



School of Management, Royal Holloway University of London

Working Paper Series

SoMWP-0902

**Is Denial of the Possibility of Financial Asset Market Failure
Responsible for an Economic Holocaust**

Brendan McSweeney

February 2009

The School of Management Working Paper Series is published to circulate the results of on-going research to a wider audience and to facilitate intellectual exchange and debate. The papers have been through a refereeing process and will subsequently be published in a revised form. Requests for permission to reproduce any article or part of the Working Paper should be sent to the publisher of this series.

The School of Management, Royal Holloway University of London has over 65 academic staff who are organised into different research groups. Currently research groups include:
Accounting, Finance and Economics
Strategy and International Business
Marketing
Technology and Information Management
Organisation Studies and Human Resource Management
Public Services Management

The School also has about 60 research students attached to the various research groups. A strong theme of research in the School is its international and comparative focus.

Copyright © B. McSweeney

ISBN: 978-1-905846-26-9

Published by:
The School of Management,
Royal Holloway University of London
Egham Hill
Egham
Surrey TW20 0EX

Is Denial of the Possibility of Financial Asset Market Failure Responsible for an Economic Holocaust

* Brendan McSweeney, School of Management, Royal Holloway, University of London
Egham, Surrey TW20 0EX, United Kingdom
Email: brendan.mcsweeney@rhul.ac.uk

* Corresponding author

Abstract

Throughout the world every economic and socio-economic indicator has deteriorated. The so-called ‘real economy’ has been deeply contaminated by the most significant global financial crisis for seven decades. The ultimate extent and duration of this rampant degeneration and its longer-term political effects are unpredictable. What caused the crisis? This paper examines a range of suppositions made in theories which deny the possibility of financial asset market failure and identifies ways in which they contributed to the circumstances and actions which created the current crisis.

Keywords: credit crisis, incentives, irrationalities, leverage, light-touch, market failure denial, regulation, shareholder value, short-termism, speculation, toxic assets

Is Denial of the Possibility of Financial Asset Market Failure Responsible for an Economic Holocaust

BRENDAN McSWEENEY, School of Management, Royal Holloway, University of London

INTRODUCTION: - GENESIS

The crisis, it seems, was triggered by a bursting housing bubble, principally but not exclusively, in the United States (US). This led not only to huge mortgage defaults but exposed immense levels of other 'toxic' assets (i.e. hugely overvalued complex composites of insecure mortgages, credit card and store loans, and other credit bricolage whose expansion had been encouraged by confidence in ever rising house prices). The result was enormous losses by financial institutions in many countries, not just in the US but mainly also, but not exclusively, in number of European countries, as financial liberalization had enabled the transnational buying and selling of these toxic assets. Outside of the US, international capital flows are predominantly in the greater Europe area and thus the international dispersion of toxic assets was not worldwide (Thompson, 2008). Their geographical origin, however, was mainly in Anglo-American countries where consumption of goods and services had increasingly been maintained by the expansion of personal borrowing rather than by wages and salaries constrained or diminished by considerable outsourcing to China (or elsewhere) and by dilution of employee protection.

In these countries there was "privatized Keynesianism" (Crouch, 2008). In place of a considerable portion of potential government spending, including investment - much of which could have been financed by curtailing the enormous tax privileges of the super-rich (Toynbee and Walker, 2008) - the process was "privatized". It relied on the credit-based consumption of Anglo-American lower and middle-income families. In the UK, for example, between 1998 and 2007 the borrowing to personal income ratio rose by 48% (Barrel, Hurst and Kirby, 2008). During the same period this ratio fell marginally in Germany. In June 2008, the UK's National Statistics Office reported that UK households in total now owe a higher portion of their income in debt than has been the case for any other developed economy at any point in history (Watson, 2008).

But the collapsing housing bubble was neither a necessary nor a sufficient event to have created the current crisis. Periods of financial stress have not always been followed by recessions or even by economic downturns (International Monetary Fund, 2008). Financial institutions with adequate reserves would have been able to withstand the shocks without restricting lending. But too many were over-exposed not only because of their careless acquisition of "toxic assets" but also as a result of: unwise and overly speculative activities; "light touch" regulatory de-emphasis on risk constraints, such as required reserve ratios; and the disgorging of immense amounts of cash as bonus payments. Although much media commentary on executive pay has focused on that of CEO's in non-financial corporations, the pay of many 'professionals' in financial asset

markets (hereafter ‘financial markets’) was far greater. By one estimate, the top 20 hedge fund managers earned more in 2005 than all 500 CEO’s of the S&P 500 (Kaplan, 2008).¹ The ‘wages’ of the financial markets’ “ringmaster class” (Blair, 2008, p.2) were astronomical.

Liabilities – often camouflaged by complex ‘innovations’ which many bankers and regulators apparently did not understand - were piled on very slender asset bases. Losses (known and unknown), exposure, and fear caused over-leveraged financial institutions to restrict lending to each other and to non-financial institutions who were also over-leveraged because of the dividend and stock buy-back demands of financial markets leading to further declines in asset prices, creating more losses, more fragility – and so on. A vicious circle of deleveraging and capital rationing commenced creating a self-reinforcing downward spiral in financial and other markets. The full consequences, depth and duration of this ‘domino-effect’ are, as yet, uncertain.

In theories which deny the possibility of market failure, and specifically financial market failure, this crisis was supposed to be impossible. The occurrence of minor deviations from ‘fundamental’ values and occasional localised speculative bubbles was sometimes acknowledged, but it was held that provided markets are uninhibited by government, or other ‘constraints’, self-correction and on-going growth were inevitable. Financial markets were deemed to be self-optimizing, accurately valuing assets and achieving optimal resource allocation. Disturbances were supposed to be always exogenous, never endogenous, and rapidly and effectively absorbed. Markets, it was said, move naturally towards an equilibrium state which is also the optimal state. In short, there was supposed to be a blissful conjunction of economic growth and public welfare.

Contrary to these denials of the possibility of the failure of contemporary financial markets, financial markets have failed. This paper will consider three properties of financial markets which enabled that failure.

1. FAILURE BY SIGNAL

Rather than providing failure-avoiding information, financial markets create information which leads to market failure.

A fundamental supposition of the theories which deny the possibility of market failure is that asset prices reflect effective analysis of the necessary information required to calculate the correct prices. Misguided or ill informed analysis by some individual buyers and sellers of financial assets are deemed possible but never on a sufficient scale to undermine the accuracy of the prices determined by the aggregate buying, selling, and holding. A financial market is conceived in market failure denying theories as an optimally efficient and effective discovery procedure for processing, concentrating, and concisely transmitting (via price signals) correct valuations of assets.

