)$ . Finally, as we will see in the next Section, the status-quo will never evolve on its own beyond  $A^*$  so we save some space by initially focusing on  $A \leq A^*$ . We delay until the next Sections cases where, after an exogenous shock, the status-quo evolves past  $A^*$ .

### 3.3. A Standard-Setter's Agenda

We begin first with the solution to the regulatory game when the standard-setter has control over the agenda,  $\mu = 1$ . In addition to providing us with a possible outcome, this solution offers a natural benchmark against which we can compare the implemented regulation when the standard-setter does not have control over the agenda.

We know that the standard-setter's utility function is increasing on  $[A, A^S]$  and, therefore, the standard-setter would, optimally, push for a new standard that is located as high as possible, up to  $A^S$ . However, the standard-setter does not have complete discretion to simply dictate a new standard, because the new standard must pass stage (ii), i.e. satisfy  $M(A^{imp}, A) = L(A^{imp}, A) + \lambda \geq .5$ . To solve for the choice of the standard-setter, we first consider the *maximal* increase in disclosure that can pass stage (ii); we call that standard  $A^{max}$  and it is given by  $L(A^{max}, A) + \lambda = .5$  or  $A^{max} = 1$  if  $L(1, A) + \lambda \geq .5$ .

When choosing a preferred standard, we know that  $L(A', A)$  is decreasing in  $A'$  on  $[A, 1]$ . Therefore, the standard-setter can (and will) always implement the maximal disclosure level up to  $A^S$ , or  $A^{imp} = \min(A^{max}, A^S)$ , as stated next.

**Proposition 3.1.** *Suppose that  $\mu = 1$ . If  $\lambda < \min(\theta, .5(1 - A))$ ,  $A^{imp} = \min(A^S, A + .5(1 - A) + \lambda)$ ; otherwise,  $A^{imp} = A^S$ .*

**Proof:** We solve for  $A^{max}$  using Equations (2.1) and (2.2). We know that  $L(1, A) = \max(.5A, .5 - \theta)$ . First, suppose that  $.5 - \theta \geq .5A$ , i.e.  $A \leq A^{back}$ , then  $A^{max} = 1$  requires that  $.5 - \theta + \lambda \geq .5$ , i.e.  $\lambda \geq \theta$ . Second, suppose that  $A < A^{back}$ . Then,  $A^{max} = 1$  requires that  $.5A + \lambda \geq .5$ , i.e.  $\lambda \geq .5(1 - A)$ . Finally, assume that  $A^{max} < 1$ . Then, it must be a solution to  $1 + .5A - A^{max} = .5$ , i.e.  $A^{max} = A + .5(1 - A) + \lambda$ .  $\square$

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that is very similar to the status-quo. This assumption is not used if  $\lambda$  is large enough or if cycles occur. Further, the assumption is not critical to the analysis and conceptually similar results can be obtained if we require standards to increase by at least some small amount.

The result offers some useful insights about the factors that effectively constrain the standard-setter's ability to implement  $A^S$ . Costs of disclosure imply greater pressures against the standard-setter and, as is intuitive, require greater political capital  $\lambda$  to reach  $A^S$ . The status-quo can have important consequences on the set of regimes that are politically-feasible. If  $A$  is small, a larger fraction of all firms do not disclose, and thus it becomes easy to use the support from such non-disclosers against the new disclosers. In turn, this implies that a lower status-quo makes it easier to increase disclosure by a large amount. Vice-versa, as the status-quo increases, fewer non-disclosers are left to support the standard-setter and the opposition from additional new disclosers becomes more constraining. We predict that regulations will increase more rapidly during the first periods, and then face increasing political resistance as the status-quo is further increased.

### 3.4. A Political Agenda

We turn next to the case in which  $\mu = 0$ , so that the actual agenda is determined by a combination of the stage (ii) influences by the informed sector and the standard-setter.

#### Low-Disclosure Status-quo

The situation with  $A < A^{back}$  is quite similar to agenda control, except that, when determining  $A^{max}$ , the standard-setter must take into account the pressures of the current non-disclosers. This now requires the proposal made by the standard-setter to receive a support  $Inc(A)$  instead of a simple majority.

**Proposition 3.2.** *Suppose that  $\mu = 0$  and  $A < A^{back}$ . The implemented regulation  $A^{imp}$  is given as follows: (a) if  $\lambda < .5(1 - A) + \theta$ ,  $A^{imp} = \min(A^S, A + \lambda)$ , (b) otherwise,  $A^{imp} = A^S$ .*

**Proof:**  $A < A^{back}$  implies that  $L(1, A) = .5 - \theta$ . In turn,  $A^{max} = 1$  if and only if  $.5 - \theta + \lambda \geq 1 - .5A$ , i.e.  $\lambda \geq .5(1 - A) + \theta$ . Otherwise,  $A^{max}$  is given by  $.5A + 1 - A^{max} + \lambda \geq 1 - .5A$ , i.e.  $A^{max} = A + \lambda$ .  $\square$

Comparing this characterization of  $A^{imp}$  to Proposition 3.1, the results offers a clean illustration of the implicit political costs of losing control over the agenda-setting process. In this setting, the informed sector most strongly favors a marginal change in the disclosure threshold, thus the standard-setter uses political influence,  $\lambda$ , for any move away from the status-quo. The

term  $.5(1 - A)$ , which was present in Proposition 3.1 but no longer here, may be identified in the model as the value of agenda control. One important implication is that some amount of political influence by the standard-setter is essential when  $\mu = 0$ ; otherwise, the disclosure regime will remain deadlocked close to the status-quo and will only make very slow progress toward  $A^S$ .

### High-Disclosure Status-quo

A high-disclosure status-quo  $A \geq A^{back}$  is similar to the previous case, except for two notable differences. First, the standard-setter faces pressures from the disclosers and is subject to  $Dec(A) = .5 + \theta \geq Inc(A)$ . Second, these pressures now point toward a regime that features very low disclosure requirements.

