

What should GAAP look like?

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Abstract

We develop an economic theory of GAAP under the assumption that GAAP's objective is to facilitate efficient capital allocation within an economy. The theory predicts that the GAAP as shaped by the economic forces of demand for and supply of financial information would focus on performance measurement and control through the income statement and balance sheet. In addition, the theory allows us to compare and contrast extant GAAP, as produced in a regulated setting, with a GAAP that might arise endogenously as a result of market forces. We conclude that verifiability and conservatism, while detracting accounting from a valuation objective, are critical features of an economic GAAP. We recognize the advantage of using fair values in circumstances where these are based on observable prices in liquid secondary markets, but caution against expanding fair values to areas such as intangibles where its opportunistic use is predictable. We conclude that the convergence project between the FASB and IASB should be dismantled and that competition between the two bodies would be the most practical means of achieving an economic GAAP.

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1. Introduction

Financial reporting standard setting in the US as well as internationally is in the midst of at least three major initiatives. First, a significant controversy swirls around the degree to which fair values should serve as a basis for financial reporting. The Financial Accounting Standards Board (FASB) in the US and the International Accounting Standards Board (IASB) internationally appear to favor the use of fair value accounting more extensively than some in the academia and practice would be willing to embrace. This has generated an intense debate over the economic underpinnings of fair value accounting, and the intended and unintended consequences of an increasing application of fair value accounting in financial reporting. Second, in the aftermath of spectacular scandals like Enron and the financial crisis of 2008-09, many in the investment community have advocated “principles-based” accounting grounded in a “conceptual framework.” If adopted, the proponents believe it would purge current accounting standards of the onerous, detailed “rules,” and instead provide economically more meaningful financial information. One example of a shift away from rules-based accounting is the FASB’s proposal to eliminate industry-specific practices in important areas such as revenue recognition. Finally, the FASB and IASB are firmly committed to a convergence of US GAAP and International Financial Reporting Standards (IFRS) and “to their shared objective of developing a high quality, common accounting standards for use in the world’s capital markets.” (IASB, 2008, p. 5). This ongoing courtship between the FASB and IASB might morph into a single, dominant global financial reporting standard setting body in the near future.

All three initiatives have far-reaching implications for the form and substance of financial reporting in the future, with attendant economic consequences. The financial crisis of 2008-09

has imparted a sense of urgency and perhaps a political appetite for dramatically changing the institutions of accounting practice. If financial reporting as we know it is on a precipice of change, a critical review of the academic literature to distill policy implications for financial reporting standards would be timely. In this spirit, we first articulate an economic theory of GAAP that rests on the foundation of demand for and supply of financial information in a capital market. Then, we apply the theory to generate implications for the nature of accounting practice (including the nature of the balance sheet and the income statement) and the role of standard setting in generating such practice.

The *JAE* Editors have charged us to address the question, “What should GAAP look like?” We develop a theory of GAAP under the maintained assumption that the objective of GAAP is to facilitate the efficient capital allocation in an economy. While this assumption is itself uncontroversial, it has been subjected to considerable misinterpretation and confusion in standard setting. In particular, misunderstandings about the economic forces that give rise to financial reporting and GAAP have (mis)guided policy directions on important areas in accounting. These include whether financial reporting is primarily the purveyor of information about performance measurement and control versus equity valuation, the role of choice in accounting practice, the role of competition among standard setters versus a global monopoly in standard setting, and the usefulness of the market efficiency as a maintained hypothesis in standard setting. We offer an economic analysis of these issues in the sections below. We hope the analysis would serve as a guide for what GAAP should look like in the future.

In undertaking to write about what GAAP *should* look like, we run the risk of making normative prescriptions. We have no such designs. The analysis is entirely positive, and still we make unambiguous recommendations about what GAAP should like it. Watts and Zimmerman

(1986, Chapter 1, original emphasis) nicely explain why such an exercise would be positive, not normative:

“Prescriptions require the specification of an *objective* and an *objective function*. For example, to argue current cash equivalents should be the method of valuing assets, one might adopt the objective of *economic efficiency* (i.e., the size of the economic pie available) and specify how certain variables affect efficiency (the objective function). Then one could use a theory to argue that adoption of current cash equivalents will increase efficiency. Theory provides a method for assessing this *conditional* statement (i.e., do we observe that adoption of current cash equivalents increases efficiency?). But theory does not provide a means for assessing the appropriateness of the objective. The decision on the objective is subjective, and we have no method for resolving differences in individual decisions.”

The differing perspectives on the direction of change in accounting institutions, including the three major initiatives we described at the outset, are all centered on a debate over the primary objective of financial reporting (beyond promoting capital market efficiency through the provision of timely and transparent financial information). The crux of the debate is whether accounting is about performance measurement and control versus (information about) equity valuation. Many academics and standard setters characterize equity valuation as the primary role of accounting information. For example, Francis, Olsson, and Schipper (2006, p. 262) “take a capital allocation view of earnings quality, as opposed to a contracting or stewardship view,” which they rationalize as stemming “from the view that the capital market uses of accounting information are fundamental, in the sense of providing a basis for other uses, such as stewardship.” (p. 259).¹ Barth, Beaver, and Landsman (2001, p. 78) justify the usefulness of value-relevance research on grounds that “a primary focus of the FASB and other standard setters is equity investment” while recognizing other uses of financial statements “beyond equity investment, e.g., management compensation and debt contracts.”

¹ Also see Schipper and Vincent (2003) who analyze earnings quality “from a Hicksian income perspective, following the idea that earnings should faithfully represent changes in wealth.” (Francis et al., 2006, p. 263).

In the economic theory of GAAP we articulate in this paper (Section 2), we conclude that the economic forces of demand for and the supply of accounting information to various stakeholders, including equity investors, debtholders, management, and others, lead to accounting that is skewed toward performance measurement and control. In the process, financial information generates information that is correlated with and informative about firm valuation. The agency relationship between shareholders and management and that between shareholders and debtholders significantly influence accounting toward conservatism and reporting of the valuations of separable assets on the balance sheet. These features detract accounting from the primacy of a valuation objective.

In Section 3, we discuss the implications of our theory of GAAP for the structure of GAAP financial statements, focusing principally on income statement and balance sheet recognition and measurement issues. In this discussion we further develop the implications of the primacy of the income statement's performance measurement role and the balance sheet's control measurement role, and show how this results in dirty surplus accounting, why asset recognition rules that restrict the recognition of certain economic resources (including goodwill and other intangibles) make sense, why measuring assets and liabilities at fair value is unlikely to be sustainable, why the balance sheet should fully reflect the entity's economic obligations, as well as other attributes of accounting rules. We emphasize the fact that to achieve its performance measurement objective, financial reporting must be conservative, and that an "unbiased" approach to financial reporting is likely to be untenable. We also argue that recent proposals to change financial reporting (for example, by adopting a balance sheet oriented approach to revenue recognition) are unlikely to have survival value.

In Section 4, we discuss implications of the theory for developing GAAP in the future. In particular, we focus on (i) the role of regulation in determining GAAP, concluding that more competition in standard setting is desirable; (ii) the role of choice within GAAP, weighing on the importance of both principles and rules in an accounting system; and (iii) the merits of market efficiency as the maintained hypothesis in standard setting. In Section 5, we summarize the paper and discuss directions for future research.

2. An economic theory of GAAP: Expected properties of GAAP

The demand for and supply of financial information in a capital market facilitate contracting and the exchange of resources among various stakeholders, including investors, bondholders, management, employees, suppliers, customers, auditors, and regulators. This has been the case in periods without government-regulated supply of corporate financial information, i.e., before the creation of the Securities and Exchange Commission (SEC), as well as in a regulated environment as we currently experience in the US and elsewhere.

The quality and quantity of the available financial information (supplied by corporations and by information intermediaries like analysts and financial press) in an economy influences the efficiency of resource allocation and the cost of capital (i.e., management of risk). One stated objective underlying the regulation of corporate financial information is that market imperfections and public good nature of financial information impede the adequate supply of financial information. This adversely affects social welfare in that resource allocation is less efficient than it could be and the cost of capital is higher than it could be, necessitating

regulation.² In addition, regulation of financial information is motivated by concern for the average, uninformed or unsophisticated investor.³ An encyclopedic literature examines whether these concerns are well-founded, and therefore whether regulation of corporate financial reporting is warranted. Pragmatically, we sidestep this issue and ask, what are the desirable properties of GAAP, regulated or not? Later, in Section 4, we describe the various rationales for regulation in the context of different theories of regulation and discuss the implications of those theories for the nature of GAAP. Throughout the paper, we assume the objective of accounting standards is to facilitate efficient allocation of resources in an economy, without harming the average, unsophisticated investor.⁴

We briefly summarize the likely effect of the various stakeholders' demand for and supply of financial information on the properties of GAAP in equilibrium. Because the various stakeholders' information demands are not alike, it becomes obvious that no single set of GAAP rules can entirely satisfy any individual stakeholder's information demands.⁵ Still, we offer an economic rationale for why GAAP is likely to be shaped by certain stakeholder demands or certain dimensions of their demands. We conclude that performance measurement is expected to

² FASB's mission statement states: "Accounting standards are essential to the efficient functioning of the economy because decisions about the allocation of resources rely heavily on credible, concise, transparent, and understandable financial information." (FASB website <http://www.fasb.org/facts/index.shtml#mission>).

³ "The mission of the U.S. Securities and Exchange Commission is to protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation. As more and more first-time investors turn to the markets to help secure their futures, pay for homes, and send children to college, our investor protection mission is more compelling than ever." (SEC website <http://www.sec.gov/about/whatwedo.shtml>).

⁴ Fairness concerns are not necessary for GAAP to achieve the objective of efficient capital allocation. In fact, perceived "unfairness," such as complex financial statements that allow sophisticated users to trade on information advantages can facilitate efficiency. Nevertheless, given the SEC's mission to promote fairness, we assume that GAAP financial statements should not harm the average, unsophisticated investor.

⁵ Given the diverse demands on GAAP, some standard setters have recently advocated developing a GAAP that is predominantly suited to meet equity valuation demands. As part of this agenda, they have considered purging conservatism from GAAP, arguing that such conservatism is unsuitable for equity valuation. In this section, we argue that the conservative properties of GAAP are central to GAAP's role in facilitating exchange in markets, and that a GAAP without conservatism is unlikely to be useful.

be the dominant characteristic of the income statement, whereas the balance sheet is expected to reflect debtholders' demand for control measurement, i.e., balance sheet as an aggregator of the values of the firm's separable assets. The two financial statements must articulate via the double-entry book-keeping and the use of dirty surplus. While these features are designed to ensure coherence in the financial statements, we expect the primacy of the performance measurement objective for a desirable set of accounting standards to dominate the character of the GAAP, and therefore the financial statements. To develop these ideas, we begin the discussion below with an all-equity firm setting. Later on we discuss the effect of debtholders on the nature of demand for financial information and how it affects the properties of GAAP.

2.1. An all-equity firm setting

To facilitate the exchange of resources between the providers and users of equity capital, current and prospective investors demand information about the firm's financial performance. This information is useful for at least two reasons: equity valuation and evaluation of management performance. For valuation purposes, ideally investors would like to receive financial information about not only the current period, but also about the firm's prospective performance. However, extant GAAP produces financial reports that primarily contain information about current period performance. GAAP reports offer only limited information about the firm's prospective performance, except perhaps information with respect to certain anticipated outflows or negative performance as dictated under conservatism in accounting. At best, forward-looking information is offered qualitatively in the management's discussion and analysis of the firm's performance in the annual report. We explain below why GAAP is likely to have evolved (and why it seems logical for it to have done so) to require corporations to only

report current period financial performance, and not incorporate forward-looking information in financial statements.⁶ The discussion is divided into two parts. The first part ignores concerns about the credibility of the information supplied by the firm, i.e., the management. In the second part, the effect of incorporating those concerns is analyzed, which creates a demand for verifiability, conditional conservatism, as well as auditing.

2.1.1. Principal-agent relationship between shareholders and management

In a typical public corporation, shareholders delegate the firm's day-to-day operating decisions to management, thus creating an agency relationship between the shareholders (principals) and management (the agent). The firm's board of directors and shareholders hire management, monitor its performance, and reward and incent management to act in the shareholders' best interests. This naturally creates a demand for the measurement of management's periodic performance, i.e., the management's output in a period resulting from the management's actions in the period.

To evaluate and compensate the management for its current period performance, investors focus on the output resulting from the management's actions (effort) in the current period. Actual sales or revenues (including the increase in net receivables) in the current period are one such output measure that reflects (albeit imperfectly) the consequences of the management's actions in that period. A likely reason for focusing on "outputs" is the difficulty of measuring actions (effort) *per se*: the difficulty exists, even absent agency problems, due to uncertainty about the future and *ex post* settling-up problems (e.g., future business conditions,

⁶ Whether firms should be required to provide detailed qualitative and quantitative forward-looking information in the form of supplementary financial information or disclosures and the nature of standards governing such disclosures are important topics, but they are beyond the scope of our analysis. A substantial body of literature investigates cross-sectional and time-series variation in the voluntary provision of such information (see Healy and Palepu, 2001, for a review of the literature).

health of the manager, counter-party risk, etc.). The revenue recognition principle attempts to capture the spirit of an output-based measure of management effort (i.e., revenue is recognized when it is earned and *realized or realizable*).⁷

The nature of information about firm performance that investors are likely to demand for valuation is expected to be similar to but not perfectly aligned with that for evaluating and rewarding management. For valuation, investors seek information that is helpful in assessing the amount, timing, and uncertainty of future cash flows, regardless of whether the management has already taken the actions or is likely to act in the future. This includes, but is not limited to, information about the current period's performance. For example, in valuing Wal-Mart, relevant information might include sales (revenues) for the current period as well as information about how much Wal-Mart is expected to sell in future as a result of the company's growth plans, the quality and range of products it anticipates selling, the nature of the competition, the condition of the economy, etc.

Of course, investors are also interested in assessing the kinds of actions management might take in future and their potential effect on future cash flows when measuring current performance. In fact, investors design compensation packages to influence the management's future actions to be in the investors' best interests, i.e., actions that would maximize future net cash flows, and therefore the share price. In this sense there is alignment between investors' informational demand for valuation versus management performance evaluation and compensation, but the latter demand when manifested in GAAP rather explicitly focuses on performance resulting from the management's actions in the period. To the extent current

⁷ If management has taken effort that would produce future sales, then the current period sales (which might include the impact of management's actions from past periods) as a measure of management performance is an imperfect indicator of management performance. This is but one example of accounting performance measure as an imperfect substitute for the desired measure due to limitations in measuring the output of actions already taken (i.e., the revenue is not "*realized*").

performance is indicative of the firm's future performance, GAAP caters to the investors' valuation demand for information. In the limit, if current performance is a sufficient statistic for information relevant for valuation (i.e., if earnings were to follow a random walk and the market had no information beyond the time series properties of earnings, see Kothari, 2001), there would be perfect alignment between the valuation and performance evaluation sources of demand for information.⁸ This, however, seems highly unlikely in practice because (i) perfectly capturing current performance is difficult; (ii) current period performance will not entirely subsume information about the future, especially in the case of growing firms and those in decline; and (iii) some fluctuations in firm values are unrelated to management's performance.⁹

2.1.2. Effect of a demand for credible financial information: Verifiability, conditional conservatism, and auditing

Because the management itself prepares the firm's, and thus its own performance reports, investors seek performance measures that largely rest on verifiable information to measure performance, and seek outside auditors' opinion about the accuracy and reliability of the

⁸ If fair value accounting were literally mark-to-market, including the marking of market the firm's intangibles or goodwill, i.e., firm's non-separable assets, then accounting performance would be equivalent to the change in the market value of the firm's equity. However, realistically no application of fair value accounting would approach such a nirvana mark-to-market economic performance because (i) financial accounting systems' focus on the measurement of separable assets and (ii) the nature of revenue recognition (see below). Equally importantly, stakeholders are unlikely to demand financial information using such a fair value accounting system implemented by the management (see Ball, 2001, and Watts, 2003a and 2003b), and even if attempted, fair value accounting information is likely to face a credibility challenge. On the latter point, see section 2.1.2 below.

⁹ In theory, all fluctuations in firm values can be attributed to management's performance (or non-performance). However, in practice, managers are unable or unwilling to bear all firm risk in a measure of their performance (perhaps because they are more risk averse than the "firm"). For example, gains and losses on foreign-currency translations are not included in US GAAP income although managers actively manage currency-risk. See Sloan (1993) for evidence that earnings in part filter out the uncontrollable portion of a firm's periodic economic performance, i.e., market returns.

financial information that the management supplies.¹⁰ Absent these safeguards, credibility of the management's performance reports is likely to suffer because stakeholders understand that management has incentives to embellish its own performance. These incentives are not only rooted in the contractual compensation consequences of management's periodic performance, but also in the belief that performance influences their career prospects within the firm (both tenure and promotion prospects) as well as more broadly in the managerial labor market.

The conflict between shareholders and the management in their agency relationship profoundly influences the attributes of the financial information (i.e., GAAP) shareholders (and other stakeholders) demand and the management supplies. To rein in the management's proclivity to favorably skew the information they supply, GAAP has evolved to require financial reports based on verifiable information.¹¹ For example, the "earned" criteria in revenue recognition can be attributed to concerns over the credibility of sales reported when full "effort" has not yet been exerted (i.e., moral hazard). In fact, the entire body of practice known as "unconditional" conservatism can be attributed to concerns over verifiability. Specifically, the practice of systematically expensing costs (in violation of the matching principle) when the benefits associated with those costs are sufficiently uncertain (e.g., most forms of research and advertising expenditures) can be explained by management agency. Absent the immediate expensing of such costs, management has incentives to indefinitely delay their recognition to exaggerate its own performance.¹²

¹⁰ We discuss below additional factors (besides performance measurement) that reinforce the demand for accuracy and reliability of management supplied financial information.

¹¹ In US courts, information is "verifiable" if it can be "objectively characterized as true or false," *Ollman v. Evans*, 750 F.2d 970, D.C. Cir., 1984.