There are a number of fundamental problems with this view of the epistemic capability of financial markets, namely: (a) the existence of uncertainty; (b) over-reliance on past experience; and (c) irrational analysis and actions. Even if it is supposed that financial

market activists always act rationally, market failure is still possible (Keynes, 1936; Minsky, 1992). However, that possibility is all the greater because there is extensive evidence of irrational analysis and actions by ‘investors’.

Uncertainty: Consumption goods are valued on benefits to be immediately received, financial assets are valued on disparate (heterogeneous) expectations about the future whose content is never wholly predictable. Notions of asset valuation which neglect uncertainty imply no novelty, no effects of human reflexivity, and therefore no surprises. George Soros calls the denial of uncertainty in financial markets “absurd” (2003, p. 3). Frank H. Knight observes that: “contingency or ‘chance’ is an unanalyzable fact of nature” (1965, p. lxiii). John Maynard Keynes states that: “our knowledge of the factors which will govern the yield of an investment some years hence is usually very slight and often negligible” (1936, p. 149). In the real world “forecasting is difficult if it really is about the future” (McCloskey, 1991). Uncertainty cannot be analyzed away. Choices made in real time are never made with complete information. Extensive and often significant unpredictable and unanticipated events occur. So, errors in valuations, which are based on expectations, will also be extensive and significant. In short, because of ineliminable ignorance of the future an optimum equilibrium is not consistently attainable.

The notion of the unbiased determinacy of the future by financial markets is inflated to an even higher imaginary level by the claim that share prices are the discounted value of future cash flows or of expected future cash flows. The future is supposedly predictable with such certainty that future circumstances and future actions are known with such precision that all future cash flows, interest rates, and so forth are knowable, albeit not by individuals but by ‘the’ market, and thus can be systematically discounted. Many textbooks and some scholarly journal articles provide unrealistic examples of a perfectly predictable world, knowable, indeed quantifiable, through discounted cash flow analysis. But such perfect knowledge, as King (1975) states, is that which “only God could provide”.

Overreliance On Past Experience: Prior to current crisis, circumstances increasingly encouraged an over-optimistic view of the future based on past experience. World-wide there was a long period of relative stability. In the United States, for instance, up until and into 2008, only five quarters in the past twenty two years exhibited declines in GDP and those declines were small. Many economists spoke of the “Great Moderation” - the idea that financial systems and the global economy had become so stable and sophisticated that they were free of volatility (Giannone, Lenza and Reichlin, 2008). Notwithstanding the 15 occasions on which there were first magnitude stock market crashes in the 20th century (Bruner and Carr, 2007), the general trend in the later part of that century was robustly upwards and many financial market activists had never “seen a world where almost all asset classes could swing widely in value” (Tett, 2008). This reinforced beliefs that financial market valuations would continue to rise in value. Financial market valuations were increasingly self-created. Consequently, Alan Greenspan observes, people experiencing such lengthy growth or stability “are prone to excess” (2005). As in Keynes’s famous “beauty contest” analogy, market activists

anticipating the average, and in this context over-optimistic, and over-confident, opinion of future financial asset prices, drove those prices up ever further.²

The exuberant view was also encouraged by widely employed asset pricing models, such as the Capital Asset Pricing Model, which predict that a permanent decline in fundamental volatility ultimately results in a permanent decline in financial market volatility (Campbell, 2005). Even holders of financial assets who were wary of long-term prospects had incentives to buy because they thought they could sell the assets in the short term to others (“the greater fools”) with more optimistic long-term beliefs. Optimism was also reinforced by the apparent rapidity of “corrections”. The severe over-reaction to the .com exuberance did not have sustained major impacts in the ‘real’ economy. Interest rates were quickly reduced, the hedge fund *Long Term Capital Management* was rapidly rescued in 1998, and the general upward rise in share prices soon returned.

But ultimately over-optimism is not durable, it pushes markets towards instability (Keynes, 1936; Minsky, 1992). Instability is endogenous to financial markets. The rosy view reduced risk premia and encouraged ever more leverage and speculation. Instead of tempering that excess and providing sober assessment, financial markets were fuelled by excess and fuelled excess.

Irrationality: The emergence and inevitable collapse of unfettered speculative bubbles can be explained without depicting financial market activists as irrational.

However, there is a long-standing and immense body of empirical studies demonstrating that financial markets are also characterised by irrationalities which further fuel the conditions and practices which ultimately lead to catastrophic destabilization. Identified irrationalities include: psychological contagion leading to irrational exuberance (Shiller, 2000); herd mentality (Arthur, 2000); panics and over-reaction to prospects of losses (Campbell and Limmack, 1997); a range of seasonal and day-of-the-week patterns (Cho, Linton, and Whang, 2007; French, 1980; Pettengill, 2003; Keim and Stambaugh, 1984; Wang et al., 1997, and so on). At times, “massively confused investors” make “conspicuously ignorant choices” (Rashes, 2001). Whether study of these irrationalities can provide superior ‘investment’ strategies or not is not of concern here. What the findings demonstrate is that financial markets are not characterised by the rational signalling capability necessary to exclude the possibility of market failure.

Although financial market valuations are not entirely at all times and in every instance determined by untethered emotions, rumours, and ignorance, financial markets do not have an endogenous ability to limit the effects of these characteristics and are thus not self-adjusting. Markets are ongoingly created by people, not by nature. The idea that financial markets always effectively price assets encouraged speculative purchasing in times of rising prices and contributed to the growth of speculative bubbles. It also discouraged central banks from attempting to prick asset price bubbles.

2. FAILURE BY UNRESTRAINED PURPOSE

Weakly regulated financial markets are unbalanced and encourage a lack of balance

Speculative “bubbles on a steady stream of enterprise” do not necessarily become “the bubble on a whirlpool of speculation” (Keynes, 1936, p. 159) but in many countries financial markets which always contain elements of speculation became speculative markets. How was this possible?

Financial market failure denial was the bedrock of two related processes over the past few decades: the hollowing-out of regulatory constraints and the domination of corporate governance policies by the notion of maximizing shareholder value. Both not merely enabled greater speculation but also encouraged it.

De-regulation and Non-regulation: it has been argued that the crisis is not evidence of market failure but of the adverse consequence of ‘interference’ in markets. The President of the Czech Republic, which assumed the presidency of the European Union for the first half of 2009, for instance, states that “economic crisis should be regarded as an unavoidable consequence and hence a “just price” we have to pay for immodest and overconfident politicians playing with the market” (Klaus, 2009). But the growth in massive speculative bubbles (in financial and other markets) occurred within an era of: (a) radical reduction in regulation³ -“light-touch” regimes; and (b) the growth of an ever-larger portion of financial markets free of most regulations. At the end of 2007 roughly 11,000 essentially unregulated, mainly unaudited, and largely off-shore domiciled hedge funds worldwide controlled about⁴ \$2,250 billion in assets. The largest 3% of hedge funds accounted for three-quarters of total hedge fund assets in 2007 (International Financial Services London, 2008). The extent to which these regulatory changes occurred varied between countries, but everywhere the trend was towards dilution. Both changes were largely premised on a belief in the efficacy of ‘free’ markets. Although rarely directly ‘captured’ by specific financial institutions, too often regulators and the executive branch of governments, from which few regulators were effectively independent, were in thrall to an unreal and romanticised notion of markets and thus were ‘captured’ by financial markets. Thus, rare interventions were largely aimed at reinforcing not correcting markets.

