`

Accounting Alchemy

For Presentation at the Eighth Bank for International Settlements Annual Conference 2009
(June 25-26, 2009, Basel, Switzerland)

Robert E. Verrecchia
The Wharton School
University of Pennsylvania
Philadelphia, PA 19104-6365
verrecchia@wharton.upenn.edu

May 2009

I gratefully acknowledge the comments and suggestions by Brian Bushee, Pingyang Gao, and Cathy Schrand in preparing this manuscript; the opinions expressed, however, are exclusively my own.

Introduction

While casually listening to a money-manager panel discussion on *The Kudlow Report* on CNBC on the evening of February 17, 2009, I was brought to full attention when I heard one money manager opine that the motivation for the Security and Exchange Commission's intransigence in refusing to waive regulations requiring mark-to-market accounting was so as to ensure the collapse of US financial institutions; this, in turn, would lead to their nationalization by the US Government. Having taken control of these institutions, the panelist continued, the US Government would then dispense with mark-to-market requirements, using the disingenuous excuse that these requirements were not longer necessary in the absence of the private investors holding any residual interest. Waiving mark-to-market requirements, he concluded, would lead to a significant upward revaluation in these institutions by financial markets; the US Government would then pocket this huge financial windfall and use it to further nationalize more industry. In effect, by merely invoking or renouncing mark-to-market accounting, the panelist argued that regulators could create or destroy trillions of dollars of wealth, to the point of ensuring the end of capitalism as we know it. For me, the panel discussion conjured up images of medieval folk sitting around bonfires telling tales of alchemists spinning cloth into gold. But from the perspective of the other money managers on the show, the panelist's line of reasoning was eminently persuasive.[1]

I describe as heuristic the behavior that results from the *belief* that markets cannot see through improvements in accounting measures of firm performance that are transparently cosmetic, and thus improved accounting measures can create wealth even in

[1] While I do not have a transcript of this discussion, let me assure the reader that I am in no way exaggerating the tone and tenor of the panel discussion.

the absence of any substantive economic change.[2] I use the word "heuristic" to suggest a type of learned or associated knowledge; an individual learns or associates accounting measures of firm performance with real economic achievement, and thus has difficulty disentangling the two. I emphasize the use of the word "belief" because I make no claim that markets are actually fooled by cosmetic improvements, but rather an individual simply believes this to be the case. Finally, I point out the salient role of the word "transparently," because I describe as heuristic not merely behavior that results from the belief that markets cannot see through cosmetic improvements, but rather that markets cannot see through cosmetic improvements that are *transparent*. Here I argue that there is considerable anecdotal evidence that firms and their representatives exhibit heuristic behavior of the type I describe in computations of earnings under US Generally Accepted Accounting Principles (US-GAAP).

To be more specific, I make three claims. First, major accounting controversies that arise from the choice among accounting alternatives in general, and the choice between historical cost and fair value in particular, typically have little to do with the *merit*, or real economic consequences, or welfare aspects of a particular choice; rather, the controversies arise from a narrow concern as to whether a choice systemically decreases earnings and/or makes earnings more volatile in the absence of a change in cash flow. For example, an accounting alternative that recognizes an expense where one had not been recognized previously (in the absence of a change in cash flow) is an example of a systematic decrease in earnings; measuring revenues or expenses at fair value is an example of an increase in volatility (in the absence of a change in cash flow).

[2] Some have argued that the 216 point rise in the Dow Jones Industrial Average on April 2, 2009 when mark-to-market accounting regulations were relaxed by the Financial Accounting Standards Board is an example of this.

Second, firms are heuristic insofar as they have difficulty disentangling accounting measures of performance from real economic achievement; as such they believe that increases in accounting measures and less volatility create wealth. While firms and their representatives may proffer arguments in support of earnings-increasing alternatives that *prima facie* seem sensible or rational, these arguments are mostly self-serving – they are motivated primarily by the *belief* that increases in accounting measures create wealth. Finally, heuristic behavior of the type I describe is rarely acknowledged despite the fact that it impedes all manner of things, but in particular accounting regulation.

Allow me to speculate as to why heuristic behavior by firms and their representatives is rarely acknowledged. First, it is not acknowledged by regulators because of the politically sensitive nature of regulation. For example, one can only imagine the spectacle Robert Herz, say, would create in front of the Capital Markets Committee in the US Congress if Mr. Herz were to allude to the possibility that the only reason why a particular congressperson was advocating less rigorous accounting standards was because large contributors to that congressperson's election campaign were heuristic! In other words, rather than challenge behavior that associates greater wealth with improved accounting measures of performance in the absence of any economic achievement, regulators take the more politically expedient path of accommodating this behavior. This leads to accounting pronouncements under US-GAAP that I will argue below have the appearance of being "gerrymandered."

Second, heuristic behavior of the type I describe is rarely acknowledged among economists because they are insufficiently familiar with the nuanced way in which accounting standards are written and interpreted. To understand this issue, one has to know where the debits and credits are buried, so-to-speak. But finally, even among academic accounting researchers who understand this issue, as a practical matter it is simply more expedient to assume that firms, investors, and markets are rational, and thus posit some rational motivation for behavior by firms that by all accounts seems heuristic.[3] To be fair, an argument in favor of the assumption that firms are rational is that there may be no compelling explanation for why they would be otherwise. Nonetheless, the failure to acknowledge heuristic behavior whatsoever creates the appearance that real-world debates about the choice among accounting alternatives (as perhaps exemplified by panel discussions on *The Kudlow Report*) and the academic literature on disclosure are speaking at cross-purposes.

