The Pros and Cons of Regulating Corporate Reporting: A Critical Review of the Arguments

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Abstract:

In this paper, we distil essential insights about the regulation of financial reporting from the academic literature. The key objective is to synthesize extant theory to provide a basis for evaluating implications of pressures on the regulation of financial accounting following the recent financial crisis. We succinctly lay out arguments put forth both for and against the regulation of corporate disclosure and standard setting. We then examine current developments suggesting that accounting standard setting is at risk of becoming entangled in a web of political forces with potentially significant consequences. The crisis has brought into sharp focus the reality that the regulation of corporate reporting is just one piece of a larger regulatory configuration, and that forces are at play that would subjugate accounting standard setting to broader regulatory demands. Recent actions by the European Commission relating to IFRS 9 and proposed legislation in the U.S. Congress to create a systemic risk council serve to illustrate this point. We conclude by discussing in detail the recent fair value debate as a case study of the way in which bank regulatory policy and accounting standard decisions were jointly determined as a potentially socially optimal means to mitigate the effects of the financial crisis.

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1. Introduction

History attests to the influence of crisis and scandals as an impetus for regulatory intervention by politicians (Banner, 1997; Reinhart and Rogoff, 2008). After a series of scandals in the United Kingdom in the 1990s culminating in the collapse of Barings Bank, there was a dramatic shift in the structure of financial regulation that consolidated regulation responsibilities under the auspices of the Financial Services Authority. A wave of financial scandals epitomized by the Enron debacle catalyzed swift and sweeping changes to U.S. securities regulations with the passage of the Sarbanes Oxley Act of 2002. Today, in the aftermath of the financial crisis of 2007-2009, financial accounting standard setting finds itself drawn into the orbit of complex political processes focused on restructuring the regulation of the world's financial markets. The crisis has ignited worldwide debate on issues of systemic risk and the role played by financial regulation in creating and exacerbating the crisis. Proposals abound for how regulation of financial markets and financial institutions should be changed to mitigate the potential for such large-scale financial meltdowns in the future. The scope of regulatory issues under debate spans many aspects of the financial system, including the alleged role played by financial accounting standards in deepening the trajectory of the crisis. The crisis has energized politicians, regulators, and economists to scrutinize financial accounting standards as never before, creating significant pressure for change (see e.g., G-20, 2009). Given mounting momentum for potentially far reaching regulatory change, this is an opportune moment to step back and carefully consider how to organize the analysis of efficient regulatory choice.

In this paper, we distil essential insights about the regulation of financial reporting from the extant academic literature in accounting, law and economics. We succinctly lay out basic arguments that have been put forth both for and against the regulation of corporate reporting. Our analysis distinguishes regulation of mandated public reporting for firms seeking to access public securities markets from the regulation of accounting standard setting itself (Kothari, Ramanna, and Skinner, 2009). Although theories of regulation have typically been developed in the context of product markets, the general arguments can be specialized to issues of disclosure, and specifically to financial reporting. We extract the general arguments and link them specifically to the theory of disclosure regulation. Building on this analysis, we then bring fundamental insights from the regulation literature to bear on the current regulatory milieu.

We begin with the regulation of public reporting for firms seeking to access public securities markets. A longstanding literature analyzes whether disclosure should be mandated by government regulation, or whether firms, supported by their own reputation, gatekeepers, private lawsuits, and market discipline, have adequate incentives to disclose voluntarily information at socially optimal levels. Arguments in favor of regulation typically depend on the existence of market failure. For example, regulation can reduce enforcement costs, redundancies in information production, and opportunistic behavior, or can mitigate failure linked to externalities where firms do not fully internalize the consequences of their disclosure decisions. However, while markets may be imperfect, so is government. Thus, it is important to avoid the Nirvana Fallacy in which regulation is justified by comparing imperfect market outcomes against outcomes deriving from imaginary governmental institutions that are competent, benevolent, and in possession of perfect information (Demsetz, 1969). It is also crucial to recognize that one size is unlikely to fit all. Countries differ in many respects, including political and legal regimes, institutional development, corruption, and culture. Research documents evidence of significant cross-country variation in securities regulations, the structure of financial regulatory regimes, and observable properties of reported accounting numbers. This literature raises serious

questions about whether true harmonization of financial reporting across the world is an achievable objective.

A central element of regulation of financial disclosure is the regulation of accounting standard setting. Little extant empirical literature directly addresses the regulation of standard setting. Kothari, Ramanna, and Skinner (2009) provides a useful discussion of issues related to the regulation of standard setting. Positing that the objective of accounting standard setting is to promote the efficient allocation of capital, the authors conclude that competition between standard setting organizations is likely to be the most effective means of achieving this objective. The authors are pessimistic that a single global standard setter such as the IASB can survive and succeed over the long run. After succinctly summarizing the analysis of that study, we discuss its conclusions in relation to current developments, including the European Union's (EU) recent decision to postpone acceptance of International Financial Reporting Standard 9 (IFRS 9).

As noted above, one of our main objectives is to place our discussion of regulation in the context of the post-crisis period. There appears to be strong sentiment from many quarters that the crisis was deepened by excessive deregulation in previous decades, necessitating a strong countervailing regulatory response now. With respect to accounting standards in particular, the Financial Stability Forum (2009) and the U.S. Treasury (2009) strongly recommend that both the FASB and IASB re-evaluate fair value accounting, accounting for loan losses, and hedge accounting, among others issues. The crisis has brought into sharp focus the reality that the regulation of corporate reporting is just one piece of a larger regulatory configuration, and that forces are at play that would subjugate accounting standard setting to other regulatory demands. The subordination of financial accounting to the demands of the prudential regulation of financial institutions carries significant danger of unintended consequences. Care must be taken

not to undermine the primary role of financial accounting information in promoting corporate transparency to support market discipline and capital allocation. We discuss potential consequences of recent political pressure on the FASB and IASB with respect to important issues such as market discipline of banks and regulatory forbearance at troubled banks. Further, we discuss current developments in the ongoing debates on the future of financial regulation, including recent discussion in the U.S. Congress to transfer oversight of accounting standards from the SEC to a systemic risk council charged with preserving the soundness of the banking system.

Our second objective is to isolate issues for future research. In this spirit, we conclude the paper with an illustration considering the role that corporate reporting plays in the regulation of financial institutions. We focus on interactions between the regulations governing regulatory capital levels at banks and accounting for asset impairments. We implement a case study of recent changes in U.S. reporting rules that allow banks substantial discretion in allocating losses on impairment write-downs between the income statement and other comprehensive income. Our objective is to facilitate debate on the trade-offs between the regulation of corporate reporting and bank regulation as alternative means to aid in the prudential oversight of banks by discussing in detail the way in which bank regulatory policy and accounting standard setting decisions were jointly determined as a potentially socially optimal means to mitigate the effects of the financial crisis of 2007-2009.

In this paper we provide a big picture synthesis of issues. Several recent studies provide comprehensive discussions of the extant research on the regulation of financial reporting. First, Leuz and Wysocki (2008) provides a comprehensive survey of research on the economic consequences of financial reporting and disclosure regulation. Also, Kothari, Ramanna and

Skinner (2009), as part of a larger discussion on what GAAP should look like, provides an indepth discussion of the origin and consequences of regulating standard setting. The interested reader is referred to these for more extensive analyses and comprehensive reference lists.

The rest of the paper is organized as follows. Section 2 discusses the case for mandatory disclosure, and section 3 addresses the regulation of standard setting. Section 4 applies insights from sections 2 and 3 to consider issues of political involvement in financial reporting regulation in the aftermath of the financial crisis. Section 5 presents a textured discussion of recent developments in fair value accounting to explore potential trade-offs between the regulation of corporate reporting and bank regulation as alternative means to aid in the prudential oversight of banks. Section 6 offers concluding remarks.