**Proposition 3.3.** *Suppose that  $\mu = 0$  and  $A \geq A^{back}$ . The implemented regulation  $A^{imp}$  is given as follows: (a) if  $\lambda \geq .5(1 - A) + \theta$ ,  $A^{imp} = A^S$ ; (b) if  $\lambda \in (\theta - .5(1 - A), \theta + .5(1 - A))$ ,  $A^{imp} = \min(A^S, A + .5(1 - A) - (\theta - \lambda))$ ; (c) if  $\lambda \leq \theta - .5(1 - A)$ ,  $A^{imp} = 2A - 1 - 2(\theta - \lambda) < A$ .*

**Proof:** Let us derive  $A^{max}$ . Suppose that  $L(1, A) + \lambda \geq Dec(A)$ , i.e.  $\lambda \geq \theta + .5(1 - A)$ , then  $A^{max} = 1$ . Suppose that  $Inc(A) + \lambda > Dec(A)$ , i.e.  $\lambda \in (\theta - .5(1 - A), \theta + .5(1 - A))$ , then  $A^{max} > A$  and  $L(A^{max}, A) + \lambda = Dec(A)$ . That is,  $A^{max} = A + .5(1 - A) - (\theta - \lambda)$ . Otherwise,  $A^{max} < A$  and is given from Equation (2.3) as  $A - .5A^{max} + \lambda = Dec(A)$ , i.e.  $A^{max} = 2A - 1 - 2(\theta - \lambda)$ .  $\square$

The consequences of a high status-quo are most apparent when the standard-setter's influence is not too high, i.e. cases (b) and (c). Under a high status-quo, the standard-setter now faces pressures to reduce disclosure. This course of action is unattractive to current non-disclosers who now support the standard-setter's actions. In case (b), the fraction of status-quo non-disclosers is now on the side of the standard-setter, as illustrated by the term  $.5(1 - A)$ . Interestingly, this term is the same as with agenda control  $\mu = 1$ ; the intuition is that, after collecting the support from the non-disclosers, the standard-setter endogenously recovers some control over a political agenda. There is, however, one more constraining factor, captured by  $\theta - \lambda$ : the greater the cost of disclosure relative to the standard-setter's influence, the more the disclosers push to reduce disclosure.

Case (c) may be considered problematic or dysfunctional standard-setting, but is important to understand the most dramatic consequences of political interference. If  $\lambda \leq \theta - .5(1 - A)$ , the political pressure  $Dec(A)$  becomes so intense that no increase in the standard is feasible or could be put on the agenda. The political agenda must lead to a reversion toward low disclosure requirements, or  $A^{imp} < A$ . This does not necessarily mean, however, that the standard-setter is entirely at the mercy of political pressures; in such a situation, the standard-setter will push for the smallest decrease in the regulation that is politically feasible. Note the following: the greater the fraction of non-disclosers, the more support the standard-setter receives, and the less the current standard decreases.

In summary, it is not difficult to imagine how in the real world, the standard-setter would have to approach the political game. With agenda control ( $\mu = 1$ ), the standard-setter acts on his own, and essentially uses political influence to offset the pressures of new disclosers. With a political agenda ( $\mu = 0$ ), the standard-setter is bound to form a political alliance - perhaps one that is tacit - with the non-disclosers. The more surprising consequence is that the standard-setter, in order to push for higher-quality standards, is relying heavily on the political support from the very firms that are the least transparent.

As this will play an important role later on, we rewrite the condition defining case (c) in terms of  $A$  instead of  $\lambda$ . Specifically, case (c) is attained if and only if  $A \geq A^{ret} \equiv 1 - 2(\theta - \lambda)$ . We make the observation that  $A^{ret} > A^{back} > A^*$ . Although political activism may push for a disclosure level  $A = 0$  that is far below  $A^*$ , such push becomes predominant only when  $A > A^*$  so that there is too much disclosure as compared to the investor-preferred level. This means that situations of overwhelming demands by the informed sector, while driven by financial reporting and not productive efficiency, are still indicative of a level of disclosure that is above that preferred by diversified investors.

One may also note that, when  $A \geq A^{ret}$ ,  $A^{imp} \in (1 - 6(\theta - \lambda), A^{ret})$ . That is, the downside adjustment in the regulation takes, at most, one period: the implemented regulation may fall once but then exits region (c). Unlike increases in disclosure - which may occur over time - we predict that increases in disclosure should always follow a period of deregulation.

## 4. Evolution of Mandatory Disclosure

### 4.1. A Multiperiod Model

We now extend the basic model by considering a simple multi-period overlapping generations extension, in the lines of Dye (1988). Time is indexed along a horizon  $t = 0, \dots, +\infty$ . In each period, a new generation of owners is endowed with new current projects and some private information about these projects. The timeline remains the same as in previous Sections except that variables are indexed by  $t$ , i.e.  $\tilde{v}_t$  and  $\tilde{c}_t$  represent the value and the termination payoff for the project created at date  $t$ . Similar to the baseline, we maintain the assumption that a project may only be terminated early, prior to production having started; that is, the cash flow  $\tilde{c}_t$  is only available once, at date  $t$  and prior to the sale date or cash flows.<sup>41</sup> Projects complete by the end of the period or, equivalently, they pay off their final cash flows over time and no further disclosure costs are incurred.

As we develop this extension, we briefly mention some of the assumptions that are implicit in the argument. One may assume that a new generation lives for multiple periods, as long as owners must sell all of their ownership in the current period (which is central to creating reporting motives). This is because owners, after having sold, would be investors in future periods and would be entirely price-protected against any change in future productive efficiency.<sup>42</sup> We do not discuss issues relating to dynamic terminations which are known to be extremely intractable, even if disclosure were exogenous (for example, once investments have been completed, and cash flows begin to arrive, the value of late terminations may be quite low). In addition, as the natural benchmark, we look for a constant desired level of disclosure  $A^S$ . As a matter of actual practice, standard-setters have a fixed term and implement what they view as the right disclosure for the period. In terms of the internal relationships that may give rise to  $A^S$ , it is our view that standard-setters represent the interest of actual constituencies, not of unborn future generations of owners. Later on, we will briefly discuss how a benevolent standard-setter who looks after future unborn generations may alter its own policies; we do warn, however, that this extended discussion will err toward what the standard-setter “should” do rather than describing

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<sup>41</sup>This is similar to the Dye (1988) overlapping generation model, who assumes that there is no further private information after the sale. This assumption is also natural in any setting where the owner sells the entire firm. Even if there were future decisions, the new investors could purchase the firm using a mechanism that requires a disclosure by the owner after the price has been set. Having no more incentives to lie, the information  $v$  would be fully revealed.