Heuristic behavior of the type I describe is manifest primarily in debates about the computation of earnings in a Statement of Net Income, as distinct from other financial statements and/or disclosure in the financial notes. This is especially true with regard to debates between historical cost and fair value alternatives. In other words, as I discuss, there is considerable anecdotal evidence that firms place disproportionate emphasis on the avoidance of fair value accounting in computations of earnings, despite being seemingly indifferent to its use in *other* financial statements and its comprehensive disclosure in the financial notes. The question I raise is: Why should this be the case? For example, if a firm *discloses* an expense on a fair value basis in its financial notes – thereby alerting investors and analysts to the nature of the expense and its fair value cost – what difference should it make whether the expense is also *recognized* in its computation of earnings?

[3] I am one of the chief proponents of this approach, and so this is criticism directed at me as much as anyone: see, for example, my 2001 survey paper "Essays on Disclosure," *Journal of Accounting and Economics* 32.

A variety of explanations for the importance of the Statement of Net Income are commonly offered; I review some of these explanations in last section of this paper. Nonetheless, these explanations have never struck me as proportionate to the emphasis placed on earnings. For example, a common explanation for the emphasis placed on earnings is that contracts and regulation are written over these numbers. But that being the case, why not re-write the contract or regulation to achieve some greater good? For example, if relaxing accounting capital requirements for financial institutions achieves some greater good, why not relax the capital requirement regulation directly, as opposed to doing it less transparently through a relaxation of mark-to-market accounting rules that provide financial statements with a cosmetic "facelift"?[4] Are regulatory requirements so fixed and immutable that the only way to achieve some greater good is to make accounting standards subservient to these requirements? What economic friction precludes the possibility of it being the other way around?[5]

---

[4] Conversely, if the goal of capital requirements is to create some greater good by having more conservative standards, what purpose is served by not requiring a similar, conservative accounting treatment? For example, in a recent article *The Economist* chides the Financial Stability Forum for its inclination to sidestep controversial issues that arise in the context of accounting regulation. Specifically, *The Economist* inquires: "If the thrust of the new capital rules is to create conservative standards and to reduce management discretion over them, it seems odd [sic] not to endorse the same principles for accounting." See "Basel brush," *The Economist*, April 4th-10th, p. 78.

[5] For example, Heaton, Lucas, and McDonald (2009) conclude their paper on mark-to-market accounting by stating:

> "…for any change in the FASB definition of capital it should be possible to specify an offsetting change in the definition of the capital requirement that makes the accounting change neutral with respect to economic outcomes. If fair value accounting has advantages in other contexts, which we believe it does, then a sensible solution to the problems caused by the interaction of volatile capital measures and a static capital requirement is to redefine the capital requirement rather than to back away from a fair value accounting standard."

See "Is Mark-to-Market Accounting Destabilizing? Analysis and Implications for Policy," by John Heaton, Deborah Lucas, and Robert McDonald, University of Chicago and Northwestern University working paper, 2009.

As my copious use of question marks throughout this manuscript suggests, this paper serves mostly to raise questions – not to answer them. Nonetheless, my point is that inadequate attention is given to the role heuristic behavior plays in the choice among accounting alternatives in general, and accounting regulation in particular.

My paper proceeds as follows. In the next three sections I discuss as vignettes three major accounting controversies that arose from the choice among accounting alternatives. As I explain, these alternatives were tantamount to the choice between historical cost versus fair value. Each vignette attempts to offer an example of how firms and their representatives placed disproportionate emphasis on preserving historical cost in the computation of earnings to the exclusion of all other considerations, and in particular comprehensive disclosure of the fair-value alternative. In the last section of the paper I evaluate some explanations for the heuristic behavior I describe. Here I argue that none of these explanations seems wholly satisfactory with regard to explaining the disproportionate emphasis placed on computations of earnings, relative to other disclosure.

Finally, I emphasize that this paper is agnostic with regard to whether fair value, historical cost, and/or other accounting choices are better or worse than the alternatives. My sole purpose is to point out the role heuristic behavior plays in the regulatory process.

Fair value disclosure

I start with what I believe is the best example of heuristic behavior of the type I describe that involves transparently cosmetic improvements in the Statement of Net Income: accounting for stock awards such as employee stock options. Accounting Principles Board (APB) Opinion No. 25, *Accounting for Stock Issued to Employees*, was promulgated in 1972. APB Opinion No. 25 required that employee stock options be measured based on the "intrinsic value" of the option at the date of the grant. Intrinsic value is the difference between the exercise (or strike) price of the option and the market price of the underlying stock. APB Opinion No. 25 predates the development of the Black-Scholes option-pricing model; as such, it offered a pragmatic solution, looking to the intrinsic value at the date that the grant became fixed to determine the measure of expense associated with the award.

A fixed award is a stock award for which the number of shares and the strike price have been fixed; until the time that the number of shares and price are fixed, the award is considered variable. Until the award became fixed, APB Opinion No. 25 provided that compensation expense be measured based on the change in intrinsic value. Predominately all companies fixed the terms of the date of grant, and those terms were set such that the option was at or out of the money: this implied that it had no intrinsic value.[6] Consequently, no expense was recorded for those option grants. Fixed awards are valuable to the recipient because the terms for exercise are not conditioned on the subsequent performance of the company. Despite this, given their intrinsic value measurement, fixed awards were recorded in earnings at zero expense.

As an aside, one can think of intrinsic value as a type of historical cost measurement. In principle, under intrinsic value the cost of the option is measured based on the difference between the exercise price of the option and the market price of the

[6] Some firms are alleged to have also recorded options with no intrinsic value by backdating the terms of the options to be at the money. If a firm grants options on June 1 (when the stock price is $100), but backdates the options to May 15 (when the price was $80) so as to make the option grants more favorable to the grantees, the fact remains that the grants were actually made on June 1. Thus, if the exercise price of the granted options is $80, not $100, the intrinsic value is $20, not 0.

underlying stock at the date of the grant (i.e., its historical cost as of the grant date). In practice, however, terms were set such that the option was at or out-of-the-money, and thus its historical cost value was zero.