¹² The immediate recognition of costs whose benefits are uncertain can result in understating net performance for the period in which those costs are incurred (e.g., high research spending results in lower net profits in the period the spending is incurred). On these grounds, it can be argued that such costs should be taken directly to equity (i.e., dirty

As a further response to credibility concerns, the verifiability criterion is relaxed when information is adverse, i.e., GAAP is “conditionally” conservative (see Basu, 1997, Kothari, 2000, Ball et al., 2000, Ball, 2001, Watts, 2003a and 2003b, and Ball and Shivakumar, 2005 and 2006). The underlying logic originates with the premise that management does not have an inherent incentive to volunteer bad news in the financial statements themselves.¹³ Therefore, if GAAP required management to recognize bad news, then management’s bad news disclosures would be believable even if they did not meet the objectivity and verifiability thresholds.¹⁴ In contrast, the objectivity and verifiability thresholds are not symmetrically relaxed with respect to good news because such reporting is likely to be inherently unreliable.¹⁵

Shareholders’ demand for conditional conservatism arises from at least three salient factors.¹⁶ First, shareholders delegate responsibility for managing their capital to management, but the important decisions they make are about compensation and whether to retain or replace the management on the basis of their assessment of the management’s skill, performance, and demands of the job. Because management is likely to be reluctant to volunteer bad news,

surplus), thus avoiding a muddied performance measure. However, since the benefits from these expenditures, if realized, eventually flow through the income statement, it seems reasonable to require the costs to do so as well.

¹³ That is, we are referring to management’s differential incentives to *recognize* good and bad news in the financial statements.

¹⁴ Management can abuse the bad news disclosure requirement by recognizing too much bad news. Specifically, standard setters and others express concern about firms setting up cookie-jar reserves, i.e., management’s ability to be too conservative and abuse conditional conservatism as an earnings-smoothing device (e.g., Myers, 2001, and Francis, Hanna, and Vincent, 1996). Previous research documents management’s incentive to be overly conservative following a transition in top management (e.g., Pourciau, 1993, Weisbach, 1995, and Murphy and Zimmerman, 1993). Thus, the efficiency of conditional conservatism in equilibrium is an empirical question, although the casual historical evidence on the survival of conditional conservatism over many decades suggests it is an efficient phenomenon.

¹⁵ Even with the objectivity and verifiability thresholds relaxed and GAAP requiring the disclosure of bad news, such reporting is nevertheless expected to be biased upwards. One has to only witness the 2008-09 financial crisis enveloping the globe to appreciate that notwithstanding conservatism in GAAP requiring that firms anticipate bad news in their financial reports, disclosure of such news appears to have been significantly delayed. It’s just that with conservative accounting, the expectation is that the favorable bias is likely to be muted. We discuss below another benefit of GAAP requiring prompt disclosure of bad news, i.e., in litigation.

¹⁶ We revisit these reasons in the context of shareholder-bondholder conflict.

conditional conservatism introduces a contractual obligation through GAAP for the management to disclose bad news as it becomes available even if it does not meet the objectivity and verifiability thresholds applicable otherwise.

Second, in the event of bad news, management is not only likely to withhold the information, its investment decisions are likely to be contrary to the shareholders' best interests. For example, the management might undertake overly risky investments (Hail Mary passes, to use a sports analogy) in the hope of riding out poor performance, which is the well-known asset substitution problem (see Smith and Warner, 1979, and Watts, 2003a and 2003b). The timely recognition of bad news, i.e., conditional conservatism, enables shareholders to either curb management's potentially value-destroying decisions (by exercising greater oversight) and/or replace the management. The conditional conservatism feature of the GAAP also provides a legal basis for shareholders to initiate action against the management *ex post*.

Finally, by withholding bad news, the management stands to excessively compensate itself. Shareholders generally find it prohibitively costly to recoup the excess compensation *ex post* from the management.¹⁷ This is similar to the underinvestment problem that is typically described in the context of shareholder-bondholder contracts (see below).

Conditional conservatism mitigates all three of these problems, which explains why it is a central tenet of GAAP that predates the regulation of accounting (see Basu, 1997). The *ex ante* disciplining role of conditional conservatism on management behavior is due in part to the fact that conditional conservatism as an explicit attribute of GAAP is important *ex post* in resolving disputes between shareholders and management. Conditional conservatism as a part of GAAP

¹⁷ See Barclay, Gode, and Kothari (2005) and Leone, Wu, and Zimmerman (2006). The 2008-09 financial crisis is replete with instances (e.g., Merrill Lynch bonus payments in December 2009) in which evidence suggests management overcompensated itself notwithstanding extreme bad news that was not fully disclosed. Considerable litigation is underway to recoup some of the payments in part on the grounds that management withheld bad news.

facilitates its enforcement in the event of litigation.¹⁸ Conditional conservatism reaps the same benefit in the context of debtholder-shareholder contracts discussed below.

Conditional and unconditional conservatism signify a trade-off wherein relevant information about management achievements is deemphasized so as to provide a relatively more prudent and reliable performance measure. External auditing of financial reporting helps mitigate the trade-off. That is, it attenuates the need for the pendulum to excessively swing toward conservatism and thereby enhances the relevance of the performance measure. For example, auditors examine the quality of a firm's receivables, which enables credit sales to be included in the determination of accounting earnings, i.e., periodic performance measurement, in accordance with GAAP. External auditing enhances the credibility of financial reports and also contributes to making the periodic performance measure a more reliable measure of management performance. In addition, auditing facilitates the use of accounting measures in explicit and implicit contracts between shareholders and management. The enhanced contractibility of accounting is a consequence of an external party, the auditor, certifying that management reports conform to an agreed upon set of accounting principles, GAAP. The institution of auditing emerged to fulfill an economic demand for their services that arose in the absence of regulation (see Watts and Zimmerman, 1983). The combination of economic returns to reputation and the threat of litigation serve as incentives for auditors to be independent, and thus lend credibility to their attestation of corporate financial reports.

¹⁸ Even with access to private litigation as recourse for recovering damages, standards (regulation) might produce more efficient outcomes because standards potentially enhance the likelihood of enforcement. Shleifer (2005, p. 445-6) notes "It may be relatively easy to convince a judge—by persuasion or bribery—that a security issuer who concealed information from investors is not liable when there are no specific rules as to what needs to be disclosed. It is much harder for the issuer to convince the same judge when the law states specifically what must be disclosed. Perhaps for these reasons, private enforcement of public rules is a highly efficient strategy of enforcing good conduct in many situations (Hay and Shleifer, 1988; Hay, Shleifer, and Vishny, 1996)."

2.2. The effect of debt on GAAP

Whereas equityholders' claim to the firm's assets can be described as holding a call option over the firm's assets with an exercise price equal to the face value of debt, debtholders' claim is akin to that of a writer of a put option, in that their upside is capped at the face value of debt. If firm value falls below the face value of debt, then the debtholders lose the difference between the face value of debt and the firm value, which could go down to zero. Debtholders lend capital to the firm in return for promised principal and interest payments, but the operating control of the firm resides with the combination of shareholders and management so long as the contractual terms of the debt are being honored. Like the shareholder-management agency relationship, debt in a firm creates an agency relationship between shareholders and debtholders. In the context of this agency relationship management is assumed to act in shareholders' best interests and therefore have incentives that are indistinguishable from those of the shareholders.

Given their payoff function, debtholders seek financial information about (i) the value of the assets with an eye on possible liquidation, i.e., control measure of information, and (ii) firm performance. At the time of lending, debtholders are interested in timely receipt of interest and principal payments over the life of the debt contract. With that in mind, they seek information about the firm's income-generating ability, i.e., periodic firm performance, at the inception of the debt as well as over the life of the debt. In addition, debtholders ask the "what if" question in that they seek information about the liquidation value of the assets, i.e., the value debtholders could recoup by selling the firm's assets in the event the firm's business performs poorly, and the firm is therefore unable to make the contractual interest and principal payments.¹⁹ Below we analyze the direction in which these information demands tug GAAP.

¹⁹ We describe a simple setting in which one class of "debtholders" comprise all obligations of the firm. Realistically, however, firms typically have different classes of debtholders and some economic obligations do not

2.2.1. Consequences of asset substitution and underinvestment problems in the agency relationship

The asset substitution and the underinvestment problems drive debtholders' demand for information about the value of the stock of invested capital with liquidation in mind. This demand is manifested through the preparation of a balance sheet under the principle of conditional conservatism. However, because the balance sheet and the income statement articulate through double-entry bookkeeping, their demand for a GAAP governing the balance sheet also applies to the income statement, at least to a large extent.

Shareholders can potentially transfer wealth from debtholders to themselves by investing in overly risky assets, i.e., asset substitution. The potential for wealth transfer is greatest when the stock, as a call option with exercise price equal to the face value of debt, is at or close to the money. However, at this juncture, shareholders' operating control of the firm is in jeopardy because as the stock slides out of the money, debtholders' rights to wrest control away from shareholders increase.²⁰ To reduce the likelihood of losing control, shareholders have an incentive to withhold bad news so that (i) the reported value of assets exceeds their fair value (and the face value of debt), and (ii) the reported performance is embellished. It is precisely under these circumstances that debtholders wish to know about any bad news as early as possible so that they can determine whether to take over control or restrict shareholders' opportunistic risk-taking behavior through greater oversight and debt covenants. Conditional conservatism

even appear on the balance sheet. Debtholders naturally pay attention to unrecognized obligations as well as priority of various classes of debtholders. These nuances only serve to intensify the demand for conservatism and other properties of GAAP we discuss here (see, for example, Watts, 2003a and 2003b).

²⁰ Frictions complicate matters and change of control is not a smooth-sailing event. The discussion ignores these practical impediments only because the directional effect on GAAP articulated here is unlikely to be ruffled.

alerts debtholders to the potential for wealth expropriation on a timely basis, and therefore a need for transfer of control from shareholders to debtholders or other actions (see Zhang, 2008).

Debtholders are also vulnerable to wealth expropriation due to the underinvestment problem as the stock gets to be an at-the-money or out-of-the-money option.²¹ Shareholders can potentially appear to be in the money and transfer some of the assets to themselves (including through undeserved management compensation) at the expense of debtholders. Once again, conditional conservatism has the potential to protect debtholders from such wealth expropriation by disallowing shareholders from padding asset values, i.e., not recognizing bad news.²²

Typically at the inception of a liability, e.g., issuance of a bond, the stock might be deep in the money and thus potential wealth transfer through asset substitution and underinvestment might be minimal at the time.²³ However, lenders anticipate that there is some likelihood of the option being at-the-money sometime during the life of the debt contract. To protect their interests, they demand conditionally conservative GAAP as a precondition to lending. Because debtholders can price protect themselves *ex ante*, shareholders are likely to voluntarily adopt such a GAAP as it enables them to obtain favorable borrowing terms (see Beatty, Ramesh, and Weber, 2002; and Asquith, Beatty, and Weber, 2005).

2.2.2. Debtholders' demand for verifiability and auditing

²¹ The underinvestment problem underlies the legal principle of fraudulent conveyance or fraudulent transfer.

²² A recent analytical exercise in Gigler, Kanodia, Sapiro, and Venugopalan (2009, p. 791, original emphasis) concludes “the result that accounting conservatism actually *detracts* from efficiency of debt contracts, a result that is strikingly different from that” suggested here and elsewhere in the literature. The opposite conclusions, in our opinion, are a direct consequence of Gigler *et al.* ignoring agency problems like asset substitution and underinvestment.

²³ Equally important, deep-in-the-money option-holders have typically little incentive to engage in asset substitution and underinvestment because not only is the potential wealth transfer minimal, but such activities are generally costly and thus detrimental to shareholders' interests.

Because debtholders might be forced to recoup their principal through liquidation of the firm, their demand for information tends to be about the value of the firm as the sum of the value of the firm's separable assets that could be liquidated net of all economic obligations. Firm value is likely to exceed the sum of the value of separable assets by the amount of goodwill, which represents both firm-specific assets-in-place and growth options. Because this goodwill has little or no liquidation value, debtholders generally ignore it in making lending decisions (see Watts, 1977, Leftwich, 1983, and Beatty and Weber, 2006). If the goodwill is internally developed then, because it lacks objective information about its value neither shareholders nor debtholders demand it to be included on the balance sheet. In this sense, unconditional conservatism in GAAP can be attributed to stakeholder demands on the properties of the balance sheet (earlier, we noted that unconditional conservatism can satisfy shareholder's demands of performance measures as well). Further, liquidation considerations imply that debtholders are unlikely to be interested in including goodwill as an asset even if it were valued objectively, e.g., in a corporate acquisition transaction. The historic (pre-SEC) practice of writing-off goodwill immediately upon acquisition is consistent with this argument (Ely and Waymire, 1999).²⁴

As in the case of shareholder-management contracts, demand for auditing is quite natural in the presence of debtholders. They seek independent auditors' attestation that the preparation of financial information conforms to verifiable standards of GAAP and that the financial information is conditionally conservative. Auditors thus help to enhance the credibility of

²⁴ Ely and Waymire (1999) report that a common practice from the pre-SEC period was to write-off acquired goodwill directly to equity. This dirty-surplus practice is consistent with the desire to provide verifiable balance sheet measures without muddying contemporaneous performance measures (since the goodwill write-off from an immediately completed acquisition is unlikely to provide useful information about management performance). This example suggests there can be an economically meaningful role for dirty-surplus accounting, contrary to the FASB's fair-value-based conceptual framework where all changes in assets and liabilities must flow through the income statement.

financial information as prepared in accordance with debtholders' demands. Demand for auditing even in the absence of regulation suggests the enhanced credibility is cost efficient.

2.3 Demands of Different User Groups

We have outlined above how debtholders and equityholders demand somewhat different information from the financial statements, which means that the financial statements have to trade off their different informational needs. This problem is further complicated by the fact that other stakeholders (such as regulators, employees, government agencies, customers) are all likely to have somewhat different informational needs. One solution to this problem is to provide different sets of financial statements to each of the different user groups. However, producing multiple sets of financial statements is likely to be prohibitively costly, especially when we factor in the cost of auditing these different sets of statements.

Another solution to this problem is for firms to provide a single set of 'general purpose' financial statements and allow different user groups to tailor (or adjust) the financial statements to suit their own purposes. There is some evidence that this occurs (e.g., Leftwich, 1983). However, we do not agree with some observers who argue that equity market investors are the primary users of financial statements and that their focus on equity valuation (which requires unbiased performance measures) means that financial statements should be free of conservatism (of either type).²⁵ As we argue above, both equity holders and debt holders demand conservatism for a number of reasons, so financial statements that are "unbiased" in this manner are unlikely to be viable for general purpose financial reports. The fact that conservatism has

²⁵ Penman (2007) argues that the existing approach to income determination is helpful in revising expectations of future performance and hence useful in equity valuation. He further argues that the current model is superior from an equity valuation standpoint than alternatives, including an "unbiased" model that relies heavily on fair value accounting.

been embedded in accounting rules as they have evolved endogenously over hundreds of years is evidence that conservative general purpose financial statements are economically efficient. This is not surprising when one considers that agency problems among various corporate stakeholders, and particularly between management and other groups, are ubiquitous, and often provide management with incentives to overstate periodic performance measures.

2.4. Implications for GAAP

We have summarized a simple economic setting in which debt- and equity holders demand financial information about the value of the firm and periodic performance of the firm. Their demands are similar in many respects, but they also differ along important dimensions.

First, equity holders demand information about the firm's periodic performance (output), which they use to evaluate, reward, and punish the management. The realizability concept in the revenue recognition principle is a direct consequence of the demand for a reliable, output-based measure of periodic performance.

Second, these stakeholders demand verifiable information because they recognize that management as the supplier of financial information has superior information about the firm's prospects and has incentives to favorably skew the financial information. In this vein, while equity investors are interested in receiving information relevant for valuing the firm, they recognize that such information as supplied by management might not be unbiased. This results in trading-off the relevance and timeliness of financial statement information in favor of verifiability. GAAP is also influenced by the trade-off between the demand for a periodic performance measure and financial information for valuation, which transcends periodic

performance. We expect, and evidence suggests, that periodic performance and valuation (i.e., change in market value) measures are positively, but not perfectly correlated.

Third, these stakeholders seek conditionally conservative financial information in which the verifiability thresholds for recognition of bad news are lower than those for good news. Preference for conditional conservatism recognizes management's (with respect to investors) and shareholders' (with respect to bondholders) reluctance to disclose bad news and undertake actions to the detriment of their principals, especially when there is bad news. Conditional conservatism as an explicit attribute of GAAP is helpful in the enforceability, through litigation, of contracts between shareholders and management and between debtholders and shareholders.

Fourth, debtholders seek information about the value of assets, but they focus on the value in liquidation. Therefore, debtholders' interest is in the value of separable assets, not goodwill, which represents assets-in-place with no alternate use and future rents the firm is expected to earn as a going concern.

Fifth, the demand for auditing arises in part to enhance the credibility of the management-supplied information about the firm's financial condition and management's performance. The demand for audited financial statements also contributes to verifiability and conditional conservatism as properties of GAAP.

The economic forces outlined above shape the demand for and therefore the content of financial reports. In addition to the demands from equity holders and debtholders described above, demands of other users of financial statements like employees, customers, suppliers, and regulators are also likely to influence the nature of GAAP. Managers and current equity holders have incentives in equilibrium to supply financial information that meets these demands. Doing

so provides access to capital and economic opportunities, and can additionally lower the cost of capital.

Given the real costs of producing, auditing, and processing financial information, it seems likely that comparability and consistency are desirable characteristics of financial reports. This gives rise to a body of GAAP. Of course, in practice, observed GAAP is the result of both an economic equilibrium and political forces. We address the impact of political process on GAAP in Section 4. But first, we discuss the implications of the theory of GAAP outlined above for the structure of GAAP financial statements.

3. Implications of the theory for the structure of financial statements under GAAP

The theory we discuss in Section 2 suggests that GAAP financial statements satisfy two principal market-driven demands:

1. That the income statement provides information useful for performance measurement.
2. That the balance sheet provides information on the values of the entity's separable assets and liabilities, for control measurement purposes.

In this section, we discuss the role and desirable attributes of these two financial statements. Before moving to these sections, we first discuss why “dirty surplus” accounting arises naturally from our economic model of GAAP.

Under “clean surplus” accounting, the effect of all transactions that affect net assets and are not transactions with the owners are recorded on the income statement and flow through to retained earnings on the balance sheet. This accounting results in two components of stockholders' equity, paid-in capital and retained earnings. Because the income statement and balance sheet serve different purposes, however, we do not see “clean surplus” accounting as a

necessary attribute of financial reporting. In particular, certain items that would be included as part of income under clean surplus accounting do not provide useful information about the economic performance of the entity and its management during the period (Holthausen and Watts, 2001, pp. 43-49). Under current U.S. GAAP, there are three components of Other Comprehensive Income (OCI, i.e., “dirty surplus”): unrealized gains and losses on marketable investment securities and certain derivative securities, foreign currency translation gains and losses, and the effect of the minimum liability pension adjustment. It seems reasonable to argue that these items are excluded from the income statement because they do not provide meaningful information about management performance during the period (because, for most non-financial entities, they do not inform us about the entity’s operating performance).²⁶ Consistent with this, Li (2009) finds that many private debt contracts define net worth to exclude accumulated other comprehensive income.

