# Fair Value Accounting (FVA) in the S&P500: Value relevant information for investors or hazard to society when installed in financialized firms

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Abstract

Fair value accounting (FVA) is mandated by the US Financial Accounting Standards Board (FASB) within a number of extant accounting standards. FVA is justified because it generates value relevant information to investors promoting capital market efficiency. In this paper we frame the adoption of FVA in the 'financialized firm'. FVA accumulates speculative market value into asset line items generating a commensurate inflated potential impairment risk. In the financialized firm earnings distributions have hollowed-out retained earnings limiting capacity to hedge asset impairments. Installing FVA in financialized firms threatens the financial integrity of firms and this is a hazard to society.

Key Words:
Fair value accounting, capital market efficiency, financialization, firm-level financial stability

Highlights:

- Fair value accounting (FVA) absorbs speculative earnings expectations into a firm's current asset valuation
- Speculative asset values can become impaired and losses charged against shareholder funds
- In the financialized firm dividend distributions and share buy-backs are hollowing out retained earnings in shareholder equity
- In the S&P 500 retained earnings are a less effective hedge against asset impairments.
- Installing FVA in financialized weakens the financial integrity of firms and this is a hazard to society.

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## 1. Introduction

### 1.1 Installing fair value accounting (FVA) in the financialized firm

The re-orientation from Historic Cost Accounting (HCA) to fair value accounting (FVA) has been 'hotly debated' for example Baxter and Davidson's collection in 1977 'Studies in Accounting Theory' reviewed the arguments for and against value as a 'function of future benefit's rather than past outlays'. This paper is not about elevating one approach, for example, HCA with its focus on the revenue-side and past outlays over another approach, FVA, which promotes a balance sheet and futures approach to value. Rather this paper takes up Hopwood's (2009) argument which is that whilst one strand of the accounting and finance debate encouraged the shift to value future benefits in terms of calculative and reporting practice there are 'inherent ambiguities' that need to be explored. Specifically, how has FVA been 'operationalized in calculative terms' and what are the 'wider consequences'? Arnold (2009) challenged research that frames accounting as a neutral financial reporting technology servicing the information needs of investors and promoting the efficient functioning of capital markets. In a financialized world to what extent have the interests of finance capital overshadowed industrial capital and how does this understanding help to explain the adoption of FVA and the shift from an income to a balance sheet valuation approach? (Arnold, 2009, Müller, 2014) McSweeney makes a broader critical observation about how a knowledge community within accounting and finance has been constructed 'around market efficiency fundamentalism' where the paradigmatic status of this approach means that 'context' has been taken for granted. There is, according to McSweeney, a preoccupation with the techniques and regulatory

rules of accounting *per se* that have become disengaged from the 'contingent circumstances and consequences of use' (McSweeney, 2009: 845).

This paper draws upon these observations to construct three organising elements to frame the structure of this paper and supporting analysis. The first of these is concerned with the adoption of FVA by the Finance Accounting Standards Board (FASB) in the US and how this continues to be justified in terms of promoting transparency, the information needs of investors and capital market efficiency (see Arnold, 2009 and Palea, 2015). A second framing element draws upon McSweeney's critical observations about the need to construct innovative organising contexts within which to critically evaluate the wider economic and social consequences of accounting (see also Palea, 2015). This paper constructs a descriptive analytical model of the financialized firm to contextualise the installation of FVA in the S&P500 group of firms. A third organising element takes up Hopwood's challenge to explore ambiguities and contradictions associated with changing calculative and reporting practice. Specifically, we consider the extent to which installing FVA within financialized firms compromises financial integrity, that is, heightens the risk of financial fragility and instability within the S&P 500 constituent group of firms.

## 2. Fair value accounting: Value relevant information for efficient capital markets

The Financial Accounting Standards Board (FASB) in the US and the International Accounting Standards Board (IASB) now mandate the use of FVA within a range of extant financial reporting standards. This adoption of FVA is the outcome of an on-going reorientation from historic cost accounting (HCA) where the balance sheet rather that income statement becomes the focus of attention in terms of providing a 'relevant' and 'faithful representation' of a firm's financial condition to investors. HCA records realised revenues

and how changes and movements in revenues and expenses impact upon the financial position of the firm in the balance sheet. FVA, in contrast, reveals how ongoing changes in the market value of assets (traded or estimated) impact upon a reporting entities comprehensive income and shareholder equity. The accounting debate about HCA or FVA centres on 'different conceptions of what it is for an accounting estimate to be reliable' (Power, 2010, p. 201). The monopolising conception, according to Power is grounded in financial economics: 'with its dominant cultural and technical authority as a style of reasoning spanning academia and practice' (Power, 2010, p.203). Opposing this conception and its acquired legitimacy involves challenging financial economics (Whitely, 1986) and the value relevance and reliability of information disclosed in a reporting entities financial statements (Barth, 2007).

Littleton (2011) makes a general observation that economists seek to capitalize future earnings expectations into current asset valuations but that accountants have been generally predisposed to measure costs actually incurred by an enterprise before the current date. Economists consider that it is important for a business enterprise to periodically recalibrate balance sheet valuations on the basis of changes to the market value of assets employed or the expected future earnings from these assets. Accountants, according to Littleton, find expected earnings unacceptable for most accounting uses because they are unwilling to 'cut loose their thinking and their service from the provable objectivity of accounts kept and financial statements made in terms of costs actually incurred by this enterprise before the current date' (Littleton, 2011, pp. 4–5). It is the case that with HCA the purchase cost of an asset at the transaction date will correspond to the market value of that asset. However, the difference between HCA and FVA is not what do

with the initial recorded measurement but what happens with subsequent measurement of balance sheet assets. The difference between HCA and FVA centres on whether the information disclosed in a reporting entities financial statements are subject to contemporary re-valuations (Solomons, 1961, Edwards & Bell, 1964, Chambers, 1965; 1966, Morgan, 1988) to reflect current 'economic realities' where economic theory 'guides accounting practice' (Baker & Schulte, 2016). In this regard FVA favours the recalibration of asset values informed by on-going changes to market values or, in the absence of market values, judgements about changes to the future discounted earnings capacity of assets held on balance sheet.

Ditchev and Penman (2007) review the debate between these alternative and competing approaches to financial reporting, a balance sheet approach (FVA) and income statement approach (HCA). The balance sheet-based approach is focussed on the appropriate valuation of assets and liabilities as the primary goal of financial reporting, with the 'determination of other accounting variables considered secondary and derivative' (Ditchev & Penman, 2007, p.4). The income statement approach is focussed on the determination of revenues, expenses and the timing and magnitude of the revenue and expense amounts and residual earnings where 'balance sheet accounts and amounts are secondary and derivative' (Ditchev & Penman, 2007, p.4; Ronen, 2008). From an HCA perspective changes in the balance sheet drop out as a residual change in periodic accruals. During the 1970s the FASB concluded, after considerable debate, that the balance sheet approach should inform standard-setting and general financial reporting (Ditchev & Penman, 2007). Penman (1973) summarises the difference between the income statement and balance sheet approach to accounting in terms of the way in which assets are conceptualised: either as representing a

'service-potential asset-in-use' or 'asset-in-exchange' (Penman, 1973:216). That is, the firm can either sacrifice or transform assets to generate revenues and profits or accumulate and recapitalize assets to capture realized or unrealized holding gains within the measure of a firms net worth (Dichev & Penman, 2007, p.10).