2. The Case for Mandatory Disclosure

Should regulations be imposed that require mandated public disclosure by firms seeking access to public securities markets? Is market discipline of firms supported by contracts and impartial courts sufficient to generate socially optimal levels of disclosure, or do market failures exist that require government regulation? Are regulators sufficiently competent, motivated, independent and in possession of sufficient information to be entrusted with power to intervene in markets? These basic questions have been the subject of significant debate in the academic literature, much of it driven by law and economics scholars wherein the question of mandatory public disclosure is typically embedded in the larger issue of the role of securities laws and whether securities markets should in general be regulated.¹ This extant literature provides a useful backdrop against which to evaluate issues pertinent to the present environment. We begin with a brief overview of key theories, and then turn explicitly to disclosure regulation.

¹ For example, see Coffee (1984), Easterbrook and Fischel (1984) and Mahoney (1995).

We first introduce the public interest theory of regulation followed by the classic critique of this theory generally associated with the Chicago School of Law and Economics. Our discussion follows Shleifer (2005). The public interest, or helping-hand, theory of regulation typically associated with Pigou (1938), has provided intellectual support for the growth of regulation in the twentieth century. This theory takes the position that unregulated markets are subject to serious market failures (e.g., externalities), and that competent, benevolent governments can correct such failures through regulation. That is, there exist important market failures and the government can help.

The "Chicago" critique of public interest theory proceeds in three basic steps. First, competition in the marketplace and private orderings (the coming together of non-governmental parties in voluntary arrangements) significantly mitigate market failures, obviating most of the need for government intervention in markets. Next, where competition and private orderings do not adequately address market failures, contracts supported by impartial courts and the enforcement of tort rules resolves remaining market failure issues (Coase, 1960). In the absence of unresolved market failures, regulation is undesirable. These arguments rely on courts being motivated, unbiased, informed, and incorruptible. Finally, capture theory (Stigler, 1971; Posner, 1974) basically questions public interest theory's main assumptions that governments are benevolent and competent. This theory contends that regulators are often captured by those whom they are charged to regulate, and even if the regulator is independent and wants to "do good" by acting in the public interest, they are generally incompetent and likely to fail. Capture theory often models regulators as self-interested agents that seek to maximize their own welfare with their primary concern being their own wealth and power (Peltzman, 1976). Thus, even if a market failure exists, capture theory is skeptical that government intervention is the solution. To

avoid the Nirvana Fallacy, a case has to be made that regulation would in fact achieve better outcomes than the status quo or a market-based solution.

We next apply these general arguments about regulation specifically to the theory of disclosure regulation. We proceed by first discussing the extent to which fundamental forces of market discipline can generate optimal levels of disclosure in the absence of regulation, and then examine where these forces breakdown to potentially create scope for regulation. Issuers of public securities face a competitive capital market populated by sophisticated investors. Firms concerned with maximizing their value therefore have powerful incentives to disclose all available information to obtain higher prices, because failure to disclose would cause investors to assume the worst (Grossman, 1981; Milgrom and Roberts, 1986). That is, in the absence of disclosure, skeptical market participants would assume that the firm is hiding bad news and bid down the price of the firm's securities accordingly. Credibility of such disclosures can be supported by reputational, legal, and contractual penalties for misreporting, and low cost verification of accuracy. When verification is costly, firms can utilize reputational intermediaries such as auditors, underwriters, or credit rating agencies that can credibly certify the quality of the firm's securities. Arguments based on competition for capital and private orderings supported by impartial courts and contracts have been used to support the contention that market forces alone can largely ensure the optimal level of voluntary disclosure by firms.

The arguments above focus exclusively on the firm-specific benefits of disclosure; however, market-wide effects should also be considered. Firms may be unwilling to disclose voluntarily information that reveals proprietary information to their competitors (Verrecchia, 1983). Such decisions are rational from the firm-specific perspective, but do not incorporate potential economy-wide benefits. For example, such disclosures can facilitate the allocation of capital to the highest value projects and promote competition among firms that can promote productivity improvements and price competition that benefits consumers. Even in the absence of proprietary costs, firms may not fully internalize all the costs and benefits of their disclosure decisions, leading to over- or under-production of public information. For example, disclosures by one firm may also reveal information about other firms, where the disclosing firm does not benefit from the information transfer, and may as a result under-produce information (Admati and Pfleiderer, 2000).

A number of market-wide benefits of disclosure have been proposed. For example, Lambert, Luez and Verrecchia (2007) shows how disclosure by individual firms can have system-wide benefits by allowing investors to better assess the covariance of payoffs across firms and thus lower the cost of capital. Firm-specific disclosures can also have market-wide benefits by reducing aggregate expenditures on information production as firms are likely the lowest cost producer of corporate information and such disclosure can eliminate the duplicative information collection efforts by capital market participants (Coffee, 1984; Easterbrook and Fischel, 1984).

The issue of information externalities and regulation is clearly demonstrated by recent proposals to require that financial institutions disclose additional information to serve as input into an infrastructure designed to measure and manage systemic risk. In competing for profits, an entity will choose risk levels and make financial disclosures consistent with its shareholders' demands, without necessarily considering consequences for the financial system as a whole. As a result, new legislation is proposed that would compel certain entities to provide information to a systemic risk regulator regarding their assets, liabilities, holdings, leverage, collateral, liquidity, counterparties, and aggregate exposures to key financial variables and other risks. Interestingly, these proposals recognize the proprietary nature of such information, and allow that aggregate risk transparency must be balanced against preservation of the intellectual property of individual institutions, suggesting that perhaps information should first be released privately to regulators, delaying public disclosure long enough to mitigate competitive concerns.²

Finally, in considering disclosure regulation, it is likely that one regulation solution will not fit all countries. Countries differ in many respects including political and legal regimes, institutional development, corruption, and culture. Djankov, Glaeser, La Porta, Lopez-de-Silanes, and Shleifer (2003) presents an enforcement theory of regulation that recognizes that all strategies for social control of business, including market discipline, courts, regulation and government ownership, are imperfect, and that optimal institutional design involves a choice among imperfect alternatives. Enforcement theory focuses on a basic trade-off between two social costs: disorder and dictatorship. Disorder is the ability of private agents to harm others by stealing, cheating, overcharging, etc., where dictatorship refers to the ability of the government to impose such costs on private agents. Recognizing that this trade-off can differ significantly across countries helps organize analysis of efficient institutional choice by recognizing both the needs of a particular environment and the constraints imposed by a country's political and institutional structures. Shleifer (2005) applies this framework to the regulation of securities markets, positing that private enforcement of public rules may emerge as an efficient strategy of social control of these markets.

Extant research documents significant differences across countries in regulatory outcomes including: differences in securities laws and the balance between private and public (e.g., the Securities and Exchange Commission) enforcement of such laws (La Porta, Lopez-De-

² For example, Squam Lake Working Group on Financial Regulation (2009) and Lo (2009).

Silanes, and Shleifer, 2005); bank regulation (Barth, Caprio and Levine, 2006); models for allocating regulatory powers (Gadinis and Jackson, 2007); enforcement of securities laws (Coffee, 2007; Jackson and Roe, 2008); and observed accounting regimes (Ball, Kothari and Robin, 2000; Leuz, Nanda and Wysocki, 2003; Bushman, Piotroski, and Smith, 2004; Lang, Raedy, and Wilson, 2006). This literature raises serious questions about whether true harmonization of financial reporting across the world is an achievable objective. We return to this topic in the next section.