3.1. The Balance Sheet

Consistent with its use before regulation in the U.S., we see the role of the balance sheet as primarily protecting the interests of the entity’s creditors, broadly defined to include the regulatory use of this statement (for example, by bank regulators).²⁷ Thus, the balance sheet aggregates the values of the entity’s separable assets and liabilities, and so is designed to provide

²⁶ Managers are expected to manage the risk associated with marketable securities, derivatives, and foreign currency translations; thus, a case for including gains and losses associated with these activities in performance measures can be made. However, the practice of excluding these items from the income statement likely reflects a market equilibrium under which managers are unable or unwilling to bear all firm risk in a measure of their performance. There have been calls to re-examine this equilibrium in the wake of the 2008-2009 financial crisis.

²⁷ The most obvious example of regulations that do this is the regulation of banks under BIS (Basel) standards, which define minimum levels of regulatory capital. Under these rules, regulatory capital is basically adjusted stockholders’ equity, where the adjustments remove certain intangibles that do not have clear economic value and so cannot support the banks’ obligations.

a lower bound on the entity's value in liquidation. This has several implications for rules that govern the recognition and measurement of balance sheet items, which we address in turn:

1. Recognition rules
2. Measurement rules

3.1.1. Balance Sheet Recognition Criteria

Under current GAAP,²⁸ three criteria must generally be satisfied for an item to be recognized on the balance sheet as an asset: (i) provides probable future economic benefits; (ii) arises as the result of a past transaction or event, (iii) is under the control of the entity. The use of these criteria is consistent with the notion that the role of the balance sheet is to serve the interests of creditors. Assets must be under the control of the entity so that they can be used, legally, to satisfy creditors' claims in the event of bankruptcy or liquidation. Moreover, the event giving rise to the asset (and evidencing its measurement at cost) must be reliable and verifiable, which necessitates a past transaction or event. We see these extant criteria as being largely consistent with the objectives of financial reporting as laid out above.

The stewardship role of the balance sheet necessitates the exclusion of economic resources that cannot be used to satisfy creditors' claims against the entity. For example, there has been a good deal of controversy about whether the balance sheet should include assets related to various internally developed intangibles such as brand names, customer satisfaction, intellectual capital of various forms, etc.²⁹ These items typically fail conventional asset recognition criteria because there is no external transaction (these items are often internally

²⁸ See para. 25, CON6 ("Statement of Financial Accounting Concepts No. 6: Elements of Financial Statements").

²⁹ For a summary and references, see Skinner (2008a).

developed), because the benefits are highly uncertain, and because property rights over these items are not well developed, making legal claims uncertain.

Proponents of the view that these intangible items should be capitalized argue that by failing to recognize these items, the balance sheet understates assets that have significant economic value (e.g., Lev and Zarowin, 1999). We view these exclusions as justifiable because it is unclear that these items could be used to satisfy creditors' claims given uncertainty about both their future economic benefits and/or whether property rights are sufficiently well-defined as to establish legal rights over these items. Moreover, measurement of these items often relies on information and estimates provided by management, which is not verifiable and could be deliberately biased. This strengthens the view that these items should not be included on the balance sheet.

The more general point is that all assets currently recognized as such under GAAP have anticipated future benefits; with the exception perhaps of cash itself, there is always some degree of uncertainty associated with future cash flows. Thus, we see the issue as one of where GAAP rules draw the line between those resources for which the anticipated future benefits are sufficiently certain as to justify asset recognition, and those resources for which future cash flows are too uncertain to justify asset recognition. Under current GAAP, the anticipated cash flows from most internally developed intangibles (such as customer loyalty) are seen as being inherently too uncertain to justify recognition.

We favor a GAAP rule that explicitly recognizes that uncertainty about future cash flows associated with the entity's resources varies along a continuum, and clearly indicates where along that continuum uncertainty becomes sufficiently large that the resource cannot be recognized as an asset. It seems to us that this type of rule achieves better consistency than

drawing the line at different points for different classes of assets (e.g., always recognize real estate assets, never recognize customer relationships) unless, in practice, the classes of assets are used as proxies for the uncertainty rule.³⁰

It also seems to us that to be recognized as assets, economic resources need to have economic value on a stand-alone basis, i.e., they need to be separate and salable. As indicated above, an important feature of balance sheets is that they provide a lower bound on the value available to creditors in the event the entity ceases to be a going concern. Consequently, when the value of assets, such as certain intangibles, is attributable to economic rents that flow from the entity's ongoing operations and disappear when the entity ceases to be a going concern, we are reluctant to include them on the balance sheet. This logic is quite straightforward, as the following quote from Alan Greenspan, discussing the collapse of Enron, makes clear:

“As the recent events surrounding Enron have highlighted, a firm is inherently fragile if its value added emanates more from conceptual as distinct from physical assets. A physical asset, whether an office building or an automotive assembly plant, has the capability of producing goods even if the reputation of the managers of such facilities falls under a cloud. The rapidity of Enron's decline is an effective illustration of the vulnerability of a firm whose market value largely rests on capitalized reputation. The physical assets of such a firm comprise a small portion of its asset base. Trust and reputation can vanish overnight. A factory cannot.” Quote taken from Lev (2002, pp. 131-132).

Evidence from privately negotiated lending agreement supports this view of balance sheets. Leftwich (1983) provides evidence that parties to these agreements, who are free to adjust GAAP financial statements in any way they choose, make systematic adjustments to

³⁰ This uncertainty cutoff is likely to differ across different GAAP regimes given underlying institutional differences in the legal environment (for example, intangibles may have different legal lives, which affect the uncertainty about future benefits), audit quality, securities enforcement, and so on.

GAAP, including: (i) the removal of certain assets, often intangibles, from balance sheets, (ii) the inclusion of certain obligations that do not qualify as liabilities under GAAP.³¹

Another important attribute of asset recognition criteria, it seems to us, is the extent to which an asset's recognition and measurement are dependent on management judgment. Consider the treatment of research and development (R&D) expenditures. Under US GAAP (SFAS-2), R&D costs are expensed as incurred in spite of the fact that in some instances the associate anticipated future cash flows are likely to be reasonably certain. This rule makes sense because the alternative requires us to rely on managerial judgments about the likelihood of future benefits. For example, we argue the corresponding IFRS standard, IAS-38, allows too much managerial discretion because the information necessary to value the asset is difficult for management to communicate objectively. Under IFRS, research costs are expensed as incurred while development costs may be capitalized if commercial and technical feasibility have been established. This is a subjective standard, allowing scope for managerial discretion. Because this leads to the potential for manipulation by management, we advocate a more objective approach, such as that in SFAS-2, when there is a relatively large information asymmetry about asset value between management and outsiders.

Bank regulatory rules operate in much the same way. For example, BIS rules, as implemented in the U.S. and most other countries, exclude certain assets when computing banks' regulatory capital, including intangibles and most deferred tax assets, because these assets have highly uncertain economic values.³²

³¹ For more recent evidence, see Beatty, Weber, and Yu (2008).

³² According to BIS guidelines, assets should be measured 'conservatively' and regulators are expected to adjust GAAP-based financial statements for both intangible assets (including goodwill) and deferred tax assets (BIS, 2000). The Fed's risk-based capital guidelines for US banks limit the amount of deferred tax assets (DTAs) included in Tier I capital to: (i) the amount of DTAs expected to be realized within 1 year, and (ii) 10% of Tier I

Based on these principles, we do not think that goodwill should be recognized on the balance sheet. Goodwill has at least two strikes against it under our principles. First, because goodwill effectively represents the rents available to economic activity, it is not a separate and salable asset, and so has little or no value as collateral. Second, the economic value of goodwill may be observable to management but is unobservable to outsiders, except at significant cost. Thus, while the initial amount of recorded goodwill is bounded from above by a verifiable amount (i.e., the purchase price of the acquired entity is verifiable, although the allocation of that purchase price between the assets and liabilities acquired and goodwill is not), the current GAAP impairment rule requires managers to periodically compare the book value of the goodwill to its fair value. Determining these fair values is highly subjective and difficult for auditors to verify.

Our proposed asset recognition criteria are that: (i) there be a clearly defined level of uncertainty of cash flows beyond which assets cannot be recognized, and (ii) assets have economic value on a stand-alone basis (are separate and salable), and (iii) the benefits associated with assets can be reliably measured by parties separate from management. Consistently using these criteria would allow GAAP to address the emergence of new transactions without having to engage the rather cumbersome standard-setting machinery on an *ad hoc* basis, which inevitably results in standard-setting that lags economic innovation and can succumb to special-interest exceptions.

Evidence from the private use of financial statements supports the view that certain items are usefully excluded from balance sheets for creditors' purposes while others are included. For example, the major ratings agencies adjust balance sheet leverage ratios to include the effects of

capital, whichever is smaller. These guidelines also exclude goodwill and 'certain other intangible assets' from Tier I capital.

off-balance sheet securitizations, operating leases, pension liabilities, and other such economic obligations that are not recorded on the balance sheet under current GAAP. The common feature shared by these transactions is that their exclusion results in balance sheets that systematically understate the entity's financial leverage. For example, from the viewpoint of creditors, securitizations represent financing transactions that increase the entity's leverage. Consequently, the major ratings agencies, as well as certain debt covenants, adjust balance sheets to include the effect of these transactions (Kraft, 2008; Moody's, 2005).³³

Our view of the role of the balance sheet has implications for the recent discussion regarding the appropriate treatment of off-balance sheet transactions. SFAS-140 allows entities to derecognize assets and liabilities transferred to other entities as part of securitization transactions, largely through the use of vehicles known as "qualified special purpose entities (QSPEs)." In spite of this accounting treatment, some argue that the originating entity (usually a bank) retains an economic obligation to make good on the SPE's obligations in the event its assets are insufficient to satisfy the claims of creditors (the investors who purchase various types of asset-backed securities).³⁴ Under the stewardship model, unless obligations are truly disposed of in an economic sense, a failure to reflect such items on the balance sheet overstates the net assets available to creditors. This issue has received a good deal of attention in the wake of the recent subprime financial crisis, in which the value of these securities and the associated securitization vehicles collapsed, and has caused the FASB to revise its thinking on this issue and

³³ As another example, the principal ratings agencies also adjust the balance sheet classification of hybrid securities to counter firms' tendency to underreport debt on the balance sheet by classifying hybrid securities into the equity or "mezzanine" sections of the balance sheet.

³⁴ As indicated above, the ratings agencies, which have a strong creditor perspective, also make this argument.

propose the elimination of the QSPE concept for securitizations.³⁵ It appears that market forces are pushing the FASB to move its accounting back into line with the stewardship model.

As the events of the current financial crisis make abundantly clear, an important feature of with-recourse securitizations (or those that otherwise do not represent a sale of assets) is that they allow entities to become very highly leveraged without that leverage being evident on the balance sheet. In our view, this is indicative of a failure of the balance sheet to achieve one of its fundamental economic objectives – to provide outsiders with a clear picture of the entity’s obligations. Bear Stearns and Lehman both had *balance sheet* leverage ratios well in excess of 30-to-1 in periods before they failed, with overall economic leverage substantially higher than that. Transactions such as securitizations, through their multiplicative nature, made it possible for entities to achieve levels of leverage many times greater than was reflected on their GAAP balance sheets. This means that relatively small declines in asset values can quickly result in insolvencies, with attendant feedback effects on the economy. In our view, balance sheets that do not reflect these large amounts of leverage are of little use to creditors (and ultimately equity investors as well); as a result, we argue that such transactions should be capitalized so that balance sheets reflect the economics of these types of transactions.

More generally, our economic framework implies that assets and corresponding obligations from transactions such as leases, purchase commitments, and hedging (via derivatives) transactions be reflected in the financial statements in a manner that represents their economic substance, and more specifically that a “control” test be adopted. That is, we view the

³⁵ See: *Accounting for Transfers of Financial Assets—an amendment of FASB Statement No. 140* (issued 9/15/08), and *Proposed Statement, Amendments to FASB Interpretation No. 46(R)* (issued 9/15/08). Both documents are available at <http://www.fasb.org/draft/index.shtml>.

balance sheet as appropriately reflecting those assets and corresponding liabilities over which the entity can exercise a greater degree of economic control than any other entity.³⁶

Under this approach to balance sheet recognition, most executory contracts would not be reflected on the balance sheet as long as the entity was a going concern. In the case of leases, for example, our view is that standard-setters' proposed approach (to recognize all noncancelable leases on the balance sheet as assets and liabilities) is too aggressive.³⁷ Holding aside some of the practical implementation issues, we would capitalize those leases that, in economic substance, are essentially asset purchases financed by debt. This means that relatively short term lease transactions (such as a three year automobile lease) would not be recognized on the balance sheet.

A practical problem with this approach is the same as that currently encountered under current GAAP, such as SFAS-13 in the US, which uses four tests to classify leases as capital or operating leases. Under this rule, entities can, at relatively low cost, structure lease contracts to strategically avoid classification as a capital lease (e.g., by structuring the lease term to be shorter than 75% of the useful life of the asset). We propose to modify these rules to classify as capital leases any transactions that fall just short of the current recognition criteria (e.g., PV of minimum lease payments falls just under the current 90% threshold; lease terms falls just short of 75% economic life, etc.).

³⁶ This is consistent with our view that the balance sheet should give a comprehensive accounting of the net assets available to satisfy the obligations of creditors.

³⁷ New rules are moving towards recognition of all leases (<http://www.fasb.org/project/leases.shtml>). "The boards [IASB/FASB] have analyzed lease contracts and, in line with the views of many users of financial statements, have concluded that, whether classified as operating leases or as finance leases, lease contracts always create rights and obligations that meet the boards' definitions of assets and liabilities... If this principal [sic] is adopted in a new standard on lease accounting, it would result in the lessee recognizing:

- an asset for its right to use the leased item (the right-of-use asset)
- a liability for its obligation to pay rentals."

This type of recognition rule would exclude most executory contracts, including purchase commitments, derivatives transactions, and so forth, from recognition on balance sheets. These transactions do not give rise to assets and liabilities under our model as long as the business is a going concern, so that the economic claims and obligations are resolved in entity's normal course of business. Further, we would adopt a liability definition similar to that currently employed in US GAAP under SFAS-5; that is, liabilities are recognized when there is (i) a probable future sacrifice of resources (ii) that results from a past transaction or event and that is (iii) measurable in monetary terms. Thus, in most instances we would not reflect the effects of contracts like purchase commitments or guarantees on the balance sheet except to the extent of the expected value of renegotiation costs in the event such contracts were broken.

This means that balance sheets would reflect contingent obligations such as lawsuits, guarantees, insurance contracts, and so forth, at their expected values rather than the full amount of the entity's obligation in the worst possible case.³⁸ Thus, for example, the recent problems at AIG and other insurers that insured financial institutions against losses from their investments in financial instruments represent a failure to accurately estimate the probability of certain extreme adverse outcomes, as opposed to a failure of financial reporting rules.³⁹

One approach to dealing with contingencies such as these is not to require balance sheet recognition but rather to ensure that pertinent information about the nature of the contingency and the magnitude of the potential loss is disclosed in footnotes. However, it is not clear that footnote disclosure of off-balance sheet obligations, even if of high quality, is a complete

³⁸ FIN 45, released by the FASB in 2002, requires entities that provide guarantees to recognize a "stand ready" obligation at fair value on the balance sheet. In our view it is more appropriate to treat such obligations in the conventional way as contingencies because this better represents the economics of the transaction (this effectively means that the likelihood of having to make good on the guarantee is "possible" and not "probable," the terms used in SFAS-5).

³⁹ Whether the failure is due to negligence, (intentional) bias, or to an honest error due to the complexity of these transactions is beyond the scope of our paper.

substitute for recognition. Even though we have evidence that some sophisticated users of financial statements (such as credit ratings agencies and private lenders) adjust balance sheets to include such items when their effect is disclosed in footnotes, it may well be that other users (perhaps individual investors) place lower weights on the financial obligations left off an entity's balance sheet. For example, Bernard and Schipper (1994) argue that recognition provides a signal about the reliability of measurement that may cause users to place greater weight on certain items if they are recognized rather than disclosed.⁴⁰

3.1.2. Balance Sheet Measurement Rules

The existing accounting model measures balance sheet assets and liabilities using a “mixed attribute” model. With certain exceptions, most balance sheet items are still recorded on a modified historic cost basis; that is, they are initially recorded at cost, amortized or allocated to expense in a systematic way, and are subject to an impairment test, which reduces amortized cost to a lower amount if the assets are viewed as impaired. Assets cannot be revalued upwards under U.S. GAAP.

The FASB began to move away from strict adherence to this model and towards fair value accounting with the release of SFAS-115 in 1993. Under this rule, most marketable investment securities are measured at fair value on the balance sheet with changes in fair value taken either to income or directly to equity (as part of dirty surplus). It is not surprising that fair value accounting (other than through impairment accounting) was first introduced for these

⁴⁰ Under SFAS-5, balance sheet recognition of contingencies signals that managers have relatively precise information about the expected loss while non-recognition indicates the opposite. We are agnostic about the reasons certain individual investors place greater weight on items that are recognized on balance sheets rather than being disclosed. For some experimental research on this question see Maines and McDaniel (2000); and Libby, Nelson, and Hunton (2006). We assume here that GAAP does not give management a choice about whether to recognize or disclose a given item. If there was such a choice, management's decision to recognize an item would clearly be informative and so recognition and disclosure would not be equivalent.

assets, which trade in highly liquid secondary markets and for which market values are likely to provide a better measure of liquidation value than the cost basis.⁴¹

In 1998, the FASB released SFAS-133, which applied much the same fair value accounting model to derivative securities. Although SFAS-133 extended fair value accounting to securities whose value is sometimes hard to determine reliably, the rule applies to derivatives that represent both assets and liabilities of the entity. One effect of this rule was to increase the reporting transparency of entities' derivatives positions, which previously had largely been kept off the balance sheet in spite of the fact that derivative transactions could expose the entity to large losses.⁴² Thus, this rule helps to protect creditors and other stakeholders from bearing losses by ensuring that the balance sheet provides a more timely and so a more complete rendering of the entity's economic obligations, as well as the resources available to satisfy those obligations.⁴³

Given our objectives, it is useful to consider whether we should use fair value as the measurement basis for all assets and liabilities on the balance sheet. If reliably measured, it seems clear that measurement at fair value is superior to the use of an historic cost basis as a means of providing information about the potential liquidation values of assets provided those assets are separable. Thus, we *argue* that a sufficient condition for the reliable measurement of

⁴¹ Consistent with our argument, this rule was spurred by the U.S. Savings and Loan crisis of the 1980s, under which banks' investment portfolios, then recorded on an amortized cost basis, turned out to have liquidation values well below book values, which generated large losses for bank creditors, which suggests a failure to record impairments on a timely basis. This resulted from the practice under which these entities "cherry picked" their investment portfolios to realize accounting gains.