In 1995, the Financial Accounting Standards Board (FASB), the successor to the APB, attempted to revisit this issue in FASB Statement No. 123, *Accounting for Stock-Based Compensation*. FASB Statement No. 123 prescribed fair value measurement for equity awards for some transactions, but only *suggested* expensing the fair value of employee stock options. This (suggested) recommendation gave the appearance that the FASB had succumbed to considerable pressure from the business community and US Congress to leave APB Opinion No. 25 in place.

If firms chose to continue to use the APB Opinion No. 25 approach, they were nonetheless required to disclose in their financial notes what earnings and earnings-per-share (EPS) would have been if compensation expense had been recognized under the fair value approach. Under the fair value method (SFAS No. 123), the fair value of the stock option was measured using standard stock option-pricing models (for example, the Black-Scholes or a binominal model) that took into account as of the grant date the exercise price and expected life of the option, the current price of the underlying stock and its expected volatility, expected dividends on the stock and the risk-free rate for the expected return of the option.

Now consider the result of FASB Statement No. 123. In a research report prepared by Credit Suisse, First Boston in 2001, Adams and Pelanne (2001) documents that only two companies in the S&P 500 accounted for their employee stock options at fair value following FASB Statement No. 123; this implies that only two firms expensed their employee stock options through earnings.[7] This was despite the fact that companies that adhered to APB Opinion No. 25 were required to provide extensive disclosures, including pro forma calculation of the earnings impact that would have been reported had the company applied the Statement No. 123 fair value model.[8]

FASB Statement No. 123 provides a stark illustration of behavior that I describe as heuristic. For example, on the one hand nearly all firms in the S&P 500 in 2001 recognized the intrinsic value method for their employee stock options in their financial statements: only two firms accounted for their employee stock options at fair value, thereby expensing their employee stock options through earnings. [9] On the other hand, firms that used the intrinsic value method simultaneously *disclosed* the fair value method in their financial notes. For example, as reported by Adams and Pelanne (2001), the earnings of companies that recognized the intrinsic value method for their employee stock options in their financial statements would have declined by 12% in 2000 and 7% in 1999 had they expensed stock options. In addition, Adams and Pelanne (2001) report that in a November 2001 survey conducted by the Association for Investment Management and Research (AIMR), over 80% of the respondents (1,944 investors and analysts) claim to have used information about stock options in their evaluation of a firm's performance and determination of value. In other words, if indeed investors and

[7] See "Stock Compensation: A Primer" by Jane Adams and Alain Pelanne of Credit Suisse, First Boston, November 27, 2001.

[8] Adams and Pelanne (2001) report that 11 companies did not provide the disclosures required by Statement No. 123 on the basis that the effect was immaterial.

[9] One of the two firms that used the fair value method was Boeing, which had fixed and variable performance-based stock compensation. Statement No. 123 required the same method for all plans: all intrinsic value or all fair value. Boeing did not want intrinsic value for performance-based because it would have made earnings more volatile, so they choose fair value. Thus, even *Boeing's* choice of fair value was based on the heuristic that "smooth earnings" create value. See "The Boeing Company's Accounting for Executive Stock Compensation," by Paul Healy and Jacob Cohen, Harvard Business School Case, 2000.

analysts use and find valuable valuations based on fair value as *disclosed* in the financial notes, why should a disproportionately large percentage of companies in the S&P 500 be so intent on *recognizing* exclusively valuations based on intrinsic value in earnings? If it is a straightforward exercise for Adams and Pelanne (2001) to determine the effect on companies' earnings of expensing stock options at fair value, what inhibits investors and analysts from doing the same?

My point is as follows. Why, on the one hand, did only two firms in the S&P 500 account for their employee stock options at fair value, thereby expensing their employee stock options through earnings, despite the fact that other firms that used the intrinsic value method nonetheless were required to disclose the fair value method in their financial notes? One could argue that from a *disclosure* perspective, firms should have been indifferent under FASB Statement No. 123 between expensing their employee stock options through earnings versus using the intrinsic value method. This is especially true when one considers the widespread use of so-called "pro forma" earnings in firms' earnings releases as a device to mitigate the effect of less favorable US-GAAP calculations that arise from, say, expensing stock options at fair value.[10] Nonetheless, the evidence weighs in favor of firms placing a disproportionate emphasis on the computation of earnings under the intrinsic value method, to the exclusion of all else. *Prima facie*, this seems to suggest that the firms' behaviors are heuristic as it relates to measuring firm performance through the computation of earnings.

In an interesting footnote to this issue, Aboody, Barth, and Kasnik (2004) point out that up until the summer of 2002, only five publicly traded firms elected to expense

[10] See, for example, the discussion in "Earnings Informativeness and Strategic Disclosure: An Empirical Examination of 'Pro Forma" Earnings," by Barbara Lougee and Carol Marquardt, *The Accounting Review* 79, 2004.

their employee stock options through earnings, but immediately thereafter 150 firms voluntarily adopted the fair value provisions of Statement No. 123; these authors consider the motivation to voluntarily expense stock options.[11] But in her discussion of this paper, Schrand (2004) questions whether there is any compelling economic rationale for why so many firms would have *suddenly* (original emphasis) recognized employee stock options through earnings when the opportunity to expense options had been available for more than six years.[12] In other words, is the problem one of limiting our explanations for observed phenomena to those based on rational behavior, when heuristic behavior associated with the choice among accounting alternatives seems so pervasive?