3. Regulation of Accounting Standard Setting

Little extant empirical literature directly addresses the regulation of standard setting and there exists no clear consensus on why GAAP is regulated. As part of a larger discussion on the forces that shape GAAP, Kothari, Ramanna, and Skinner (2009; KRS) provides a comprehensive discussion of issues related to the regulation of standard setting. In what follows, we succinctly summarize the KRS analysis, and discuss its conclusions in relation to current developments in the regulation of accounting standard setting.

KRS posits three theories for the regulation of accounting standards: public interest theory, capture theory, and the ideology theory of regulation. Given that our discussion in the previous section addresses both the public interest and capture theories of regulation, we focus here on the ideology theory of regulation. It represents perhaps the most novel aspect of the KRS analysis and serves as a useful framework within which to discuss current regulatory issues.

The ideology theory of regulation relies on existence of market failures much like public interest theory, but goes beyond public interest theory in allowing a role for special-interest lobbying in influencing the actions of regulators. Regulators are viewed as possessing political ideologies, and regulatory outcomes derive from the interactions of political ideologies with interest-group lobbying efforts. Lobbying is not viewed as an explicit form of bribery, but rather as a mechanism through which regulators are informed about policy issues. Interest groups lobby regulators to convey their specific knowledge about the issues being regulated.

KRS then applies ideology theory to standard setting, contending that if accounting standards are assumed to be non-excludable in nature, then the underproduction attributable to externalities predicts that a private market for accounting standards would fail.³ This creates the rationale for regulation of standard setting. Regulators have ideologies (e.g., fair-value accounting), but are receptive to lobbying efforts from constituents (e.g., comment letters) or from politicians allied with constituents. Ideology theory makes no prediction on the optimality of regulation as the effectiveness of regulation depends on regulators' political ideologies and the impact of special-interest lobbyists.

KRS notes that if the ideology theory is the correct model, it becomes crucial to design a standard setting institution that minimizes the effect of idiosyncratic ideologies and specialinterest lobbying. The authors view competition among standard setters as a key mechanism to achieve this objective (see also Dye and Sunder (2001) and Sunder (2002)). Competition across standard setters would promote competition among ideologies and prevent an idiosyncratic ideology from dominating. However, this argument presumes that different standard setting bodies are endowed with different ideologies. But, ideologies come from somewhere, and the forces that underpin the endogenous formation of an ideology could lead all standard setting bodies to arrive at the same ideology, reducing any role for competition (Powers, 2009). For example, if one views fair value accounting as an ideology, a case could be made that both the FASB and IASB have adopted it with equal enthusiasm. To the extent that competing

³ Non-excludability refers to the situation where non-paying market participants cannot be excluded from the benefits of privately developed GAAP.

standard setters share the same ideology, the KRS argument in favor of competition is substantially weakened.

Consider the consequences of maintaining two standard setters that share identical ideologies. Given the realistic premise that optimal accounting standards evolve through a process of hit or miss, where any given standard setting decision is likely to be imperfect, the existence of two standard setters may result in two different, imperfect standards prevailing simultaneously. That is, no discipline over ideology is achieved, but rather two idiosyncratic standards emerge based on exactly the same ideology. Is this outcome desirable? It is not clear, as there are substantive trade-offs involved. On the one hand, the existence of competing standards means that comparability in financial reporting across firms is sacrificed. On the other hand, if it is the case that optimal standards are ultimately arrived at by learning through experimentation, allowing for two different standards may enhance the speed of convergence to an optimal standard as two live standard setting experiments can be run simultaneously.

KRS offers two other related reasons for predicting that competition rather than convergence in accounting standards will persist. The first relies on the evidence, discussed above in section 2, that there is substantial cross-country variation in political and legal regimes, securities law, enforcement budgets, regulatory configurations, and culture, among other aspects. Thus, KRS concludes that it is unlikely that a single set of global accounting rules will actually generate world-wide conformity in accounting practice and efficient capital allocation decisions. Secondly, there is also evidence of political interference in standard setting, both in the U.S. and internationally (Watts and Zimmerman, 1986; Zeff, 2005a, 2005b; Ramanna, 2008). We believe that these arguments provide a useful lens through which to view current developments in the regulation of accounting standard setting. In the aftermath of the financial crisis, evidence is emerging of significant political involvement in the standard setting process.

For example, despite starting as a joint initiative to reconsider the accounting for financial instruments, the FASB and IASB have so far reached fundamentally different conclusions as the two Boards have been pulled in different directions by political forces in Europe and the United States (PricewaterhouseCoopers, 2009). For example, the FASB proposes that fair value accounting be used for all financial instruments, including bank loans (FASB, 2009d), where in proposed IFRS 9, the IASB allows for certain loans to be accounted for on an amortized cost basis. For loans accounted for at amortized cost, the IASB is exploring an expected loss approach where expectations of future losses over the life of a loan are incorporated ex ante into effective interest rates (IASB, 2009).⁴

In another interesting development, the European Commission recently announced that it will not endorse fast-track assessment of the first stage of IFRS 9, *Financial Instruments*, the IASB's proposed standard on financial instruments. This action calls into question the reality of a single method for comparing company accounts across borders any time soon. A recent *Financial Times* article notes that this voting pattern at the European Commission is evidence that the IASB has failed to reconcile an ideological schism in Europe. The article states that among the French, Germans, Italians, the European Central Bank and European regulators who voted to postpone introduction of IFRS 9, there are those who believe the rules should be another tool to ensure economic and financial stability.⁵ Finally, a similar political trend is evident in the

⁴ There appears to be a lack of consensus among investment professionals whether the FASB or IASB approach to accounting for financial instruments provides the best model. See JP Morgan, *Accounting Issues*, 08 January 2010, for a summary of findings of the *CFA Institute Survey on Proposed Financial Instrument Accounting Changes and International Convergence*.

⁵ "Europe's schism threatens global accounting rules," by Rachel Sanderson, FT.com, November 16 2009.

U.S. where lawmakers in the House of Representatives considered an amendment to give a new systemic risk council the power to change an accounting standard it has judged a threat to the financial system. The council would have the power to override the SEC, which currently has final say over accounting rules.⁶ Although this particular amendment ultimately failed, it is illustrative of the extent to which political forces within a given economy can potentially alter the accounting regime and work against the possibility of convergence across economies.

We expand on these issues further in the next section, where we discuss politics and financial reporting regulation in the wake of the financial crisis to explore further the role of political involvement in standard setting.

4. Politics and Financial Reporting Regulation in the Wake of the Financial Crisis

As discussed above there is an inherently political aspect to standard setting. There will always be tension between free market and political forces driven by the will to power and the demands of influential constituent groups. The meltdown of many important financial institutions and the ensuing economic recession has generated a political thirst for regulatory change that threatens to alter vastly the regulation of financial markets, including the regulation of accounting standard setting. Much of the interest is centered on the issue of fair value accounting, which many believe exacerbated the crisis.

In our earlier discussions above, we noted the distinction between firm-specific and market-wide effects of disclosure. The regulatory debate on fair value accounting considers that fair value accounting can have aggregate consequences for the financial system as a whole that are not internalized by individual institutions. Several influential papers describe dynamics by

⁶ "US House Panel To Mull Accounting Oversight Change," by Jessica Holzer, Dow Jones Newswires, November 16, 2009.

which fair value accounting can drive contagion effects and amplify balance sheet changes, which in turn drive pricing patterns in financial assets that amplify financial cycles (Plantin, Sapra, and Shin, 2008a, 2008b; Adrian and Shin, 2009). As the financial crisis unfolded, significant pressure was brought to bear on the FASB and IASB to relieve some of the perceived pressure on balance sheets deriving from fair value accounting. Indeed, both the IASB and FASB did respond to such political pressure by offering more flexibility in the classification of securities across portfolios, in valuation methodology, and in the split of fair value changes between the income statement and owners' equity (we describe such changes in detail in section 5 below).