⁴² This is particularly true of derivatives that trade on markets without margin requirements. When dealers require a margin that depends on the securities' values, losses are less likely to get out of hand because the trader (the company) is forced to cover its losses as they occur. When there are no margin requirements there is no such discipline, which provides a role for fair value. In other words, fair value accounting can serve as a substitute disciplining role for entities' trading activities.

⁴³ Prior to this rule, entities could engage in derivatives transactions, including speculative positions, about which there was little or no disclosure.

these items is that they be traded in liquid secondary markets, as is the case currently for investment securities.⁴⁴ If such a market were unavailable, however, it is harder to envision a fair value model being viable, especially if the determination of fair value becomes largely a matter of managerial judgment.

In the absence of liquid secondary markets, one might consider using a “mark-to-model” approach under which a generally accepted valuation methodology (such as the Black-Scholes model) is used to estimate fair value. One problem with such an approach, however, is the reliability of model inputs. In the case of employee stock options (ESOs), there is evidence that managers manipulate estimated model input parameters to minimize the estimated fair value and thus the potential adverse income statement effects (Aboody, Barth, and Kasznik, 2006; Bartov, Mohanram, Nissim, 2007). Another problem is that the model is likely to be less reliable when the instrument in question is not traded on liquid secondary markets. One of the reasons that the Black-Scholes approach to pricing options is less reliable in the case of employee stock options (ESOs) is due to the fact that those securities cannot be traded. While we know that applying the conventional Black-Scholes approach over-estimates the value of ESOs, there is no good way of quantifying the appropriate discount.

As discussed previously, one of the problems with recognizing goodwill as well as certain other internally-developed intangibles is the difficulty of establishing fair values for these items (which is necessary to implement rules that require initial measurement on a historical cost, i.e., transactions basis combined with periodic testing for impairment). This occurs because intangibles do not trade in liquid secondary markets, which reflects the fact that most internally

⁴⁴ This requires that the fair value of the investment is the exit price under liquidation, i.e., the firm will be a price taker if it decides to sell the investment. This is a reasonable assumption if the firm does not have a substantial stake in the underlying investment (meaning a stake lower than that which would give it “significant influence,” which triggers the use of the equity method).

developed intangibles have the following attributes: (i) poorly defined property rights (including a relatively high cost of establishing control over the benefits from the asset), (ii) non-separability (the economic value of intangibles often arises from their combination with other assets, as for example in the case of economic rents), (iii) uncertain economic values because of the uncertainty of future benefits, and (iv) information asymmetry between management and outsiders with respect to value measurement. Consequently, it seems to us that it is difficult to envision the use of fair values in accounting for intangibles.

Consider also the case of the FASB's recent statement which gives entities the option of using fair value accounting for financial instruments (SFAS-159). Under this rule, an entity's liabilities as well as its assets can be measured at fair value on the balance sheet. In the case of the entity's obligations, fair value is measured as the present value of the future cash outflows, discounted as the entity's cost of debt. Thus, if an entity's credit worsens so that its cost of debt increases, the measured fair value of the debt declines (a higher discount rate is applied to the constant cash flows). This means that these obligations are not measured at the amounts actually due to the entity's creditors, and can significantly understate the actual obligation if the entity is in financial difficulty. Worse yet, the income statement reports a gain, which implies that overall firm value is unaffected by these events and that equity value has increased. Our view is that this accounting degrades the balance sheet's ability to provide meaningful information to creditors and others as well as the income statement's role in measuring performance.

Overall, while we recognize that there are advantages to the use of fair values in the financial statements, these advantages must be balanced against some significant disadvantages. In the area of marketable investment securities, the tradeoff seems to favor the use of fair value accounting. For derivatives, which do not always trade in liquid secondary markets, the tradeoff

is less favorable because fair values are not independently observable and must be estimated by management, rendering them subject to manipulation. For a number of reasons, including the fact that fair values are unobservable, we argue against the recognition of goodwill and other intangibles. Overall then, we are skeptical about whether the expanded use of fair values, which is an important feature of current standard setting agendas at the FASB and IASB, has long run survival value in financial reporting.

3.2. The Income Statement

The principal role of the income statement is to measure periodic performance, particularly that of firm management. Under this view, the GAAP rules governing income statement recognition have evolved to reflect various stakeholders' incentives, and particularly managers' incentives under compensation contracts and managers' incentives to stay in their jobs. Consequently, revenue recognition criteria traditionally employed under GAAP defer the recognition of revenue until: (1) the entity provides goods and services to the customer, and reaches the point that no significant uncertainty remains regarding its ability to perform under the terms of the contract (i.e., revenue is 'earned'); and (2) payment is reasonably assured. Thus, even when cash is received in advance, recognition of revenue is deferred until such time as the entity actually delivers on its contractual promises.

Moreover, income measurement rules require that losses are recognized when incurred while gains are deferred until they are actually realized in cash or legally enforceable claims to cash. This *conservative* approach to income measurement guards against management's incentives under most compensation arrangements to opportunistically boost reported earnings to increase the present value of their compensation, and has evolved as an equilibrium contractual

response to these types of agency problems (e.g., see Jensen and Meckling, 1976; Watts and Zimmerman, 1986).

One of the disadvantages of such an approach is that it does not provide timely information to investors relative to the information impounded into stock prices (Kothari, 2001). This leads us to consider whether a more timely approach to revenue recognition is feasible. To deliver a system of income measurement that provides more timely information to investors requires a different way of recognizing revenue. It seems likely that most of the current value increases impounded in stock prices during a given period relate to the market's anticipation of revenues. For example, the market responds favorably when Boeing announces an important airline customer has committed to buying new aircraft; however, the associated revenues are not recognized as part of income until the aircraft is actually built, Boeing has a binding sales arrangement with the customer, and (in most cases) some cash or some claim to cash has been received.

It seems impractical to us to recognize revenue at the time Boeing's customers initially indicate that they will purchase aircraft because there are numerous circumstances under which customers can renege on such promises or, more generally, when managers conceive projects they believe will be profitable. There are several problems with such an approach. Because managers are evaluated and compensated based on income statement numbers, and because revenue recognition under such a system relies heavily on managerial judgments, such a system would provide them with strong incentives to opportunistically recognize revenues early. Once management is paid, it is costly to recover compensation that is too large, *ex post*. Instead, by deferring the recognition of revenue, we provide management with ongoing incentives to exert effort in such a way as to maximize the value of the project. That is, the revenue recognition

principle helps resolve the moral hazard problem that exists between managers and stockholders. Finally, as should be clear from the rapidity with which the macroeconomic situation has deteriorated during 2008 and 2009, until the point of sale there is often significant uncertainty about whether customers will actually agree to take delivery of and pay for the aircraft.

Similar problems arise with respect to the determination of the costs that are matched to these revenues, since they also would have to be estimated well in advance of when they are actually incurred. This estimation must take place in the absence of costs actually being incurred, estimates of efficiency, or even the feasibility of production (witness the delays that continue to plague Boeing's ability to deliver its new Dreamliner 787 aircraft).

Finally, an approach that allows management to recognize revenues as products are developed requires companies to recognize the value of projects in advance of completion and record impairments if the value of the project is overstated. However, there is evidence that the timing and magnitude of impairments is discretionary (managers again have a significant informational advantage) and that managers can exploit this discretion to strategically delay and/or reduce the amount of impairment charges.

The IASB and FASB are currently considering radical changes to the GAAP rules governing revenue recognition. Consistent with their general philosophy of financial reporting, they are considering implementing a *balance sheet approach* to revenue recognition under which revenue would be recognized by measuring changes in the values of assets and liabilities that are associated with contractual arrangements with customers.⁴⁵ One version of this approach currently under consideration would measure changes in the fair value of these assets and liabilities as a means of recognizing revenue for the period rather than using an approach, similar

⁴⁵ See observer notes to meetings of the IASB in November 2007 and January 2008, available here: <http://www.iasb.org/Current+Projects/IASB+Projects/Revenue+Recognition/Meeting+Summaries+and+Observer+Notes/IASB+November+2007.htm>.

to the extant model, under which recognition is driven by the output-based (realized) measurement of economic performance delivered (earned) for each period. For the reasons we discuss above, we *argue* that the change currently under consideration is ill-advised. Moreover, this change reflects the standard-setters' general view that the balance sheet is the primary statement and that fair values should be employed for measurement in the balance sheet; we address this broad issue elsewhere. It is also unclear how expenses would be determined under such a model.

3.3 Summary

We argue that the forces outlined in Section 2 – the performance measurement role of the income statement and the control measurement role of the balance sheet – can be used to develop more specific GAAP recognition and measurement rules. Because these two roles are not completely concordant (we view the income statement's performance measurement role as dominant), reconciling the two financial statement requires the use of dirty surplus accounting. We argue that certain existing GAAP rules – such as the revenue recognition principle – arise naturally from the income statement's role in measuring performance and that recent prescriptions to change the revenue recognition model in fundamental ways are likely to be fraught with danger. Moreover, we argue that the balance sheet's control measurement objective precludes the recognition of certain assets such as goodwill and has implications for the measurement of assets and liabilities. Our economic approach implies that fair value accounting is unlikely to be tenable except for certain limited classes of assets because it fails to reflect the fundamental need for accounting conservatism as well as opening the door for managerial manipulation given the lack of verifiability of many fair value measurements.

4. Implications of the theory for developing GAAP in the future

Having discussed the implications of our economic theory for the accounting of important transactions in the life of a firm (Section 3), we turn our attention to broader policy issues in standard setting. In particular, in this section, we focus on three conceptual issues that are likely to affect the development of GAAP in the future. First, in Section 4.1., we address the origin and consequences of regulating GAAP, i.e., why do we regulate GAAP and how can we design regulatory systems that are likely to generate a GAAP that is consistent with our economic theory. Second, in Section 4.2., we discuss the role of choice in accounting standards: while regulation, by definition limits accounting choice, regulators still have considerable flexibility in determining how much judgment managers, accountants, and auditors have in developing financial reports. We also address in this subsection the contemporary debate on principles versus rules: we discuss why this comparison, while meaningful to an extent, simplifies the issues of choice in accounting.

Finally, in Section 4.3., we address the critical role of the market efficiency assumption in standard setting. A fundamental objective of accounting standards for financial reporting is to promote economic efficiency through capital market efficiency, i.e., a competitive equilibrium in capital markets. Standard setters' perspective on the efficiency of capital markets is thus an important consideration in how they craft accounting standards. We discuss why for both conceptual and practical reasons it would be unwise for standard setters to abandon the market efficiency assumption in standard setting.

4.1. Role of regulation

The regulation of GAAP in the United States originated in the 1930s and has persisted since that time. Prior to the 1930s, accounting practice was determined largely at the firm and auditor level, with little formal coordination among the players. “GAAP” represented just that: *generally* accepted accounting principles. Baxter (1979) notes that the establishment of the SEC marked the beginning of what was a four-decade journey to the “standardization” of GAAP: the first SEC-sponsored accounting regulator, the Committee on Accounting Procedure (1939-1959), produced “Research Bulletins;” its successor body, the Accounting Principles Board (1959-1973), put out “Opinions;” and it was not until the Financial Accounting Standards Board (FASB) came into being in 1973 that regulators began promulgating “Statements of Financial Accounting *Standards*.”

Even since the 1970s, the role of the accounting standards regulator in the United States has been evolving. The most significant event in that evolution came in the early part of this century with the passage of the Sarbanes-Oxley Act. The Act, for the first time in history, formalized the role of the accounting standard setter, granting the FASB *de jure* status as the regulator of US GAAP (U.S. Congress, 2002, Sarbanes Oxley Act, Sec. 108). Further, until the passage of the Act, the FASB had been funded largely through voluntary contributions by corporations. The Act prescribed that listed corporations be assessed a tax to support the operations of the FASB (U.S. Congress, 2002, Sarbanes Oxley Act, Sec. 109). This represented a substantial departure from prior practice since the accounting regulator is now publicly funded.

But even as accounting standard setters in the United States have consolidated their position as a regulated institution, we have little consensus on why we regulate GAAP. The study of the regulation of GAAP is important for our purposes because it can explain the nature of accounting standards produced by the FASB, and can predict how different standard setting

alternatives are likely to affect what GAAP will look like in the future. We organize the remainder of this section around a discussion of the various theories of regulation as they apply to the context of regulating GAAP. We then discuss the implications of these theories for the design of accounting standard setting institutions going forward, particularly in light of the growing presence of the IASB in standard setting.

Before proceeding it is helpful to point out that the regulation of GAAP is distinct from the regulation of financial reporting. The former refers to the practice of mandating accounting principles; the latter refers to the practice of requiring publicly available financial reports of entities that access public capital markets. The motives for regulating financial reporting lie in assumptions about market failure in endogenously arising financial-information markets (due to externalities and information asymmetries) and concerns about the fairness and/or efficiency of outcomes generated in such markets. As noted earlier, we avoid a discussion of this issue, referring the interested reader to a well-developed literature in this area.⁴⁶ Our focus in this section is instead on the regulation of GAAP, a phenomenon that has, in the United States, arisen out of regulated financial reporting, but that can arise independently of such as well (as in the case of the IASB).⁴⁷

In discussing the regulation of GAAP, we define the term “regulation” broadly to include a study of the organized production of accounting standards by so-called private standard setters like the FASB and the IASB. In the course of their standard setting activities, these organizations define the grammar of accounting practice, and thus exert considerable influence on observed

⁴⁶ See, for example, Benston (1969 and 1973), Mahoney (1999), Seligman (2003), and Mahoney (2009).

⁴⁷ Another way to see the distinction between the regulation of financial reporting and the regulation of GAAP is to look at the customer in the respective product markets. In the financial reporting product market, the primary customer is the firm’s investors (both debt and equity investors). In the GAAP product market, the primary customer is accountants and auditors.

financial reporting. To understand their role as “regulators,” rather than the more innocuous and commonly used “standard setters,” it is helpful to contrast organized standard setting with the alternative: standards that evolve out of common practices by accountants and auditors (as occurred in the United States and elsewhere prior to the 1930s).

A vast literature in political economy is dedicated to addressing regulation of economic activity. That literature has produced at least three major theories to explain the existence and consequences of regulation.

1. Public interest theory of regulation
2. Capture theory of regulation
3. Ideology theory of regulation

As noted earlier, we devote the remainder of this section to discussing and interpreting these theories in the context of accounting standards as a regulated product market.

4.1.1. Public interest theory of regulation

The public interest theory describes regulation as a benevolent and socially efficient response to market failures (Pigou, 1938). Thus, a necessary condition for regulation under the public interest theory is the existence of market failures. Breyer (1982) describes the four commonly offered causes of market failures discussed under the public interest theory: (i) natural monopoly; (ii) externalities; (iii) information asymmetries; and (iv) excess competition. We expand on each of these justifications below.

4.1.1.1 Natural monopoly

Under the natural monopoly argument, regulators assume that the average cost of the product they are regulating (e.g., accounting standards) decreases throughout the interval of customer demand. This property of the cost function is expected to give rise to consolidation among suppliers until a monopolist eventually arises. The monopolist is expected to extract rents from customers by charging above-marginal-cost prices. Regulation is justified as constraining the natural monopolist by ensuring “fair” pricing.

The natural monopoly argument is unlikely to explain the regulation of GAAP because above-marginal-cost pricing of accounting standards is difficult to enforce. The cost of excluding non-payers from using accounting standards once they are developed is likely to be very high (e.g., Sunder, 1988). Moreover, standards become more valuable as more users adopt them (i.e., standards are products with network effects, e.g., Ramanna and Sletten, 2009), suggesting that standard-setters are unlikely to benefit from excluding potential users by charging monopoly prices.

Casual observation is also inconsistent with a natural monopoly justification for regulating GAAP. The natural monopoly argument suggests that absent regulation, a private accounting standard-setter will emerge, and that such a standard-setter will extract monopoly prices for its accounting standards. As noted earlier, in the United States, formal accounting standard-setting has always been organized at the behest of the SEC. Prior to the organization of the SEC, despite fairly well-developed capital markets, there is no evidence of a private standard-setting body, save a monopolist.⁴⁸ In the international arena, the IASB can be considered a private monopoly standard setter, in that it is not subject to competition and it is not officially chartered by any government. The IASB, however, does not charge its constituents for

⁴⁸ References to the organization of accounting standard setting prior to the SEC are intended only to provide descriptive evidence. The US economy and capital markets have evolved considerably since the 1920s, thus it is not clear that evidence from this period is sufficient grounds for drawing policy inferences today.

the use of its standards. Further, an analysis of the IASB annual reports over the period 2002 through 2007 reveal that the IASB derives the bulk of its revenues from voluntary donations (IASB, 2008).

4.1.1.2 Externalities

The externalities argument for regulation assumes that the equilibrium price of a product does not reflect its true cost. This can be because public resources are consumed in manufacturing the product or because the product is non-excludable (i.e., the cost of excluding non-paying consumers from enjoying the product exceeds the product's benefit to those consumers). In the case of products that use public resources (e.g., products that pollute the environment), overproduction is likely, resulting in wealth transfers from society to the manufacturer. In the case of non-excludable products, underproduction is likely, resulting in deadweight losses. Regulation of products with externalities is expected to set production to welfare maximizing levels.

It is difficult to argue that producing accounting standards results in the consumption of public resources. Thus, overproduction due to externalities is an unlikely justification for regulating accounting. Accounting standards can, however, be considered non-excludable. In this sense, selling privately developed standards is unlikely to be a profitable exercise. Thus, one can argue that if left unregulated, accounting standards will be under-produced resulting in deadweight losses. The absence of organized standard setting in the pre-SEC period in the United States is consistent with underproduction of accounting standards in an unregulated environment. However, that absence is also consistent with organized standard setting not being economically efficient. In fact, given the relatively low costs of funding a standard setting

body,⁴⁹ it is reasonable to argue that if there are substantial benefits from organized standard setting, a coalition of the prospective beneficiaries will voluntarily form (absent regulation) to produce such standards.

4.1.1.3 Information asymmetries

The information asymmetry justification for regulation can be best understood through Akerlof's (1970) description of the adverse selection problem. Information asymmetry between buyers and sellers on the quality of a product prompts the buyers to demand a discount from sellers. The sellers of high quality products exit the market since the discount is such that it makes production of their products unprofitable. With the absence of high quality products in the market, buyers demand deeper discounts forcing even more sellers to exit. The process continues until no buyers and sellers remain, i.e., the market breaks down. Regulation is expected to solve this market failure by mandating credible quality disclosures from sellers.