Reconciliation to cash flow

A not uncommon experience in teaching a course on financial accounting is to have MBA students – students almost invariably majoring in finance – inquire as to why any time is to be spent discussing in class anything other than cash flow in general, and the Cash Flow Statement in particular. This inquiry speaks to a perspective unique to most students: namely, the perspective that all financial accounting is irrelevant except for that related directly to the determination of cash flow. As I discuss below, this perspective is particularly curious in that it seems wholly orthogonal to the disproportionate emphasis on computations of earnings in real institutional settings

To elaborate on this issue, in this section I discuss the controversy that surrounded accounting alternatives for business combinations. My thesis remains that firms and their representatives placed disproportionate weight on the computation of earnings even in the

[11] See "Firms' Voluntary Recognition of Stock-Based Compensation Expense," by David Aboody, Mary Barth, and Ron Kasznik, *Journal of Accounting Research* 42, 2004.
[12] See "Discussion of Firms' Voluntary Recognition of Stock-Based Compensation Expense," by Catherine Schrand, *Journal of Accounting Research* 42, 2004.

presence of reconciliations to cash flow that control for, or eliminate, adverse earnings' effects that arise from fair value measurement. In other words, contrary to claims that "cash is king," the anecdotal evidence points to a disproportionate emphasis on the avoidance of fair value in computations of earnings.

A merger is a business combination where one company, the acquirer, acquires all the equity outstanding in another company, the acquiree, and then combines into a single legal and accounting entity, which I refer to as the "surviving entity." Up until 2001 (when the FASB issued Statement No. 141, *Accounting for Business Combinations*), in principle there existed two possible alternatives for an acquirer to record a merger on its financial statements: as a Purchase or as a Pooling.

Under the Purchase treatment, the acquirer in a merger (as the surviving entity) first recorded on its balance statement the acquiree's assets and liabilities at fair value, and then recorded as Goodwill any difference between the total compensation paid to acquire the acquiree and the acquiree's net assets at fair value. Here, total compensation paid could be cash, equity, or some combination of cash and equity, where the value of equity is its traded value around the time that the merger is announced. In this sense one can interpret Purchase as an application of fair value accounting because the acquirer (as the surviving entity) records its acquisition of the acquiree based on the total compensation paid at fair value.

Under the Pooling alternative, the aquiror recorded on its balance statement the acquiree's assets and liabilities at the acquiree's book value, independent of the compensation paid to acquire the acquiree. In this sense one can interpret Pooling as an application of historical cost accounting because the acquirer (as the surviving entity) records its acquisition of the acquiree based on the historical cost value of the acquiree's net assets, irrespective of the total compensation paid to acquire the acquiree.

One cannot overstate the difference that can result potentially on the surviving entity's financial statements from an application of Purchase versus Pooling. For example, consider one well known transaction that occurred in early 2001 just before Pooling transactions were proscribed under FASB Statement No. 141. In early 2001 AOL (as the acquirer) acquired Time Warner (as the acquiree) by issuing AOL equity to Time Warner's shareholders equal to $147 billion (at the time of the merger) and recorded the transaction as a Purchase. Of this amount, approximately $127 billion was recorded on the Balance Statement of the surviving entity (named originally AOL Time Warner) as Goodwill, or around 86% of the total compensation paid, a percentage that is not out-of-line with similar-type transactions. [13] As a rough estimate, this implies that under the Pooling alternative AOL would have only recorded Time Warner's assets and liabilities at $20 billion net, versus the $147 billion under the Purchase Alternative. As I discuss below, one could infer the exact amount under the Pooling alternative by simply examining the financial statements Time Warner filed with the SEC around the time of its acquisition.

In addition to the different value AOL Time Warner (as the surviving entity) recorded on its Balance Statement for Time Warner's assets and liabilities in a Purchase versus a Pooling, the other significant feature of a Purchase was that under the accounting rule that governed transactions of this nature, APB Opinion No. 16, *Business Combinations,* Goodwill had to be written off over a period not exceeding 40 years.

[13] Although AOL was the acquirer and Time Warner the acquiree, and the original name of the entity that resulted from this transaction (i.e., the surviving entity) was named AOL Time Warner. Eventually, the surviving entity changed its name to that of the acquiree, Time Warner.

AOL Time Warner (as the surviving entity) chose to amortize $6.7 billion of Goodwill annually. As Goodwill is simply an accounting reconciliation between the total compensation paid of $147 billion versus the fair value of Time Warner's net assets of approximately $20 billion, its amortization is a non-cash charge: as such it had no effect on AOL Time Warner's cash flow, including the fact that the amortization did not generate any tax shield.[14] This means that on its Cash Flow Statement, AOL Time Warner determined its cash flow by adding back any amortization charges to its computation of earnings.

Had AOL Time Warner elected to record the acquisition of Time Warner as a Pooling, it would have been equally straightforward to infer how the transaction would have been recorded as a Purchase. For example, Pooling transactions required that the acquirer use exclusively previously unissued equity to acquire all the equity outstanding of the aquiree. In the somewhat unusual event that terms of the transaction were not immediately available, the number of previously unissued shares could be inferred from the acquirer's financial statements after the acquisition was consummated. This means that the total compensation paid could be determined by multiplying the number of

---

[14] A common feature in many acquisitions is that the reduction in Goodwill, either as a result of amortization or impairment, yields no tax shield because the acquirer's acquisition of the acquiree was structured as a "tax-free" exchange (really, tax deferred) on the acquirer's tax books (as distinct from its GAAP books). For example, the following is an excerpt from *Taxes and Business Strategies*, Scholes, Wolfson, Erickson, Maydew, and Shevlin, 2nd edition, Prentice-Hall, 2002, p. 328 (emphasis added):

> "…a great deal of confusion surrounds the tax deductibility of goodwill. The financial press and *even financial analysts* often assume that goodwill that is recorded on a firm's financial statements is deductible for tax purposes, but in most cases, it is not. Tax-deductible goodwill arises only in acquisitions in which the tax bases of the target's assets are stepped-up. …it is rare for the target's assets to be stepped-up for tax purposes in acquisitions of freestanding C corporations; in other words, tax-deductible goodwill is rare. In contrast, with the purchase method of accounting large amounts of financial accounting goodwill typically arise. This accounting goodwill does not necessarily appear on the tax-basis balance sheets; that is, it is not tax-deductible goodwill."

acquirer's previously unissued shares required to consummate the acquisition times the market price of acquirer shares around the time the transaction was announced (assuming that acquirer equity is publicly traded). By virtue of knowing the total compensation paid and the acquiree's net assets at historical cost, one could attribute the difference to Goodwill and thereby arrive at a rough determination of the amount Goodwill that would result from a Purchase transaction. As Goodwill amortization has no cash flow consequences, at this point it is hardly necessary to speculate on the rate at which it may be amortized. My point is that irrespective of whether the surviving entity chose Purchase or Pooling to consummate an acquisition, the alternative was easily inferred.