The FASB's adoption and consolidation of the balance sheet approach is apparent in a range of extant accounting standards that permit FVA. FAS 157 'Fair Value Measurements' is the cornerstone accounting standard that sets out the calculative reporting principles governing FVA emphasizing that fair value is a market-based not an entity-specific measurement. Where a market value is not available then judgements, modelling and simulation can be employed to mimic what market participants would have experienced when pricing the asset or liability (Bougen and Young, 2012). FAS 157 promotes the use of a fair value hierarchy that distinguishes between: valuations based on market data obtained from sources independent of the reporting entity (observable inputs) and the reporting entity's own assumptions about market values based on the best information available in the circumstances (unobservable inputs). The notion of unobservable inputs is intended to allow for situations in which there is little, if any, market activity for the asset or liability at the measurement date (FAS 157, p.3).

As we have noted FAS 157 contains a fair value hierarchy that prioritizes the inputs that should be used to construct the fair value of an asset. Level one input's are based on observable market data, level two inputs are those other than quoted market data and level three valuations are where the reporting entity can employ judgements and modelling. These judgements are based on best estimates about the behaviour of market participants and how they would price the asset or liability, specifically assumptions about future cash

flows and cost of capital employed to discount expected cash flows. Whether market prices or estimates are being employed there is a speculative element attached to valuing assets at their fair value. The challenge for accountants is to estimate fair values accurately and this involves reducing the scope for discretion. Where identical assets trade in liquid markets this information provides a reliable valuation but discretion and judgment are often required where asset values have to be estimated or modelled (Ryan, 2008; Bougen & Young, 2012; Baker & Schulte, 2016).

The FASB maintains the position that FVA enhances financial reporting and this is confirmed by a process of cost-benefit analysis which seeks the opinions of the 'users and preparers' of a firm's financial statements. Furthermore, FVA enhances transparency and the provision of relevant information to investors and this, in turn, promotes capital market efficiency and lowers the cost of capital (FASB 2014). These claims about financial disclosure promoting capital market efficiency have been challenged by those who argue that the financial crisis was exacerbated by the FVA because adjustments to market valuations amplified capital market instability (King, 2009; Biondi, 2011; Biondi & Giannoccolo, 2015). These critical interventions have tended to focus on the banking sector where there was considerable adverse volatility in the asset-side of the banking system relating to the write down in value of financial instruments such as collateralized debt obligations and securitized loans relative to banking regulatory capital (shareholder funds). The argument for or against the application of FVA rests on explaining the connection between accounting systems and the pro-cyclical decline in the value of bank assets (loans) and stock prices, when the housing market bubble burst (Barth and Landsman, 2010). Laux and Leuz, (2010) conclude that isolating the contribution of FVA and its relation to capital market contagion effects is

elusive and more research is required to establish a cause and effect relationship. Barth and Landsman take a different position arguing that: 'contrary to what many critics of fair value contend fair value accounting played little or no role in the Financial Crisis´ (Barth and Landsman, 2010, p. 3). The US Securities and Exchange Commission (SEC) study on mark to market accounting also concludes that: 'rather than a crisis precipitated by fair value accounting, the crisis was a "run on the bank" at certain institutions, manifesting itself in counterparties reducing or eliminating the various credit and other risk exposures they had to each firm' (SEC, 2008, p.3). The SEC's report takes the position that accountants need to be more careful in assessing asset values in illiquid or stressed market conditions. The Institute of Chartered Accountants in England and Wales (ICAEW) research project on 'information for better markets' takes a stronger line that there is no overall compelling evidence to suggest that FVA exacerbated the financial crisis despite many claims and assertions made to the contrary (ICAEW, 2014; ICAEW, 2015)

The argument and defence maintained is that is that FVA enhances transparency, provides relevant information to investors and facilitates capital market efficiency (Barth & Landsman, 2010). At the height of the financial crisis both the FASB Chairman and its Director announced that FVA is the preferred method for reporting the value of financial assets because it is 'grounded in economic reality' and that it 'facilitates informed investment decisions' (FASB, 2008). The online survey conducted by CFA Institute continues to find that an overwhelming majority of respondents support the use of fair value accounting because it informs investors about risk (CFA, 2010).

In the following section we argue that it is necessary to contextualise the adoption of FVA within the financialized firm and we employ this framing device to explore the impact of

changes in financial reporting on the financial integrity of firms rather than contribution to capital market efficiency.

## 3. Fair value accounting installed in the financialized firm

The costs and benefits of FVA are generally evaluated in relation to the provision of value relevant information to investors and how this promotes (or not as the case may be) efficient capital markets. McSweeney calls for the use of innovative organising contexts within which to critically evaluate the wider economic and social consequences of accounting standards and financial reporting. Rather than employ a capital market efficiency paradigmatic to organise our argument about the costs and benefits of FVA this paper locates changes in accounting practice with the 'financialized firm'. The argument is that installing FVA within financialized firms heightens financial fragility and instability (Haslam et al, 2015) and because financial numbers inform resource stewardship (Biondi, 2011) there is a potential hazard to a wider group of stakeholders. In the financialized firm contradictory financial forces are in play. FVA absorbs speculative market value (Haslam, 2012) into a firms recorded assets valuations but these have the potential to become impaired, for example, where asset market conditions or the earnings capacity of assets deteriorate. Asset impairments would be charged against shareholder equity, specifically retained earnings, but these reserves are being hollowed out by high rates of dividend distribution and share buy-backs (Lazonick, 2013). Installing FVA in financialized firms accumulates potential risk to a firm's financial viability: corporate credit ratings, gearing ratios and solvency.

Krippner, for example, observes that financialization is about changes in the composition of corporate balance sheets from tangible to financial asset accumulations where: 'Non-

financial corporations are beginning to resemble financial corporations – in some cases, *closely* – and we need to take this insight to our studies of corporate behaviour' (Krippner, 2005:201). In the financialized firm a key development is that associated with generating windfall gains from changes in asset values and with regards to the valuation of assets Keynes (1935) distinguishes between forecasts about the yields of assets over their whole life and speculative value attached to the psychology of the market (Keynes, VI: 1935, p. 101). In the financialized firm short-run speculative changes to the market value of a reporting entities assets become a new way of making money from holding gains in current time (Watkins, 2015. p.7). Numbers and technical narratives combine, according to Froud et al, 2001, 2006 to crystallize future earnings into current valuations but, in the financialized firm, the balance sheet increasingly reflects the speculative *modus operandi* of capital markets (Bowman, et al, 2015). In speculative asset markets there is a tendency to promote the vendibility of assets ahead of their serviceability in terms of earnings capacity (Haslam et al, 2012) and as Veblen observed, is it the intangible and goodwill elements of an assets speculative value can fluctuate wildly (Veblen, 2005, p.76).

With respect to earnings distribution Lazonick (2013) observes that financialization is about a dominant ideology of shareholder value, that is, the 'mode of corporate resource allocation has been legitimized by the ideology, itself a product of the 1980s and 1990s, that a business corporation should be run to maximize shareholder value' (Lazonick, 2013 p. 859). Lazonick's argument is that firms in the S&P500 are preoccupied with maximising short-run returns on capital to investors. This involves distributing more profit to shareholders either as dividends and/or share buy-backs (See also Andersson et al 2008; Lazonick, 2011; Biondi, 2012; Haslam et al, 2012; Stout, 2012; Clarke, 2013).