The information asymmetry argument can be used to justify the regulation of financial reporting, but justifying the regulation of GAAP under this argument is less compelling. The information asymmetry justification, as its title suggests, is intended to apply to circumstances where the potential consumers of a product are uninformed about the quality of the product. When the product is accounting standards, the primary consumers are accountants and auditors. For information asymmetry to be advanced as the cause for regulating GAAP, it would require regulators to argue that accountants and auditors are unqualified to choose among alternate privately developed accounting standards: a seemingly self-destructive assertion.⁵⁰ Another

⁴⁹ For example, total annual FASB expenses throughout the early 2000s were under \$40 million in an economy with a multi-trillion dollar stock market.

⁵⁰ In lamenting the growth of accounting standardization, Baxter (1979) presciently observed: "We may indeed envisage a brave new world in which an accountant spends his whole life applying rules pro-pounded by others --

problem with the information asymmetry argument is that it does not account for the role of reputation in establishing and maintaining product quality. In the case of accounting standard setting, any viable private standard setter can be expected to compete across multiple time periods and thus have economic incentives to establish a reputation for quality.

Casual observation on the nature of US GAAP prior to regulation is not supportive of concerns generated under the information asymmetry argument. Pre-1930s, audit firms generated their own accounting “standards,” which is inconsistent with a claim that they are unsophisticated. Further, by endogenizing standard setting, the audit firms bore at least some of the costs of having low quality standards and thus resolved potential information asymmetries.

4.1.1.4 Excess competition

The excess competition argument can be used to justify regulation in markets for new products with weak differentiation. The argument is that in the presence of an unregulated economic opportunity, many producers flood the market. The overproduction drives prices below average costs, stymieing further innovation and quality. Regulating the number of entrants can help stabilize the market and promote further product development. In economic studies, excess competition is seldom discussed since it is not a long-run equilibrium outcome. Inefficient producers incur a loss and therefore cannot survive forever, thus market forces can be expected to drive the number of producers down to the optimal level.

Notwithstanding market forces, the excess competition argument can have some merit if the adjustment to equilibrium is slow and costly. This is particularly possible for products that are capital intensive. If producers are susceptible to the sunk cost effect (e.g., Thaler, 1980;

unless at last, full of years and honors, he himself ascends to the Accounting Principles Board, and then for the first time must face reality.”

Connolly, Arkes, Hammond, 2000) or if capital commitments are sticky (i.e., producers commit in advance to investing over multiple periods), costly “excess” competition can linger. Accounting standard setting has a relatively low capital intensity (see for example, footnote 49) suggesting that excess competition is unlikely to be a serious justification for regulating GAAP. Further, the absence of *any* organized standard setting enterprise in the US pre-1930s is not consistent with concerns over *excess* competition.

4.1.1.5 Summary

Of the four justifications for regulation under the public interest theory described by Breyer, only underproduction due to externalities appears to have any potential application to accounting standard setting. In our subsequent discussion on the implications of regulatory theories for accounting standard setting, we address this explanation in greater detail.

Implicit in the public interest theory’s description of regulation as a benevolent and socially efficient response to market failures is a model of the regulator as an incorruptible and infallible entity. This is a strong assumption in particular because it provides no room for lobbying and its potential effects on regulatory outcomes. The assumption is addressed in the capture and ideology theories. The assumption, however, can be interpreted as consistent with some accounting regulators’ views of their own work. In explaining how academic research can inform standard setting, Barth (2006, p. 72) eschews the need for research into the objective function of standard setters.

“Whether and how research can inform standard-setting issues have long been the subject of debate among academics... [Some believe] that despite standard setting’s regulatory role, research can provide insights into standard setting issues by operationalizing the criteria the standard setters establish for deciding among alternatives when developing standards... These criteria are specified in the conceptual frameworks of the FASB and IASB, thereby eliminating the need for researchers to specify the unspecified objective function of standard setters.”

There are two unstated assumptions in the quote above. First, that the standard-setting objective function as specified by the FASB and the IASB is socially optimal. Second, that the FASB and the IASB are able to execute their objective function without error. Empirical evidence consistent with these two assumptions is likely to be of considerable interest to both academic research and public policy since it would identify the FASB and the IASB as efficient regulators, consistent with the public interest theory. Given the lack of evidence supporting the public interest theory in all other spheres of regulation, we expect that the above assumptions are unlikely to hold in reality.

4.1.2. Capture theory of regulation

The public interest theory's controversial assumption of the incorruptible and potentially infallible regulator is the focus of the capture theory of regulation (Stigler, 1971). The capture theory models regulators as economic agents seeking to maximize their own utility functions. The regulators are usually described as politicians consuming some mixture of money (bribes) and power (votes, prestige, popularity, etc.).

The capture theory is so named because it predicts that regulation is "captured" by the regulated, in other words, regulation serves those that it seeks to regulate. The intuition for the theory is relatively straightforward. Producers seeking wealth transfers from society lobby politicians for favorable regulation (e.g., mandated pricing above marginal costs). Politicians provide such regulation to the point that it does not affect their reelection chances. In return for the favorable regulation to producers, politicians demand bribes (in various models, this has taken the form of cash, perks, post-public-service employment, etc.). The citizenry is unable to stop the collusion between politicians and producers due to the free rider problem (Olson, 1965):

i.e., the individual benefit to a citizen from stopping the wealth transfer is lower than the combined cost of becoming informed on the issue and subsequently organizing other citizens on the issue.

One of the earliest and most generalizable models of capture in the literature is provided by Peltzman (1976; see also Dal Bo, 2006). In this model, there is a regulator, a producer, and consumers/ voters. The regulator has the power to set the price for the producer's product. Consumers prefer lower prices and reward the regulator for such with more votes. The producer prefers higher profits and rewards the regulator for such with more bribes. The regulator wants to maximize her utility, $M(p,\pi)$, where p is the price consumers must pay and π is the producer's profit. The conditions for M can be written as $M_p < 0$, $M_{pp} < 0$, $M_\pi > 0$, and $M_{\pi\pi} < 0$. The model also assumes that the effects profits and prices have on the regulator's utility are unrelated to each other, i.e., $M_{p\pi} = 0$. The producer's profit is defined as a function of p and costs, in other words, $\pi = f(p,c)$, where $f_p > 0$, $f_{pp} < 0$. The regulator's problem can be written as:

$$\text{Max}_p: M(p,\pi), \text{ subject to } \pi = f(p,c) \dots (1)$$

The first order condition for the problem is: $M_p = -M_\pi * f_p$. This condition can be interpreted as follows: starting from the monopoly (competitive) price, the regulator will lower (increase) prices until the marginal utility from votes gained (lost) equals the marginal utility from bribes lost (gained). This simple model yields two powerful predictions with strong normative implications: (1) in case of monopolies, regulation arises to reduce deadweight losses; and (2) in case of perfect competition, regulation arises to reduce social welfare.

It follows from the two points above that observed regulation in any product market can either be socially beneficial or socially costly, depending on whether the product market in question is prone to market failure in its natural unregulated state. This makes the analysis of market failures introduced earlier particularly important. If there is no market failure in a given product market (see Leftwich, 1980 for arguments about market failures in accounting), it follows that regulation is always undesirable. Even under market failures, the capture theory makes two observations about regulation that distinguish it sharply from the public interest theory: (1) regulation is the result of a self-serving use of the political process; and (2) regulation is never socially optimal (first best), i.e., even if addressing a market failure, regulators will not design a socially efficient response, their response will instead maximize their own utility. The latter highlights the costs of regulation. The desirability of regulation under market failure thus depends on the relative magnitude of the costs of opportunistic regulators versus the costs of market failure.

Under the theory of capture, GAAP regulation can be explained as the result of rent seeking actions by producers of accounting standards, i.e., accountants and auditors. In other words, GAAP regulation is the result of accountants and auditors successfully lobbying the political process to seek wealth-transferring regulation for themselves. An obvious follow-up question is why the accountants and auditors would choose to be regulated. William Baxter reflected on this point in a 1979 address at Baruch College:

“It is a safe bet that some 90% of accountants are not excessively fond of government... Such men would scoff at the notion that, by entrusting difficult problems to political authority, we bring the [millennium] closer. Yet these men are now happily erecting and submitting to an extra form of authority within their own profession. They hungrily demand more controls over their daily work, and do not doubt that the outcome will be good. Is this not a puzzling paradox?”

One hypothesis to explain Baxter's "paradox" is that the accounting profession seeks out regulation as a way to insure against the risk of producing poor quality accounting standards. The poor quality standards produced under regulation can be either more or less risky than those sustainable in market equilibrium. In either case, the accountants shift the costs (risk) of accounting innovation to society while capturing the benefits. The emergence of GAAP regulation in the 1930s, a period during which accountants were criticized for poor accounting practices through the 1920s, is consistent with this hypothesis (see for example, Ripley, 1927, for criticisms of accounting practices in the 1920s).

The risk of producing poor quality accounting standards, and its associated costs, can be attributed to two factors: loss of reputation and legal liability. If an accounting judgment is determined *ex post* to be erroneous, accountants and auditors can lose their credibility as experts, affecting future business prospects. Accountants and auditors also experience legal liability: when faced with a legal challenge of their accounting opinion, they are likely to prefer citing an authoritative regulation over their own professional judgment. In fact, we expect the greater the legal liability faced by accountants and auditors, the greater their demand for regulated standards. Casual observation of time-series evolution of accounting regulation—from "research bulletins" under the CAP, to "opinions" under the APB, to "standards" under the FASB—is consistent with increased equilibrium demand for regulation by accountants and auditors as the legal environment in the United States became more litigious (see Kothari, Lys, Smith, and Watts, 1988, for a summary of the time-series increase in corporate litigiousness in the United States). We further explore the issue of legal liability on the nature of GAAP in Section 4.2.

The capture theory has its limitations. For example, the existence of entrepreneurial law firms and public interest groups that can check the opportunism of regulators is consistent with

limits to capture. The presence of these groups in equilibrium suggests that any captured regulation is socially efficient (the marginal benefit from unraveling opportunistic behavior in regulators is lower than the marginal cost of doing so) and calls into question the key normative implication of the capture theory, i.e., that all regulation is socially costly. Moreover, the empirical evidence on the capture theory is mixed at best (see Dal Bo, 2006, for a recent review). For example, studies that have attempted to relate legislative voting on regulation to campaign contributions by corporations have generally been unable to establish a bribery motive (see Milyo, Primo, and Groseclose, 2000, for a review; and Stratmann, 2002, as a rare exception). These data are consistent with a more nuanced view of regulators and this is the focus of the final theory, the ideology theory of regulation.

4.1.3. Ideology theory of regulation

The ideology theory of regulation relies on the premise of market failures much like the public interest theory. However, the behavioral model of regulators in the ideology theory is not as naïve (or benevolent) as that in the public interest theory. In particular, the ideology theory allows a role for special-interest lobbying in influencing the actions of regulators.

Formal analytical work in political economics since at least the 1990s has posited that regulators are neither as benevolent as suggested by the public interest theory, nor as self-serving as assumed in the capture theory (e.g., Grossman and Helpman, 1994; Austen-Smith, 1995). The work followed earlier empirical observations that did not confirm the capture theory (e.g., Kau and Rubin, 1979; Kalt and Zupan, 1984). Under this alternate model of regulatory behavior, regulators are exogenously endowed with political “ideologies.” The precise nature of these ideologies is usually not specified, allowing the ideological spectrum to vary across multiple

dimensions (e.g., liberal to conservative, altruistic to corrupt). Regulatory outcomes are the joint result of political ideologies and the effects of interest-group lobbying on regulators (in this sense, regulators can be described as “semi-benevolent,” Persson and Tabellini, 2000).⁵¹ The ideology theory is appealing in that it can explain empirical studies’ inability to establish a one-to-one causal relation between corporate lobbying activities and politicians’ votes on regulations.

The key innovation in the ideology theory is that lobbying is not an explicit form of bribery, but rather it is a mechanism through which regulators are informed about policy issues. In other words, interest groups lobby regulators in order to convey their specific knowledge about the issues being regulated. Since regulators have “ideologies,” a successful lobbyist must frame the information such that it is consistent with the lobbied regulator’s ideology (Grossman and Helpman, 2001). Money is involved in lobbying in order to make the information provided a costly signal (thus preventing cheap talk).

The ideology theory can be applied to accounting standard setting to explain the regulation of GAAP. If accounting standards are assumed to be non-excludable in nature, then the underproduction due to externalities predicts that a private market for accounting standards would fail. Regulation then arises to provide GAAP, although this regulation is not always socially optimal because regulators are not assumed to be benevolent or omniscient. The regulators have ideologies (e.g., they believe strongly in balance-sheet primacy or the fair-value measurement basis), but they are open to lobbying from constituents with specific knowledge. In the case of accounting standard setting, this information can be in the form of direct lobbying (e.g., comment letters from constituents) or indirect persuasion through members of Congress allied with the constituents.

⁵¹ The notion of “ideology” driven regulators has been in the literature since before the 1990s, although not in a well specified analytical framework (see for example, Schumpeter, 1950).

The ideology theory makes no prediction on the optimality of regulation. In this theory, regulation does arise to correct market failures, but the presence of political ideologies and potentially manipulative constituent lobbying can skew the design of regulation so that it is welfare destroying. Thus, the optimality of regulation is an empirical issue that must be assessed on a case-by-case basis.

4.1.4. Implications of the theories of regulation

Under the public interest theory, the regulation of GAAP can be explained by the underproduction of accounting standards in a free market due to their non-excludable nature. GAAP regulations are socially optimal since regulators are infallible. If the public interest theory is correct, no further discussion on standard setting design issues is necessary.

Under the capture theory, GAAP regulation can be explained as having evolved due to efforts by the accounting profession to socialize the risks of producing poor standards. The expected costs of producing poor standards can be explained as arising from reputational concerns and legal liability. The capture theory has implications for the nature of standards produced under regulation. Specifically, regulated GAAP can take more risks in prescribing accounting methods than GAAP produced by market forces (since the risk of failure is borne by society). Alternately, regulated GAAP can be less innovative than GAAP produced by market forces (since the benefits from innovation are not captured by private players).

If the capture theory is correct, the policy implication is to stop regulating GAAP and return to producing accounting standards through a free-market process. In other words, accountants and auditors will no longer have to follow GAAP as produced by a state-sponsored standard setter like the FASB. They may voluntarily choose to do so (if private market forces

choose to keep the FASB in existence), or they may collectivize to form an alternate, competing bodies to produce accounting standards.

We cannot be sure what the nature of standard setting under a free market process will look like. Prior to mandated standard setting under the SEC, there was no formal private standard setting body. Accounting “standards” were simply best practices that resulted from accounting and auditing decisions at the firm level. Auditors endogenized the risk of the accounting procedures they signed off on, and thus, were responsible for maintaining the quality of these procedures. If this is the market solution to standard setting, then audit firms will have to develop a set of accounting procedures that is both innovative and not excessively risky. An auditor-based solution for determining GAAP avoids the hypothesized costs of regulation, including regulatory “capture” and/or the imposition of regulators’ “ideologies” on an economy.

An alternate market-based solution to standard setting is bundling standard setting with stock exchanges. In other words, stock exchanges can be freed to develop their own sets of accounting standards, which companies endogenously commit to when they decide to list on a given exchange. Since stock exchanges compete with one another, the process encourages innovation in accounting standards. Further, since certain stock exchanges specialize in particular industries (e.g., NASDAQ) or particular firm sizes (e.g., London’s AIM), these exchanges can develop accounting standards that are unique to their clients’ needs, thus providing the exchanges with an added dimension to compete. Another advantage to bundling accounting standards with exchanges is that it allows the standards to reflect enforcement practices in the exchange’s jurisdiction (e.g., Ball, 2001). In the exchange-based arrangement, the costs of producing poor standards are shared by the exchange. If an exchange develops

standards that are too aggressive and the standards facilitate fraud, the exchange will bear at least some of the consequences (e.g., loss of reputation).⁵²

The implications of capture theory are that standard setting should be bundled with a private good (like auditing or stock-exchange listing) so that it can be produced through an unregulated market process. While this argument is compelling, we do not expect there to be much political will in the coming years to dismantle existing standard setting institutions. We thus turn to the ideology theory of regulation for more practicable proposals.

The ideology theory accepts the argument that the regulation of GAAP is due to its non-excludable nature (i.e., market failure). However, it leaves open to empirical investigation whether this regulation is in fact socially optimal. The effectiveness of regulation is expected to depend on regulators' political ideologies and on the impact of special-interest lobbyists on regulation.

If ideology theory is correct, the key policy implication is to design a standard setting institution that minimizes the effect of idiosyncratic ideologies and special-interest lobbying. One way to achieve this is to encourage competition among standard setters (Dye and Sunder, 2001). Competition among standard setters can promote competition among ideologies, preventing any one ideology from dominating GAAP. Competition can also minimize the effects of special interest lobbying. If a standard setter is perceived as being vulnerable to special-interest lobbying, it can lose credibility. Further, competition can lower the costs to society when any given standard setter fails. If there is an institutional body of knowledge to standard setting, it is costly to let the only standard setter in an economy to fail, even when it is corrupt or

⁵² One potential drawback to transferring standard-setting to auditors and stock exchanges is moral hazard. In particular, if audit firms and stock exchanges are considered "too big to fail," they will have incentives to produce standards that are riskier than those generated in market equilibrium.

inefficient. With competition, the institutional knowledge of standard setting is spread across multiple bodies, so the costs of eliminating any one non-performing standard setter can be lower.

In discussing the implications of both the capture and ideology theories, it becomes clear that some form of competition is likely to be necessary to generate efficient standard setting. If independent standard setters are to compete, an important question to consider is what their objective functions should be. The non-excludable nature of accounting standards suggests that for-profit standard setting is unlikely to be viable. If accounting standard setters are motivated by prestige, competition between standard setting bodies can be sustained on the basis of standard setters maximizing personal prestige. A more tangible option is for standard setters to compete on both personal prestige and on funding from constituents. Both the FASB and the IASB have at some point in their existence relied on voluntary funding to maintain their operations. Accordingly, we envision a setting where the FASB and the IASB compete to establish a reputational equilibrium wherein high quality standards result in more funding and thus, more resources for further production of accounting standards.

There are some potential pitfalls to competition as a solution to regulated standard setting. First, under some limited circumstances, competition can induce a “race to the bottom.” Specifically, if markets are unable to price-protect against wealth-extractive standards, special-interest groups will have an incentive to seek out opportunistic standard setting. In this case, instead of competing on quality, standard setters will compete (knowingly or unknowingly) on their ability to supply favors to special interests.