<sup>42</sup>Indeed, investor always make zero profit in any purchase assets, regardless of how  $A^*$  is relative to the current regulation. In particular, the level  $A^*$  refers to the surplus of new owners who are uninformed or diversified.

a positive institution.

In what follows, we denote  $\{A_t\}$  as the sequence of regulatory outcomes and make the assumption that  $A_0 = 0$  (there is no exogenously assumed pre-existing standard in the economy). Every period  $A_{t+1}|A_t$  is updated following the process described in Propositions 3.1-3.3. In the next two Sections, we examine more closely the intertemporal dynamics of the process.

## 4.2. Convergence to Bliss

Convergence to the regime  $A^S$  occurs if and only if  $A^S < A^{ret}$ . Specifically, in the process of converging toward  $A^S$ , the regulation should not fall in the region that brings it back to  $\lambda$ .

**Proposition 4.1.** *If  $A^S < A^{ret}$ ,  $\{A_t\}$  is weakly increasing and attains  $A^S$  for  $t$  sufficiently large.*

There are several cases in which  $A^S < A^{ret} = 1 - 2(\theta - \lambda)$  will be satisfied. The condition will be satisfied when the standard-setter is sufficiently independent, i.e.  $\lambda$  is large enough, since then  $A^{ret}$  will be high-enough and greater than  $A^S$ . Similarly, low disclosure costs are indicative of situations in which  $A^{ret}$  is large and the standard-setter is less politically-constrained. In fact, if disclosure costs are sufficiently small, the standard-setter can sustain (up to) full-disclosure. The reason for this result is closely tied to the nature of political pressures. Overall, the informed sector bears redistributive effects from disclosure and, thus, some firms oppose disclosure while others favor it. When disclosure costs are low,  $Dec(A)$  is close to .5, and the informed sector becomes, for the most part, indifferent to new regulatory efforts.

Another interesting case may occur in the special case when the standard-setter's preference is exactly aligned with that of diversified investors, i.e.  $A^S = A^*$ . Observing that  $A^* < 1 - 2(\theta - \lambda)$ , the disclosure threshold preferred by investors is always attainable when it is supported by the standard-setter. We may conclude from this observation that, while not always entirely descriptive of standard-setting organizations, the greater focus on investors by current standard-setters may have important long-term consequences. Namely, making investors the primary constituency would produce a long-run stable standard, which meets its stated objectives. It is also worth noting that this result was, ex-ante, far from obvious: the preferences of informed owners are very different from those of diversified investors. Indeed, in general, the informed sector will support more disclosure than diversified investors and, when  $A$  is high, may also support a return to no-disclosure.

In fact, even if  $A^*$  is attained in long-run through the actions of the standard-setter, a majority of the informed sector will keep supporting even greater levels of disclosure. It is also important to note that, even though  $A^S$  will be attained or nearly-attained, this long-run convergence does not necessarily imply immediate convergence; and it may take several periods of regulation. The rate at which the standard-setter may execute this objective depends on the amount of political independence, the ability to set the agenda and the current status-quo.

The political debates that preceded stock option expensing offer an interesting illustration of the process of consecutive standard-setting iterations. The first attempts to incorporate stock options in accounting standards dates from APB no.25 in 1972. In an attempt to provide some recognition, APB no.25 required expensing of options at their intrinsic value as of the date of issuance. Observing that many options were issued at-the-money, thus making APB no.25 provide very little extra recognition, the FASB circulated in 1993 an exposure draft requiring the expensing of stock options at fair-value. Faced with intense pressures and an open threat to be replaced by a Congress-appointed body, the FASB backtracked to pass SFAS 123 in 1995. Although less ambitious, SFAS 123 required extra disclosures of the fair value of options. It was only nine years later, in 2004, that the FASB required recognition at fair value in the income statement, and not without some opposition in Congress (for example, a Congressional bill, H.R.1372, was proposed to overrule new standards written by the FASB). However, at this point, a large fraction of firms were already providing information according to the existing SFAS 123 and did not oppose the amendment SFAS 123(r).

### 4.3. Regulatory Cycles

When  $A^S \geq A^{ret}$ , the bliss standard is not robust to the pushback to  $\lambda$ . In this case, the standard will first increase toward  $A^S$  but will return to  $\lambda$  at some point in time. The following Proposition summarizes the standard-setting process described in Section 3.

**Proposition 4.2.** *Suppose  $A^S \geq A^{ret}$ . Then  $\{A_t\}$  is (almost-surely) non-monotonic and features cycles of the following form.*

- (i) *If  $\mu = 1$  or  $A_t \leq A^{ret}$ ,  $A_{t+1} > A_t$  and strictly increases toward  $A^S$ .*
- (ii) *Otherwise,  $A_t$  strictly decreases down to  $A_{t+1} = A_t - (1 - A_t - 2(\lambda - \theta))$ .*

To understand the underlying causes of cycles, it is somewhat useful to go back to the standard-setter's agenda-setting behavior. Cycles occur because the standard-setter passes stan-

dards with excessive disclosure, i.e.  $A_t \geq A^{ret}$ , which erode the support of non-disclosers against a fall-back toward less disclosure. However, there is a more subtle property of the model that is worth noting. Specifically, as we will show, it is the succession of periods of agenda control and periods of no agenda control that causes cycles.

To see this, consider an economy where  $\mu = 1$  in each period, i.e. the standard-setter always always has agenda control. In this case, Proposition 3.1 implies the standard would converge to  $A^S$  and would not cycle. This observation would suggest that an economy where there is no agenda control always may cycle since the return to  $A_t = \lambda$  may occur only when  $\mu = 0$ . However, this is not true, as we establish in the following Lemma.