FVA absorbs market value into corporate balance sheets but these speculative valuations can become impaired triggering adjustments to asset values. The system of double entry book-keeping ensures that any adjustment to asset values is matched by a change in recorded liabilities. Thus asset impairments will generate a corresponding adjustment to recorded liabilities, specifically, an offset against retained earnings reported within the shareholder equity statement. Where asset values are impaired a firm's retained earnings act as a financial buffer absorbing write downs in a similar way to which a banks regulatory capital is available to hedge the risk of loan (asset) charge offs (Basel Committee, 2011). In the financialized firm these retained earnings are being hollowed-out by high levels of dividends and share buy-backs which draw down distributable reserves (Lazonick, 2013). Plihon (2002) consolidates this observation about accounting as a networked transmission system pointing out that when adjustments are made to one line item these changes are not confined to that line item alone but by virtue of double-entry book-keeping trigger compounding effects. The uncertainty that arises is that relatively immaterial adjustments to one line item can have a material impact elsewhere in the financial statements. This connectivity between line items can generate unintended consequences for example: undermine liquidity, compromise solvency, damage credit ratings, force the sale of assets and amplify downsizing (Plihon, 2002). When it comes to the setting of accounting standards attention is generally focussed on the presentational and technical aspects attached to specific types of line item, for example tangible assets, leases, financial instruments, biological assets, and intangible assets. Regulatory agencies such as the FASB are, as we have already noted, concerned with approving accounting standards after carrying out a cost-benefit analysis that is informed by the opinions of users and preparers. This type of cost-benefit analysis does not stress-test accounting standards in terms of their

compound relations and potential impact on the financial integrity of firms (Haslam et al, 2015)

To illustrate this point about the specificity of accounting standards with reporting on line items consider FAS 141 which is the standard that sets out the regulations governing accounting for business combinations and FAS 142 is concerned with testing goodwill for impairment. In the US accounting standard FAS 141 is concerned with accounting for the market value of a business combination using the so-called 'purchase method'. Prior to the purchase method the accounts of an acquired business would be 'pooled', that is, the acquired firm's accounts would be blended with the acquiring company. This 'pooling' approach to the two sets of accounts was rejected in favour of the 'purchase method' for business combinations on the understanding that management would now be held accountable for the market value of the investment made. Respondents to the drafting of FAS141 were concerned that the pooling method 'does not hold management accountable for the investment made and the subsequent performance of that investment' (FAS 141.p.61). The purchase method values the acquired company at its bid value (pre bid stock market value plus any premium paid) and goodwill (an intangible asset) arises as the difference between the market value paid and the value of net assets recorded in the acquired firm's accounts (FAS 141.p.5).

How the goodwill is then treated going forward in financial statements is covered separately by FAS 142 which also reviews the financial treatment of other intangible assets such as brands, patents, licences. With regards to changes to accounting for goodwill Ding et al (2008) describe this in terms of a progressive re-orientation from a 'stakeholder' to

'shareholder' approach. Goodwill was initially immediately expensed, then recognized but amortized and finally recognized without amortization but tested for impairment where necessary. This means that goodwill progressively accumulates on balance sheet and as at the end of 2014 goodwill reported in the S&P 500 accounted for approximately 80 per cent of total reported intangible assets.

Accounting standards issued by the FASB generally focus on specific lines item but this approach does not take into account complex relations that operate between reported line items (Plihon, 2002) in the financialized firm (Haslam, et al, 2015). Thus, for example, of goodwill accumulates on the asset side of a reporting entities balance sheet but this establishes a growing impairment risk. Goodwill impairment(s) will, by virtue of double entry book-keeping be charged to shareholder funds as an offset against accumulated retained earnings. However, retained earnings reserves are being hollowed out by a combination of high dividends and share buy-backs for treasury stock (Lazonick, 2013).

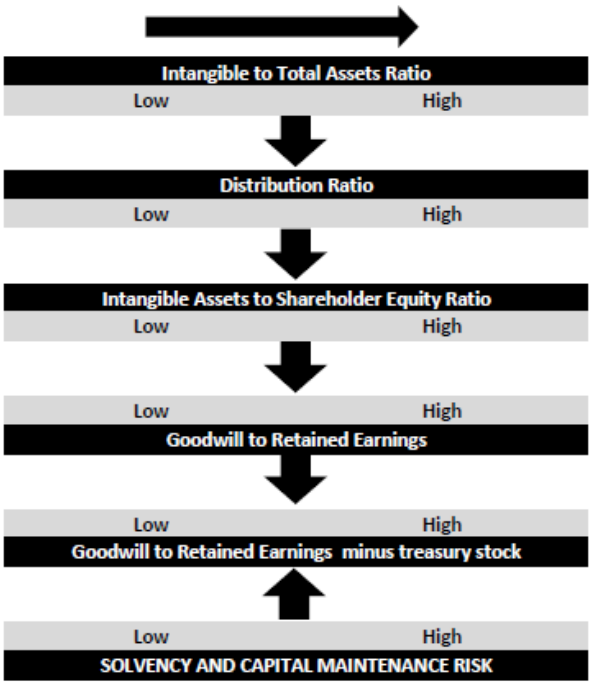
In the next section of this paper we consider the extent to which the retained earnings reserves held in shareholder equity provide an effective financial buffer to absorb asset impairment risk, such as that which might arise from goodwill impairments in the S&P500.

### 3.1 Accounting for financialization in the S&P500

This section employs five key operating ratios to describe the extent to which the S&P500 group of firms are financialized (see fig.1). This aggregate financial analysis of the S&P500 group of firms starts by considering the extent to which the asset structure of corporate balance sheets has changed in the S&P 500 before turning to establish the extent to which these firms are thinning out retained earnings. The ratio of intangible assets to total assets

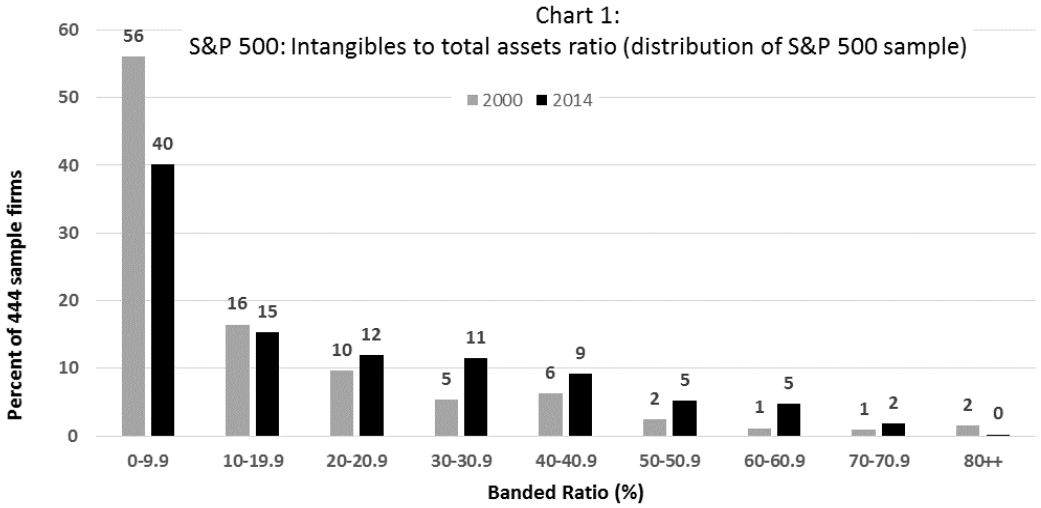
captures the extent to which the composition of balance sheet assets have changed. The distribution ratio reveals how dividends and share buy-backs are increasing relative to net income. Whilst the ratio of intangible assets to shareholder equity and goodwill to retained earnings establish the extent to which potential asset value impairments are hedged by shareholder funds. The goodwill to retained earnings minus treasury stock ratio is employed to consider the extent to which retained earnings, after financing accumulated share buy-backs, are sufficient to absorb goodwill being impaired. Figure 1 summarises this set of ratios use to construct our aggregate analysis of the S&P 500 group of firms and in a following section we employ a number of company cases to explore the dynamic nature of these key ratios.