An obsession with regulatory failure meant blindness about market failure as encapsulated in a famous statement by US president Ronald Reagan: “government is not the solution to our problem; government is the problem” (1981). Regulatory oversight was seen as the mere views of individuals inherently inferior to the mighty epistemic capability of markets. On the other hand, whatever individual market participants did was perceived to feed into that reified epistime and therefore to be beyond critique or questioning. Where it really mattered there was little oversight, in effect unregulating regulation which enabled and legitimated excess and ultimately led to failure. As the IMF recently observed, “economies with more-arm’s length or market-based financial systems seem to be particularly vulnerable to sharp contradictions in activity in the face of financial stress” (2008, p. xiii). The collapse and contamination began in the most

liberalized financial markets. Self-destruction not self-correction has been the outcome. An idealized system said to sustain and enhance “desirable” effects and to estop “undesirable” ones (Bator, 1958) has been revealed as one capable of disintegration and blighting of product and service markets.

Shareholder Value: More than 70 years has not dimmed the topicality of the long-running debate first highlighted by Berle and Means (1932) about what should be the central purpose of corporations. But in the era of financial market de-regulation and non-regulation, the idea that corporations (financial and non-financial) should be run with the primary, even exclusive, goal of maximizing the valuation of each corporation by financial markets – usually termed ‘maximizing shareholder value’ – came to dominate corporate governance regimes and wider aspects of the political economies first in Anglo-American countries and increasingly in many other countries (Jürgens, Naumann and Rupp, 2000; Morin, 2000; O’Sullivan, 2007; Rose and Mejer, 2003).

That purpose leads, it was said, to superior corporate and national economic performance (Hansmann and Kraakman, 2001). And through ‘trickle-down’, and other processes, everyone would benefit – the ‘rising tide would lift all boats’ (Sperling, 2007). Except in abnormal circumstances, the maximizing shareholder value norm is legally virtually unenforceable, even in Anglo-American countries. The Supreme Court in Delaware, for instance, a state in which the great majority of large US corporations have their legal headquarters, has frequently stated and implied that “there are few decisions not involving outright self-dealing [by management] that shareholders could enjoin boards from making” (Marens and Wicks, 1999, p. 280). For example, in *Aronson v. Lewis* [1984], the Court stated that “[a] cardinal precept of [Delaware law] is that directors, rather than shareholders, manage the business and affairs of the corporation”. The “business judgment rule” makes legal enforcement of maximizing shareholder value virtually legally unenforceable. Although it was not a legal requirement, the context became much more favourable to maximizing shareholder value from a period around the early 1980s. Increased pressures and demands were in part driven and legitimated by highly contestable analysis, including inaccurate (Sternberg, 1994)⁵ definitions of property rights, and on partial and ahistorical data (Bugin and Copeland, 1997; Hansmann and Kraakman, 2001) - such that it became so widely accepted that many management (and other) textbooks simply assert, rather than argue for it (Bainbridge, 2006; Sundram and Inkpen, 2004). According to Hansmann and Kraakman, writing in 2001, “the triumph of the shareholder-orientated model of the corporation over its principal competitors is now assured”.

The corner-stone of this theory is that as financial markets always accurately value corporations, then focusing the activities of corporations towards maximizing valuation by financial markets is the most effective form of ‘corporate governance’. For the current crisis, this narrowing of corporate purpose had a two-fold impact. It greatly encouraged speculative activity in financial markets but it also misdirected corporations such that they were in a particularly vulnerable condition when the bubble(s) burst. How did this happen?

Demands for share price growth, and relatedly large dividend payments (and/or share buybacks to boost share prices) encouraged corporations to increasingly rely on external funds, rather than retained profits, so their debt ratios grew along with their vulnerability to a credit crunch. Corporations were urged to rely on debt rather than internal funds. This was seen as yet another means to force companies to “disgorge” cash into financial markets (Jensen, 1989, p. 11). But as Alan Greenspan has observed: “Highly leveraged institutions ... are by their nature periodically subject to seizing up as difficulties in funding leverage inevitably arise” (1999). Not every company de-emphasized “retain-and-reinvest”, but many did and the degree of pressure and incentives to do so varied between and within countries (O’Sullivan, 2000).

The desire for cash to feed financial markets drove extensive and persistent efforts to identify so-called ‘free cash flow’ through downsizing, de-layering, re-engineering, restructuring, and other actions (Ezzamel, Willmott and Worthington, 2008; Gaddis, 1997). Free cash not distributed to shareholders was said to be inefficiently used, to be wasteful. “For a company to operate efficiently and maximize value, free cash flow must be distributed to shareholders” (Jensen, 1989, p. 9). But often ‘waste’ cannot be readily distinguished from what is vital or enhancing. As Geroski and Gregg state: “it is very difficult to be sure whether overheads are ‘fat’ or ‘muscle’, particularly when some support services have subtle and potentially long-run effects on corporate performance” (1997, p. 14). Identifying ‘free’ cash flow requires unavailable knowledge about the future. To take an example, even if employees, say, are defined solely as an economic resource of, not stakeholders in, a corporation, would building affordable housing for some employees be a ‘waste’ of money which otherwise could have gone to shareholders (or top management), or would it increase morale and productivity thereby earning even greater cash?

Relying on the contestable notion that a corporation’s sole responsibility is to its shareholders and on an impractical view of analytical capability, Jensen, in a highly influential article, argued that a corporation should only invest in “projects that have positive net present values when discounted at the relevant cost of capital” (1986, p. 323). With less precision Milton Friedman had already stated that: “there is one and only one social responsibility of business and that is to make as much money for shareholders as possible” (1970). A range of certainty assuming calculative techniques explicitly claiming to increase shareholder value - generically called ‘value based management, with proprietary names, such as Economic Value Added (EVA™), Total Business Return, Cash Flow Return on Investment, Economic Value Management, and Discounted Economic Profits were widely promoted by consultancy firms, lauded by some academics, and acquired by a significant number of corporations. EVA™, said *Fortune* (1993), is “the real key to creating wealth ... it drives stock prices”.