Now we examine the choice between Purchase and Pooling in the context of real institutional settings. For over three decades rules governing the application of Purchase and Pooling were codified in APB Opinion No. 16, which was promulgated in 1970. Anecdotal evidence suggests that originally the APB, the predecessor of the FASB, intended to eliminate the use of Pooling, but in the end compromised and wrote APB Opinion No. 16 in such as fashion as to merely thwart the application of Pooling, but not eliminate it completely.[15] In effect, APB Opinion No. 16 intended to limit Pooling to an unusual set of circumstances that could best be described as a situation in which the business combination had the appearance that the aquiror and acquiree had come together to share risks jointly, as opposed to one entity purchasing, or acquiring control of, the assets and liabilities of the other. A transaction of this nature is referred to commonly in

[15] For example, under pressure from the Securities and Exchange Commission to address abuses resulting from the application of Pooling, the American Institute of Certified Public Accountants (AICPA) tentatively agreed to abolish Pooling accounting.

the business media as a "merger of equals."[16] So as to ensure that a business combination was only accounted for as a Pooling transaction infrequently, APB Opinion No. 16 put forth 12 requirements that the acquirer and acquiree had to satisfy to quality for Pooling treatment; absent that, the business combination was accounted for as a Purchase transaction.[17] *Prima facie*, the 12 requirements should have thwarted the application of Pooling, and led to business combinations being accounted for as a Pooling only infrequently – or at least that was the intent. As Purchase records the business combination at the fair value of the compensation paid, this would have resulted in most business combinations having the feature that the surviving entity would have recorded the acquiree's assets and liabilities at fair value on its Balance Statement, along with a reconciliation for Goodwill.

Before I relate what actually happened, let me emphasize two points. First, as discussed above, whichever alternative was employed to record the acquirer's acquisition of the acquiree, the result of the alternative was easily inferred. Thus, the use of Pooling resulted in a transparently cosmetic improvement. Second, neither alternative had any effect on the total compensation paid, or the cash flow that resulted from the transaction. Despite this, and contrary to the claim that a Pooling should have been infrequent in practice, by 1998 nearly half of all transactions measured by value used Pooling to account for a business combination![18] This was primarily due to the increased merger activity in the 1990s, in combination with the rapid rise of the stock market. With

[16] To ensure a merger of equals, APB Opinion No. 16 intended to include a three-to-one size test that would have required 90% of the Pooling transactions completed in 1967 to have used Purchase accounting. By the time APB No. 16, Business Combinations, was released in 1970, however, the three-to-one size provision was dropped.
[17] In an appendix I list the 12 requirements necessary to qualify for a Pooling.
[18] Securities Data Corporation.

company values far exceeding their underlying book value as recorded at historical cost, many business combinations had the feature that they would lead to enormous amounts of Goodwill. And while the amortization of Goodwill had no cash flow consequences, the fact that Goodwill amortization created the *appearance* that earnings were lower led to companies and their advisors going to unusual lengths to avoid these charges; as a result the number of Pooling transactions relative to the total number of transactions escalated dramatically. Indeed, although in theory the specific accounting treatment – Purchase versus Pooling – should have had no effect on the total compensation paid by the acquirer to acquire the acquiree, there is anecdotal evidence that acquirers were willing to offer *more* in compensation to an acquiree so as to ensure that the 12 conditions for a Pooling transaction were met.[19]

Because many were left with the impression that most Pooling transactions were less the result of a "merger of equals" than an application of creative financial engineering, in 2001 FASB Statement No. 141 eliminated the use of Pooling to account for a business combination. In conjunction with the eliminating of Pooling, and in what would appear to all but the most naïve a sop to accommodate heuristic behavior of the type I describe in this paper, the FASB in Statement No. 142 also no longer required the amortization of Goodwill. In other words, in conjunction with the elimination of a hugely popular accounting technique that avoided Goodwill amortization – Pooling – the FASB eliminated the most objectionable feature of the alternative – Purchase – by no longer requiring that Goodwill that arises from a Purchase transaction be amortized! Ramanna (2008) suggests that the switch in Statement No. 142 from Goodwill

[19] See, for example, "An analysis of value destruction in AT&T's acquisition of NCR," by Thomas Lys and Linda Vincent, *Journal of Financial Economic*s 39, 1995.

amortization, which requires the annual recognition of an expense until the Goodwill is fully amortized, to Goodwill impairment, which only negatively adjusts Goodwill based on an unverifiable fair-value estimate of the value of Goodwill, was the result of congresspersons lobbying the FASB as a response to political action committee (PAC) contributions from firms and industry groups that opposed the FASB's *original* proposal to abolish Pooling and require Goodwill amortization. [20] In other words, in conjunction with the elimination of Pooling and the requirement that all transactions be treated as a Purchase, the FASB also felt compelled to no longer require that earnings be reduced by a non-cash charge (i.e., Goodwill amortization) – I submit that there is no way to interpret this decision other than as a sop by the FASB to accommodate the behavioral heuristic that improvements in accounting measures of performance create wealth.