An important issue here is whether such political pressure in essence resulted in accounting discretion being exploited to allow regulatory forbearance that delayed intervention by bank regulators in the hope that things would turn around. The notion that bank regulation should impose prompt corrective actions (PCA) has long been part of bank regulatory discussions and is imbedded both in the Basel I Accord and in the U.S. Federal Deposit Insurance Corporation Improvement Act of 1991. To what extent did these accounting concessions run counter to PCA? Accounting discretion can affect regulatory forbearance in several ways. First, it can operate through the channel of capital adequacy requirements. By allowing banks increased discretion in classifying securities across portfolios, valuing financial instruments, and putting fair value changes directly to owners' equity (therefore excluding these changes from capital calculations), such concessions may allow essentially insolvent banks to continuing operating. A second channel potentially operates through the market discipline of banks' risk taking by outside investors. Rochet (2005) posits that an important role for market discipline in the prudential oversight of banks is its ability to limit the scope for regulatory forbearance by regulators. The issue here is that the increase in politically driven discretion granted to financial institutions during the crisis may have weakened market disciplinary forces by reducing bank transparency, making it more difficult for outside investors to assess the underlying risk of banks.

It is also important to consider that recent proposals by the Financial Stability Forum (2009) and the U.S. Treasury (2009) strongly recommend that the FASB and IASB re-evaluate the incurred loss model underlying current loan loss provisioning requirements and consider a range of alternative approaches. The premise of these proposals is that loan loss accounting should adopt a more forward looking orientation that allows for recognition of future expected loan losses earlier in the credit cycle, which in turn could potentially dampen pro-cyclical forces in periods of financial crisis.⁷ However, as has long been recognized (e.g., Watts and Zimmerman, 1986), accounting discretion is a double-edged sword. On the one hand, increased discretion can facilitate incorporation of more information about future expected losses into loan provisioning decisions, but on the other hand it increases potential for opportunistic accounting behavior by bank managers, which may degrade the transparency of banks and lead to negative consequences.

Several recent studies empirically address the important issues of discretion, bank transparency and market discipline. Bushman and Williams (2009) empirically delineates economic consequences associated with differences in accounting discretion permitted to banks under existing regulatory regimes. The study exploits cross-country variation in loan provisioning practices to generate country-level measures of discretion allowed to banks within a

⁷ Financial Stability Forum (2009) defines pro-cyclicality as the dynamic interaction between the financial and the real sectors of the economy that amplify business cycle fluctuations and cause or exacerbate financial instability. See also Dugan (2009).

given country. Key findings are: (1) There is no evidence that banks in high discretion countries impound more forward looking information in loan provisions relative to banks in low discretion countries; (2) Sensitivity of changes in bank leverage to changes in asset volatility is lower in high discretion regimes relative to low discretion regimes; and (3) Banks in high discretion regimes exhibit more risk-shifting relative to banks with less discretion.⁸ These results are consistent with discretion degrading transparency of banks and weakening discipline exerted over bank risk taking.

Huizinga and Laeven (2009) examines accounting discretion by U.S. banks during the 2007-2008 time frame, documenting that banks used discretion to overstate the value of distressed assets, and that banks with large exposures to mortgage-backed securities provisioned less for bad loans. Also, Vyas (2009) constructs a novel measure of financial reporting transparency that compares the timing of asset write-downs in U.S. financial institutions' financial statements relative to the timing of losses reflected in the appropriate benchmark index for each asset class. Vyas (2009) documents that during the period 2006-2008, the ultimate loan losses experienced by a bank were anticipated in stock prices on a timelier basis for banks where the timing of asset write-downs more closely matched the timing of changes in index prices.

We now turn to the final analysis of the paper where we present a textured illustration that considers the role that corporate reporting plays in the regulation of financial institutions. We implement a case study of recent changes in U.S. reporting rules that allow banks substantial discretion in allocating losses on impairment write-downs between the income statement and other comprehensive income. Our objective is to facilitate debate on the trade-offs between the regulation of corporate reporting and bank regulation as alternative means to aid in the prudential

⁸ Risk shifting refers to the phenomenon where banks' equity holders benefit themselves at the expense of deposit insurers by increasing the risk of asset portfolios without adequately increasing bank capital simultaneously.

oversight of banks by discussing in detail the way in which bank regulatory policy and accounting standard setting decisions were jointly determined as a potentially socially optimal means to mitigate the effects of the financial crisis of 2007-2009.

5. Optimal form of accounting regulation of banks: case study, the Fair Value debate Institutional Environment: Accounting Regulation

In the United States, the Securities and Exchange Commission (SEC) has statutory authority to set financial reporting requirements for U.S. firms that trade securities across interstate lines. With the issuance of Accounting Series Release 150 (SEC, 1972), the SEC effectively delegated accounting standards setting to the Financial Accounting Standards Board (FASB), which was established as a private-sector standard setting body that relied on voluntary funding to support its activities. The FASB remained privately funded until passage of the Sarbanes-Oxley Act of 2002, which includes provisions that provide mandatory funding for FASB, prohibits private contributions, and requires the SEC to approve the FASB's annual budget.⁹ To date, the FASB has issued seven Concepts Statements, in which it develops broad accounting concepts, and 168 Statements of Financial Accounting Standards (SFASs) for financial reporting. It also provides guidance on implementation of standards, including FASB Staff Positions (FSPs) and FASB Interpretations (FINs).

The International Accounting Standards Board (IASB) was incorporated in 2001 as a successor body to the International Accounting Standards Committee (IASC). The IASB is an independent standard-setting board that is publicly accountable to a monitoring board of capital

⁹ In effect, the provisions of the Sarbanes-Oxley Act that relate to the FASB changed the Board from a privatesector standard-setting body to one that is quasi-governmental. Not only does the FASB rely on public funding to operate, but it also is subject to an annual audit by the SEC. Understanding why the regulatory structure of accounting standard setting changed with passage of Sarbanes-Oxley is an interesting question worthy of study in its own right.

market authorities.¹⁰ It receives funding from the private sector, including mandatory levies on listed and non-listed entities in countries that utilize its standards. The IASB issues International Financial Reporting Standards (IFRSs), which include standards issued not only by the IASB but also by the IASC, some of which have been amended by the IASB. Since 2001, over one hundred countries have required or permitted use of IFRSs for financial reporting by companies in their jurisdictions. Beginning in 2005, the European Union requires adoption of IFRSs for listed companies.

A key development in standard setting in the past decade has been coordination between the FASB and IASB in the development of accounting standards. Coordination began in September 2002, when the FASB and IASB issued their so-called Norwalk Agreement, in which they agreed to make their existing financial reporting standards fully compatible "as soon as is practicable" and to coordinate their future work agendas to ensure that compatibility is achieved and maintained. In 2005, the FASB and the IASB reaffirmed their commitment to the convergence of U.S. generally accepted accounting principles (U.S. GAAP) and IFRSs, with a stated goal that development of a common set of high quality global standards is the long-term strategic priority of both boards.