But it is overwhelmingly impossible in advance, and very often in retrospect, to identify a causal link between a micro-level decision within a corporation and shareholder value. This is evident both from the conceptual defects in the notion of accurately calculating the discounted cash flow of corporate projects - this can only be done in the very rare circumstances of no uncertainty - and also from empirical evidence. In fact, just about

every study of the application of discounted cash flow techniques within organizations points to the absurdity of seeking to side-line complexity and uncertainty (Bower, 1972). Independent studies of the degree of correlation of EVA™ (and other variants) with the absolute level of changes in stock market valuations of companies find it is at best miniscule and often negative (Biddle, Bowen, and Wallace, 1997). For instance, a study of 582 US companies found a correlation in only 18 companies. In 210 companies the correlation was negative (Fernández, 2003). The extent to which value-based management programmes were heavily or lightly implemented varied (Francis and Minchington, 2002), but there were real effects. The supposition of certainty in these programmes discouraged innovation – a profoundly uncertain process (Schilling and Hill, 1998). Wasteful investments were avoided but so too were productive ones. More corporate time was committed to satisfying financial markets with consequent reductions on attention to product and service markets (Dodd and Johns, 1999).

Value based management schemes were part of a much wider and persistent search for cash extraction. CEOs benefited. In the US in 1980 average CEO pay was 42 times that of average worker pay, in 2006 it had rocketed to 364 times. Legitimizing this has been the rise of an extensive literature and a wide array of university courses significantly overvaluing the role of CEOs as leaders (Khurana, 2002). But what happened to the cash “disgorged” into financial markets? Participants in financial markets are usually referred to as ‘investors’. This implies that they are providing investment funds for corporations and thus have a vital role in resource allocation. The notion that shareholders ‘investments’ are investment funds for corporations is reinforced in the description by corporations, the media, and others of various payments to shareholders such as dividends and share buybacks as: “giving back shareholders their money”, “returning cash to shareholders” (Rappaport and Maubossin, 2001). But that cash does not come from the shareholders. In fact, shareholders are overall at most a miniscule source of funding for corporations (O’Sullivan, 2000).⁶ The investments by shareholders in their own assets through purchase of shares from other shareholders (secondary market trading) is confused with investment in a corporation (primary market). Only a miniscule quantity of shares traded is new investment, overwhelmingly it is trade of shares in an old investment. In bull markets trading temporarily seems to boost economic growth simply by increasing activity in the market and increasing speculation. But the accumulation of private financial assets through financial markets does not lead to finance being channelled into productive activities. The error of assuming that old investment is new investment remarkably has misinformed a significant financial market failure denying literature (see Shleifer and Vishny, 1997, for instance).

Increasingly, financial assets came to have, as it were, a life of their own. What occurred was what a number of commentators have called “financialization”: a “shift in the internal social relationships within states in favour of creditor and retainer interests, with the subordination of productive sectors to financial sectors” (Gowan, 1999, p. vii). In 1980, world nominal gross domestic product and the value of world financial stocks were about the same size, by 2006 the latter had become three and a half times larger than the former (Huffschnid, 2008). As virtually all of the ‘investment’ activity in financial markets was not investment in productive activities, what emerged was in effect a giant

global casino, albeit less regulated than most casinos, and with profound consequences. As significant speculative bubbles are not conceivable by financial market failure denying theories, the general rise in market valuations created an illusion that the increasing values wholly reflected improved corporate achievements and prospects. Gambling begat more gambling. Institutional shareholders who did not participate enthusiastically often got “the cold shoulder” from pension funds and others (Thrift, 2001). As Keynes said about long-term investors “[if] he is successful, that will only confirm the general belief in his rashness; and if in the short run he is unsuccessful, which is very likely, he will receive no mercy. Worldly wisdom teaches us that it is better for reputation to fail conventionally than to succeed unconventionally” (1936, 158-9). Maximizing shareholder value, a massively influential idea, instead of being a “virtuous cycle” (Bughin and Copeland, 1997) turned out to be a driver of a vicious speculative cycle.

3. INTERTEMPORAL CONSUMPTION FAILURE

Over powerful financial markets enable and induce both top management and financial market participants to behave myopically.

A specific dilemma for financial markets is the balance between short-term cash extractions from a corporation against that corporation’s longer term investment requirements. Market failure occurs when a non-optimal balance between these different temporal orientations is not attained. By supposing that financial markets are not myopic (Jensen, 1986; cf. Fuller and Jensen, 2002), financial market denial asserts that those markets either constrain corporations from sacrificing the longer-term through short-term focused but ultimately detrimental actions (such as costly inflations of the current bottom line or excessive dividend payments) or punish those few who briefly succeed. In that model, financial market pressure on corporations seeks only to eliminate undesirable investments and preserve and encourage worthy ones.

Shareholders: This supposes that shareholders are committed to the longer term. Oliver Williamson states that they “invest for the life of a firm” (1985, p. 304). But this relies on a fictional characterization of shareholders as a group which collectively shares that commitment. Even if it is supposed that each individual shareholder has stable preferences regardless of time or context (a depiction which is not necessarily correct) shareholders in general have diverse and conflicting interests and preferences based on their differing attitudes, preferences, risk aversions, liquidity desires and needs, degrees of portfolio spread, and life circumstances (Crespi, 2007). Shareholders relationships with a specific corporation may be very brief, and for many it often is. Each different generic conception of shareholders requires a different time-horizon to avoid market failure. The heterogeneous composition of shareholders debar an optimum framework and thus market failure is inevitable.

Even shareholders with a longer-term horizon have an incentive to seek short-term benefits from a corporation even if it is potentially detrimental to the corporation in the longer-term (through reduced investment and thus lower future dividend paying ability)

as they have no guarantee that the corporation will actually invest sufficient of the higher retained profits/cash, or do so effectively, so as to bring about a future increase in dividend payments.

The temporal influence of financial markets on corporations is conditioned by the specifics of national institutional contexts, albeit these are not deterministic and do not affect each company within the same country equally. In contexts which readily enable hostile takeovers, for instance, the incentive to invest for the longer-term is reduced. The constraint placed upon investment is that distributed profits/cash-flow must be sufficient to satisfy shareholders' demands and, moreover, high enough to ensure a strong share price which will discourage any attempt take over the corporation (Dickerson, Gibson and Tsakalotos, 1995).

Chief Executive Officers: Intertemporal consumption problems with uncertain future gains also adversely affect the behaviour of corporate chief executive officers (CEO) and of other top management. Even in the absence of stock market based remuneration schemes, and most especially in deregulated contexts, CEOs have an incentive to emphasise the short-term because: (a) they can be certain about remuneration they currently take but uncertain about future remuneration; (b) in the short-term they are in control (notwithstanding the role of remuneration/compensation committees, which is largely cosmetic)(Bebchuk and Fried, 2003); and (c) in the longer term, given the normal age of appointment to CEO positions, they are retired.