The question I pose is as follows: If "cash is king," why were firms so thoroughly wedded to a Pooling treatment when a Cash Flow Statement makes transparent that the choice between Purchase versus Pooling had no cash flow implications as it relates to the amortization or impairment of Goodwill? For example, shortly after FASB Statement No. 141 was promulgated, David Shedlarz, then CFO of Pfizer Corporation, lamented the demise of Pooling as an accounting convention to consummate a business combination in an article for business practitioners.[21] Why would a company as large, well respected, and viable as Pfizer – to say nothing of the fact that it is a company followed by scores of analysts – care about how the specific accounting treatment required under US-GAAP when: 1) regardless of the accounting treatment, the economic substance of the

[20] See "The Implications of Unverifiable Fair-Value Accounting: Evidence from the Political Economy of Goodwill Accounting," by Karthik Ramanna, *Journal of Accounting and Economics* 45, 2008.
[21] See "Back to Basics?" by Andrew Osterland, *CFO Magazine*, October, 2002.

transaction is unaffected and transparent; 2) in an environment in which all firms employ the same alternative (i.e., Purchase), Pfizer is in no way disadvantaged in comparisons to other firms; and 3) the choice between Purchase and Pooling has no effect on cash flow? To my mind, this speaks to a behavioral heuristic about the significance of computations of earnings, as opposed to disclosure more generally.

Reconciliation to the balance sheet

A common device used by regulators to accommodate heuristic behavior associated with computations of earnings is to require fair value everywhere in financial statements – except for computations of earnings. This is accomplished by setting up the account "Other Comprehensive Income" (OCI) in the Retained Earnings section of the Balance Statement. Effectively, the adjustment of assets and liabilities to fair value on the debit side of the Balance Statement is offset by a (cumulative) adjustment to OCI in Retained Earnings on the credit side, but in the absence of this having any effect on the computation of earnings. The result of having an OCI account is that a firm's financial statements manifest fair value everywhere, except on the Statement of Net Income. What other than heuristic behavior associated with computations of earnings could explain such an approach?

The two financial statements that most likely contribute to a firm's OCI are FASB Statement No. 115, *Accounting for Certain Investments in Debt and Equity Securities*, which was issued in 1993, and FASB Statement No. 52, *Foreign Currency Translation*, which was issued in 1981.

FASB Statement No. 115 addresses the accounting and reporting for investments in equity securities that have readily determinable fair values and for all investments in debt securities. FASB Statement No. 115 requires that investments be classified in three categories and accounted for as follows: 1) debt securities that the firm has the positive intent and ability to hold to maturity are classified as *held-to-maturity securities* and reported at amortized cost; 2) debt and equity securities that are bought and held principally for the purpose of selling them in the near term are classified as *trading securities* and reported at fair value, with unrealized gains and losses included in earnings; and 3) debt and equity securities not classified as either held-to-maturity securities or trading securities are classified as *available-for-sale securities* and reported at fair value, with unrealized gains and losses excluded from earnings and reported in OCI. Note that the amortized cost treatment of held-to-maturity securities is tantamount to historical cost. In addition, firms have wide latitude in determining whether debt and equity securities are classified as trading securities or available-for-sale securities. This implies that absent a circumstance in which a firm designates debt and equity securities as trading securities, adjustments to fair value will not manifest on the Statement of Net Income.

FASB Statement No. 52 concerns subsidiaries that operate in foreign countries (of a Parent Corporation that reports under US-GAAP). Effectively, FASB Statement No. 52 excludes adjustments for currency exchange rate changes from earnings for those fluctuations that do not impact cash flows and includes those that do. For all intent and purpose, this means that fair value adjustments for currency rate changes that do not affect cash flows reside in OCI in Retained Earnings; as such, they reside on the Balance Statement but not on the Statement of Net Income. The interesting feature of FASB Statement No. 52 is that it superseded a highly controversial, earlier attempt to capture the effects of adjustments for currency exchange rates in financial statements: FASB Statement No. 8, *Accounting for the Translation of Foreign Currency Transactions and Foreign Currency Financial Statements,* which was promulgated in 1975. While Statement No. 8 and Statement No. 52 differ in detail, a cynic would submit that the only substantive difference between the two statements is that the former required that adjustments that arise from currency exchange rate changes in subsidiaries that operate in foreign countries be made to earnings, whereas the latter allows those changes to eschew earnings and go instead directly to OCI. Indeed, a cynic might go further and say that the FASB Statement No. 52 was a fairly transparent concession on the part of the FASB to accommodate a restive business community's heuristic behavior as it relates to computations of earnings.

The question I pose is: Why? Why would firms and their representatives put so much emphasis on whether currency rate changes are recognized on both the Balance Statement and Statement of Net Income, versus simply the former? Presumably, the disclosure is identical in both circumstances. Just as in the first vignette where an investor or analyst could take the employee stock option expense disclosed in the financial notes and subtract it from earnings to determine the effect of the fair value expense of stock options on earnings, here an investor or analyst can factor the translation adjustment in OCI into a computation of earnings to capture the effect of currency rate changes in subsidiaries that operate in foreign countries. For example, in 2007 General Motors (GM) reports a billion dollar translation gain in its OCI section of its "Consolidated Statements of Stockholders' Equity (Deficit)." This gain arises from the fact that GM's subsidiary investments outside the US appreciated in value based on the rise in the local currencies where the subsidiaries operate relative to the US dollar. Significantly, at a time when GM's prospects seem dire, none of this gain is reflected in GM's computation of earnings in 2007.