In February 2006, the FASB and IASB issued a Memorandum of Understanding that describes the relative priorities within the FASB-IASB joint activities in the form of specific milestones to be reached by 2008. That Memorandum was based on the principles that convergence of accounting standards can best be achieved through the development of high quality, common standards over time, and that investors needs are best met by the Boards

¹⁰ The monitoring board includes the Emerging Markets and Technical Committees of the International Organization of Securities Commissions (IOSCO), the Financial Services Agency of Japan (JFSA), and the US Securities and Exchange Commission (SEC). The Basel Committee on Banking Supervision participates in the Monitoring Board as an observer.

seeking convergence by replacing standards in need of improvement with jointly developed new standards. Based on the progress achieved by the Boards through 2007 and other factors, the SEC issued a Final Rule (SEC, 2007) permitting non-U.S. firms that apply IFRS as issued by the IASB to file financial statements with the SEC without reconciliation to U.S. GAAP. The rationale underlying the SEC's decision is the belief that IFRS-based financial statement information has become sufficiently comparable to U.S. GAAP-based information so as to render the reconciliation requirement unnecessary.

Despite the fact that the SEC permits non-U.S. firms to file financial statements based on IFRS, the SEC still requires U.S. firms to file financial statements based on U.S. GAAP. Consistent with the SEC's stated desire for firms to use a single set of high quality accounting standards, in November 2008, the SEC issued a proposed rule, "Roadmap for the Potential Use of Financial Statements Prepared in Accordance with International Financial Reporting Standards by U.S. Issuers" (SEC, 2008), that would require U.S. firms to apply IFRS. In February 2010, the SEC issued a statement confirming its commitment to the roadmap (SEC, 2010). From a regulatory standpoint, the impact on U.S. banks if U.S. firms were required to issue financial statements based on IFRS instead of U.S. GAAP is difficult to predict. However, differences between IFRS and U.S. GAAP, at least in the short run, could affect the way in which bank regulatory capital is calculated.

Institutional Environment: Banking Regulation

The Basel Committee, comprising representatives from central banks from around the world, promulgates international banking rules. The so-called Basel Accords, passed in 1988, provided for a set of minimal capital requirements for banks in countries covered by the Accords. The Basel Accords were extended by Basel II in June 2004. Basel II is an international standard

that banking regulators are to use when creating capital requirement regulations of member banks to mitigate the effects of financial and operational bank risks on the stability of the worldwide banking and financial system. Basel II rests on three "Pillars", (1) maintenance of minimum capital requirements, (2) supervisory review and (3) market discipline.

Under the first pillar, bank regulatory capital is calculated to reflect the effects of credit risk, operational risk, and market risk. The initial Basel Accords only considered credit risk. The second pillar gives bank regulators more authority than was provided in the initial Basel Accords to review the risk management practices of member banks. For example, if a bank has poor internal controls or a poor system of corporate governance, the second pillar provides that the bank supervisor can impose a pillar two capital "add on" that results in the bank having to meet a more stringent capital requirement. The third pillar requires that bank activities be transparent to investors and creditors by publicly releasing financial statements in a timely manner. As a result, bank equity investors, depositors, and other creditors can better evaluate a bank's financial condition and thereby impose market discipline on the bank and, more generally, in the financial markets.

Financial reporting and bank regulation intersect at all three pillars. Beginning with the first pillar, the Basel Accords' primary measure of a bank's financial health, Tier 1 capital, is directly affected by the way in which financial statement amounts are measured. Tier 1 capital is comprised of core capital, which consists primarily of contributed capital and retained earnings, but it may also include non-redeemable non-cumulative preferred stock. The Tier 1 capital ratio, which is the ratio of Tier 1 capital to risk-adjusted assets, cannot generally fall below 6% for a

bank to be considered well capitalized.¹¹ Tier 1 capital generally excludes goodwill and intangible assets, and unrealized gains/losses on financial instruments measured at fair value that are not included in retained earnings. Thus, a particular country's approach to measurement and recognition of financial assets (e.g., amortized cost vs. fair value for debt securities) as well as the way in which gains/losses are recorded (i.e., whether particular gains/losses are included as part of retained earnings or accumulated comprehensive income) affect the way Tier 1 capital is calculated.¹²

The third pillar also directly collides with financial reporting. Market discipline depends on financial reporting transparency, which enables bank equity holders, depositors, and other providers of debt capital to monitor bank financial health and make investment decisions that can affect bank capital. For example, if depositors observing a decline in a bank's capital adequacy ratios determine their investments are at risk, they can take actions to minimize their risk exposure, including withdrawal of deposits, which can further reduce bank capital.

The extent to which bank regulators can rely on market discipline to ensure the health and stability of the banking and financial system depends critically on the degree of financial reporting transparency.¹³ Adoption of IFRSs by the EU and other countries around the world has been generally viewed as resulting in greater financial reporting transparency,¹⁴ although crosscountry differences in incentives, enforcement, and attestation can affect differences in the

¹¹ In the US, the Tier 1 capital ratio must be at least 4% for a bank to be considered adequately capitalized and thereby avoid having to face regulatory intervention.

¹² Regulatory capital is also affected by the way in which bank regulators in a particular country apply so-called "prudential filters," i.e., the specific adjustments regulators make when calculating regulatory capital. Examples include whether to neutralize pension surpluses (recognized pension assets) or gains/losses associated with the fair value option under IAS 39. See CEBS (2007) for further discussion.

¹³ For further discussion and analysis, see CEBS (2009).

¹⁴ Findings from academic research also support the notion of greater transparency for firms applying IFRS relative to when they applied domestic accounting standards. See, e.g., Barth, Landsman, and Lang (2008) and Daske, et al. (2008).

degree of transparency arising from application of IFRS (Ball, Kothari, and Robin, 2000; Ball, Robin, and Wu, 2003; Leuz, Nanda, and Wysocki, 2003).

Of course, adoption of IFRS can also result in an unintended reduction in transparency as well as have Pillar 1 effects. For example, IAS 39 (IASB, 2003) presently adopts an incurred loan loss-provisioning model.¹⁵ Expected losses as a result of future events, no matter how likely, may not be considered. In contrast to the IAS 39 approach, Spanish accounting standards adopt a statistical or "dynamic" provisioning approach under which loan loss provisions are determined based on losses that have already been incurred but which cannot be assigned to a specific transaction. Thus, dynamic provisioning is, in principle, more sensitive to risk and loan portfolio growth decisions, and, in principle, allows for an earlier detection of credit losses building up in the banks' loan portfolio. Adoption of IFRS by Spain not only eliminated dynamic provisioning, but possibly also resulted in a reverse write-down of general loan loss provisions at transition to IFRS. Whether investors find Spanish bank financial statements more useful for decision-making when IFRS is applied, and whether therefore market discipline is increased, is therefore not obvious.

Discussion of Spanish loan loss provisioning also provides a useful illustration of the way in which financial reporting and the second pillar of Basel II overlap. For example, Pillar 2 includes a Supervisory Review Process that requires banks to have their own internal processes to assess their capital needs, and for the regulators to evaluate each bank's overall risk profile to ensure that each holds adequate capital. To the extent that Spanish banks' movement away from a dynamic provisioning model affects their ability to assess their own capital needs, Spanish bank regulators cannot rely as heavily on the bank's internal risk assessments and therefore have

¹⁵ The IASB is currently considering adoption of an expected loss model for loan loss provisioning. Such an approach would be forward-looking in contrast to the incurred loss approach.

to expend more resources to make their own assessment of each member bank's risk profile.