**Lemma 4.1.** *Suppose  $\mu = 0$  always and  $A^S \geq A^{ret}$ , then  $A_t < A^{ret}$  for all  $t$ .*

**Proof:**  $A_t \geq A^{ret}$  would require, that for some  $A < A^{ret}$ ,  $A_{t+1} \geq A^{ret}$ . First, suppose that  $\lambda \geq .5(1 - A_t) + \theta$  (Propositions 3.2 (b) and 3.3 (a)). Then,  $A^{ret} \geq 1 - 2\theta + (1 - A_t) + 2\theta > 1$ , a contradiction to  $A^S \geq A^{ret}$ . Second, suppose that  $A_t < A^{back}$ ,  $\lambda < \theta + .5(1 - A_t)$  (Proposition 3.2, (a)). Then,  $A_{t+1} \leq A^{back} + \lambda \leq 1 - 2\theta + \lambda < A^{ret}$ . Third, suppose that  $A_t \geq A^{back}$  and  $\lambda \in (\theta - .5(1 - A_t), \theta + .5(1 - A_t))$ . Then,  $A_{t+1} = A_t + .5(1 - A_t) - \theta + \lambda < A^{ret} + .5(1 - A^{ret}) - \theta + \lambda < 1 - 2(\theta - \lambda) = A^{ret}$ .  $\square$

The Lemma establishes that, in a period where  $\mu = 0$ , the process will never evolve beyond  $A^{ret}$  toward the fall-back region. In fact, one may observe that the process is strictly increasing and thus must converge to a fixed point. The sole candidate for a fixed point of the standard-setting process is given by the updating function in region (b) in Proposition 3.3, or  $A = A + .5(1 - A) - \theta + \lambda$ . Solving this Equation, the point of convergence of the process is given exactly by the previous threshold  $A^{ret}$  which motivates the next Proposition.

**Proposition 4.3.** *Suppose that  $A^S \geq A^{ret}$ . In an economy where  $\mu = 0$  (resp.  $\mu = 1$ ) always,  $\{A_t\}$  converges monotonically to  $A^{ret}$  (resp.  $A^S$ ).*

As long as  $\mu = 0$ , the disclosure threshold will increase and reach a region of high resistance to further increases in the standard. This resistance is so intense that the ability of the standard-setter to further increase the standard becomes arbitrarily small as one moves closer to  $A^{ret}$ . Comparing this property to the case in which  $\mu$  may be stochastic, we observe that cycles are the consequence of periods of relatively unconstrained standard-setting ( $\mu = 1$ ) such that the

standard-setter can rapidly increase disclosure and periods in which the standard-setter loses control over new accounting proposals.

Regulatory cycles require  $A^* < A^{ret} < A^S$ . They must feature some periods of over-regulation, specially near the time period when there is a push-back toward non-disclosure. In other words, the result suggests that investors do prefer some decrease in disclosure requirements near the end of a regulatory cycle (although not necessarily all the way to that standard which ultimately passes). Continuing on this idea, when political independence  $\lambda$  is low and costs  $\theta$  are high, the end of a regulatory cycles will feature a decrease beyond the level preferred by investors. This is the potentially perverse effect of regulatory cycles, namely one period of excessive disclosure, followed by one period of insufficient disclosure. The abrupt deregulation contrasts with (potentially) many periods of uninterrupted decreases in disclosure that preceded.

Note that the baseline model assumes that the standard-setter focuses on the current generation (and not unborn generations). It is possible that, in some cases, the institution may be sufficiently independent of the current generation of investors that standard-setters may become forward-looking and consider future generations of entrepreneurs. Forward-looking choices may have implications for the analysis but, fortunately, these implications are made apparent by the analysis of the problem. Without regulatory cycles, the actions of a forward-looking standard-setter will be unchanged. Consider next the case of regulatory cycles. A sufficiently patient standard-setter may prefer to settle the standard slightly below  $A^{ret}$  which ensures that the return to no-disclosure will not occur. This said, for such stabilization to be optimal even with a forward-looking standard-setter, several conditions would have to be met, namely that (i) the standard-setter must be sufficiently patient to forfeit the benefit (for at least one period) of reaching beyond  $A^{ret}$ , (ii) the probability of having absolute control must be low enough so that even a patient standard-setter would not expect  $A > A^{ret}$  to remain for many periods through agenda control, (iii) political influence must be low enough so that there is a large cost of the cycles as compared to the benefits of reaching above  $A^{ret}$  for one period.

## 5. Discussions and Extensions

We develop here three possible extensions of the main results. First, we consider the case in which the status-quo has evolved (for exogenous reasons) to a situation of over-regulation from the perspective of the standard-setter; we then discuss whether the standard-setter would

be willing to decrease disclosure. Second, we introduce voluntary disclosure in the model, and reconsider the regulatory choice in the presence of interactions between voluntary and mandatory disclosure. Third, we examine the demands for other forms of standards, such as asymmetric disclosure of favorable events relative to unfavorable events.

### 5.1. Over-Regulation Traps

One interesting possibility, which we have not yet considered, is that some status-quo may fall above the level preferred by the standard-setter  $A^S$ . As a reasonable situation when this could occur, there may be a structural break in the cost of disclosures (e.g., change in legal systems, more information technology) or a change in the preferences of the standard-setter or the constituencies it represents. Also,  $A_0$  may be greater than  $A^S$  if the default standard for the event has branched out from some other standard. In this analysis, let us now set  $A_t > A^S$  to denote a status-quo. We discuss next whether the standard-setter would be necessarily willing to move away from this situation of perceived excessive regulation. Since all the results are almost identical when  $\mu = 0$ , we save space here by considering only the case of  $\mu = 1$ .

Denote  $\psi(A_t)$  as the minimal standard  $A < A^S$  such that  $\mathcal{U}(\psi(A_t)) \geq \mathcal{U}(A_t)$ . Recall that  $\mathcal{U}(A)$  is single-peaked so that  $\psi(A_t)$  is weakly decreasing in  $A_t$ . In particular, any standard in  $(\psi(A_t), A^S]$  will be preferred by the standard-setter to the status-quo.