Second, the large expected loss function in standard setting can create an incentive for competing standard setters to collude. By colluding (and eventually merging), standard setters pool the risk from producing poor quality standards. The current “convergence project” between

the FASB and the IASB is consistent with this observation.⁵³ As discussed earlier, such collusion is unlikely to be efficient in that it stifles innovation and promotes the influence of special-interests in standard setting. One solution to the current collusive agreement between the FASB and the IASB is for the US Courts, the US Congress, or the SEC to expressly dismantle the convergence project on antitrust grounds and allow US listed firms to adopt IFRS without reconciliation to FASB standards. This arrangement will likely force the two standard setting bodies into competition.

We conclude this section by noting that the scarcity of empirical work on regulation of GAAP makes prescribing optimal regulatory structures in accounting particularly difficult. While Watts and Zimmerman (1978) proposed a “positive” theory of accounting, where accounting is the result of economic and political forces, most subsequent positive research has failed to consider the potential political nature of accounting. The literature is instead populated with studies where researchers treat changes in accounting standards as exogenous, and use such changes as “events” to study the economic consequences of standards (see Fields, Lys, and Vincent, 2001 for a survey). Given the critical importance of understanding how political forces shape accounting, we argue for more studies on the political process in accounting.

Studying the political economy of accounting requires a theory of the behavior of regulators and standard setters. In this section, we have outlined three such theories from the political economy literature. As noted earlier, common sense and the casual empirical evidence suggest the capture and ideology theories are most likely to explain regulatory behavior. These theories provide a useful starting point for academics to study the political nature of accounting.

While regulators and standard setters enjoy considerable discretion in setting the agenda for the

⁵³ Another example is the evolution of societies of Certified Public Accountants (CPAs). Early in the history of the CPA designation, New York State had more than one such society (Brown, 1905). However, these societies eventually merged into the current arrangement of one New York State Society of CPAs.

future of accounting, we know very little about the incentives of standard setters, their ideologies, and the degree to which they are captured.⁵⁴ A body of literature in accounting political economy can, in the long run, provide us with a systematic understanding of the behavior of regulators and standard setters. Such evidence is critical to advancing the practice of accounting.

4.2. The role of choice within GAAP: Principles or rules?

In this section, we discuss the implications of the economic theory of GAAP for the role of choice within GAAP. The economic theory suggests that an ideal set of GAAP is the set of accounting “best practices” that emerge as a result of well-functioning market forces absent regulation. In a free market, best practices are developed over time through innovation in accounting methods. Diversity in accounting practice, or accounting choice, is thus essential to the development of free-market GAAP. Without accounting choice, there can be no experimentation, and without experimentation, “best practices” cannot develop (see for example, Hayek, 1945; Hayek, 2002; and Porter, 1996, on the role of competition and choice in developing best practices). Absent frictions, infinite accounting choice might be available in an unregulated setting; in practice, however, we expect accounting choice to be limited by human ingenuity and transaction costs, including limits set forth by courts and other institutions

⁵⁴ For example, we know of no research in accounting that has addressed what is referred to in the economics literature as the “revolving door” problem. The revolving door problem is drawn from the observation that regulators in most specialized fields such as accounting are former practitioners with close ties to industry, and who, in many cases, upon leaving regulatory office, return to industry. Thus, there is a “revolving door” between regulatory bodies and the industry they regulate. The revolving door has benefits since persons with experience in a specialized industry have the expertise required to design effective regulation. At the same time, the revolving door can create conflicts of interest: close ties and the potential for future employment create incentives for regulators to favor the regulated. At issue is whether the benefits of revolving doors exceed the costs. Evidence on this question will be useful in developing the optimal criteria for service on regulatory bodies (including requirements on past experience in industry, restrictions on post-regulatory appointments, term limits, etc.).

concerned with enforcing contracts written on financial statements (see for example, Ball, 2009, on the role of enforcement in determining accounting practice).

The importance of accounting choice in an unregulated setting has implications for the role of choice under regulated GAAP. In particular, while regulation, by definition, constrains the accounting choice set available to managers, accountants, and auditors, we have little evidence on whether such constraints are optimal. Accounting choice develops in free markets because different measures of income, assets, and liabilities are likely to be appropriate in different economic situations. These different economic situations persist under regulation, calling into question the need for regulators to constrain choice in accounting. In constraining accounting choice, regulators often cite concerns over comparability, consistency, and potential for manipulation as their justifications.⁵⁵ As noted earlier, comparability and consistency are the key determinants of a free-market-based GAAP, suggesting that accounting standards that develop absent regulation are also likely to display these features.⁵⁶ Further, a free-market-based GAAP is also likely to minimize standards that facilitate manipulation since absent regulation, the full cost of poor quality standards is borne by the private standard setters (including accountants and auditors) that produce the GAAP.⁵⁷

⁵⁵ For example, concerned over “complexity” in accounting, SEC chairman Chris Cox in 2007 convened an advisory committee to address the issue. The advisory committee concluded that accounting “complexity” was due in part to diversity in accounting practice and recommended that the FASB eliminate such diversity where possible. Recommendation 1.7 of the committee (SEC, 2008, p. 49) states: “U.S. GAAP should be based on a presumption that formally promulgated alternative accounting policies should not exist. As such, the SEC should recommend that any new projects undertaken jointly or separately by the FASB not provide additional optionality, except in rare circumstances. Any new projects should also include the elimination of existing alternative accounting policies in relevant areas as a specific objective of those projects, except in rare circumstances.”

⁵⁶ Jamal, Maier, and Sunder (2005) study the comparative properties of e-commerce privacy standards that (1) developed under government regulation (United Kingdom) and (2) evolved in the absence of regulation (United States). They found that the standards in the United Kingdom “improve[d] neither the disclosure nor the practice of e-commerce privacy relative to [those in] the United States.” They highlight the implications of their results for accounting standards that are likely to develop absent regulation.

⁵⁷ Consistent with this claim, notable accountants prior to regulation in the United States generally embraced conservative practices. For example, even when dealing with liquid short-term investments, William A. Chase,

Related to the issue of choice in accounting is the current standard-setting debate on principles versus rules. Recently, “rules” in accounting have come under attack and GAAP in the US has been compared unfavorably to IFRS as being too “rules-based.” (e.g., SEC, 2007) Below we provide a framework to understand the debate on principles versus rules and investigate whether “rules-based accounting” does in fact deserve the pejorative connotation it has come to receive.

Given the regulation of GAAP, the debate on principles versus rules can be viewed as debate among regulators on the benefits and costs of according greater choice to managers in determining accounting numbers. In the extreme, under a principles-based regime, regulators set broad accounting “principles” and let managers apply those principles to the specific economic contexts they encounter. Conversely, in a rules-based regime, regulators provide managers with detailed guidance, obviating the need for managers to exercise much judgment (e.g., to provide preparers with a framework to differentiate capital and operating leases, SFAS 13 lays out four very specific criteria, including for example, “if the term on a property lease is at least 75% of the estimated economic life of the property, the lease shall be classified as a capital lease”).⁵⁸

The difference between principles and rules can be viewed through the infundibuliform diagrams provided in Figure 1 below. Given an economic transaction, managers theoretically face an infinitely large choice set of ways to account for it. Regulator-determined principles and

sometime president of the National Association of CPA Examiners eschewed market-based revaluations: a 1916 textbook, *Higher Accountancy: Principles and Practice*, edited by him, states (Chase, MacClintock, Willis, and Hirschl, 1916, pp. 188-89): “If stocks are purchased for speculative purposes or as short-term investments for idle funds or for purposes of resale, they are equivalent to merchandise, and the rule of ‘cost or market, whichever is lower,’ applies.” Also, Ramanna (2008) and Skinner (2008b) discuss how regulated standards in the United States and Japan, respectively, were potentially compromised through the political process to favor special interests.

⁵⁸ In general, preparers and users consider US GAAP as being more rules based and IFRS as being more principles based (SEC, 2008). This judgment sometimes relies on comparisons of the length of US GAAP standards versus IFRS standards—US GAAP standards are longer because they contain detailed implementation guidance based on potential real-world scenarios—and on the presence of EITF interpretations under US GAAP.

rules limit that choice set to a subset of alternatives. The limits are based on regulators' incentives and loss functions, and are likely to depend on their concerns over comparability, consistency, and reliability. Principles (panel A), by their nature, give managers a larger subset of accounting choices than rules (panel B). These choices are subsequently limited by accountants and auditors based on their incentives and loss functions, until eventually the manager chooses only one method to report the transaction under GAAP. The gradual limiting of accounting choices across regulators, accountants, and auditors from the original choice set to the eventual accounting method used traces the shape of a deep funnel in a principles-based regime and a shallow funnel in a rules-based regime.⁵⁹

The idea, in theory, behind a principles-based regime is to set broad boundaries and let managers, accountants, and auditors develop practice within them: the understanding being that managers are closer to the firm's economic reality and thus more capable of designing methods to account for those realities. A principles-based approach requires a well-articulated underlying conceptual framework (to define core financial statement elements such as assets and liabilities) that provides a foundation for the accounting practice that is expected to develop. A potential byproduct of providing preparers and auditors with the flexibility to develop accounting practice is the potential for innovation in accounting methods: the broader the principles, the greater the room for innovation. Of course, according managers the flexibility to work with "principles" can introduce costs in terms of decreased immediate comparability and increased potential for manipulation. A desire to mitigate these costs is what motivates a rule-based system. Thus, the debate between principles and rules can be viewed as a debate between the benefits and costs of locating accounting choice at the manager level. Since, as argued earlier, accounting choice is

⁵⁹ We thank Greg Miller for helpful discussions on this topic.

responsible for accounting innovation, the question of principles versus rules can be restated as a question of the relative benefits of having accounting innovation happen at the standard-setter versus firm level (although it is not evident that a desire for innovation is the driving force behind calls for principles-based accounting⁶⁰).

Allowing innovation in accounting practice becomes particularly important if accounting is viewed as being of strategic importance rather than as a compliance tool. In other words, if there are rents to be earned from developing superior accounting performance measures (for example, companies with better performance measures are more likely to be able to raise capital cheaply⁶¹), GAAP principles (rather than rules) are more likely to allow managers to capture those rents. The idea is not to have every accountant, auditor, and manager in an economy innovate with accounting methods. In fact, we expect most will not because they are either unable or unwilling to do so. It is among the few that do, however, that the potential for further growth in accounting lies.

The distinction between principles and rules highlighted above is meant to inform a *regulator's* choice between the two systems. If a principles-based system is adopted, however, “rules” are not likely to disappear. This is because as a practical matter to most managers, accountants and auditors, the day-to-day application of most principles will likely be based on some working rule. This is due to at least four reasons.

⁶⁰ For example, in its final report, the SEC’s Advisory Committee on Improvements to Financial Reporting (SEC, 2008) encouraged the use of principles-based accounting, but discouraged industry-specific practices and alternative accounting methods (which are likely manifestations of innovation in accounting).

⁶¹ See, for example, the vast literature on the effects of improved disclosure on the cost of capital: Diamond and Verrecchia (1991), Botosan (1997), and Lambert, Leuz, and Verrecchia (2007). Healy and Palepu (2001) provide a review.

1. It is not cost effective for accountants and auditors to work with principles on a day-to-day basis. Authority on interpreting and implementing GAAP in an economy has to be delegated to thousands of rank-and-file accountants and auditors (for reasons of efficiency); this is possible only if working rules are formulated out of principles.
2. If an audit opinion is challenged in court, auditors are better off citing a hard rule than an abstract principle that they have interpreted. Legal liability generates a demand for detailed accounting rules, and a preference that they are attributable to a government-sanctioned independent standard setter (and not simply “best practice”).
3. Even in non-litigious countries, auditor reputation can lead to the development of working rules from broader principles (the likelihood of being questioned over the application of a rule is lower).
4. On day-to-day issues, for efficiency reasons, users of financial statements will prefer accounting reports that are prepared under working rules (i.e., there is unlikely to be a demand for accountants and auditors to “reinvent the wheel” on common transactions).

Thus, in a well-functioning accounting system, working “rules” and regulatory “principles” are two sides of the same coin. The distinction between the working “rules” that develop from the application of principles among accountants and auditors, and “rules” imposed by regulators cannot be understated. The former is generated under a system that is likely to generate accounting innovation; the latter is not. The distinction is often muddled in the public

debates on “principles versus rules,” where “diversity in practice” is often cited as a negative consequence of a rules-based regime. For example, the 2007 SEC Advisory Committee on financial reporting blamed diversity in industry practice as a source of “complexity” in accounting (SEC, 2007); and the FASB in its proposal to revise revenue recognition standards argues that the over 100 different industry standards on the “earned” criterion in revenue recognition are a manifestation of excessive “rules” in accounting (quoted from Schipper, Schrand, Shevlin, and Wilks, 2009).

We argue that diversity in industry practice often represents “working rules,” i.e., equilibrium accounting standards that have likely evolved to reflect the different economic circumstances in different industries. Such diversity is essential to a well-functioning GAAP because without it, financial reports are unlikely to be able to reflect the economics of a transaction. Moreover, as noted earlier, the industry-based diversity is a pragmatic solution to economic demands of comparability and consistency on GAAP. Thus, while our economic theory of GAAP endorses greater choice in accounting (as manifested by broad “principles” under a regulatory regime), as a practical matter we expect the choice to be guided by industry-based working rules. Eliminating such working rules under the desire for uniformity in an arbitrary “conceptual framework” is unlikely to result in a GAAP that can achieve its stated objective of efficient capital allocation.

4.3. Market efficiency assumption in standard setting

Standard setters’ perspective on the efficiency of capital markets is an important consideration in how they craft accounting standards.⁶² We begin this section with a brief

⁶² While we discuss market efficiency as a factor relevant to standard setting, other relevant factors are also important. For example, standard setting should also anticipate how users might implement a standard (see

summary of the evidence on market (in)efficiency. We then explain why regardless of whether standard setters believe markets are efficient or not, it behooves us to use market efficiency as a maintained assumption in setting accounting standards. Specifically, we examine the conceptual and practical challenges standard setters would face if they were to abandon the maintained hypothesis of market efficiency. We conclude with implications of market efficiency for standard setting.

4.3.1. Summary of evidence on market efficiency

The efficient markets hypothesis (see Fama, 1970) began to gain wide-spread acceptance among academics and practitioners in the 1960s. Initial evidence was largely supportive of market efficiency. Jensen (1978, p. 95) concludes that “The efficient market hypothesis has been widely tested and, with few exceptions, found consistent with the data in a wide variety of markets ...” This euphoria, however, did not last long as a steady stream of research began to accumulate evidence inconsistent with market efficiency (see Schwert, 2001, and Kothari 2001, for reviews of the anomalies literature). As this anomalous evidence strengthened in scope and magnitude, in the last decade, financial economists developed behavioral finance theories to (predict and) explain the behavior of stock prices. The foundation for these theories is the evidence psychologists and experimental economists provide, which suggests “a number of departures from market rationality in the form of specific behavioral biases that are apparently

Ramanna and Watts, 2008, on the requirement of an *unverifiable* goodwill impairment test under SFAS 142, which they argue *ex ante* is more likely to be used opportunistically by management than used to convey management’s private information about goodwill impairment, as one would expect standard setters intended). How a standard would likely be implemented is also related to the effectiveness of law enforcement institutions, etc. These considerations have shaped our economic theory of GAAP (e.g., users’ economic incentives and emphasis on verifiability to facilitate contractibility), but an explicit analysis of all of these factors is beyond the scope of our paper.

ubiquitous to human decision-making under uncertainty ...” (Lo, 2005, p. 21).⁶³ The behavioral finance theories predict that security prices might deviate from fundamental valuations in part because (i) investors exhibit systematic behavioral biases that in the aggregate do not cancel, and (ii) arbitrage can be net costly (see Shleifer and Vishny, 1995).

While the evidence of departures from market efficiency is abundant, in our judgment, interpreting it as consistent with one or more of the behavioral theories has been a challenge, especially in out-of-sample tests.⁶⁴ Further, evidence ruling out gross inefficiencies is plentiful. For example, in comparison to the large magnitude of losses firms often report, security prices typically exhibit little, if any, reaction to firms’ voluntary or FASB mandated decision to expense stock options and to firms’ decisions about goodwill write-offs or other asset write-downs.⁶⁵ Nor do the stock prices of firms choosing different accounting methods as permitted within GAAP (e.g., straight-line versus accelerated depreciation), and therefore reporting systematically different earnings numbers, differ in proportion of the differences in accounting numbers. Overall, the evidence from accounting method changes and accounting choice studies dispels the notion that investors are, in equilibrium, fixated on reported financial statement numbers.

Instead, an overwhelming body of evidence suggests stock prices predominantly anticipate the economic substance of the information in financial statements.⁶⁶ Reaction to firm specific as well as macroeconomic news is almost instantaneous, although there is evidence to

⁶³ The psychological underpinnings to the behavioral finance theories are found in Kahneman and Tversky (1979), Shefrin and Statman (1994 and 2000), Shefrin and Thaler (1988), etc. See Hirshleifer (2001), Daniel, Hirshleifer, and Teoh, (2002), and Lo (2004 and 2005).

⁶⁴ See Fama (1998), Chan, Frankel, and Kothari (2004), Kothari, Lewellen, and Warner (2006), and Hirshleifer, Hou, and Teoh (2009) for a few examples of tests of behavioral finance theories.

⁶⁵ We do not expect a zero stock price reaction to the reporting of the losses even if they did not have any direct cash flow effects because the losses might signal the firm’s financial health and thus might have cash flow consequences, which investors would incorporate in setting the stock price.

⁶⁶ See Ball and Brown (1968), Kothari (2001), and Ball and Shivakumar (2008).

suggest a predictable drift in returns consistent with under-reaction as well as stock price reversal, consistent with overreaction.⁶⁷ However, professional asset managers have been unable to *consistently* outperform the market, i.e., exhibit persistence in alpha, which corroborates the lack of evidentiary correspondence between the behavioral finance theories of market inefficiency and observed security price behavior (see Fama and French, 2008, and Kosowski, Timmermann, Wermers, and White, 2006). Collectively, the research suggests the presence of some return predictability as an indicator of market inefficiency, but in practical terms its economic significance is weak.⁶⁸ Schwert (2001, p. 32) in his survey of the academic evidence on market inefficiency concludes “these findings suggest that anomalies may be more apparent than real.” From the perspective of standard-setting, we argue the evidence of market inefficiency is much like waves over deep sea waters—the tranquility of deep waters underneath swamps any indication of turbulence from waves on the top. As such, it behooves us to assume market efficiency in deliberating accounting standards.