The standard rationale for fair value avoidance on the Statement of Net Income is that firms and their managers are highly motivated to deliver "smooth" income to analysts and investors, which is to say to avoid volatility in the computation of earnings. But income smoothing is its own heuristic: just as firms seek to avoid systemic decreases in earnings because they associate improved accounting measures of performance with greater wealth (as a first moment, or bias, effect), they seek to provide smooth earnings for the same reason (as a second moment, or variance, effect). In other words, income smoothing is less an explanation than it is simply another manifestation of heuristic behavior. Consider, for example, the perspective of Heaton, Lucas, and McDonald (2009):

> "…some argue that earnings are more volatile under fair value accounting than under historical cost accounting. This seems an odd [sic] objection. If the firm believes that earnings should be less volatile than reported using fair value, the narration and footnotes in accounting reports should provide an opportunity to make the case that things have not really changed. If asset values are truly changing rapidly, this seems like information that would be of interest to owners and other stakeholders of a firm."[22]

The quotation above is remarkable for its poignancy, but then again it comes from economists who – as economists – have little familiarity with heuristic behavior

[22] See "Is Mark-to-Market Accounting Destabilizing? Analysis and Implications for Policy," by John Heaton, Deborah Lucas, and Robert McDonald, University of Chicago and Northwestern University working paper, 2009.

associated with computations of earnings. For example, note the use of the word "odd" in both the quotation above and the one from *The Economist* in footnote 4. This serves to support my point: from the perspective of someone accustomed to notions of rational behavior, heuristic behavior of the type I describe in this paper *would seem odd!*

Explanations

There is a surfeit of rationales for the disproportionate significance of the Statement of Net Income – so many that here I only discuss a representative sample. While all of them explain some measure of its significance, none of them offers a compelling explanation of the full emphasis placed on computations of earnings. For example, one explanation is that investors are "functionally fixated" on earnings; in their "functional fixation," investors ignore any other information related to firm value. Another explanation is that contracts and regulatory requirements are written over earnings; as such, they can only be written over the computation that is explicitly recognized in the Statement of Net Income (as opposed to alternative computations that can be arrived at from other statements and/or other disclosure). Yet a third explanation is that disclosure in a firm's financial notes is perfunctory, whereas recognition in the Statement of Net Income is a subliminal communication from regulators to investors that *this* is the only information upon which users of financial reports should place any reliance.

My reservation about these "explanations" is that they do not so much explain heuristic behavior on the part of firms as it relates to earnings as much as they fob off the problem to someone else. For example, when pressed it is not uncommon for someone to claim that while he or she *personally* does not believe that accounting measures of firm performance create or destroy wealth, surely everyone else does and thus heuristic behavior associated with computations of earnings must be accommodated. For example, if the little old retiree from Iowa is functionally fixated on earnings, then computations of earnings may indeed create or destroy wealth. It is difficult for me, however, to believe that the retiree from Iowa, as the marginal investor, is setting the price of Pfizer stock. Where are all the analysts that follow Pfizer in this story? Where are all the money managers, hedge funds, and large institutional investors that write research reports about Pfizer, hold large blocks of Pfizer stock, and make markets efficient? Or is the problem here that *these* are the very same persons who are "functionally fixated" on accounting earnings – not the retiree from Iowa who invests primarily through index funds?

Another example of "fobbing off the problem" of the disproportionate emphasis on earnings is to suggest that contracts are written over this number, and thus managers' obsession with Statements of Net Income is perfectly rational. An obvious example of this is compensation contracts: firm managers seek to boost earnings because this is how they are compensated. But this explanation suggests an economic friction in the contracting and regulatory process that is so vast as to preclude adjustments for cosmetic improvements. For example, why would compensation committees fail to take into account transparently cosmetic improvements in accounting measures of performance?[23] What inhibits compensation committees from adjusting compensation in the presence of

[23] In my class notes that discuss this issue, I include the following (apocryphal) story.

> Three CEOs were having a few drinks at a bar when the topic turned to how much control each had over his or her respective board. The first CEO boasted: "I have so much control over my corporate board that I was able to appoint my brother-in-law as chief legal counsel for my firm." The second CEO, an attractive 40-ish woman with a figure to-die-for, said: "Hah, that's nothing. I have so much control over *my* corporate board that I was able to make my personal trainer a vice president of sales." Suddenly, the phone of the third CEO started to ring. The CEO took the phone out of his pocket, and turned it on. On the other end of the line, all anyone could hear was very loud barking. The CEO turned off the phone, and calmly slid it back into his pocket: "That's my dog – he's the chair of my firm's compensation committee."

cosmetic improvements? Why would regulators rely exclusively on earnings as recognized in the Statement of Net Income? What prohibits regulations from being written over determinants of income that are merely disclosed? Here, as well, one suspects that the disproportionate emphasis on computations of earnings is the result of heuristic behavior on the part of persons who oversee contracts and regulations.

Finally, if disclosure in a firm's financial notes is perfunctory, whereas recognition is a subliminal communication from regulators to investors that this is the only information upon which users of financial reports should place any weight, then what does this say about the contribution of academic research on disclosure? A good deal of the academic literature is predicated on rational behavior, and rationale behavior would seem to be predicated on disclosure *in toto* – not just computations in the Statement of Net Income. Is the problem here that the academic literature is so thoroughly wedded to the notion of rational markets that it overlooks the role of heuristic behavior?

As I stated at the outset, I am prepared to believe that these rationales explain *some* measure of the significance of recognition in relation to disclosure. That said, there must be some omitted behavioral heuristic or insurmountable economic friction that explains the seemingly limitless emphasis placed on computations of earnings as a measure of firm performance.