But the greatly increased use of stock option schemes⁷ linking of CEO, and other top management, remuneration with financial markets valuation of corporate stock has further intensified this short-term bias (Bolton, Scheinkman and Xiong, 2006). As a practice, stock market incentive schemes for top management which begun in the US, came to dominate in Anglo-American countries and also spread elsewhere albeit not always as extensively. Legislative changes in 1998 in Germany, for instance, significantly facilitated the implementation of stock option plans (Langmann, 2007). In 1980 stock options accounted for 19% of CEO remuneration in large United States corporations but it had risen to about 49% by 2000 (Lazonick, 2007). The logic of this 'agency cost' view of corporate governance is that without such incentives top management are opportunistic (line their own pockets), risk adverse (hoard excessive cash or near-cash), empire or prestige builders, and/or reckless. These managerial activities are variously described as: 'shirking', 'opportunism', 'moral hazards', 'vanity projects', 'tunnelling', and 'self-dealing' (Djankov, La Porta, Lopez-de-Silanes and Shleifer, 2008). Directly linking significant portions of the payments (usually euphemistically called 'compensation') of top management with financial markets is supposed to channel them "away from extracting opportunistic rent and towards maximizing shareholder value" (Devers, Cannella, Reilly, and Yoder, 2007). 'Excess' cash, for instance, could, it was argued be more efficiently reallocated by financial markets which would reallocate it to more productive purposes. The aim is "to motivate managers to disgorge the cash [to shareholders] rather than investing it at below cost or wasting it in organizational inefficiencies" (Jensen, 1986, p. 33). Amongst other things, this eulogy of financial markets ignores the fact that available evidence suggests that

corporations which are not controlled by financial markets performed at least as well as those which are (Fligstein and Choo, 2005) and relies on the normative justification of favouring shareholders interests, at the expense of other stakeholders.

What impact have these plans had on corporate performance and behaviour and what have been the consequences for financial market failure potential?

Performance: Identifying the relationship(s) between CEO (and other top management) pay and corporate performance is rather elusive as corporate performance is multifaceted and not just a consequence of top management decisions. It is also created by the actions of others within and outside corporations and by circumstances beyond the control of top management. But based on a review of 220 studies, Dalton, Daily, Certo and Roengpitya (2003) found “few examples of systematic relationships” between stock ownership and corporate performance. A meta-analysis of 137 CEO remuneration studies found that firm performance accounted for only 5% of the variance (Tosi, Werner, Katz and Gomez-Mejia, 2000). In 2007 average pay of top management of US public companies increased by 20.5% over 2006 earnings, but in the same period those corporations’ profits had, on average, increased by only 2.8% (Economic Research Institute, 2008). Froud *et al.* (2006) conclude that “top managers ... appear to be an averagely ineffectual officer class who do, however, know how to look after themselves.” Stock options, Yermack (1995), states have often ironically been “not so much an incentive device but a covert mechanism of self-dealing” the very process they were supposed to eliminate.

Behaviour: The general effect of stock market based incentive schemes has been to encourage short-term focused corporate decisions. Coles, Hertzler, and Kalpathy (2006), for instance, all found that such schemes motivate top management to emphasise short-term stock market valuation at the expense of long-term corporate value both weakening corporate investment⁸ and increasing the speculative component in share prices. Sanders and Carpenter (2003) found that these schemes motivate top management to redirect funds away from long-term investments towards stock repurchases. In 2005 Alan Greenspan in testimony to the US Federal Reserve Board observed that despite an exceptional rise in profits and cash flow investment lagged far behind such that the same configuration had last been seen in a deep recession in 1975.

Stock options have in the main encouraged, and been encouraged by, speculative activity in financial markets and increased the vulnerability to the credit crunch of those companies which through pressure and/or choice emphasized the “disgorging” of cash. They have intensified management focus onto pleasing, and at times manipulating, financial markets. Inevitably this has diverted attention away from where real value is created - product markets (Ellsworth, 2002; Stinchcombe, 2000). The short-term speculative orientation of many CEOs when combined with the short-term and speculative orientation of shareholders mutually reinforce each other.

Many factors have contributed to the liquidity problems currently being experienced by many corporations, not least a lending famine. However, but years of excessive payouts, especially in shareholder value dominated economies, where so much cash has been

disgorged to satisfy the short-term demands of financial markets created an over-reliance on borrowings rather than retained profits for investment funds. In the 1970s, dividend payouts of US corporations averaged 41.3%, by 2007 it had increased to 66.2% (US Congress, 2009, Table B-90), but as share buybacks have also increased substantially the effective “disgorging” of cash by companies has been even greater.⁹ The false justification for this increased cash flow into financial markets is that these markets perform a vital resource (re)allocation role by identifying and investing in activities which have the best productive prospects. But as we have seen that cash is not recycled back into productive activities. Instead it was been a major reason the increase in highly leveraged, and thus vulnerable to credit famine, corporations and for the immense and almost continuous redistribution of income and wealth to the rich since the 1980s (Offer, 2006; Toynbee and Walker, 2008). To enable this, the incomes of the non-elite have been constrained forcing ever more reliance on personal debt (Khoman and Weale, 2008)¹⁰ and this inequality breeds instability (Keynes, 1936).

National institutional contexts shape the level of, and changes in, retention rates. German corporations, for instance, pay out a lower portion of their cash flows than UK corporations (Andres, Betzer, Goergen and Rennebog, forthcoming). Low retention rates have contributed to market failure in three ways. First, by encouraging and facilitating greater market speculation. Secondly, by increasing corporate vulnerability to a credit crunch. Thirdly, by driving-up personal debt. In the ‘developed world’ countries which on average have lower retention rates also have higher levels of personal debt. These also are the countries which a range of organizations predict will be most badly affected by the downturn and which will be slowest to recover (European Commission, 2008; International Monetary Fund, 2008; Organization for Economic Cooperation and Development, 2008).

CONCLUDING REMARKS

Extensive financial market failure precipitated and continues to perpetuate widescale economic and social problems. This paper has sought to contribute to our understanding of the causes of the failure by examining three key failure enabling properties of financial markets.

For decades financial market failure denial has become the root of inter-governmental policies and actions and many national governments. Financial markets were increasingly and extensively liberalised almost everywhere. Market failure denial is an idea which periodically re-emerges to dominate political meta-narratives and policies. The most recent phase began around the 1980s, first in Anglo-American countries, but increasingly it spread, with varying degrees of intensity around the world. Yet again, as a description of the capabilities and effects of financial markets it has proven to be wildly wrong and constitutive of a reality it claimed would not happen.