Fair Value Accounting and the Financial Crisis

In the U.S., the FASB has two primary standards that mandate recognition of accounting amounts using fair values: SFAS No. 115, *Accounting for certain investments in debt and equity securities* (FASB, 1993) and SFAS No. 133, *Accounting for derivative instruments and hedging activities* (FASB, 1998). SFAS No. 115 requires recognition at fair value of investments in equity and debt securities classified as held for trading or available-for-sale.¹⁶ Fair value changes for the former appear in income, and fair value changes for the latter are included as a component of accumulated other comprehensive income, i.e., are excluded from income. SFAS No. 133 requires all freestanding derivatives be recognized at fair value. However, fair value changes in those derivatives employed for purposes of hedging cash flow risks (e.g., cash flow volatility resulting from interest rate risk and commodity price risk) are shown as a component of accumulated other comprehensive income.

The rough equivalent to the FASB's fair value standards issued by the IASB is IAS 39, *Financial Instruments: Recognition and Measurement* (IASB, 2003). IAS 39 effectively has the same accounting treatment of investments as set out in SFAS 115, except that it delineates a fourth category of investments, loans and receivables for which there are no active markets from which to obtain quoted prices. Such securities are recognized at amortized cost. Both the FASB and IASB also have issued so-called fair value option standards that permit financial statement preparers to account for most financial assets and liabilities at fair value on an instrument-by-

¹⁶ Held-to-maturity securities, a third category of investments, are recognized at amortized cost.

instrument basis.¹⁷ A goal in issuing such standards was to address the problem of income volatility arising from determining income using a mixed attribute model, under which some items are measured at amortized cost and others at fair value.

In 2006 the FASB issued SFAS 157, Fair Value Measurements (FASB, 2006). SFAS 157 provides a definition of fair value as exit value, establishes a framework for measuring fair value, and expands disclosures about fair value measurements. The FASB defines "fair value" as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date." As the standard notes, "the objective of a fair value measurement is to determine the price that would be received to sell the asset or paid to transfer the liability at the measurement date (an exit price)."¹⁸ Implicit in the FASB's focus on exit value as a measure of fair value is the notion that an asset or liability's exchange price fully captures its value. The FASB recognizes that active markets may not always exist for a specific asset or liability, and therefore develops a hierarchy of preferences for measurement of fair value. The preferred Level 1 fair value estimates are those based on quoted prices for identical assets and liabilities, and are most applicable to those assets or liabilities that are actively traded (e.g., trading investment securities). Level 2 estimates are those based on quoted market prices of similar or related assets and liabilities or those derived from or corroborated by observable market data by correlation or other means. Level 3 estimates, the least preferred, are those based on company estimates, and should only be used if Level 1 or 2 estimates are not available.

¹⁷ SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities - Including an Amendment of FASB Statement No. 115* (FASB, 2007), and IAS 39, *Financial Instruments: Recognition and Measurement – The Fair Value Option* (IASB, 2005).

¹⁸ In May 2009 the IASB published an exposure draft of an IFRS on fair value measurement guidance. The exposure draft is largely consistent with the guidance in SFAS 157.

During the Financial Crisis of 2007-2008, there was a virtual collapse in trading of financial instruments in many markets, particularly those relating to mortgages and credit-related receivables. As a result, financial institutions worldwide saw their assets suffer permanent losses in value, and therefore were forced to take historically large asset write-downs. These events caused the FASB and IASB and fair value accounting to be drawn into the spotlight. Critics of fair value accounting, in general, and SFAS 157, in particular—notably bank managers— contended that the resulting impairment charges for bank assets reflecting Level 2 estimates based on asset-backed security (ABX) indices failed to take into account a bank's ability and intent to hold assets until price recovery that "likely" would obtain once markets thawed. Bank managers contended that the substantial spread between the ABX prices and their banks' Level 3 estimates of value-in-use reflected largely a liquidity risk premium rather than a default risk premium.

Many of these same critics also asserted that SFAS 157 was a key contributing factor to the financial crisis because regulated financial entities in the U.S. were forced to sell assets to maintain regulatory capital ratios at acceptable levels because they had to write-down impaired assets to unreliably low levels associated with distress sales—i.e., to prices from disorderly markets. Bank asset prices continued to fall further as additional banks were forced to sell their assets. In short, SFAS 157 is blamed for causing the pro-cyclicality of deteriorating bank asset prices and hence bank share prices that began in 2007.¹⁹

Regardless of whether fair value accounting was a cause of the liquidity crisis, bank regulators and accounting standards setters faced strong political pressure to ameliorate the

¹⁹ Pro-cyclicality would have resulted even if impairment charges were determined using the higher Level 3 prices, but the pressure to sell impaired assets would have been less. In other words, pro-cyclicality obtains whenever market prices are in a free fall. See Plantin, Sapra, and Shin (2008a, 2008b) for theoretical discussion of how fair value accounting can contribute to pro-cyclical financial instability.

systemic effects of pro-cyclicality. For example, in October 2008, the European Union required that the IASB amend IAS 39 to permit companies to reclassify instruments out of the fair value category (the US equivalent of trading securities), and also from available for sale to loans and receivables. As a result, many instruments that would have been recognized at fair value were permitted to be reclassified as held to maturity. Moreover, the political pressure was so intense that the IASB permitted reclassifications retroactively back to June 2008, before prices on loans and debt instruments had fallen substantially.

Thus, the question regulators faced was not whether a regulatory response was necessary or warranted, but rather which regulatory lever should be pulled. Stated another way, the question became which form of regulatory intervention was optimal given the choices available to regulators. The menu available to bank regulators included the following. First, the Basel Committee has the authority to relax regulatory capital requirements during economic downturns, which would relieve the pressure banks faced to sell assets simply to remain in line with regulatory capital requirements. To the extent that the decline in asset prices was temporary, reflecting the effects of severe drops in market liquidity, downward pressure on asset prices would be alleviated because regulatory capital-induced sales would be reduced. Of course, there are costs of taking such actions, the most notable of which is that permitting lower regulatory capital requirements potentially increases moral hazard on the part of bank managers to take risks that could have serious systemic consequences.

Second, the bank regulators in particular countries could alter the way in which regulatory capital is calculated to take into account effects of an SFAS 157-induced liquidity risk premium. For example, in the U.S., the Federal Reserve could have permitted member banks to adjust write-down amounts to reflect private information bank managers had regarding the difference between the portion of asset value changes attributable to default risk and ABX index prices that reflect liquidity discounts. The cost of following this approach is that the Supervisory Review Process (Pillar 2) might become prohibitively expensive, as bank regulators would have to expend resources determining the quality of bank managers' private value estimates.

The third alternative was to turn to accounting standard setters to modify existing accounting standards that relate to fair value to address the liquidity risk premium problem. This is, in fact, the alternative that obtained in the political marketplace. In response to Congressional pressure that changes were needed in fair value accounting rules, the FASB issued three FSPs in April 2009 that effectively made it easier for all firms, including, of course, financial institutions, to apply Level 3 value estimates instead of Level 1 or Level 2 prices when determining impairment charges, and also permitted the impairment charge to be split between income and other comprehensive income.

In particular, FASB Staff Position No. FAS 157-4, *Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That Are Not Orderly* (FASB, 2009a) gives companies applying SFAS 157 greater flexibility in determining when a market for a particular asset is inactive or when market prices can be characterized as arising from distressed sales. FASB Staff Position No. FAS 115-2 and FAS 124-2, *Recognition and Presentation of Other-Than-Temporary Impairments* (FASB, 2009b), require separate display on the income statement of losses related to "credit deterioration" and losses related to "other market factors". FASB Staff Position No. FAS 107-1 and APB 28-1 *Interim Disclosures about Fair Value of Financial Instruments* (FASB, 2009c) require additional disclosures about fair value, including significant assumptions and methods. Thus, FSP FAS 157-4 alleviated pressure on banks to sell assets to meet regulatory capital requirements by making it easier to avoid writing down of assets to Level 1 or 2 prices. FSP FAS 115-2 and FAS 124-2 enable banks to "manage" income and particularly Tier 1 capital because they provide discretion in determining how to split an impairment loss between income and other comprehensive income (OCI), as Tier 1 capital is unaffected by OCI losses. The final FSP, FSP 107-1 and APB 28-1, could, in principle, increase market discipline by requiring banks to disclose more information about the quality of their assumptions and methods used to estimate asset fair values.