My explanation for heuristic behavior associated with the computations of earnings is that the problem arises chiefly from firm managers and their representatives. Firm managers are heuristic in that they learn to associate, and thus ultimately believe without reservation, that improvements in accounting measures of performance create wealth, regardless of how the performance is measured or achieved. In fairness, it is straightforward to posit settings where managers would evolve to a behavioral heuristic that is premised on reporting the best possible results of operations. For example, Fischer and Verrecchia (2004) show that in a Cournot (quantity setting) product market with multiple firms that managers who overact to, or subconsciously inflate, their performance as a heuristic information-processing behavior earn more rents than Bayesian managers.[24] The intuition underlying this result is that Bayesian managers must accommodate the actions taken by heuristic managers as a result of overreacting to information; this accommodation leads to a heuristic manager enjoying higher expected profit than had he been Bayesian. But while there may exist settings where heuristic behavior of the type I describe yields benefits, the concern is that firms, having learned or evolved toward this heuristic, will adhere to it even in the absence of any rents.

A popular, alternative explanation for why firms gravitate toward the most favorable representation of results is that that firm managers are caught in a "prisoner's dilemma" in which markets expect managers to inflate earnings, and so managers are compelled to do so even at some cost: see, for example, Stein (1989).[25] I have two reservations about this explanation, however. First, Stein (1989) assumes that managers intend to mislead the market about their firms' worth and so in this sense *know* that they are not creating wealth when they inflate earnings, whereas my explanation rests on managers evolving toward a belief that associates accounting measures of performance with true economic achievement, independent of how the accounting measures are

---

[24] See "Disclosure Bias," Paul Fischer and Robert Verrecchia, *Journal of Accounting and Economics* 38, 2004.
[25] See "Efficient Capital Markets, Inefficient Firms: A Model of Myopic Corporate Behavior," by Jeremy Stein, *Quarterly Journal of Economics* 104, 1989.

derived and thus whether the association is correct. Second, and more crucial to my thesis, the analysis in Stein (1989) assumes that earnings' manipulation is unobservable.[26] But the behavior that I describe in this paper concerns managers seeking to boost earnings *in circumstances where manipulations of this computation are totally transparent!* For example, in my first vignette firms were loath to measure stock option expense at fair value in their computations of earnings despite transparently providing this information in their footnotes. In my second vignette firms were highly motivated to account for business combinations as a Pooling and thus avoid a Purchase, despite the fact that whichever one was employed the effect of the alternative on financial statements could be easily inferred. In my third vignette firms embraced the account Other Comprehensive Income (OCI) as a device to avoid recognizing fair value adjustments in computations of earnings, while simultaneously fully disclosing these adjustments in the Balance Statement. In other words, a theory that attempts to explain the behavior that I describe in this paper must have at its heart an explanation that accounts for gravitations toward the most favorable representation of results in circumstances where the gravitation is *transparent*.

Perhaps the heuristic behavior I describe in this paper arises from a corporate culture in which firms and their managers define their own self-worth in the context of measures of firm performance that have been codified by US-GAAP. I liken this phenomenon to a schoolboy who can either study for an exam, with the expectation of receiving a grade of "B," or not study, learn nothing, and purchase the answers to the exam with the expectation of receiving a grade of "A"; then, in the end, when the

[26] For example, Stein (1989) states on p. 657 that "A crucial assumption is that the amount of borrowing b_t [which, in turn, is used to inflate earnings] is not directly observable by outsiders."

schoolboy does the latter, he believes that he has learned more than if he were to do the former! In other words, I think firm managers and their representatives have difficulty disentangling measures of performance – especially when those measures have been codified in US-GAAP and thus in some sense “anointed” – from the actual economic substance of operations.

In summary, I submit that managers themselves – and not investors as is commonly thought – are functionally fixated on earnings, either as a manifestation of wealth or perhaps an expression of their own self worth. This leads to managers resisting the inclusion in earnings items that fail to enhance performance, such as the amortization of Goodwill, or measures that make future performance more volatile, such as those based on fair value. Until or unless heuristic behavior of the type I describe in this paper is acknowledged and challenged, I continue to see confrontations over accounting regulation along the lines of recent debates about fair value accounting. In the absence of acknowledging this problem and attempting to grapple with it, I only see further impediments along the path to greater transparency in financial statements.

Appendix: 12 requirements necessary to qualify for a Pooling

Attributes of the Combining Companies

1. Each of the combining companies is autonomous and has not been a subsidiary or division of another corporation within two years before the plan of combination is initiated.
2. Each of the combining companies is independent of the other combining companies.

Manner of Combining Interests

3. The combination is effected in a single transaction or is completed in accordance with a specific plan within one year after the plan is initiated.
4. The corporation offers and issues only common stock with rights identical to those of the majority of its outstanding voting common stock in exchange for substantially all of the voting common stock interest of another company at the date the plan of combination is consummated.
5. None of the combining companies changes the equity interest of the voting common stock in contemplation of effecting the combination either within two years before the plan of combination is initiated or between the dates the combination is initiated and consummated; changes in contemplation of effecting the combination may include distributions to stockholder and additional issuances, exchanges, and retirement of securities.
6. Each of the combining companies reacquired shares of voting common stock only for purposes other than business combinations, and no company reacquires more than a normal number of shares between the dates the plan of combination is initiated and consummated.
7. The ratio of the interest of an individual common stockholder to those of other common stockholders in a combining company remains the some as a result of the exchange of stock to effect the combination.
8. The voting rights to which the common stock ownership interests in the resulting combined corporation are entitled are exercisable by the stockholders; the stockholders are neither deprived of nor restricted in exercising those rights for a period.
9. The combination is resolved at the date the plan is consummated and no provisions of the plan relating to the issue of securities or other considerations are pending.

Absence of Planned Transactions

10. The combined corporation does not agree directly or indirectly to retire or reacquire all or part of the common stock issued to effect the combinations.
11. The combined corporation does not enter into other financial arrangements for the benefit of the former stockholders of a combining company, such as guaranty of loans secured by stock issued in the combination, which in effect negates the exchange of equity securities.
12. The combined corporation does not intend to plan or dispose of a significant part of the assets of the combining companies within two years after the combination other than disposals in the ordinary course of business of the formerly separate companies and to eliminate duplicate facilities or excess capacity.