Shifting the balance of governmental and corporate policy towards capital, and finance capital in particular, was justified on the grounds that everyone would benefit. The record shows that this was not the result (Brewster, Muriel, Phillips and Sibieta, 2008). It was also justified on a particularly narrow definition of the property rights of shareholders

(Stout, 2007). Elaine Sterberg, for instance, stridently asserted that using the resources of a corporation for anything other than in the interests of shareholders is “theft: an unjustified appropriation of the owners’ property ... That the diverted resources are applied to ends which are commonly regarded as laudable ... does not make the act of diverting them any less larcenous” (1994, p.41). And ‘theft’ indeed there was - but by finance capital not of finance capital. The consequences for many are already and will continue to be catastrophic. Only time will tell whether the concept of an economic holocaust is an accurate representation of what is to come. A weakening of speculative confidence in financial markets *or* of the supply of credit may cause economic collapse. The current crisis is a product of both combined. But as Keynes (1936, p. 158) observed about the last great crash, increasing credit availability (towards which much governmental activity is currently directed) though a necessary condition for recovery, is not a sufficient condition.

Intellectual errors of monumental proportions have been made as a result of denial of the possibility of financial market failure. The academic literature is peppered with many examples of warnings about the dangers of financial market failure denial. But this was ignored. On the other hand there is an extensive academic literature which encouraged excessive and inappropriate de-regulation and was insufficiently alert to the speculative characteristics of financial markets. Inappropriate regulations can have detrimental consequences, but acknowledgement of regulatory failure does not require denial of market failure. And yet this denial shaped many actions towards, and within, financial markets. To paraphrase Keynes, governments believing themselves to be quite exempt from academic influence were usually the slaves of mistaken academics. Much of that literature is technically sophisticated but illustrative that even remorseless logic if it is premised with a mistake can end up promoting grave policy errors.

About the author:

Brendan McSweeney, B Comm (NUI), PhD (LSE), FRSA is University of London Professor of Management based at Royal Holloway, a college of the University of London. Prior to becoming an academic he worked in a variety of fields including: central banking, commercial banking, and trade unions. Unlike many reckless top managers of banks, he has a banking qualification. His work has been published in major international journals including: *Accounting, Organizations & Society* (accounting/finance); *Journal of International Business Studies* (international business); *Human Relations* (social science); *The Political Quarterly* (political science); and *Organization Studies* (management). Other scholarly journals he has published in are: *Accounting Forum*; *Critical Perspectives on International Business*; *European Journal of Cross-Cultural Management*; *Journal of Organizational Change Management*; and *Strategic Change*. He is a member of the editorial boards of: *Accounting Forum*; *British Accounting Review*; *Organization Studies*; and *Critical Perspectives on International Business*. His most recent book is a jointly edited volume (with Chris Smith and Robert Fitzgerald) for Cambridge University Press - *Remaking Management: Between Global and Local* (2008). He has undertaken consultancy projects for a number of organizations including: Albert Fisher; Allied-Domecq; Banking, Insurance and Finance Union; Carlsberg-Tetley; Corus; Deloitte & Touche; Fisons; Electricity Supply Board Officers Association; GPT; the Japanese Government; Jardine Pacific; Manor Bakeries; PricewaterhouseCoopers; Ranks Hovis McDougall; Reed International; Saatchi & Saatchi/Cordiant; T&N; Transport & General Worker Union; and YKK.

References

- Andres, C. Betzer, A., Goergen, M. And Renneboog, L. (2008). Dividend policy of German firms: A panel data analysis of partial adjustment models, *Journal of Empirical Finance* (forthcoming).
- Arthur, T. (2000). Is the Stock Exchange a Casino? *Economic Affairs*, **20**, **4**, 42–45.
- Bainbridge, S. M. (2006). Director primacy and shareholder disempowerment, *Harvard Law Review*, **119.6**, 1735-1758.
- Barrell, R. Hurst, I. and Kirby, S. (2008). Financial crises, regulation and growth, *National Institute for Economic Review*, **206.1**, 56-65.
- Bator, F. M. (1958). The anatomy of market failure, *The Quarterly Journal of Economics*, **72-3**, 351-379.
- Bebchuk, L. and Fried, L. (2004). Pay without performance: The unfulfilled promise of executive compensation, London: Harvard University Press.
- Benink, H. and Benston, G. (2005). The future of banking regulation in developed countries lessons from and for Europe, *Financial Markets, Institutions & Instruments*, **14,5**: 289-328.
- Biddle, G. C., Bowen, R. M. and Wallace, J. S. (1999) Evidence on EVA, *Journal of Applied Corporate Finance*, **12.2**, 69-79.
- Black, F. and Scholes, M. (1973). The pricing of options and corporate liabilities, *Journal of Political Economy*, **81,3**: 637-654.
- Blair, A. (2008). *Costs and charges in unit trusts*, London: Royal Society of Arts.
- Bolton, P., Scheinkman, J. and Xiong, W. (2006). Executive compensation and short-termist behaviour in speculative markets, *Review of Economic Studies*, **73**, 577-610.
- Bower, J. L. (1972). *Managing the resource allocation process*, Homewood IL: Richard D. Irwin.
- Brewster, M., Muriel, A., Phillips, D. and Sibieta, L. (2008). *Poverty and inequality in the UK: 2008*, London: The Institute for Fiscal Studies.
- Bruner, R. F. and Carr, S. (2007). Lessons from the financial crisis of 1907, *Journal of Applied Corporate Finance*, **19.4**, 115-124.
- Bughin, J. and Copeland, T. E. (1997). The Virtuous cycle of shareholder value

creation, *The McKinsey Quarterly*, **2**, 156-167.

Campbell, K. and Limmack, R. J. (1997). Long-term over-reaction in the UK stock market and size Adjustments, *Applied Financial Economics*, **7.5**, 537-548.

Campbell, S. D. (2005). Stock market volatility and the great moderation, Finance and Economics Discussion Series, Federal Reserve Board, Washington, D. C.

Cho, Y-H, Lonton, O. And Whang, Y-J (2007). Are there Monday effects in stock returns: A stochastic dominance approach, *Journal of Empirical Finance*, **14**, 736-755.

Constantinides, G. M., Harris, M. and Stulz, R. M. (2003). Handbook of economics of finance, Elsevier.

Corbett, J. and Jenkinson, T. (1997). How is investment financed? A study of Germany, Japan, the United Kingdom and the United States, *The Manchester School Supplement*, **65**, 69-93.

Crespi, G. S. (2007). Maximizing the wealth of fictional shareholders: Which fiction should directors embrace?, *Journal of Corporation Law*, Winter, 381-427.

Crouch, C. (2008). What will follow the demise of privatized Keynesianism?, *The Political Quarterly*, **79.4**, 476-487.

Devers, C. E., Cannella, A. A., Reilly, G. P. and Yoder, M. E. (2007). Executive compensation: A multidisciplinary review of recent developments, *Journal of Management*, **33.6**, 1016-1072.