Figure 1: Key ratios employed to describe the financialized firm




Source: adapted from Haslam et al 2015
Notes: For definitions of data employed to construct these ratios see endnote

Chart 1 presents the ratio of intangible to total assets for a sample of 444 matched S&P 500 companies for the period 2000 to 2014, that is, we are able to obtain a consistent run of financial data to construct our key ratios (see fig.1) for the period 2000-2014. For example, Microsoft Inc. is included because we can match up its financial data for the period covered and compute all the key ratios in figure 1. Chart 1 reveals a general increase in the number of firms in our sample with a higher ratio of intangible to total assets. In the year 2000 we estimate that 17% of firms in our sample of 444 firm's had an intangible to total assets ratio above 30% and by 2014 this had risen to 32%.

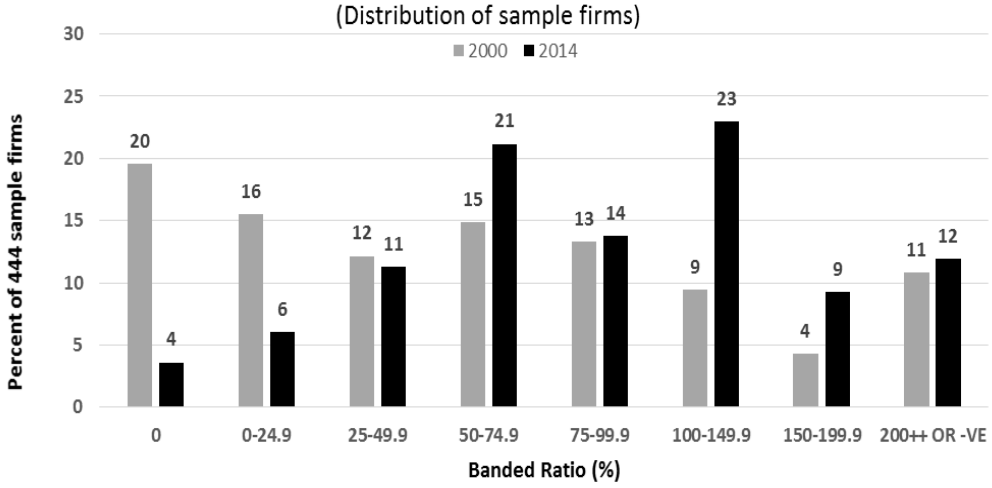



Source: Thomson Analytics Datastream S&P 500 data
Note: Sample consists of 444 firms with matched data from the S&P 500 constituent group that is these firms consistently disclosed financials to construct the key ratios shown in figure 1.

In chart 2 we show the distribution of net income to finance dividends and share buy-backs for the 'matched' sample of 444 firms in the S&P 500 constituent list. The general pattern is one where the S&P 500 sample distribute more of their net income to shareholders. In the year 2000 we calculate that 24% of firms in our S&P 500 matched sample of firms

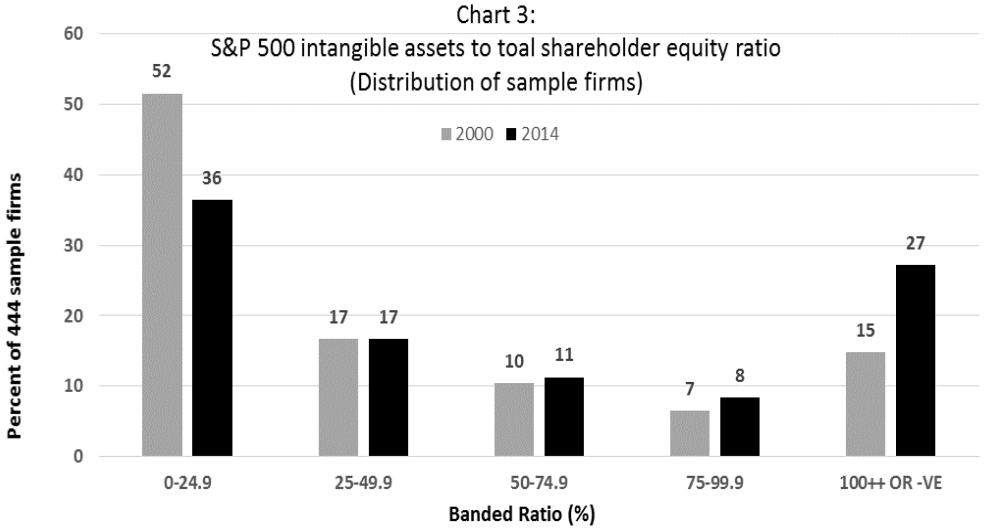
distributed dividends and share buy-backs in excess of their net income but by 2014 some 44% were distributing more to shareholders than net income generated. Lazonick (2014) argues that this high distribution of profit to shareholders leads to a culture of 'downsize and distribute' because, in an era of shareholder value, there is very little headroom for productive re-investment: 'Consider the 449 companies in the S&P 500 index that were publicly listed from 2003 through 2012. During that period those companies used 54% of their earnings—a total of $2.4 trillion—to buy back their own stock, almost all through purchases on the open market. Dividends absorbed an additional 37% of their earnings. That left very little for investments in productive capabilities or higher incomes for employees' (Lazonick, 2014). Our findings confirm Lazonicks analysis that the S&P 500 group of firms are distributing a higher proportion of net income as dividends and share buy-backs.

Chart 2:
S&P 500 disbursements to shareholders out of net income
(Distribution of sample firms)




Source: Thomson Analytics Datastream S&P 500 data
Note: Sample consists of 444 firms with matched data from the S&P 500 constituent group that is these firms consistently disclosed financials to construct the key ratios shown in figure 1.

The additional argument put forward in this paper is that where firms are consistently distributing dividends and share buy-backs in excess of net income this will run down accumulated retained earnings in shareholder equity. Our expectation is that the accumulation of assets at their market value runs ahead of the growth of retained earnings held in shareholder equity. Chart 3 reveals that there is a tendency for S&P 500 firms to accumulate intangible assets ahead of shareholder equity funds. In the year 2000 roughly 22% of the sample group of firms surveyed had intangible assets that were equivalent to three-quarters or more of their equity funds but by 2014 this had risen to 35% of firms in our sample.



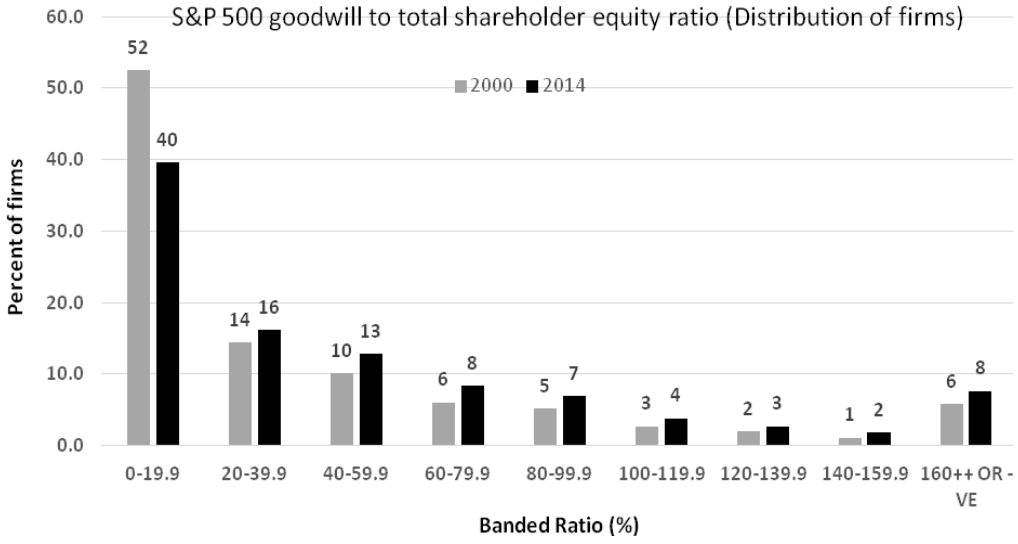

Source: Thomson Analytics Datastream S&P 500 data

Note: Sample consists of 444 firms with matched data from the S&P 500 constituent group that is these firms consistently disclosed financials to construct the key ratios shown in figure 1.