The key benefit of addressing what was essentially a bank regulatory issue through the accounting standard setting process is that the FSPs provide a uniform approach that all banks must follow, and the resulting financial statements will have to pass the scrutiny of the banks' external auditors. As a result, banking regulators would not have to expend precious resources monitoring bank-specific approaches to estimating the differences between value losses attributable to liquidity and default risk as described above. A key cost is that the FASB made changes to financial accounting rules that apply to all entities, not just banks. Whether these changes are "optimal" from the standpoint of investors and other stakeholders of non-banks is far from obvious. Moreover, the FSPs were passed without the usual deliberative process the FASB undertakes when making substantive changes to financial reporting requirements.

Potential Consequences of FAS 115-2 and FAS 124-2

Although the FSPs issued by the FASB could have the intended consequence of mitigating pro-cyclicality in severe economic downturns, particularly those associated with illiquidity in asset markets important to banks, the FSPs also likely have unintended regulatory consequences. Recall that FSP FAS 115-2 and FAS 124-2 enable banks to manage Tier 1 capital

because they provide discretion in determining how to split an impairment loss between income and OCI. An unintended consequence of this is that less healthy banks will be those that take advantage of the FSP by assigning a greater share of impairment losses to OCI than more healthy banks. Thus, the FSP in effect provides additional regulatory cushion for banks that should otherwise be taking steps to improve their financial health. Thus, it is possible that the FSP could result in an increase in systemic risk because regulatory intervention of weaker banks may be sub-optimally delayed.

6. Concluding Remarks

In this paper, we distil essential insights about the regulation of financial reporting from the extant academic literature in accounting, law and economics. The key objective is to synthesize the extant theory of regulation to provide a backdrop against which to evaluate the implications of post-crisis pressures on the regulation of financial accounting, and to isolate issues for future research. We succinctly lay out the basic arguments that have been put forth both for and against the regulation of corporate reporting. We next apply these general arguments about regulation specifically to the theory of disclosure regulation by first discussing the extent to which fundamental forces of market discipline can generate optimal levels of disclosure in the absence of regulation, and then examining where these forces breakdown to potentially create scope for regulation.

We then turn our focus to market-wide effects of regulation of financial disclosure. Although political forces affect regulation of firm-level information, such forces play an even more important role in influencing the structure of financial regulation and accounting standard setting in particular when accounting information is perceived to affect the stability of the financial markets and banking system. Recent actions by the European Commission relating to IFRS 9 and the proposed legislation in the U.S. Congress to create a systemic risk council serve to illustrate this point. We then discuss in detail the recent fair value debate as a case study of the way in which bank regulatory policy and accounting standard setting decisions were jointly determined in the midst of financial crisis of 2007-2009.

We conclude by offering suggestions for future research. A key research direction is to seek a deeper understanding of the consequences of using financial accounting as a tool of prudential regulation of financial institutions, relative to using alternative regulatory mechanisms. As we discussed earlier in the paper, during the crisis both the FASB and IASB bent to political pressure and generally allowed banks more flexibility in applying fair value accounting. How did banks actually use the additional flexibility afforded to them in their accounting decisions? Did banks use the flexibility to better reflect economic fundamentals, or did they act opportunistically in exploiting flexibility to achieve regulatory forbearance? How much power should bank regulators have over accounting standards given that such standards apply far beyond just financial firms? Research could attempt to exploit the natural experiment provided by the crisis to examine how political pressure was brought to bear on the standard setters, and to consider alternative structures to better insulate accounting standard setters from politics. As China and India, among others potentially influential players, adopt IFRS, political influence over the IASB could come to represent a very significant issue in the future.

References

- Admati, A., and P. Pfleiderer, 2000. Forcing Firms to Talk: Financial Disclosure Regulation and Externalities. Review of Financial Studies 13, 479-515.
- Adrian, T. and H.S. Shin. Liquidity and Leverage. 2009. Forthcoming in the *Journal of Financial Intermediation*.
- Ball, R., S.P. Kothari, and A. Robin. 2000. The Effect of International Institutional Factors on Properties of Accounting Earnings." *Journal of Accounting and Economics* 29: 1-51.
- Ball, R.; A. Robin, and J.S. Wu. 2003. Incentives versus Standards: Properties of Accounting Income in Four East Asian Countries." *Journal of Accounting and Economics* 36: 235-270.
- Banner, S. 1997. What Causes New Securities Regulation? 300 Years of Evidence. *Washington University Law Quarterly*, **75**(2), 849-855.
- Barth, J., G. Caprio, and R. Levine. 2006. *Rethinking Bank Supervision and Regulation: Till Angels Govern*, Cambridge, UK: Cambridge University Press.
- Barth, M.E., W.R. Landsman, and M. Lang. 2008. International Accounting Standards and Accounting Quality. *Journal of Accounting Research* 46, 467-498.
- Bushman, R., and C. Williams. 2009. Accounting Discretion, Loan Loss Provisioning, and Discipline of Banks' Risk-Taking." Working paper University of North CXarolina and University of Michigan.
- Bushman, R., J. Piotroski, and A. Smith, 2004. What Determines Corporate Transparency? *Journal of Accounting Research* 42, 207-252.
- Coffee, J. C., 2007, Law and the market: the impact of enforcement, *University of Pennsylvania Law Review* 156, 229-258.
- Coffee, J., 1984. Market Failure and the Economic Case for a Mandatory Disclosure System. Virginia Law Review 70, 717-753.
- Committee of European Banking Supervisors. 2007. Analytical report on prudential filters for regulatory capital, 5 October. <u>http://www.c-ebs.org/getdoc/d0ce6620-b3f7-40a5-8e5b-bc380f22f6ce/145Final_Analytical_report_on_prudential_filters.aspx</u>.
- Committee of European Banking Supervisors. 2009. Assessment of banks Piller 3 disclosures, 24 June. <u>http://www.c-ebs.org/getdoc/6efe3a55-b5c5-4f73-a6af-a7b24177e773/CEBS-2009-134-Final-published-%28Transparency-assess.aspx</u>.
- Djankov, S., Glaeser, E., La Porta, R., Lopez-de-Silanes, F. and Shleifer, 2003, The New Comparative Economics, *Journal of Comparative Economics*, 31:595-619.