Dalton, D. R., Daily, C. M., Certo, S. T. and Roengpitya, R. (2003). Meta-Analysis of Financial Performance and Equity: Fusion and Confusion? *Academy of Management Journal*, **46.1**, 13-27.

Dickerson, A. P., Gibson, H. D. and Tsakalotos, E. (1995). Short-termism and underinvestment: The influence of financial systems, *The Manchester School*, **LXIII No. 4**, 351-367.

Dodd, J. L. and Johns, J. (1999). EVA reconsidered, *Business & Economic Review*, **April-June 1999**, 13-18.

Djankov, S., La Porta, R., Lopez-de-Silanes, F. and Shleifer, A. (2008). The law and economics of self-dealing, *Journal of Financial Economics*, **88**, 430-465.

Economic Research Institute, Press Release, February 15, 2008, available at http://www.erieri.com/index.cfm?FuseAction=NewsRoom.Dsp_Release&PressReleaseID=149

- Ellsworth, R. R. (2002). *Leading with Purpose: The New Corporate Realities*, Stanford: Stanford University Press.
- European Commission (2008). *Economic forecasts autumn 2008*, Brussels: Directorate-General for Economic and Financial Affairs European Commission.
- Ezzamel, M., Willmott, H. and Worthington, F. (2008). Manufacturing shareholder value: The role of accounting in organizational transformation, *Accounting, Organizations and Society*, **33**, 107-140.
- Fernández, P. (2003). EVA, Economic Profit and Cash Value Added Do Not Measure Shareholder Value Creation, *Journal of Applied Finance*, **9.3**, 74-94.
- Fligstein, N. and Choo, J. (2005). Law and corporate governance, *Annual Review of Law and Social Science*, **1**, 61-84.
- Fortune (1993). The Real Key to Creating Wealth, *Fortune*, September 20, 38-40.
- Francis, G. and Minchington, C. (2002). Regulating shareholder value: A case study of the introduction of value-based measures in a water company, *British Journal of Management*, **13**, 233-247.
- Friedman, M. (1970). The social responsibility of business is to increase its profits, *The New York Times Magazine*, September 13, 33.
- Froud, J., Johal, S., Leaver, A. and Williams, K. (2006). *Financialization and Strategy: Narrative and Numbers*, London: Routledge.
- Fuller, J. and Jensen, M. C. (2002). Just say no to Wall Street: Putting a stop to the earnings game, *Journal of Applied Corporate Finance*, **14.4**, 41-46.
- Gaddis, P. O. (1997). Strategy under attack, *Long Range Planning*, 30.1, 38-45.
- Geroski, P. A. and Gregg, P. (1997). *Coping With Recession: UK Company Performance in Adversity*, Cambridge: Cambridge University Press.
- Giannone, D., Lenza, M. and Reichlin, L. (2008). Explaining the great moderation: It is not the shocks, *Journal of the European Economic Association*, 6.2-3, 621-633.
- Gowan, P. (1999). *The Global Gamble: Washington's Faustian Bid for World Dominance*, London: Verso.
- Greenspan, A. (2005). Testimony of Chairman Alan Greenspan before the Committee on banking, Housing, and Urban affairs, U. S. Senate, February 16, 2005. Available at: <http://www.federalreserve.gov/Boarddocs/hh/2005/february/testimony.htm>

- Hansmann, H. and Kraakman, R. (2001). The end of history for corporate law, *Georgetown Law Journal*, **89**, 439-68.
- Huffschnid, J. (2008). Finance as driver of privatization, *Transfer*, **14.2**, 209-236.
- International Monetary Fund (2008). *World economic outlook*, Washington, DC, International Monetary Fund.
- International Financial Services London (2008). Hedge Funds 2008, IFSL Research, July. <http://www.ifsl.org.uk/output/ReportItem.aspx?NewsID=73>
- Jensen, M. C. (1986). Agency cost of free cash flow, corporate finance, and takeovers, *American Economic Review*, **76.2**, 323-329.
- Jensen, M. C. (1989). Eclipse of the public corporation, *Harvard Business Review*, **67.5**, 61-67.
- Jürgens, U., Naumann, K., and Ruoo, J. (2000). Shareholder value in an adverse environment: the Case of Germany, *Economy and Society*, **29.1**, 54-79.
- Kaplan, S. N. (2008). Are U. S. CEOs overpaid?, *Academy of Management Perspectives*, May, 5-20.
- Keim, D. B. and Stambaugh, R. F. (1984). A Further Investigation of the Weekend Effect in Stock Returns, *The Journal of Finance*, **39.3**, 819-835.
- Keynes, J. M. (1936). *The general theory of employment, interest and money*, London: Macmillan and Company.
- Khurana, R. (2002). *Searching for a corporate savior: The irrational quest for charismatic CEOs*, Princeton University Press.
- Khoman, E. and Weale, M. R. (2008). Are we living beyond our means?, National Institute of Economic and Social Research, Discussion Paper No. **311**.
- King, P. (1975). Is the Emphasis on Capital Budgeting Theory Misplaced? *Journal of Business Finance and Accounting*, **2.1**, 69-82.
- Klaus, V (2009). Do not tie the markets – free them, *Financial Times*, January 7, 2009.
- Knight, F. H. (1921). *Risk, Uncertainty and Profit*, Boston MA: Houghton Mifflin.
- Langmann, C. (2007). Stock market reaction and stock options plans: Evidence from Germany, *Schmalenbach Business Review*, **59**, 85-106.

- Lazonick, W. (2007). The US stock market and the governance of innovative enterprise, *Industrial and Corporate Change*, **16.6**, 983-1035.
- Manthorpe, R. (2008). *Tomorrow's investor*, London: Royal Society of Arts.
- McCloskey, D. (1991). Voodoo Economics, *Poetics Today*, **12.2**, 287-300.
- Minsky, H. (1992). The financial instability hypothesis, Working Paper 74, Annandale-on-Hudson, NY: The Levy Economics Institute of Bard College.
- Morin, F. (2000). A transformation in the French model of shareholding and management, *Economy and Society*, **29.1**, 36-53.
- Offer, A. (2006). *The challenge of affluence*, Oxford: Oxford University Press.
- Organization for Economic Cooperation and Development (2008). *Economic outlook no. 84*, Paris: OECD.
- O'Sullivan, M. (2000). *Contests for Corporate Control: Corporate Governance and Economic Performance in the United States and Germany*, Oxford: Oxford University Press.
- O'Sullivan, M. (2007). Acting out institutional change: Understanding the recent transformations of the French financial system, *Socio-Economic Review*, **5**, 389-436.
- Pettengill, G. N. (2003). *A Survey of the Monday Effect Literature*, *Quarterly Journal of Business and Economics*, **42.3/4**, pp. 3-28.
- Rappaport, A. and Maubossin, M. J. (2001). *Expectations investing*, Boston: Harvard Business School Press.
- Rashes, M. S. (2001). Massively confused investors make conspicuously ignorant choices, *The Journal of Finance*, **LVI no.5**, 1911-1927.
- Rose, C. and Mejer, C. (2003). The Danish corporate governance system: from stakeholder orientation towards shareholder value, *Corporate Governance*, **11.4**, 335-344.
- Sanders, W. G. and Carpenter, M. A. (2003). Strategic satisficing? A behavioral-agency theory perspective on stock repurchase program announcements, *Academy of Management Journal*, **46.2**, 160-178.
- Schilling, M. and Hill, C. (1998). Managing the New Product Development Process: Strategic Imperatives, *Academy of Management Journal*, **12.3**, 67-82.
- Shiller, R. (2000). *Irrational Exuberance*, Princeton: Princeton University Press.