The remaining question is whether one such standard in  $(\psi(A_t), A^S]$  can be placed on the agenda and implemented. Because  $L(A', A)$  is decreasing in  $A'$  for any  $A' < A$ , it is sufficient to check whether  $\psi(A_t)$  may pass the political process, i.e.  $L(\psi(A_t), A_t) + \lambda \geq .5$ . The left-hand side of this Equation is decreasing in  $A_t$ , so that the condition is easier to verify as  $A_t$  becomes large.

**Proposition 5.1.** *Suppose that  $\mu = 1$ . Then, there exists  $\bar{A} \in (0, 1)$  such that (a) for  $A_t \in [A^S, \bar{A})$ ,  $A_{t+1} = A_t$ ; (b) for  $A_t \geq \max(\bar{A}, A^S)$ ,  $A_{t+1} < A_t$ .<sup>43</sup>*

Proposition 5.1 presents an illustration of the conflicting objectives of the informed sector and the standard-setter. There exist some decreases in disclosure that would make the standard-setter better-off, and other decreases that would make the majority of the informed sector better-off. In this sense, the current status-quo features over-regulation from the perspective of both parties. Yet, these parties disagree on the proper amount of deregulation: the informed

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<sup>43</sup>Note that  $\bar{A}$  is, in general, a function of the entire preference of the standard-setter  $\mathcal{U}(\cdot)$ , and may thus depend on  $A^S$ .

sector would like more deregulation than the standard-setter. The regulation desired by the standard-setter is politically infeasible, because it is opposed by the majority of non-transparent firms with  $v > A_t$ , without collecting the support of enough new disclosers.

The results further imply that, if  $A_t$  is close but greater than  $A^S$ , the standard-setter will never decrease in disclosure, simply because doing so would require to get the support of enough new disclosers, and thus bring  $A_{t+1}$  *far below*  $A^S$ . In other words, we predict that, in an evolving economy, there is downward rigidity on deregulation and the standard-setter would never cut disclosure unless there is a sufficiently large amount of over-regulation.

## 5.2. Voluntary Disclosure

Assume that, after a regulation has been chosen, the firm may voluntarily (and truthfully) disclose. Although other assumptions may be considered, we make the cost of voluntary disclosure equal to  $\theta > 0$  in order to make a “fair” comparison between the two disclosure channels.<sup>44</sup> This is also likely to be the case, for example, if these costs are interpreted as proprietary costs of revealing information.

Let  $\phi(A)$  define the threshold above which a firm with value  $v$  discloses voluntarily. As is well-known, the voluntary disclosure threshold is given by  $\phi(A) = \min(1, A + 2\theta)$ . The voluntary disclosure option, in turn, affects the no-disclosure market price. If  $A \leq 1 - 2\theta = A^{back}$ ,  $P_{ND}(A) = A + \theta$ ; otherwise, there is no voluntary disclosure and the no-disclosure price is identical to the baseline model, i.e.  $P_{ND}(A) = .5(A + 1)$ .

We proceed next to reconsider the political pressures in the model with voluntary disclosure. The analysis is broken down in cases that are similar to the baseline model, using the notation  $A$  to refer to the status-quo and  $A'$  to refer to an alternative proposed standard.

### More Disclosure

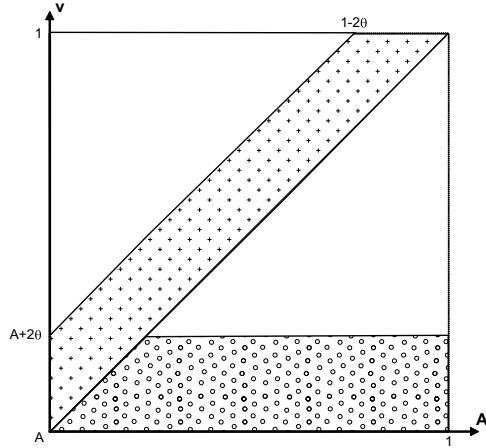
Assume that  $A' > A$ . The analysis of the preferences can be made more transparent by making a simple observation. If a firm strategically retains information in one regime (does not voluntarily disclose), then it is always against any alternative that would *require* mandatory disclosure, taking away the reporting discretion. As compared to the baseline model, new disclosers always weakly oppose the regulation that forces them to disclose. Vice-versa, an

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<sup>44</sup>One may easily extend the model to “unfair” comparisons: however, such an extension is conceptually outside of our research focus, because our question is not whether accounting should be regulated. It is unimportant if the voluntary disclosure occurs before or after the regulatory choice.

owner that chooses not to voluntarily disclose in one regime, will prefer that regime over any other regime in which disclosure is mandatory.

Applying this intuition, the model has two main regions. Non-disclosers under  $A'$ , i.e. with  $v \in (A', A' + 2\theta)$ , always prefer the higher no-disclosure market price obtained under  $A'$ . By contrast, non-disclosers under  $A$  but with  $v \in (A, \min(A', A + 2\theta))$  are now forced to disclose information they would have kept hidden under  $A$ , and thus oppose  $A'$ . As before, the analysis is illustrated in a cartesian plane of locations  $(A', v)$  where  $+$  indicates a support for  $A'$  and  $o$  indicates a support for  $A$ .



**Figure 3.** Preferences for More Disclosure,  $A' > A$

The political weight in favor of  $A'$ , i.e.  $L(A', A)$ , can be concisely written as follows:

$$L(A', A) = .5A + .5(A' - \min(A', A + 2\theta)) + (\min(1, A' + 2\theta) - A') + .5(1 - \min(1, A' + 2\theta)) \quad (5.1)$$

Comparing to our earlier results, voluntary disclosure shrinks the fraction of both supporters and opposers to  $A'$ , since these firms may now disclose on their own and outside of the regulation. In this region of relatively high-value firms, there remains only a fraction of firms equal to  $2\theta$  or less that support increasing disclosure. Aside from these differences, some other features of the model are preserved, as stated next.