A significant component of reported intangible assets is that relating to goodwill which records the difference between the market and the book value of assets acquired in a business combination. Often the acquiring firm will roll-up the value of patents, brands and

licences of the acquired firm into the goodwill arising out of the acquisition. The inclusion of other intangibles acquired within goodwill makes sense because they are no longer subject to amortization (KPMG, 2010) and this boosts earnings and stock prices. However the significant aspect of goodwill is that it is an accumulating balance and in 2014 goodwill recorded by the S&P 500 sample of firms was equivalent to 80 per cent of reported intangible assets by value. This accumulation of goodwill is also running ahead of the growth in shareholder equity. In chart 4 we find that in the year 2000 some 12 per cent of firms surveyed reported goodwill in excess of shareholder equity and that by the year 2014 this had risen to 17 per cent of firms in our sample reporting accumulated goodwill in excess of their shareholder equity.

Chart 4:
S&P 500 goodwill to total shareholder equity ratio (Distribution of firms)




Source: Thomson Analytics Datastream S&P 500 data
Note: Sample consists of 444 paired S&P 500 firms with all firms having data on shareholder equity and goodwill across both time periods

Goodwill reported by S&P 500 companies is an accumulating risk because the earnings capacity of these assets or their market value could deteriorate to the point where the goodwill needs to be impaired. Goodwill impairments would need to be absorbed by

accumulated retained earnings (reported within shareholder equity) which act as a kind of financial buffer before a firms original paid-in capital is compromised. In charts 5a and 5b we reveal the extent to which firms in the S&P 500 have sufficient retained earnings to absorb goodwill impairment. Table 1 summarises the two approaches we have employed to construct charts 5a and 5b.

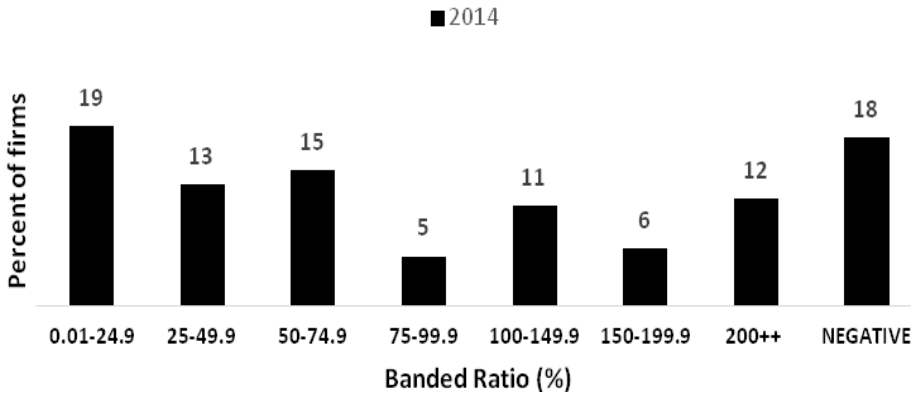
Table 1: Data employed to construct charts 5a and 5b

| For the year ended 2014 for S&P 500 firms | Chart 5a | Chart 5b |
|---|---|---|
| Accumulated common stock and additional paid in capital | X | X |
| Plus Accumulated retained earnings | X | Approximation for retained earnings minus treasury stock |
| Minus Accumulated treasury stock | (Y) | |
| Plus / minus other comprehensive income | X or (Y) | |
| = Total shareholder equity | Z | Z |
| Number of firms with data | 257 | 159 |

Notes: Chart 5a employs the data for 257 matched firms where we have both accumulated retained earnings and treasury stock disclosed in 2014. For chart 5b we have subtracted accumulated common stock and additional paid-in capital (including share premiums) from total shareholder equity to obtain an estimate of retained earnings after deducting treasury stock (note also that this will also capture comprehensive income adjustments)

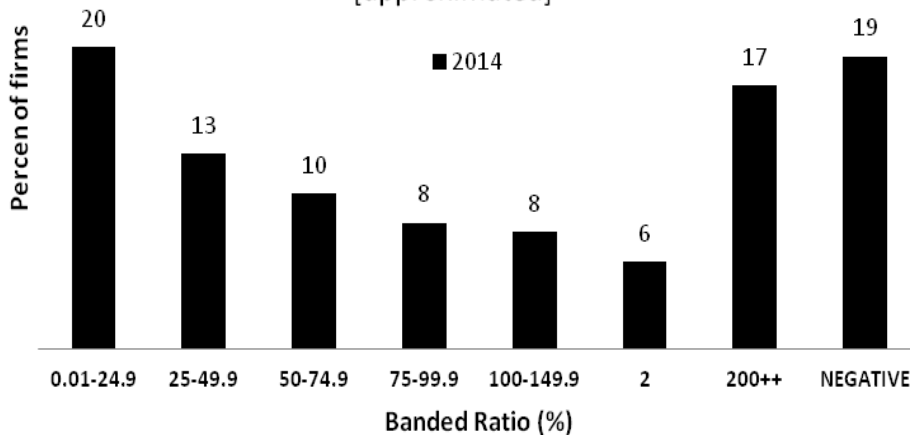
Chart 5a shows the ratio of accumulated goodwill to retained earnings minus treasury stock for a sample of 257 firms listed in the S&P 500 for the year 2014. This reveals that in 2014 roughly half of this group of firms, for which we have disclosed data, are operating with a treasury stock balance that exceeds their retained earnings. Chart 5b constructs an approximation of the goodwill to retained earnings minus treasury stock for a further 159 firms listed in the S&P 500 in 2014. This chart also reveals that roughly half of the firms in this group have goodwill accumulations that had exceed retained earnings after deducting treasury stock.

Chart 5a
Goodwill / (Retained earnings minus treasury stock)




Source: Thomson Analytics Datastream S&P 500 data
Note: Sample consists of 257 S&P 500 firms with all firms having data on treasury stock and retained earnings. A negative ratio results because retained earnings after deducting treasury stock are negative.

Chart 5b:
Goodwill / (Retained earnings minus treasury stock)
[approximated]




Source: Thomson Analytics Datastream S&P 500 data
Note: Sample consists of 159 S&P 500 firms with all firms having data on paid in capital including premiums and total shareholder equity (see table 1). A negative ratio results because the deduction of paid in capital from shareholder equity results in a deficit figure.

Our investigation shows that roughly half of firms listed in the S&P 500 in 2014 are operating with retained earnings (after deducting treasury stock) that provide only a limited

financial shock absorber against goodwill impairments. In the financialized firm the distribution of earnings reduces the capacity of firms to absorb speculative asset value at risk because the reserves held within shareholder funds are being depleted. Our analysis understates the problem facing firms because a variety of other assets held on balance sheet are adjusted to their fair value: financial instruments, property, energy and commodity reserves and biological assets. The S&P 500 group are vulnerable to a variety of asset value impairment risks but the hollowing out of retained funds in equity reserves provides a limited financial buffer to sustain financial integrity.

**3.2 Financialization in the S&P 500: Company cases**

In this section our analysis employs a sample of five firms selected from a range of industry sectors within the S&P 500 constituent list. This sample have been deliberately selected to illustrate the dynamic relationship between retained earnings which are affected by dividend distribution and share buy-backs (treasury stock) and goodwill arising from corporate acquisitions. This group of firms have a very high goodwill to retained earnings accumulation.