4.3.2. Why should market efficiency be the maintained assumption?

The efficiency of stock market prices to all available information (“market efficiency”) describes an outcome that is desirable in that it facilitates the efficient allocation of capital resources and risk in society. Market efficiency is achieved through a host of endogenously arising institutions, including public financial reporting. In designing standards for public

⁶⁷ See, for example, the literature on the post-earnings announcement drift (Ball and Brown, 1968, and Bernard and Thomas, 1989) and Jegadeesh and Titman (1993); and for over-reaction to accruals (Sloan, 1996) and past stock-price performance (DeBondt and Thaler, 1985). There is a vast amount of finance and accounting literature that offers supporting as well as contradicting the evidence.

⁶⁸ In an efficiency market, returns can be predictable due to changing expected rates of returns (see Fama and French, 1988, and an extensive literature thereafter). The return predictability we allude to is that beyond the extent of predictability due to changing expected rates of returns, which would violate the efficient markets hypothesis.

financial reporting, GAAP regulators must thus be cognizant of the relation of financial statement information to stock market prices.

Under the efficient market hypothesis, stock prices fully and unbiasedly incorporate all public (value-relevant) information. The implication for GAAP regulators is that the form of accounting information is not relevant to stock markets: the focus of markets is on the substantive information in financial statements, i.e., whether a particular accounting entity (e.g., earnings, goodwill write-offs, etc.) provides information about the amount, timing, and uncertainty of future cash flows.

The growing literature on stock market mispricing with respect to accounting information (discussed earlier) has challenged the validity of the efficient market hypothesis. The evidence on inefficient pricing might tempt GAAP regulators to entertain standards on the basis of the form of financial statements. For reasons described below, we argue such standards are unlikely to be meaningful, and can even be, in some circumstances, costly to the society.

1. Market inefficiency is not an equilibrium theory: Unlike the efficient market hypothesis, which describes a capital market pricing equilibrium, behavioral theories about market inefficiency describe transient pricing, i.e., states that are not expected to persist in perfect market conditions. Moreover, there is no behavioral theory to describe the relation of accounting information to stock market prices in an equilibrium of market inefficiency. Absent an equilibrium theory of market inefficiency, regulation that assumes inefficiency has no natural starting point, and more importantly, no framework to guide markets back to efficiency. In other words, if GAAP is designed assuming market inefficiency, then it is unclear how such a

GAAP would lead to an equilibrium state of market efficiency. Without a framework to understand the origin and persistence of irrational pricing, several important questions arise: Would inefficiency persist no matter what is the design of GAAP? Or worse, can inefficiency be exacerbated through poorly understood and thus poorly designed regulation?⁶⁹

2. Practical difficulties with the market inefficiency assumption: As a practical matter, even if standard setters were to embrace inefficiency as the maintained assumption, we doubt market inefficiency has the potential to guide them in deciding on a suitable GAAP. What behavioral assumption should be assumed and therefore what form of inefficiency should be assumed? Should we assume prices over-react or under-react? Do they initially under-react, but then over-react if a firm reports a sequence of good news or a sequence of bad news, which triggers representativeness bias? How long should such a sequence be before under-reaction morphs into over-reaction on the part of investors? What should we assume with respect to arbitrage opportunities and the likely degree of success of arbitrageurs?

In raising the set of questions above, we do not intend to imply that we are dismissive of the possibility that individual investors (and perhaps the market as a result) exhibit behavioral biases, which might lead to prices systematically deviating from the fundamentals. Even if

⁶⁹ As noted earlier, efficient capital markets are an equilibrium state that is achieved through numerous endogenously arising institutions, including regulation. Thus, it is possible that GAAP regulation, as an institution, can facilitate efficient capital markets. However, GAAP regulation that is conceived without a theory of efficiency will be *ad hoc* and reactive at best, or counterproductive at worst. Moreover, regulation, as an institution, is generally less susceptible to change in the face of non-performance than private-based solutions, i.e., regulations are “sticky.” Therefore, getting it right in the first place is important.

investors were to exhibit behavioral biases, we argue GAAP should be designed as if market pricing is efficient, i.e., consistent with investor rationality and prices, on average, reflecting economic fundamentals. For example, suppose we were to assume investors over-react to accruals. Would we then ask managers to report smaller absolute amounts of accruals because investors would be over-reacting to reported accruals? How much discretion would we give managers in such reporting? What guidance would we offer to auditors?

4.3.3. Implications

The most important implication of the maintained assumption of market efficiency is that the debate over form versus substance in financial reporting is unimportant. Stated more strongly, if the analysis above is used to motivate accounting policy, the debate will not be in the context of pricing and trading rules, but rather, standard setters will focus on substantive aspects of the form versus substance debate. For example, standard setters will be concerned whether footnote disclosure versus inclusion of information in the body of financial statements conveys differential information about risk or about the probability of cash inflow or outflow. If market efficiency is assumed, then whether GAAP offers considerable or very little choice to managers will hinge on considerations other than the perception that prices fixate on reported numbers. The agency problems discussed earlier will be of first order importance to standard setters in designing GAAP, whereas recognition versus disclosure or accounting choice *per se* will be relatively unimportant in the hierarchy of issues standard setters pay attention to in designing GAAP.

5. Conclusions, summary, and implications for future research

5.1. Summary

The editors of the JAE charged us with addressing the question, “What should GAAP look like?” We have interpreted this question as a positive rather than a normative exercise. In particular, we develop a theory of GAAP based on prior research in the economic forces that shape the demand for and supply of GAAP financial statements. In our theory, the objective of GAAP is the efficient allocation of capital resources in an economy. The theory provides us with a framework to predict how a GAAP shaped by economic forces would address the various challenges in performance measurement and control that shape the nature of the income statement and the balance sheet. In addition, the theory allows us to compare and contrast extant GAAP, as it is produced in a regulated setting, with a GAAP that arises endogenously due to market forces. Thus, the title of the paper can alternately be read as, “What *would* a GAAP shaped by economic forces look like?”

Section 2: An economic theory of GAAP

Financial reporting is generated by economic demands for both performance measurement and control. The equilibrium response to these two different demands on accounting is manifested through two distinct financial statements: the income statement and the balance sheet. The two financial statements have properties that are unique to the forces they have evolved in response to; but the statements are linked to each other by bookkeeping practices so that the properties of control that are fundamental to the balance sheet manifest themselves in the income statement, skewing performance measures downward. The downward bias in performance is economically efficient where observed because stewardship is a pragmatic property of the income statement: managers cannot be assumed to be completely credible when

reporting on their own performance. Circumstances where economic forces demand different properties of the income statement and the balance sheet are dealt with through dirty-surplus accounting.

Section 3: Balance sheet and income statement properties

We develop the criteria for asset recognition as specified by the economic theory. In particular, assets are recognized (i) from past transactions (ii) when property rights are well-established and (iii) when there is sufficient certainty about future realizations of cash flows to the entity. By specifying that property rights be well-established, we require that an asset is under an entity's control and is separable and saleable. The requirement on *sufficient* certainty about future cash flows is intended to recognize that there is a continuum of cash-flow uncertainty associated with all non-cash assets, and that the criterion for asset non-recognition in GAAP financial statements is a discrete point in this continuum where accountants, auditors, regulators, and the courts determine the uncertainty to be unacceptable for stewardship and contracting.

We also address the issue of asset measurement and re-measurement, i.e., the basis for accounting records. We acknowledge the advantage of using fair values in circumstances where these are based on observable prices in liquid secondary markets, but note that such markets do not exist for most assets. In the absence of verifiable market prices, fair values are determined by management judgment and the evidence on the opportunistic use of this judgment is germane. Accordingly, we caution against expanding fair-value measurement to areas such as intangibles, as standard setters have sometimes proposed.

The principal role of the income statement is to measure economic performance, particularly that of firm management. Accordingly, we argue the agency relationship between management and the firm's owners should be paramount in determining criteria for revenue recognition. We view the "earned" standard in extant revenue recognition rules as a reflection of concerns generated by this agency relationship (i.e., revenue is not recognized until effort is exerted), and the FASB's proposals to abandon this standard for fair-value-based revenue recognition rules as ill advised.

Section 4: Implications for standard setters

We address the origin and consequences of regulating GAAP, i.e., why do we regulate GAAP and how can we design regulatory systems that are likely to generate a GAAP consistent with our economic theory. We conclude that dismantling the convergence project between the FASB and IASB on antitrust grounds and forcing these two bodies into competition is the most practicable way to achieve an economic GAAP in the near future.

While regulation, by definition limits accounting choice, regulators still have considerable flexibility in determining how much judgment managers, accountants, and auditors have in developing financial reports. We view accounting choice as critical to innovation and efficiency of accounting practice, and in general, support according managers, accountants, and auditors (rather than regulators) the decision rights to determine best practices in accounting.

Finally, we address the critical role of the market efficiency assumption in standard setting. We discuss why for both conceptual and practical reasons it would be unwise for standard setters to abandon the market efficiency assumption in standard setting. In particular, if

GAAP is designed assuming market inefficiency, then it is unclear to us how such a GAAP would lead to an equilibrium state of market efficiency.

5.2. Suggestions for future research: An institutional framework for accounting and the role for research in accounting and the political process

The market efficiency hypothesis holds that equilibrium prices in a well-functioning market are unbiased indicators of net present value. The hypothesis is grounded in the assumption that aggregate human behavior in well-functioning markets is consistent with the neoclassical model of the human being (i.e., human beings as rational, omniscient actors). While there is evidence to suggest aggregate irrationality, elsewhere we have argued that this evidence does not as yet collectively constitute an equilibrium theory of human behavior that can substitute the rational expectations model in policy making.

The limitation of the behavioral theories still leaves us with the pressing question of what to do about the evidence of systematic inefficiencies in asset pricing and capital allocation decisions (e.g., the 1988-1989 savings and loan crisis, the 2000-2001 dot-com crash, the 2008-2009 financial crisis, etc.), which are not predicted in the rational expectations model. We propose that an “institutional” framework of the nature and role of accounting and other market institutions can provide guidance for further research in this area.⁷⁰ Our discussion of the role of political factors in determining the standard setting equilibrium in Section 4.1 is consistent with the institutional framework. Below we provide a brief description of the framework, especially as it can relate to accounting research.

Efficient outcomes in the neoclassical rational expectations model are predicated on certain assumptions, i.e., the assumptions are necessary (and in some instances sufficient) for

⁷⁰ The institutional framework reflects developments in institutional economics that can be attributed to the works of Dixit, Merton, Shleifer, and Thaler, among many others (insert cites).

prices to equilibrate to fundamental value in capital markets. Examples of these assumptions include:

1. Price taking
2. Non-collusion
3. Free entry and exit
4. Full information
5. No agency problems
6. Market clearing
7. No counterparty risk

Any or even most of these assumptions are unlikely to hold in reality in any given capital market at any given time; but in the neoclassical model “institutions” emerge endogenously to accommodate the absence of these assumptions. “Institutions” here are defined broadly to include mechanisms that facilitate competitive equilibriums in markets. Examples of these institutions include:

1. The evolution of product aggregators like brokerage houses to facilitate price taking
2. The presence of courts and regulations to prevent collusion
3. The evolution of a market for corporate control to mitigate price distortions from limited entry and exit
4. The emergence of information intermediaries like accountants and analysts to mitigate information asymmetries

5. The emergence of monitors like auditors, corporate boards, non-profit watchdogs, etc., and monitoring mechanisms like accounting conservatism to address agency problems
6. The emergence of investment banks, brokerages, and other market-making institutions to facilitate market clearing
7. The presence of government intervention in crises to resolve systemic counterparty risk

As can be seen from the examples above, under the institutional framework, accounting, in general, and GAAP, in particular, can be viewed as “institutions” that have evolved to facilitate competitive equilibriums in markets. Specifically, the properties of GAAP as described in our economic theory (e.g., comparability, consistency, verifiability, conservatism, auditability, etc.; see Section 2) suggest that the “institution” of GAAP helps mitigate both information asymmetry and agency problems in capital market transactions, thereby facilitating the long-run efficiency of those capital markets.

The institutional framework can explain the evidence of systematic inefficiencies in asset prices and capital allocation decisions through the presence of “sticky” inefficient institutions. Unlike in the rational expectations model, where institutional evolution is almost instantaneous (and thus any potential inefficiency is immediately addressed), the institutional framework hypothesizes institutional inertia: i.e., institutional evolution that is slow, lumpy, and most importantly, a political process. The implication of institutional inertia is that capital markets can lack the appropriate institutions to facilitate competitive equilibriums at any given time. While this is less likely in mature markets where appropriate institutions have had the time to evolve,

institutional inertia is particularly likely in markets for new technologies like the internet in the late 1990s and derivative securitization in the early to mid 2000s. The result of poorly developed institutions in new markets is potential capital market disequilibrium, i.e., systemic inefficiencies. For example, the absence of appropriate accounting for securitized assets in the wake of the securitization boom of the early 2000s can be classified as a missing “institution” that facilitated off-equilibrium market prices during that period.

The framework above suggests that understanding institutional evolution is critical to ensuring that capital markets approach perfect market-like conditions. Institutional evolution is both an economic and political process, thus a political economy approach is well suited to this kind of research. The results of the political process are not always optimal: if special interests capture the political process, wealth-transferring institutions can develop. This suggests the need for theories of regulation to explain the origin and consequences of institutional evolution (see Section 4). For example we know very little about how accounting institutions like auditing practices, corporate governance practices, conservatism, and standard setting arise and are shaped by political factors (rather the extant empirical literature usually assumes these institutions as given and studies their economic consequences).

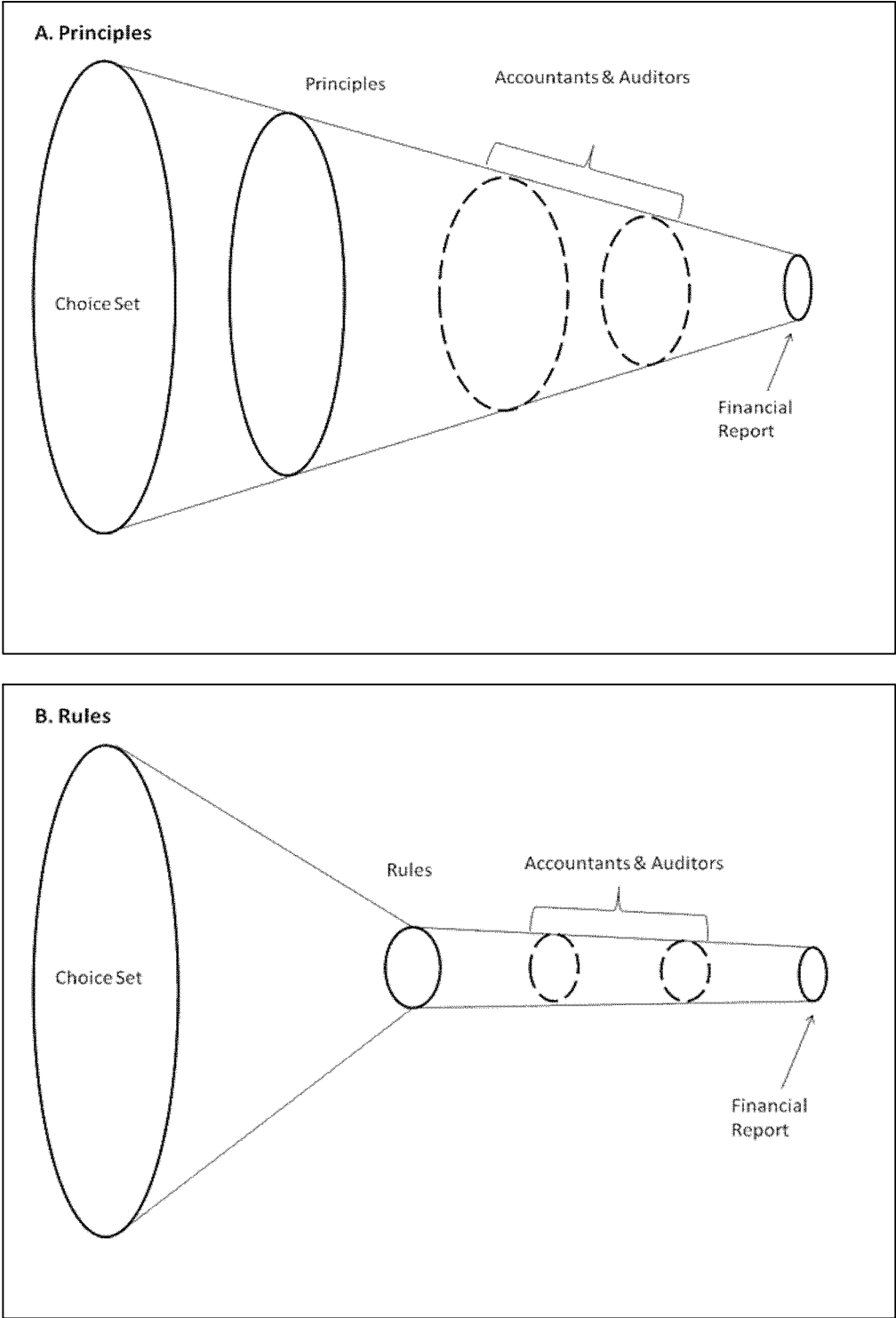
It has been hypothesized that accounting standards and financial reports influence and are influenced by economic and political forces. While the past forty years has witnessed considerable research on the economic determinants and consequences of accounting, there has been relatively little progress in our understanding of accounting and the political process. We argue that research in this latter area is of critical importance if accounting academe expects to continue to inform our knowledge of markets and market design. Additionally, the 2008-2009 Financial Crisis has created the environment for increased governmental (and hence political)

involvement in accounting, thereby exacerbating the need for such political research in accounting. Some research questions in accounting and the political process follow:

- When do political factors influence financial reporting? For example, what is the role of elections and prospective regulation in shaping the nature of financial reports? Ramanna and Roychowdhury (2009) provide evidence that political considerations in the 2004 elections influenced reported earnings; does this evidence generalize to all elections? If so, for which firms and what issues?
- Do political factors create systematic trends in the properties of accruals (i.e., are accruals systematically overstated or understated under certain political pressures)? Do investors/ does the market appreciate these systematic trends (i.e., are there trading opportunities created by the political nature of accruals?)
- When does accounting discretion influence the political process? How does regulation respond to earnings management?
- How do political factors influence the nature of accounting standards? For example, we discuss various theories of regulation that provide competing predictions on the role of lobbying in standard setting. Those theories also provide different models for the behavior of regulators (i.e., regulators' idiosyncratic ideologies). What is the trade-off between ideology, political pragmatics, and economics in determining accounting

standards? What institutional features of standard setting can minimize the effect of ideologies and politics on standard setting?