**Proposition 5.2.** *Let  $A \in [0, 1]$  be the status-quo and  $A' \in (A, 1]$  be a new standard that increases disclosure. Then, the total pressure by the informed sector  $L(A', A)$  in favor of  $A'$  is (weakly) decreasing in  $A'$ .*

**Corollary 5.1.** *For any  $A' > A$ ,  $L(A', A)$  is always lower than with no voluntary disclosure.*

Voluntary disclosure, by offering an alternative mechanism to disclose information, reduces political pressures. The fraction of non-disclosers no longer affects demands for disclosure (at least provided that  $A < 1 - 2\theta$ ) and the support for disclosure is entirely determined by the cost. Another notable difference is that greater costs of disclosure may *increase* the support for more disclosure, even though disclosure is now more costly to firms. The reason for this is that greater disclosure costs also work against voluntary disclosure and thus prevent the higher-value firms from disclosing on their own.

### Less Disclosure

We examine next decreases in disclosure, or  $A' < A$ . The preferences of the informed sector are represented in Figure 4. The region of values with  $v > A + 2\theta$  describes firms that disclose under both  $A$  and  $A'$ , and are entirely indifferent. Firms with  $v \in (A, A + 2\theta)$  achieve a greater price under  $A$ , either because they are forced to disclose under  $A'$  or because they do not disclose under  $A'$  but the market price is lower. Finally, firms with  $v \leq A$  and  $v \in (A', A' + 2\theta)$  prefer not to disclose under  $A'$ , and thus are better-off under  $A'$ .

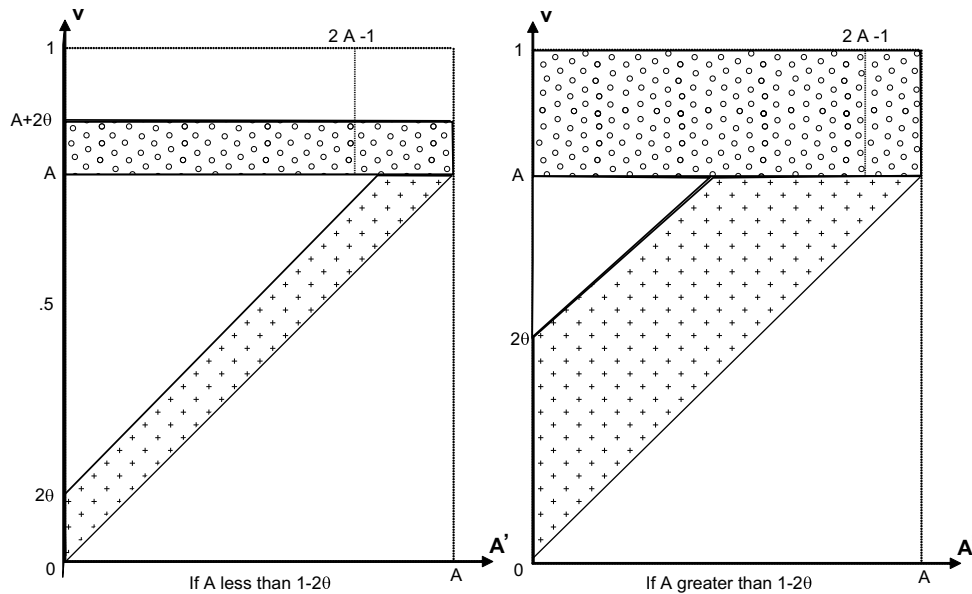


Figure 4. Preferences for Less Disclosure,  $A' < A$

We may again compute the collective preference for less disclosure. We consider two main cases. First, assume that  $A \geq 1 - 2\theta$ . As noted in our baseline, this is also the threshold  $A^{back}$  above which the no-disclosure becomes preferred with no-disclosure. The fraction of firms

opposing the decrease is given by  $1 - A$  (identical to the baseline). We thus obtain that:

$$\begin{aligned} L(A', A) &= A - .5A' && (A' \geq A - 2\theta) \\ L(A', A) &= \theta + .5A && (A - 2\theta > A') \end{aligned}$$

Similar to the baseline, the demand for less disclosure becomes greater as  $A'$  is reduced further; however, voluntary disclosure mitigates these demands. Also, it is made apparent that greater costs of disclosure increase demands for lower disclosure. As a difference with the baseline model, the maximal demand for lower disclosure, or  $L(0, A)$ , is now a function of the status-quo and is greater when fewer non-disclosers remain, i.e.  $A$  large. Importantly, it is still the case that, when  $A \geq 1 - 2\theta$ , the demand for no-disclosure may feature a proportion owners greater than .5.

The case if  $A + 2\theta < 1$  is conceptually similar, except for the presence of the region  $v > A + 2\theta$ .

$$\begin{aligned} L(A', A) &= .5 - \theta - .5(A' - A) && (A' \geq A - 2\theta) \\ L(A', A) &= .5 && (A - 2\theta > A') \end{aligned}$$

The result confirms an intuition that emerged in the baseline model, namely that for  $A < 1 - 2\theta$ , the informed sector does not support a decrease in disclosure. This observation is reinforced by voluntary disclosure, to the extent that firms may use reporting discretion to their own advantage.

**Proposition 5.3.** *Let  $A \in [0, 1]$  be the status-quo and  $A' \in (0, A)$  be a new standard that decreases disclosure. Then, the total pressure by the informed sector  $L(A', A)$  in favor of  $A'$  is (weakly) decreasing in  $A'$ .*

**Corollary 5.2.** *For any  $A' < A$ ,  $L(A', A)$  is always lower than with no voluntary disclosure.*

The dynamics of the model with choices by the standard-setter are very similar to the baseline, and are not repeated here. The main new element to be noted is that, because  $L(A', A)$  is now closer to .5, voluntary disclosure indeed helps offset political pressures. In other words, more voluntary disclosure, in a strategic sense, is a complement to mandatory disclosure. In terms of accounting policy, this implies the following somewhat surprising observation: although, ex-post, voluntary disclosure substitutes to (lack of) mandatory disclosure, it does make regulating easier

and thus lead to less constrained standard-setting institution. In particular, one may very well observe less political resistance and more regulation in markets with more voluntary disclosure.

We confirm this intuition by revisiting the condition that gives rise to cycles, this time with voluntary disclosure. The (new) threshold  $A_v^{ret}$  is now given by  $Dec(A_v^{ret}) = 1 - .5A_v^{ret} + \lambda$ , which implies that  $A_v^{ret} = 1 - \theta + \lambda < A^{ret}$ . This threshold is now higher than without voluntary disclosure, which implies a broader region of potential status-quo  $A$  such that the disclosure does not decrease.