The group of five companies described in table 2 have collectively distributed 90 to over 100 per cent of their net income as dividends and share buy backs over the period 2000-14. Retained earnings after deducting dividends and accumulated treasury stock balances are not growing relative to accumulating goodwill which captures the difference between the market value and book value of business combinations. The potential for goodwill impairments stands at roughly $100bn but retained earnings after deducting treasury stock balances have been hollowed out and so for this group of companies a write down of

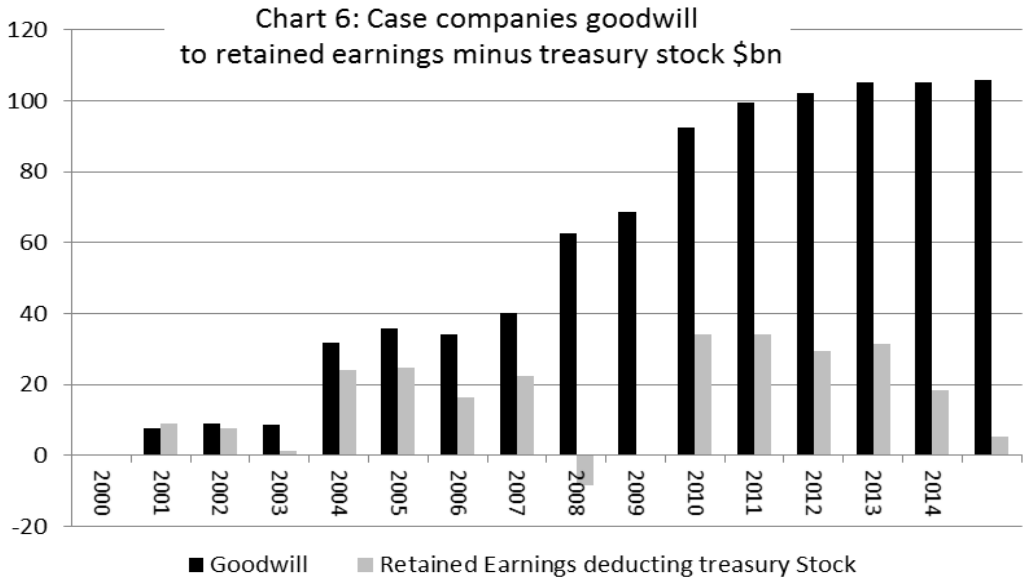
goodwill would not only write off retained earnings but also consume original paid-in capital

(see chart 6).

Table 2: Company cases and financial profile

| | Industry Sector | Net Income Distributed | Goodwill balance | Retained earnings minus treasury stock and comprehensive income | Paid in Capital Balance | Total Shareholder Equity |
|---|---|---|---|---|---|---|
| | | 2000-14 Factor | 2014 $bn | 2014 $bn | 2014 $bn | 2014 $bn |
| Verizon | Telecom Services | 1.08 | 24.6 | -0.3 | 11.5 | 13.6 |
| Pfizer | Healthcare | 1.09 | 42.2 | -8.3 | 79.5 | 71.6 |
| Boeing | Industrials | 0.95 | 5 | -1 | 9.6 | 8.7 |
| IBM | IT Services | 1.04 | 30.6 | -40.7 | 52.9 | 12 |
| CVS | Consumer Staples | 0.89 | 28.1 | 6.3 | 30.4 | 37.9 |

Source: Data extracted from Edgar SEC data, 10K annual reports
http://www.sec.gov/edgar/searchedgar/companysearch.html
Note: There are slight differences between the summation of retained earnings minus treasury stock plus comprehensive income and paid-in capital relative to total shareholder equity.




Source: Data extracted from Edgar SEC data, 10K annual reports
http://www.sec.gov/edgar/searchedgar/companysearch.html

At a company level treasury stock can be used to finance acquisitions, for example, in 2009 Pfizer Inc. acquired Wyeth and this deal was financed with a combination of debt and the issuance of treasury stock. According to the Wall Street journal Pfizer would 'borrow $22.5 billion from a consortium of banks to finance the deal and the company plans to use stock and its cash reserves to fund the rest of the deal' (Wall Street Journal, Jan 26, 2009). In 2009, after the purchase of Wyeth was completed, Pfizer's treasury stock balances are reduced and this mechanically inflates reported shareholder equity (see table 3)[1].

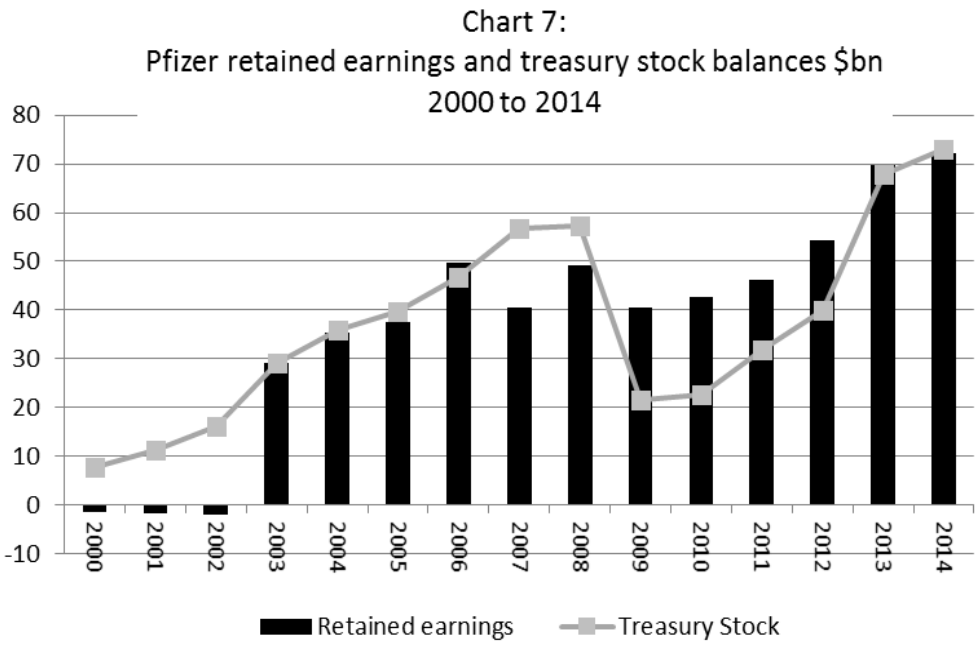
Table 3: Pfizer reconciliation of shareholder equity 2008-9 $bn

| | Shareholder Equity | Paid in capital | Retained earnings | Treasury stock | Comprehensive income |
|---|---|---|---|---|---|
| 2008 | 57.6 | 70.7 | 49.1 | 57.3 | -4.9 |
| 2009 | 90.4 | 70.9 | 40.4 | 21.6 | 0.7 |

Source: Data extracted from Edgar SEC data, 10K annual reports
http://www.sec.gov/edgar/searchedgar/companysearch.html

After completing this acquisition Pfizer resumed a programme of share buy-backs that had been promised to shareholders as part of a post-acquisition strategy. Chart 7 reveals that the accumulation of treasury stock is reinstated after 2010 such that by the year 2014 the treasury stock balance was $73bn and back to a level that was more or less equivalent to offsetting the value of recorded retained earnings. For most of the period 2000 to 2014 Pfizer treasury stock balances are more or less equivalent to drawing down all of the company's retained earnings. The net effect is that reported shareholder equity more or less tracks the original and additional paid in capital (see table 3).

[1] Shareholder Equity = paid in capital + (retained earnings- treasury stock) + comprehensive income adjustments




Source: Data extracted from Edgar SEC data, 10K annual reports
http://www.sec.gov/edgar/searchedgar/companysearch.html

These company cases reveal that in the financialized firm retained earnings are being hollowed out through a combination of dividends and share buy-backs. The recycling of treasury stock complicates matters because net retained earnings and shareholder equity balances inflate when treasury stock is deployed to finance acquisitions. However when market to book value multiples average 2.5:1 in the US[2] it is likely that merger and acquisitions, financed in part with treasury stock, will continue to inflate the accumulation of goodwill ahead of retained earnings.