- Shleifer, A. and Vishny, R. W. (1997). A survey of corporate governance, *Journal of Finance*, **52.2**, 737-783.
- Soros, G. (2003). *The Alchemy of Finance*, Hoboken NJ: John Wiley & Sons.
- Sperling, G. (2007). Rising-tide economics, *Democracy*, Fall, 2007, 1-4.
- Sternberg, E. (1994). *Just business*. London; Little, Brown & Co.
- Stinchcombe, A. L. (2000). Social structure and organizations: A comment, in J. Baum and F. Dobbin (eds.) *Economics meets sociology in strategic management, advances in strategic management*, Greenwich, CT: JAI Press.
- Stout, L. A. (2007). The mythical benefits of shareholder control, *Virginia Law Review*, **93**, 789-809.
- Sundram, A. K. and Inkpen A. C. (2004). The corporate objective revisited, *Organization Science*, **15.3**, 3 50-363.
- Thompson, G. (2008). The financial crisis: unorthodox thoughts, *Open Democracy*, **3** October 2008 <http://www.opendemocracy.net/node/46380/pdf>
- Thrift, N. (2001). 'It's the romance, not the finance, that makes the business worth pursuing' disclosing a new market culture, *Economy and Society*, **30. 4**, 412-432.
- Tosi, H. L., Werner, S., Katz, J. P. And Gomez-Mejia, L. R. (2000). How much does performance matter?: A meta-analysis of CEO pay studies, *Journal of Management*, **26.2**, 301-339.
- Toynbee, P. and Walker, D. (2008). *Unjust rewards*, London: Granta.
- US Congress (2009). *Economic report of the President*, Washington DC: US Government Printing Office.
- Watson, M. (2008). The split personality of prudence in the unfolding political economy of New Labour, *The Political Quarterly*, **79.4**, 578-589.
- Yermack, D. (2005). Do corporations award CEO stock options effectively?, *Journal of Financial Economics*, **39.2-3**, 237-269.

¹ In the UK, it has been estimated that a pensioner with a private pension will pay out 40% of their investment in fees over the lifetime of the investment (Manthorpe, 2008).

² Overconfidence is a frequently observed behavioural bias in psychological studies.

³ In the US, for example, in 1999, after 12 attempts over 25 years, the 1933 *Glass-Steagall Act* which, based on the experience of the earlier great 'Wall Street Crash', had

prohibited commercial banks from “underwriting, holding or dealing in corporate securities, either directly or through securities affiliates” was revoked. In particular, Section 20 of the Act ordered that “no member bank could be affiliated with any corporation, association or business trust engaged principally in the issue, flotation, underwriting, public sale, or distribution at wholesale or retail through syndicate participation of stocks, bonds, debentures, notes or other securities” was replaced by the *Gramm-Leach-Bliley Financial Services Modernization Act* which removed these firewalls. Amongst other effects, this allowed retail banks to engage in far riskier activities by leveraging up their bets, greatly increasing their vulnerability to illiquidity and helping to fuel the massive growth in exotic financial ‘innovations’. The 1999 act also removed the 1956 *Bank Holding Company Act’s* separation of commercial banking and insurance business. In 2000 the *Commodity Futures Modernization Act* which shielded the market for derivatives from federal regulation became law (Akhigbe and White, 2004; Canova, 2008; Kuttner, 2007). *The Economist* (1999), lauding the abolition of the act, stated that: “Glass-Steagall was a lousy law from day one ... accusations of disreputable practices and dishonest dealings made against the banks [are] not supported by any compelling evidence”. For a similar view see Benston (1990). Since 1993 European Union Second Banking Directive had already removed restrictions on retail banks engaging in “investment” activities (Benink and Benston, 2005).

⁴ This may be an underestimate as determining the size of hedge funds is difficult because of the privacy which lack of regulation allows them. The majority of hedge funds are domiciled off-shore for tax avoidance, and other purposes, in the Cayman Islands. The next most popular registration locations are the British Virgin Islands and Bahamas. About two-thirds of onshore hedge funds are registered in the US state of Delaware (International Financial Services London, 2008).

⁵ The property rights argument for shareholder primacy is that as a corporation “belongs” to its shareholders it should be run in a way that maximizes the benefits for its shareholders. Even if it supposed that a corporation is owned by its shareholders that would not exclude the rights of others, including, but not exclusively, those of bond holders (Black and Scholes, 1973). Property has legal (and moral) responsibilities, not just rights. But in any event, shareholders do not own a corporation. Rather they own a type of corporate security called “stock” or “shares” which gives them some, but not absolute, control over a corporation. For example, shareholders do not the right to exercise control over a corporation’s assets (Stout, 2007).

⁶ Between 1970 and 1994 new shares contributed: +1%; + 3.5%; -4.6%; and – 7.6% of total new funding of the non-financial sectors in Germany, Japan, United Kingdom and the United States respectively (Corbett and Jenkinson, 1997). See also: Ellworth, 2002 and O’Sullivan, 2000.

⁷ CEO and top management remuneration in addition to a fixed amount of pay may include: short-term bonuses, deferred retirement bonuses, stockholdings, stock bonuses, stock options, dividend units, phantom shares, pension benefits, saving plan contributions, and other items such as loans at below market rate. The most important item in terms of monetary gains, and the most controversial, are stock options (Constantinides, Harris and Stulz, 2003).

⁸ Investment here means any increase in tangible or intangible assets including physical investment, training, R&D, etc.

⁹ In 2006 the world's biggest 600 companies bought back shares with the value equivalent of 78% of the dividends they paid in the same year (*Financial Times*, March 26, 2007).

¹⁰ Absolute levels and increases in that ratio vary between countries. Within Europe, for instance it is particularly high in Ireland, Spain and the UK, but comparatively lower in Germany and France.