- Daske, H., L. Hail, C. Leuz, and R. Verdi. 2008. Mandatory IFRS Reporting Around the World: Early Evidence on the Economic Consequences. *Journal of Accounting Research* 46, 1085-1142.
- Demsetz, H. 1969. Information and Efficiency: Another Viewpoint. *Journal of Law and Economics* 12, April.
- Dye, R., Sunder, S., 2001. Why not allow the FASB and IASB standards to compete in the U.S.? *Accounting Horizons* 15, 257–271.
- Easterbrook, F., and D. Fischel, 1984. Mandatory Disclosure and the Protection of Investors. *Virginia Law Review* 70, 669-715.
- Financial Accounting Standards Board. 2006. *Statement of Financial Accounting Standards No.* 157, Fair Value Measurements. Norwalk, CT: FASB.
- Financial Accounting Standards Board. 2007. *The Fair Value Option for Financial Assets and Financial Liabilities Including an Amendment of FASB Statement No. 115.* Norwalk, CT: FASB.
- Financial Accounting Standards Board. 2009a. FASB Staff Position No. FAS 157-4, Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That Are Not Orderly. Norwalk, CT: FASB.
- Financial Accounting Standards Board. 2009b. FASB Staff Position No. FAS 115-2 and FAS 124-2, *Recognition and Presentation of Other-Than-Temporary*. Norwalk, CT: FASB.
- Financial Accounting Standards Board. 2009c. FASB Staff Position No. FAS 107-1 and APB 28-1 Interim Disclosures about Fair Value of Financial Instruments. Norwalk, CT: FASB.
- Financial Accounting Standards Board. 2009d. Accounting for financial instruments: summary of decisions reached to date as of October 26, 2009, FASB.
- Financial Stability Forum, 2009. Report of the financial stability forum on addressing procyclicality in the financial system.
- G-20 Finance Ministers and Central Bank Governors. 2009. Progress Report on the Actions to Promote Financial Regulatory Reform Issued by the U.S. Chair of the Pittsburgh G-20 Summit, 25 September 2009.
- Gadinis, Stavros and Howell E. Jackson, 2007. Markets As Regulators: A Survey. Harvard Law School
- Grossman, S., 1981. The Informational Role of Warranties and Private Disclosure about Product Quality. *Journal of Law and Economics* 24, 461-483.

- Huizinga H. and L. Laeven. 2009. "Accounting discretion of banks during a financial crisis" *Working Paper* IMF.
- International Accounting Standards Board, 2003. International Accounting Standard 39: Financial Instruments: Recognition and Measurement, London, UK.
- International Accounting Standards Board, 2005. International Accounting Standard 39: Financial Instruments: Recognition and Measurement– The Fair Value Option, London, UK.
- International Accounting Standards Board, (IASB) 2009. *Request for information,* June 2009 IASB.
- Jackson, H. E., and M. J. Roe, 2008, Private and public enforcement of securities laws: Resource based evidence, unpublished manuscript, Harvard Law School.
- Kothari, S.P., K. Ramanna, and D. Skinner. 2009. What should GAAP look like? A survey and economic analysis. Working paper University of Chicago, Harvrad and MIT.
- Lang, M., J. Raedy, and W. Wilson, 2006. Earnings Management and Cross Listing: Are Reconciled Earnings Comparable to U.S. Earnings? *Journal of Accounting and Economics* 42, 255-283.
- Leuz, C., D. Nanda, and P. Wysocki, 2003. Earnings Management and Investor Protection: An International Comparison. *Journal of Financial Economics* 69, 505-527.
- La Porta, R., F. Lopez-de-Silanes, and A. Shleifer, 2006. What Works in Securities Laws? The *Journal of Finance* 61, 1-32.
- La Porta R., F. Lopez-de-Silanes, A. Shleifer, and A. Vishny, 1998. "Law and Finance." *Journal* of *Political Economy*, 106, 1113-1155.
- Leuz, C., Wysocki, P. 2008. Economic consequences of financial reporting and disclosure regulation: A review and suggestions for future research. Working Paper, University of Chicago.
- Leuz, C.; D. Nanda; and P. Wysocki. 2003. "Earnings Management and Investor Protection: An International Comparison." *Journal of Financial Economics* 69: 505-527.
- Lo, A. 2009. The Feasibility of Systemic Risk Measurement. Written Testimony of Andrew W. Lo prepared for the U.S. House of Representatives Financial Services Committee October 19, 2009. Electronic copy available at: http://ssrn.com/abstract=1497682
- Mahoney, P., 1995. Mandatory Disclosure as a Solution to Agency Problems. The University of Chicago Law Review 62, 1047-1112.
- Milgrom, P. and J. Roberts. 1986. Relying on the Information of Interested Parties. *Rand Journal of Economics*, 17, 18-32.

- Peltzman, S., 1976. Toward a more general theory of regulation. *Journal of Law and Economics* 19, 211–240.
- Pigou, A., 1938. The Economics of Welfare. London: Macmillan and Co. (Orig. pub. 1920.)
- Plantin, G., H. Sapra, and H. S. Shin. 2008a. "Fair Value Accounting and Financial Stability." *Financial Stability Review* 12, Banque de France, Paris.
- Plantin, G., H. Sapra, and H. S. Shin. 2008b. "Marking-to-Market: Panacea or Pandora's Box." *Journal of Accounting Research* 46, 435-460.
- Posner, R., 1974. Theories of Economic Regulation. Bell Journal of Economics and Management Science 5, 335.
- PricewaterhouseCoopers. 2009. Changes Being Considered to Financial Instruments Accounting DataLine: A look at current financial reporting issues November 19, 2009.
- Powers, Michael. 2009. P D Leake Lecture, Fair value: the influence of financial economics on accounting. Lecture given at Chartered Accountants' Hall, London on 15 October 2009. <u>http://www.icaew.com/index.cfm/route/168423/icaew_ga/en/Faculties/Financial_Reporting/I_nformation_for_better_markets/P_D_Leake_Lecture_Fair_value_the_influence_of_financial_economics_on_accounting</u>
- Ramanna, K., 2008. The implications of unverifiable fair-value accounting: evidence from the political economy of goodwill accounting. Journal of Accounting & Economics 45, 253–281.

Reinhart, C. and K. Rogoff. 2008. This Time Is Different: A Panoramic View of Eight Centuries of Financial Crises. NBER Working Paper No. 13882

- Rochet, Jean-Charles, 2005. Prudential Policy, Monetary And Economic Studies (Special Edition) October 2005.
- Securities and Exchange Commission. 2007. Final Rule: Acceptance from Foreign Private Issuers of Financial Statements Prepared in Accordance with International Financial Reporting Standards without Reconciliation to U.S. GAAP.
- Securities and Exchange Commission. 2008. Roadmap for the Potential Use of Financial Statements Prepared in Accordance with International Financial Reporting Standards by 38U.S. Issuers; Proposed Rule.
- Securities and Exchange Commission. 2010. Commission Statement in Support of Convergence and Global Accounting Standards.

Shleifer, A., 2005. Understanding Regulation. European Financial Management 11, 439–451. Squam Lake Working Group on Financial Regulation. 2009. A New Information Infrastructure for Financial Markets. Working paper Council on Foreign Relations, Center for Geoeconomic Studies, February 2009.

- Stigler, G., 1971. The Theory of Economic Regulation. *Bell Journal of Economics and Management Science* 2, 3-21.
- Sunder, S. 2002. Regulatory competition among accounting standards within and across international boundaries. *Journal of Accounting and Public Policy* 21, 219–234.
- U.S. Treasury. 2009. "A new foundation: rebuilding financial supervision and regulation" *Financial Regulatory Reform*.
- Vyas, D. 2009. "Financial reporting transparency of US financial institutions during the current economic crisis" *Working Paper* University of Toronto.
- Verrecchia, R., 1983. Discretionary Disclosure. *Journal of Accounting and Economics* 5, 179-194.
- Watts, R., Zimmerman, J., 1986. Positive Accounting Theory. Englewood Cliffs, NJ: Prentice Hall.
- Zeff, S., 2005a. The evolution of US GAAP: the political forces behind professional standards part 1. *CPA Journal* 75 (January), 18-27.
- Zeff, S. 2005b. The evolution of US GAAP: the political forces behind professional standards part 2. *CPA Journal* 75 (February), 19-29.