[2] This data is taken from Stern NYU, Price and Value to Book Ratio by Sector (US)
http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/pbvdata.html

## 4. Concluding remarks

The policy shift from HCA to FVA by the FASB continues to be supported by practitioners, that is, users and preparers of accounting statements. The academic debate has centred on whether HCA and FVA generates reliable and transparent accounting disclosures to investor's thereby promoting capital market efficiency. FVA continues to be defended on grounds that it generates a neutral 'faithful representation' of a reporting entities financial position and contributes to the efficient functioning of capital markets. Arnold (2009) suggests that accounting is not simply a neutral process and McSweeney urges accounting academics to construct alternative contextual frameworks within which to critically evaluate the impact of accounting on society. Hopwood (2009) setting out a broader challenge: how has FVA been 'operationalized in calculative terms'? And what are the 'inherent ambiguities' and 'wider consequences' of adopting FVA?

The purpose of this paper has been to evaluate the installation of FVA within the context of the 'financialized firm' and we employ this framing device to reveal how changes in calculative and reporting practice have the potential to undermine the financial integrity of firms. FVA inflates asset values in current time by bringing forward future earnings either as market values derived from active secondary asset markets or judgements that mimic these speculative secondary asset market conditions. Fair value adjustments to a firm's assets *are speculative* because short-run changes in expectations about earnings and discount rates can have a material impact on valuations in current time. Asset value impairments are always a possibility when capital markets are volatile and as Plihon (2002) observed line items in a firms financial statements are inter-connected and it is possible that relatively

immaterial changes to one line item can have a material and compounding impact elsewhere in the financial statements.

In the financialized firm retained earnings after deducting treasury stock balances are being hollowed out in the S&P500 and this undermines capacity to absorb potential asset value impairments. US regulations governing the distribution of profits and maintenance of capital have, according to Booth (2005) not been robust, for example, the financial tests for approving distributions requires assets exceed liabilities but this general rule can be overturned in the articles of incorporation. Moreover, distribution tests are further complicated because FVA will tend to inflate the value of assets held on balance sheet relative to liabilities so that a positive net assets test can be always delivered if the market value of assets accelerates ahead of liabilities.

Zeff observed in 'The Rise of Economic Consequences' that: 'until recently, accounting policy making was either assumed to be neutral in its effects, if not neutral, it was not held out to the public as being responsible for these effects. Today, these assumptions are being severely questioned (Zeff, 1978, p.56). In 1978 Zeff concluded that: 'Although its decisions (referring to the FASB) should rest- and be seen to rest-chiefly on accounting considerations, it must also study - and be seen to study - the possible adverse economic and social consequences of its proposed actions' (Zeff, 1978, p.63). The FASB makes a distinction between the economic consequences of adopting new financial reporting standards and evaluating the costs and benefits of accounting standards to investors. The FASB sees its role as that of promoting well-informed investors and that 'the economic consequences of a

new financial reporting standard are separate and distinct from an analysis of costs and benefits relating to the adoption of a new standard' (FASB, website[3])

FVA continues to be supported by both the preparers and users of accounting information because it is assumed to generate neutral, reliable and value relevant information to investors and this, in turn, promotes capital market efficiency. In this paper we construct an alternative contextual framework within which to evaluate changes to financial reporting standards 'the financialized firm'. This contextualization is employed to explore how FVA has been 'operationalized in calculative terms' and how it generates 'inherent ambiguities' (Hopwood, 2009). In this paper we argue that arrangements governing the stress testing of financial reporting in the interests of investors and capital market efficiency is not commensurate with preserving the financial integrity of firms a limiting hazard to society.

[3] http://www.fasb.org/jsp/FASB/Page/SectionPage&cid=1351027336339

References

Andersson, T., Haslam,C., Lee, E & Tsitsiannis, N .(2008). Financialization directing strategy. *Accounting Forum* 32 (4) (2008), pp.261-275.

Arnold, P. J. (2009). Global financial crisis: The challenge to accounting research. *Accounting, Organizations and Society,* 34(6-7) (2009), pp.803-809.

Baker, R., & Schulte, S. (2016). Representing the market perspective: Fair value measurement for non-financial assets. *Accounting, Organizations and Society*, (2016*) in press.*

Barth, M. E. (2007). Standard-setters, measurement issues, and the relevance of research. *Accounting and Business Research* 37(3(2007), pp.7-15.

Barth, M, E & Landsman, W.R. (2010). How did Financial Reporting Contribute to the Financial
Crisis? http://www.bde.es/f/webpi/SES/seminars/2010/files/sie1007.pdf

Basel Committee. (2011). Basel III: A global regulatory framework for more resilient banks and banking systems, Bank for International Settlements.
http://www.bis.org/publ/bcbs189.pdf

Baxter, W.T., & Davidson, S (1977) Studies in Accounting, Institute of Chartered Accountants in England and Wales (ICAEW)

Biondi, Y. (2011). The Pure Logic of Accounting: A Critique of the Fair Value Revolution. *Accounting, Economics, and Law*: *A Convivium,* 1(1)(2011) Article 7.

Biondi, Y. (2012). What Do Shareholders Do? Accounting, Ownership and the Theory of the Firm: Implications for Corporate Governance and Reporting. *Accounting Economics and Law A Convivium*, 2(2): Article 5.
http://www.degruyter.com/view/j/ael.2012.2.issue-2/2152-2820.1068/2152-2820.1068.xml

Biondi, Y & Giannoccolo, P. (2015).Share price formation, market exuberance and financial stability under alternative accounting regimes. *Journal of Economic Interaction and Coordination,* 10(2) (2015), pp.333-362.

Booth, R.A. (2005) Capital Requirements in Unites States Corporation Law
http://digitalcommons.law.umaryland.edu/cgi/viewcontent.cgi?article=1013&context=fac_pubs

Bougen, P.D & Young, J (2012) Fair value accounting: Simulacra and simulation, *Critical Perspectives on Accounting*, 23(4-5) (2012), pp.390-402.

Bowman,A., Erturk,I., Folkman,P., Froud,J., Haslam,C.,Johal,S., Leaver,A., Moran,M., Tsitsianis,N., & Williams,K. (2015) *What a waste: Outsourcing and how it goes wrong*. Manchester Capitalism, Manchester University Press.

Chambers, R. (1965). Measurement in Accounting. *Journal of Accounting Research*, 3(1) (1965), pp.32-62.

Chambers, R. (1966). *Accounting, Evaluation and Economic Behavior* , New Jersey: Prentice-Hall.

CFA. (2010) Summary of CFA Institute Member Surveys https://www.cfainstitute.org/ethics/Documents/survey_summary_for_fasb.pdf

Clarke, T. (2013). Deconstructing the Mythology of Shareholder Value: A Comment on Lynn Stouts 'The Shareholder Value Myth', *Accounting, Economics and Law- A Convivium* 3(1) (2013), pp.15–42.

Ding, Y., J. Richard & H. Stolowy. (2008). Towards an understanding of the phases of goodwill accounting in four Western capitalist countries: From stakeholder model to shareholder model. *Accounting, Organizations and Society,* 33(7-8) (2008), pp.718-755.

Ditchev, I.D & Penman, S (2007). *On the Balance Sheet Model of Financial Reporting*. Columbia Business School, Centre for Excellence in Accounting and Security Analysis. http://www8.gsb.columbia.edu/sites/ceasa/files/files/Dichev_final.pdf

Edwards, E & Bell, P. (1964). *The theory and Measurement of Business Income*, University of California Press, Berkeley and Los Angeles.