### 5.3. Aggressive Disclosure

We discuss next whether considering standards that are *not* lower-tail may increase political pressures exerted on the standard-setter. Unfortunately, solving for the political pressures on an unrestricted set of standards is highly non-trivial since it would involve evaluating the infinite-dimensional set of all possible partitions of the set of possible cash flows. Here, we consider the “evil” twin of prudent regimes, namely aggressive regimes in which events *above*  $A$  are disclosed.

A complete analysis of prudent vs. aggressive regimes would require us to specify fully the standard-setter’s preferences over each form of reporting and compare the informed sector’s preferences for any possible combination. While this is feasible, it would dramatically extend the scope and length of our analysis.<sup>45</sup> We consider here a much more limited extension: namely, we examine when a standard-setter willing to preserve a prudent regime could sustain such form against political pressures to pass an aggressive reporting regime.

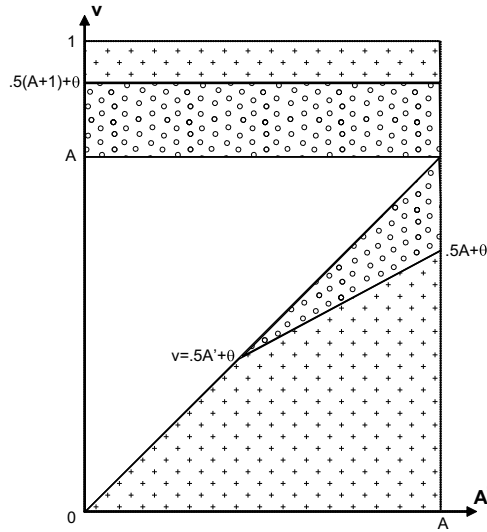
Let us introduce some basic notation. For a prudent regime with threshold  $A$ , we consider an aggressive regime defined as a threshold  $A'$  and define  $L^a(A', A)$  as the support for  $A'$  over  $A$ . As before, we vary alternative values of  $A'$  and directly compute  $L^a(A', A)$ .

Suppose that  $A' \leq A$ , which means that the aggressive regime requires all previously non-disclosing firms to disclose as well as some of the previously non-disclosing firms not to disclose. The no-disclosure aggressive price is  $.5A'$ . There are three cases to consider: (i) owners with  $v \leq A'$  support  $A'$  over  $A$  if  $v - \theta < .5A'$ , i.e.  $v < .5A' + \theta$  and otherwise support  $A$ ; (ii) Owners with  $v \in (A', A)$  disclose under both regimes and are indifferent; and, finally, (iii) owners with  $v \geq A$  prefer  $A'$  if  $.5(A + 1) < v - \theta$ , i.e.  $v > .5(A + 1) + \theta$  and otherwise support  $A$ . As before,

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<sup>45</sup>In formal terms, we will solve here for transitions from a prudent regime to an aggressive regime (and, earlier, we solved for transitions from a prudent regime to another prudent regime). To solve the model with both prudent and aggressive regimes, we would also need to consider transitions from aggressive to prudent and from aggressive to aggressive which, while it does not present technical difficulties beyond those that we develop here, would considerably extend the length the analysis.

we represent the preferences of the informed sector in the cartesian plane  $(x, y)$  in Figure 5.



**Figure 5.** Preferences for Aggressive Disclosure,  $A' < A$

One may immediately observe that the support  $L(A', A)$  for  $A'$  is weakly increasing in  $A'$ . Recall that, in an aggressive regime, a higher  $A'$  means that all values  $v$  below  $A'$  are not disclosed, i.e. (as was noted in the baseline) the less disclosure is prescribed by the aggressive standard, the more it is supported.

One novel intuition, which is made apparent by Figure 5, is that the support for aggressive reporting is driven by two groups with otherwise very different cash flows (+ regions): the high-value owners  $v \geq .5(A' + 1) + \theta$ , who benefit from the extra disclosure of good events under  $A'$ , and the low-value owners who benefit from pooling and saving disclosure costs with  $v \leq \min(A, .5A' + \theta)$ . The size of this second group shrinks as  $A'$  requires more disclosure of relatively bad news, again creating more demand for less informative standards. Indeed, the most demanded aggressive standard is one with  $A' = A$  and which, as compared to the prudent status-quo  $A$ , entirely reverses firms required to disclose and firms not required to disclose.<sup>46</sup>

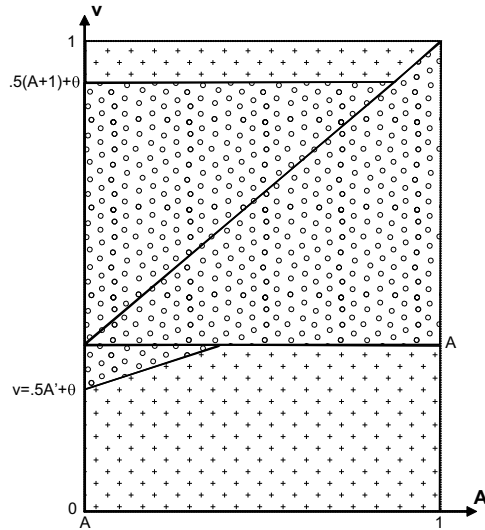
Suppose next that  $A' > A$ . There are again three cases to consider: (i) for  $v \leq A$ , owners prefer  $A'$  if  $.5A' > v - \theta$ , i.e.  $v < .5A' + \theta$ , and otherwise prefer  $A$  and otherwise support  $A$ ; (ii) owners with  $v \in (A, A')$  clearly always prefer  $A$ ; (iii) owners with  $v \geq A'$  prefer  $A'$  if

<sup>46</sup>Although this is not necessary for the argument, the characterization of  $L^a(A', A)$  may be formally derived as follows:

$$\begin{aligned} L^a(A', A) &= \min(.5A' + .5A, .5A + \theta) & (A \geq 1 - 2\theta) \\ L^a(A', A) &= \min(.5 + .5A' - \theta, .5) & (1 - 2\theta > A) \end{aligned}$$

The two cases (as well as the min) are due to the fact that some of the regions in Figure 5 may become empty for certain combinations of  $A$  and  $A'$ .