Figure 1
A pictorial comparison of principles- and rules-based accounting



References

- Aboody, D., Barth, M., Kasznik, R., 2006. Do firms understate stock-based compensation expense disclosed under SFAS-123? *Review of Accounting Studies* 11, 429-461.
- Akerlof, G., 1970. The market for “lemons”: quality uncertainty and the market mechanism. *The Quarterly Journal of Economics* 84, 488-500.
- Asquith, P., Beatty, A., Weber, J., 2005. Performance pricing in debt contracts. *Journal of Accounting & Economics* 40, 101-128.
- Austen-Smith, D., 1995. Campaign contributions and access. *American Political Science Review* 89, 566-581.
- Ball, R., 2001. Infrastructure requirements for an economically efficient system of public financial reporting and disclosure. *Brookings-Wharton Papers on Financial Services*, 127-169.
- Ball, R., 2009. Market and political/regulatory perspectives on the recent accounting scandals. *Journal of Accounting Research* 47, 277-323.
- Ball, R., Brown, P., 1968. An empirical evaluation of accounting income numbers. *Journal of Accounting Research* 6, 159-177.
- Ball, R., Kothari, S., Robin, A., 2000. The effect of international institutional factors on properties of accounting earnings. *Journal of Accounting & Economics* 29, 1-51.
- Ball, R., Shivakumar, L., 2005. Earnings quality in U.K. private firms. *Journal of Accounting & Economics* 39, 83-128.
- Ball, R., Shivakumar, L., 2006. The role of accruals in asymmetrically timely gain and loss recognition. *Journal of Accounting Research* 42, 207-242.
- Ball, R., Shivakumar, L., 2008. How much new information is there in earnings? *Journal of Accounting Research* 46, 975-1016.
- Barclay, M., Gode, D., Kothari, S., 2005. Matching delivered performance. *Journal of Contemporary Accounting & Economics* 1, 1-25.
- Barth, M., 2006. Research, standard setting, and global financial reporting. *Foundations and Trends® in Accounting* 1 (2).
- Barth, M., Beaver, W., Landsman, W., 2001. The relevance of the value relevance literature for financial accounting standard setting: another view, *Journal of Accounting & Economics* 31, 77-104.

- Bartov, E., Mohanram, P., Nissim, D., 2007. Managerial discretion and the economic determinants of the disclosed volatility parameter for valuing ESOs. *Review of Accounting Studies* 12, 155-179.
- Basu, S., 1997. The conservatism principle and the asymmetric timeliness of earnings. *Journal of Accounting & Economics* 24, 3-37.
- Baxter, W., 1979. Accounting standards: Boon or curse? In: *The Emanuel Saxe Distinguished Lectures in Accounting 1978-1979*. New York, NY: The Bernard M. Baruch College, 25-40.
- Beatty, A., Ramesh, K., Weber, J., 2002. The importance of accounting changes in debt contracts: the cost of flexibility in covenant calculations. *Journal of Accounting & Economics* 33, 205-227.
- Beatty, A., Weber, J., 2006. Accounting discretion in fair value estimates: an examination of SFAS 142 goodwill impairments. *Journal of Accounting Research* 44, 257-288.
- Beaver, W., 1973. What should be the FASB's objectives? *The Journal of Accountancy* 136, 49-56.
- Beaver, W., 1989. *Financial Reporting: An Accounting Revolution*, 2nd edition. Englewood Cliffs, NJ: Prentice Hall.
- Benston, G., 1969. The value of the SEC's accounting disclosure requirements. *The Accounting Review* 54, 515-532.
- Benston, G., 1973. Required disclosure and the stock market: An evaluation of the Securities Market Act of 1934. *American Economic Review* 63, 132-155.
- Bernard, V., Schipper, K., 1994. Recognition and disclosure in financial reporting. Working Paper, University of Michigan.
- Bernard, V., Thomas, J., 1990. Evidence that stock prices do not fully reflect the implications of current earnings for future earnings. *Journal of Accounting & Economics* 13, 305-340.
- BIS, 2000. Report to G7 Finance Ministers and Central Bank Governors on International Accounting Standards. Basel: Basel Committee on Banking Supervision.
- Botosan, C., 1997. Disclosure level and the cost of equity capital. *The Accounting Review* 72, 323-349.
- Breyer, S., 1982. *Regulation and Its Reform*. Cambridge, MA: Harvard University Press.
- Brown, R., 1905. *A History of Accounting and Accountants*. Edinburgh: T.C. & E.C. Jack.
- Chan, W., Frankel, R., Kothari, S., 2004. Testing behavioral finance theories using trends and consistency in financial performance. *Journal of Accounting & Economics* 38, 3-50.

- Chase, W., MacClintock, S., Willis, H., Hirschl, S., 1916. Higher Accountancy: Principles and Practice. Chicago, IL: LaSalle Extension University.
- Connolly, T., Arkes, H., Hammond, K. (Eds.), 2000. Judgment and Decision Making: An Interdisciplinary Reader. New York, NY: Oxford University Press.
- Dal Bo, E., 2006. Regulatory capture: a review. *Oxford Review of Economic Policy* 22, 203-225.
- Daniel, K., Hirshleifer, D., Teoh, S., 2002. Investor psychology in capital markets: evidence and policy implications. *Journal of Monetary Economics* 49, 139-209.
- DeBondt, W., Thanler, R., 1985. Does the stock market overreact? *Journal of Finance* 40, 793-805.
- Diamond, D., Verrecchia, R., 1991. Disclosure, liquidity, and the cost of capital. *Journal of Finance* 46, 1325-1359.
- Dye, R., Sunder, S., 2001. Why not allow the FASB and IASB standards to compete in the U.S.? *Accounting Horizons* 15, 257-271.
- Ely, K., Waymire, G., 1999. Accounting standard-setting organizations and earnings relevance: longitudinal evidence from NYSE common stocks 1927-93. Working Paper, Emory University.
- Fama, E., 1970. Efficient capital markets: a review of theory and empirical work. *Journal of Finance* 25, 383-417.
- Fama, E., 1998. Market efficiency, long-term returns, and behavioral finance. *Journal of Financial Economics* 49, 283-306.
- Fama, E., French, K., 1988. Permanent and temporary components of stock prices. *Journal of Political Economy* 96, 246-273.
- Fama, E., French, K., 2008. Mutual fund performance. Working Paper, University of Chicago.
- Fields, T., Lys, T., Vincent, L., 2001. Empirical research on accounting choice. *Journal of Accounting & Economics* 31, 255-307.
- Francis, J., Hanna, D., Vincent, L., 1996. Causes and effects of discretionary asset write-offs. *Journal of Accounting Research* 34 (Supplement), 117-134.
- Francis, J., Olsson, P., Schipper, K., 2006. Earnings quality. *Foundations and Trends* ® in Accounting 1, 259-340.
- Gigler, F., Kanodia, C., Sapra, H., Venugopalan, R., 2009. Accounting conservatism and the efficiency of debt contracts. *Journal of Accounting Research* 47, 767-797.

- Green, J., Hand, J., Soliman, M., 2009. Going, going, gone? The death of the US accruals anomaly. Working paper, UNC Chapel Hill.
- Grossman, G., Helpman, E., 1994. Protection for sale. *American Economic Review* 84, 833-850.
- Grossman, G., Helpman, E., 2001. *Special Interest Politics*. Cambridge, MA: MIT Press.
- Hay, J., Shleifer, A., 1988. Private enforcement of public laws: a theory of legal reform. *American Economic Review Papers and Proceedings* 88, 398-403.
- Hay, J., Shleifer, A., Vishny, R., 1996. Toward a theory of legal reform. *European Economic Review* 40, 559-567.
- von Hayek, F., 1945. The use of knowledge in society. *American Economic Review* 35, 519-530.
- von Hayek, F., 2002. Competition as discovery procedure. *The Quarterly Journal of Austrian Economics* 5 (3), 9-23.
- Healy, P., Palepu, K., 2001. Information asymmetry, corporate disclosure, and the capital markets: a review of the empirical disclosure literature. *Journal of Accounting & Economics* 31, 405-440.
- Hirshleifer, D., 2001. Investor psychology and asset pricing. *Journal of Finance* 56, 1533-1598.
- Hirshleifer, D., Hou, K., Teoh, S., 2009. Accruals, cash flows, and aggregate stock returns. *Journal of Financial Economics* 91, 389-406.
- Holthausen, R., Leftwich, R., 1983. The economic consequences of accounting choice: implications of costly contracting and monitoring. *Journal of Accounting & Economics* 5, 77-117.
- Holthausen, R., Watts, R., 2001. The relevance of the value-relevance literature for financial accounting standard setting. *Journal of Accounting & Economics* 31, 3-75.
- IASB, 2008. Discussion Paper: Fair value measurements, London: International Accounting Standards Committee Foundation Publications Department, November.
- IASB, 2008. IASB Annual Report 2008. London: International Accounting Standards Committee Foundation.
- Jamal, K., Maier, M., Sunder, S., 2005. Enforced standards versus evolution by general acceptance: a comparative study of E-commerce privacy disclosure and practice in the United States and the United Kingdom. *Journal of Accounting Research* 43, 73-96.
- Jegadeesh, N., Titman, S., 1993. Returns to buying winners and selling losers: implications for stock market efficiency. *Journal of Finance* 48, 65-91.

- Jensen, M., Meckling, W., 1976. Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics* 3, 305-360.
- Jensen, M., Field, S., Park T., 1978. Some anomalous evidence regarding market efficiency. *Journal of Financial Economics* 6, 95-101.
- Kahneman, D., Tversky, A., 1979. Prospect theory: an analysis of decision under risk. *Econometrica* 47, 263-291.
- Kalt J., Zupan, M., 1984. Capture and ideology in the economic theory of politics. *American Economic Review* 74, 279-300.
- Kau, J.B., Rubin, P., 1979. Self interest, ideology, and logrolling in Congressional voting. *Journal of Law and Economics* 22, 365-84.
- Kosowski, R., Timmermann, A., Wermers, R., White, H., 2006. Can mutual fund “stars” really pick stocks? New evidence from a bootstrap analysis. *Journal of Finance* 61, 2551-2595.
- Kothari S., Lewellen, J., Warner, J., 2006. Stock returns, aggregate earnings surprises, and behavioral finance. *Journal of Financial Economics* 79, 537-568.
- Kothari, S., Lys, T., Smith, C., Watts, R., 1988. Auditor liability and information disclosure. *Journal of Accounting, Auditing and Finance* 3, 307-339.
- Kothari, S., 2000. Role of financial reporting in reducing financial risks in the market. In: Rosengren, E.S., Jordan, J.S. (Eds.). *Building An Infrastructure for Financial Stability*. Boston, MA: Federal Reserve Bank of Boston, 89-102.
- Kothari, S., 2001. Capital markets research in accounting. *Journal of Accounting & Economics* 31, 105-231.
- Kraft, P. 2008. Rating Agency Adjustments to GAAP Financial Statements and their Effect on Ratings and Bond Yields. Unpublished manuscript. <http://ssrn.com/abstract=1266381>.
- Lambert, R., Leuz, C., Verrecchia, R., 2007. Accounting information, disclosure and the cost of capital. *Journal of Accounting Research* 45, 385-420.
- Leftwich, R., 1980. Market failure fallacies and accounting information. *Journal of Accounting & Economics* 2, 193-211.
- Leftwich, R., 1983. Accounting information in private markets: evidence from private lending agreements. *The Accounting Review* 58, 23-42.
- Leone, A., Wu, J., Zimmerman, J., 2006. Asymmetric sensitivity of CEO compensation to stock returns. *Journal of Accounting & Economics* 42, 167-192.
- Lev, B., Zarowin, P., 1999. The boundaries of financial reporting and how to extend them, *Journal of Accounting Research* 37, 353-385.

- Lev, B., 2002. Where have all of Enron's intangibles gone? *Journal of Accounting and Public Policy* 21, 131-135.
- Li, N., 2009. Negotiated measurement rules in debt contracts. Unpublished dissertation, University of Chicago Booth School of Business.
- Libby, R., Nelson, M., Hunton, J., 2006. Recognition v. disclosure, Auditor tolerance for misstatement, and the reliability of stock-compensation and lease information. *Journal of Accounting Research* 44, 533-560.
- Lo, A., 2004. The adaptive markets hypothesis: Market efficiency from an evolutionary perspective. *Journal of Portfolio Management* 30, 5-29.
- Lo, A., 2005. Reconciling efficient markets with behavioral finance: the adaptive markets hypothesis. *The Journal of Investment Consulting* 7, 21-44.
- Mahoney, P., 1999. The stock pools and the Securities Exchange Act. *Journal of Financial Economics* 51, 343-369.
- Mahoney, P., 2009. The development of securities law in the United States. *Journal of Accounting Research* 47, 325-347.
- Milyo, J., Primo, D., Groseclose, T., 2000. Corporate PAC campaign contributions in perspective. *Business and Politics* 2, 75-88.
- Moody's Investor Services: Global Credit Research, 2005. Moody's Approach to Global Standard Adjustments in the Analysis of Financial Statements for Non-Financial Corporations - Part I. Manuscript available at <http://ssrn.com/abstract=959001>.
- Murphy, K., Zimmerman, J., 1993. Financial performance surrounding CEO turnover. *Journal of Accounting & Economics* 16, 273-315.
- Myers, L., 2001. On the association between governance and control mechanisms and income-decreasing earnings management. Working Paper, University of Michigan.
- Olson, M., 1965. *The Logic of Collective Action: Public Goods and The Theory of Groups*. New York, NY: Schocken Books.
- Peltzman, S., 1976. Toward a more general theory of regulation. *Journal of Law and Economics* 19, 211-240.
- Penman, S., 2007. Financial reporting quality: Is fair value a plus or a minus? *Accounting and Business Research* 37 (3), 33-44.
- Persson, T., Tabellini, G., 2000. *Political Economics: Explaining Economic Policy*. Cambridge, MA: MIT Press.
- Pigou, A., 1938. *The Economics of Welfare*. London: Macmillan and Co. (Orig. pub. 1920.)

- Porter, M., 1996. What is strategy? *Harvard Business Review* 76, 61-78.
- Pourciau, S., 1993. Earnings management and nonroutine executive changes. *Journal of Accounting & Economics* 16, 317-336.
- 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.
- Ramanna, K., Roychowdhury, S., 2009. Elections and discretionary accruals: Evidence from 2004. Working Paper, Harvard Business School.
- Ramanna, K., Sletten, E., 2009. Why do countries adopt International Financial Reporting Standards? Working Paper, Harvard Business School.
- Ramanna, K., Watts, R., 2008. Evidence from goodwill non-impairments on the effects of using unverifiable estimates in financial reporting. Working Paper, Harvard Business School.
- Ripley, W., 1927. *Main Street and Wall Street*. Boston, MA: Little Brown and Company.
- Schipper, K., Schrand, C., Shevlin, T., Wilks, T., 2009. Reconsidering revenue recognition. *Accounting Horizons* 23, 55-68.
- Schipper, K., Vincent, L., 2003. Earnings quality, *Accounting Horizons* 17, 97-110.
- Schumpeter, J., 1950. *Capitalism, Socialism, and Democracy*. New York: Harper & Brothers. (Orig. pub. 1942.)
- Schwert, G., 2001. Anomalies and market efficiency. In: Constantinides, G.M., Harris, M., Stulz, R.M. (Eds.). *Handbook of the Economics of Finance*. North-Holland: Elsevier.
- SEC, 2007. Discussion Paper for Consideration by the SEC Advisory Committee on Improvements to Financial Reporting. Securities and Exchange Commission. Available at <http://www.sec.gov/rules/other/2007/33-8836.pdf>.
- SEC, 2008. Final Report of the Advisory Committee on Improvements to Financial Reporting to the United States Securities and Exchange Commission. Securities and Exchange Commission. <http://www.sec.gov/about/offices/oca/acifr/acifr-finalreport.pdf>.
- Seligman, J., 2003. *The Transformation of Wall Street*. New York, NY: Aspen Publishers.
- Shefrin, H., Statman, M., 1994. Behavioral capital asset pricing theory. *Journal of Financial and Quantitative Analysis* 29, 323-349.
- Shefrin, H., Statman, M., 2000. Behavioral portfolio theory. *Journal of Financial and Quantitative Analysis* 35, 127-151.
- Shefrin, H., Thaler, R., 1988. The behavioral life cycle hypothesis. *Economic Inquiry* 24, 609-643.

- Shleifer, A., 2005. Understanding regulation. *European Financial Management* 11, 439–451.
- Shleifer, A., Vishny, R., 1995. The limits of arbitrage. *Journal of Finance* 52, 33-55.
- Skinner, D., 2008a. Accounting for intangibles—a critical review of policy recommendations. *Accounting and Business Research* 38, 191-204.
- Skinner, D., 2008b. The rise of deferred tax assets in Japan: the role of deferred tax accounting in the Japanese banking crisis. *Journal of Accounting & Economics* 46, 218-239.
- Sloan, R., 1993. Accounting earnings and top executive compensation. *Journal of Accounting & Economics* 16, 55–100.
- Sloan, R., 1996. Do stock prices fully reflect information in accruals and cash flows about future earnings? *The Accounting Review* 71, 289-316.
- Smith, C., Warner, J., 1979. On financial contracting: an analysis of bond covenants. *Journal of Financial Economics* 7, 117-161.
- Stigler, G., 1971. The theory of economic regulation. *Bell Journal of Economics* 2, 3-21.
- Stratmann, T., 2002. Can special interests buy congressional votes? Evidence from financial services legislation. *Journal of Law and Economics* 45, 345-373.
- Sunder, S., 1988. Political economy of accounting standards. *Journal of Accounting Literature* 7, 31-41.
- Thaler, R., 1980. Toward a positive theory of consumer choice. *Journal of Economic Behavior and Organization* 1, 39-60.
- U.S. Congress, 2002. The Sarbanes-Oxley Act of 2002.
- Watts, R., 1977. Corporate financial statements a product of the market and political processes. *Australian Journal of Management* 2, 53-75.
- Watts, R., 2003a. Conservatism in accounting Part I: explanations and implications. *Accounting Horizons* 17, 207-221.
- Watts, R., 2003b. Conservatism in accounting Part II: evidence and research opportunities. *Accounting Horizons* 17, 287-301.
- Watts, R., Zimmerman, J., 1978. Towards a positive theory of the determination of accounting standards. *The Accounting Review* 53, 112-134.
- Watts, R., Zimmerman, J., 1983. Agency problems, auditing and the theory of the firm: some evidence. *Journal of Law and Economics* 26, 613-633.
- Watts, R., Zimmerman, J., 1986. *Positive Accounting Theory*. Englewood Cliffs, NJ: Prentice Hall.

Weisbach, M., 1995. CEO turnover and the firm's investment decisions. *Journal of Financial Economics* 37, 159-188.

Zhang, J., 2008. The contracting benefits of accounting conservatism to lenders and borrowers. *Journal of Accounting & Economics* 45, 27-54.