FASB Financial Accounting Standards Board (2008) Some Facts about Fair Value http://www.fasb.org/cs/BlobServer?blobkey=id&blobwhere=1175818822672&blobheader=application%2Fpdf&blobcol=urldata&blobtable=MungoBlobs

FASB Statement of Financial Accounting Standards (SFAS 157) 'Fair Value Measurements' (2010) http://www.fasb.org/cs/BlobServer?blobkey=id&blobwhere=1175823288587&blobheader=application/pdf&blobcol=urldata&blobtable=MungoBlobs

FASB Statement of Financial Accounting Standards (SFAS 141 revised 2007) 'Business Combinations': (2010) http://www.fasb.org/cs/BlobServer?blobkey=id&blobwhere=1175823288072&blobheader=application%2Fpdf&blobcol=urldata&blobtable=MungoBlobs

FASB Statement of Financial Accounting Standards (SFAS 142) Goodwill and Other Intangible Assets: (2010) http://www.fasb.org/cs/BlobServer?blobkey=id&blobwhere=1175823288238&blobheader=application%2Fpdf&blobcol=urldata&blobtable=MungoBlobs

FASB (2014) The FASBs Cost-Benefit Analysis, FEI-CFRI Conference http://www.fasb.org/cs/BlobServer?blobkey=id&blobnocache=true&blobwhere=1175831993044&blobheader=application%2Fpdf&blobheadername2=Content-Length&blobheadername1=Content-Disposition&blobheadervalue2=225614&blobheadervalue1=filename%3DFEI_CFRI_cost_benefit_11-17-14_-_FINAL.pdf&blobcol=urldata&blobtable=MungoBlobs

Froud, J, Haslam, C, Johal S, & Williams K. (2000). Shareholder Value and Financialization: Consultancy Promises, Management Moves. *Economy and Society*, 29(1) (2000), pp.80-110

Froud, J, Johal, S, Leaver, A & Williams, K. (2006). *Financialization and Strategy: Narrative and Numbers. London:* Routledge, Taylor and Francis.

Haslam, C, Andersson, T, Tsitsianis, N & Yin, Y.P. (2012.) *Redefining Business Models: Strategies for a Financialized World*. London: Routledge, Taylor and Francis.

Haslam, C, Tsitsianis,N., Hoinaru,R., Andersson, T & Katechos, G. (2015.) Stress Testing International Financial Reporting Standards (IFRS): Accounting for Stability and the Public Good in a Financialized World. *Accounting, Economics and Law- A Convivium* In press http://www.degruyter.com/printahead/j/ael

Hopwood, A. G. 2009. The economic crisis and accounting: Implications for the research community. *Accounting, Organizations and Society* 34(6-7) (2009), pp.797-802.

Institute of Chartered Accountants in England and Wales (ICAEW, 2014): The Effects of Mandatory IFRS Adoption in the EU: A Review of Empirical Research. http://www.icaew.com/~/media/Files/Technical/Financial-reporting/Information%20for%20better%20markets/IFBM/effects-of-mandatory-ifrs-adoption-oct2014-execsum.pdf.

Institute of Chartered Accountants in England and Wales (ICAEW, 2015): Moving to IFRS reporting: seven lessons learned from the European experience, http://www.icaew.com/~/media/corporate/files/technical/financial%20reporting/ifrs/ifrs%20lessons%20learned/tecpln13897-7%20ifrs%20in%20the%20eu-final-web.ashx

Keynes, J.M. (1935) The General Theory of Employment, Interest, and Money, Palgrave Macmillan http://cas.umkc.edu/economics/people/facultypages/kregel/courses/econ645/winter2011/generaltheory.pdf

King A.M. (2009). Determining fair value. *Strategic Finance*, (1) (2009), pp.27-32

KPMG (2010) Intangible Assets and Goodwill in the context of Business Combinations https://www.kpmg.com/PT/pt/IssuesAndInsights/Documents/Intangible-assets-and-goodwill.pdf

Kripner, G, R. (2005). The financialization of the American economy. Socio - Economic Review, 3 (2) (2005), pp.173-207

Lazonick, W. (2011). Reforming the Financialized Business Corporation, http://50.87.169.168/Documents/EPRN/Lazonick-Reforming-the-Financialized-Corporation.pdf

Lazonick, W. (2013).The Financialization of the U.S. Corporation: What Has Been Lost, and How It Can Be Regained. http://fiid.org/wp-content/uploads/2012/10/Lazonick-Financialization-of-the-US-Corporation-20121029.pdf

Lazonick, W. (2014). Profits Without Prosperity, Harvard Business Review, September https://hbr.org/2014/09/profits-without-prosperity

Laux, C & Leuz, C. (2009).The crisis of fair-value accounting: Making sense of the recent debate. *Accounting, Organizations and Society,* 34(6-7) (2009), pp.826-834.

Littleton A. C. (2011). Economists and Accountants. *Accounting, Economics, and Law: A Convivium* (2) (2011) Article 2.

McSweeney, B. (2009). The roles of financial asset market failure denial and the economic crisis: Reflections on accounting and financial theories and practices. *Accounting, Organizations and Society* 34(6-7) (2009), pp.835-848.

Morgan, G. (1988). Accounting as reality construction: Towards a new epistemology for accounting practices, *Accounting, Organizations and Society*, 13(5) (1988), pp.477-485.

Müller, J. (2014). An accounting revolution? The financialisation of standard setting, *Critical Perspectives on Accounting,* 25(7) (2014), pp.539-557

Palea, V. (2015). The political economy of fair value reporting and the governance of the standards-setting process: Critical issues and pitfalls from a continental European-Union perspective. *Critical Perspectives on Accounting*, 29 (June 2015), pp.1-15

Penman, S. (1973). A framework for the development of a theory of Financial Accounting. *University of Queensland papers*, Vol. (2) (1973). https://espace.library.uq.edu.au/view/UQ:221172/HF5625_P46_1973_v2no4.pdf

Plihon, D. (2002). Rentabilite´ et risque dans le nouveau régime de croissance. Commissariat Général du Plan – No. 69, October. http://www.ladocumentationfrancaise.fr/var/storage/rapports-publics/024000552.pdf

Power, M. (2010). Fair value accounting, financial economics and the transformation of reliability. *Accounting and Business Research* 40 (3) (2010), pp.197-210.

Ronen, J. (2008.) To Fair Value or Not to Fair Value: A Broader Perspective, *ABACUS*, 44 (2) (2008), pp.181-208

Ryan, S.G. (2008).Fair Value Accounting: Understanding the issues raised by the Credit Crunch. Council of Institutional Investors, New York US
http://www.sib.wa.gov/information/pr/white_paper.pdf

Solomons, D (1961) Economic and Accounting Concepts of Income, Accounting Review, July.

Stout, L. (2012). New Thinking on 'Shareholder Primacy. *Accounting, Economics, and Law: A Convivium*, 2 (2) (2012), article 4

Veblen, T (2005). *The Theory of Business Enterprise*: Cosimo Inc, New York

Wall Street Journal. (2009). Pfizer to Pay $68 Billion for Wyeth, Jan.26th
http://www.wsj.com/articles/SB123293456420414421

Watkins, J.P. (2015). Financialization and Society's Protective Response: Reconsidering Polanyi's Thesis. Annual Meetings Association for Social Economics Boston, MA January 4.

file:///C:/Users/Duncan/Downloads/FinancializationAndSocietysProtectiv_preview%20(2).pdf

Whitely, R. (1986). The transformation of business finance into financial economics: The roles of academic expansion and changes in US capital markets, *Accounting, Organizations and Society,* 11(2) (1986), pp.171-192.

Zeff, S. (1978). The Rise of Economic Consequences, The Journal of Accountancy, Dec
http://business.illinois.edu/doogar/ACCY493/Zeff%201978%20JOA.pdf