$v \geq .5(A + 1) + \theta$  and otherwise support  $A$ . As before, we represent the preferences of the informed sector in the cartesian plane  $(x, y)$  in Figure 6.



**Figure 6.** Preferences for Aggressive Disclosure,  $A' < A$

Figure 6 reveals a similar pattern as for the case  $A' \leq A$ . It is again the high-value and low-value owners that support the aggressive reporting regime, against the moderate-value owners. One difference is that there exists either an interior value or set of values such that  $L^a(A', A)$  is maximized.<sup>47</sup> The reason why too little disclosure becomes less desirable is as follows: as  $A'$  is increased beyond  $A$ , the aggressive disclosure regime turns non-disclosers in the prudent regime into non-disclosers in the aggressive regime. Yet, for a non-discloser under both regimes, aggressive reporting is always less desirable because it pools the non-discloser with lower-value firms instead of high-value firms. In other words, excessive aggressive non-disclosure must face some resistance from the non-disclosers in the prudent regime.

We summarize now our observations. The function  $L^a(A', A)$  is (weakly) increasing from  $A' = 0$  (full-disclosure) to  $A' = .5(A + 1) + \theta$  and (weakly) decreasing from  $A' = .5(A + 1) + \theta$  to  $A' = 1$  (no-disclosure). In particular, if  $A \geq 1 - 2\theta = A^{back}$ ,  $.5(A + 1) + \theta \geq 1$  and no-disclosure is always the most preferred aggressive standard. In other words, when the informed sector begins to push for no-disclosure in the baseline model, then no-disclosure remains the most preferred standard when considering both prudent and aggressive standard.

<sup>47</sup>We can also derive  $L^a(A', A)$  formally as follows:

$$\begin{aligned} L^a(A', A) &= \min(A, .5A' + \theta) & (A \geq 1 - 2\theta) \\ L^a(A', A) &= \min(A, .5A' + \theta) + 1 - \max(A', .5(A + 1) + \theta) & (1 - 2\theta > A) \end{aligned}$$

Importantly, note that depending on  $A$ ,  $L^a(A', A)$  may be maximized at a single value or a set of values (which is the case plotted in Figure 6).

Suppose next that  $A < A^{back}$  and define  $Agg(A) = L^a(.5(A + 1) + \theta, A)$  as the maximal support for some aggressive standard, we can further directly obtain that:<sup>48</sup>

$$Agg(A) = .5(A + 1) - \theta \tag{5.4}$$

We discuss next whether, when  $A < A^{back}$ , aggressive regimes may increase the political constraints faced by the standard-setter, by comparing  $Agg(A)$  to  $Inc(A)$ . There exists a threshold  $A^{agg} = .5 + \theta$  such that  $Agg(A) > Inc(A)$  if and only if  $A > A^{agg}$ . In words, the threshold  $A^{agg}$  represents the prudent status-quo above which some aggressive regime is more supported than any other prudent regime. Interestingly, note also that  $A^{agg} \in (.5, A^{back})$ . Demands to move to an aggressive reporting regime occur only when some above-average events are disclosed, and with less disclosure than the level that would trigger a demand to move to no-disclosure.<sup>49</sup>

How would the feasibility of aggressive reporting affect the choice of regulation by the standard-setter? If  $A < A^{agg}$  or  $A > A^{back}$ , the baseline model is unchanged, as the (weakly) most demanded regime is a prudent one. However, if  $A \in (A^{agg}, A^{back})$  and  $\mu = 0$ , the political agenda will now point toward an aggressive regime. The main consequence will be to reduce the effective standard-setter's political influence by  $Agg(A) - Inc(A)$ . If  $\lambda > Agg(A) - Inc(A)$ , this would simply slow down the speed of convergence toward  $A^S$ . If  $\lambda < Lib(A) - Inc(A)$ , the standard-setter will be unable to counter-act such pressures and the regulation would shift (at least temporarily) toward an aggressive disclosure regime.

## 6. Concluding Remarks

Financial reporting standard setters strive to achieve a balance between independent assessment of the benefits of reporting changes and the variety of viewpoints presented by interested parties. For instance, the FASB (2009, p. 2) describes the following as one of its precepts:<sup>50</sup>

*“To weigh carefully the views of its constituents in developing concepts and standards: However, the ultimate determinant of concepts and standards must be the Board’s judgment, based on research, public input, and careful deliberation about the usefulness of the resulting information.”*

<sup>48</sup>This follows from the fact that  $\theta < 1/8$  and can be either directly measured from Figure 6 or obtained from the formal characterization in footnote 47.

<sup>49</sup>It is, however, not guaranteed that, in the dynamic process, the regulation would necessarily enter the region  $(.5, A^{back})$  and not leapfrog over it, since it evolves in a discrete manner.

<sup>50</sup>Financial Accounting Standards Board. 2009. Facts about FASB. Norwalk, CT.

Notwithstanding standard setters objective of independence, there are times when standard setting bodies are subject to political pressure and when that pressure affects the standards that are adopted. Zeff (2005) chronicles the political forces that have affected U.S. GAAP, from allowing LIFO inventory accounting to accounting for the investment tax credit to the expensing of employee stock options. Beresford (2001) describes the U.S. Congress activities surrounding the accounting for acquisitions, and he recounts the pressures encountered by the FASB from companies and from members of Congress. He concludes “Congressional oversight is an essential part of our society and our economic environment. Although we may disagree with the motives of some of the parties who avail themselves of this opportunity, few of us favor a system where a group like the FASB is accountable to no one.”

How might political pressures affect the evolution of accounting standards? Distinctive to our approach is to place the standard-setting institution as a strategic agent subject to objectives and constraints: regulation emerges endogenously as a result of trade-offs between meeting those objectives and responding to opportunistic political pressures. We hope that understanding the economic forces at play provides one first step furthering our understanding of accounting regulation, and that future research in this domain will extend this paradigm to other dimensions of accounting regulation.

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