Corporate Governance and Neoclassical Economics

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Graduate student in economics, I never encountered the term “corporate governance.”

I. Antecedents

A. Adam Smith

> of such companies ... being the managers rather of other people's money than of their own, it cannot well be expected, that they should watch over it with the same anxious vigilance with which the partners in private copartnery frequently watch over their own. Like the stewards of a rich man, they are apt to consider attention to small matters as not for their master's honour, and very easily give themselves a dispensation from having it. Negligence and profusion, therefore, must always prevail, more or less, in the management of the affairs of such a company ... It is upon this account that joint stock companies for foreign trade have ... very seldom succeeded without an exclusive privilege; and frequently have not succeeded with one. Without an exclusive privilege they have commonly mismanaged the trade. With an exclusive privilege they have both mismanaged and confined it. (1776, p. 700).

B. John Stuart Mill

John Stuart Mill regarded this conclusion as “one of those overstatements of a true principle, often met with in Adam Smith.” Nevertheless, after discussing the advantages of joint stock companies, Mill took up “the other side of the question”.

> [I]ndividual management has also very great advantage over joint stock. The chief of these is the much keener interest of the managers in the success of the undertaking. The administration of a joint stock association is, in the main, administration by hired servants. Even ... the board of directors, who are supposed to superintend the management ... have no pecuniary interest in the good working of the concern beyond the shares they individually hold, which are always a very small part of the capital of the association, and in general but a small part of the fortunes of the directors themselves; and the part they take in the management usually divides their time with many other occupations, of as great or greater importance to their own interest; the business being the principal concern of no one except those who are hired to carry it on. But experience shows, and proverbs, the expression of popular experience, attest, how inferior is the quality of hired servants, compared with the ministration of those personally interested in the work, and how indispensable, when hired service must be employed, is “the master's eye” to watch over it. [Mill (1885, pp. 138-9)].

C. Berle and Means

The bulk of *The Modern Corporation and Private Property* must have been written in the late 1920s, and thus the book cannot be construed as an account of the collapse of 1929. But the timing of the book's publication could not have been better.

II. The Managerial Discretion Literature

In late 1960s the US stock market was soaring and, as always, this boom was accompanied by a merger wave. Conglomerate mergers a bit of a puzzle. I had been impressed by Robin Marris' (1964) theory of the corporation in which managers pursued growth rather than profits or shareholder value, and thought that the conglomerate mergers taking place at that time fit his model.

American Economic Review: "Mueller is a bright, upcoming economist. He should cool it."

Nevertheless, change was afoot. William Baumol -- managers maximized sales; Oliver Williamson -- they maximized staff and emoluments; Herbert Simon they *satisficed*.

Counter attack: Fritz Machlup had earlier established himself as a staunch defender of neoclassical economics, when he beat down claims that managers did not set prices by equating marginal revenue and marginal cost. Machlup (1967) used his presidential address to the American Economic Association to dismiss the work of the managerialists. Competition would force managers to maximize profits.

III. The Principal-Agent Revolution

In 1973 Stephen Ross published “The Economic Theory of Agency: The Principal’s Problem.” If we think of a shareholder as being a principal, and a manager as his or her agent, then Ross formalized the conjecture of Adam Smith about managers of joint stock companies, and gave a theoretical justification for the hypotheses put forward by Baumol, Marris, and the other managerialists.

Profession embraced Ross's formulation of the principal-agent problem with enthusiasm. Morck and Yeung (2012) cite 231 books and articles related to the principal-agent problem as it pertains to corporations. The concern of Berle and Means about the consequences of a separation of ownership and control in the large corporation would appear to have now become mainstream. But appearances can be deceiving.

Much of the principal-agent literature deals with issues of corporate governance – the rights of shareholders, the identities of the shareholders, the size of the board of directors, the independence of members of the board, and so on. Corporate governance problems differ across countries.

IV. The Behavior of Asset Prices

A. The Behavioral View

Tulip bulb bubble in the Netherlands at the beginning of the 17th century. Tulip bulbs turned from being a source of beauty into an investment, which could make one rich. "At the height of the bubble, in early 1637, a single rare bulb sold for an amount equivalent to the price of a nobleman's castle."

South Sea Bubble. The South Sea Company was the kind of joint stock company about which Adam Smith wrote. From 1717 until 1720 its share price hovered around 100 pounds. But then speculation began to build about the profits to be earned in the South Seas and the New World. During 1720, the South Sea Company's share price soared to nearly 1,000 pounds. By year's end it was almost back to 100 pounds.

Astounding increase in South Sea's share price gave rise to a phenomenon, which was to repeat itself during the dot/com bubble at the end of the 20th century. Entrepreneurs rushed to found new companies and issue shares. One company promised to build machine guns that would shoot round bullets for killing Christians and square bullets for infidels.

Great Crash beginning in 1929. Roaring 20s led many Americans to expect perpetual economic growth and prosperity. “Irrational exuberance” that gripped the market during the late 20s bubble illustrated by closed-end investment company’s shares. “From January to August 1929 … the typical closed-end fund sold at a premium over net asset value of 50 percent.” A Goldman Sachs fund sold at 250% of the underlying value of its assets.

Japanese stocks: During the 1980s Nikkei stock market index climbed to 40,000. Its precipitous decline began in 1990. On May 2, 2017, it was less than half of that value.

Japanese real estate. At its peak, the value of the land upon which the Imperial Palace stood and its surrounding grounds would suffice for purchasing all of California.

Internet bubble of 1990s: Palm Inc., maker of PalmPilot was 95% owned by 3Com, yet Palm's share price rose sufficiently high to make its total capitalization exceed that of its parent 3Com. Internet bubble burst in March of 2000. By end of 2002 the market had lost $7 trillion from its peak.

Psychology of traders during booms. John Kenneth Galbraith -- an "indispensable element of fact" during stock market bubbles is that individuals "build a world of speculative make-believe. This is a world inhabited not by people who have to be persuaded to believe but by people who want an excuse to believe."

If stock buyers are rational actors, we might expect them to learn from previous booms and busts and not be carried along by a rising tide of emotions and share prices. Shiller explains why this kind of rationality does not win out. Each new wave is accompanied by "theories" as to why share prices should rise to unprecedented levels, why the economy has entered a "new era."

Neuroscience provides scientific evidence to account for the irrationality that sometimes grips traders in asset markets. When an individual is given a financial reward, the same part of the brain is activated as when this person consumes cocaine or morphine. Conversely, when stocks fall precipitously, a different part of the brain is activated – one associated with fear and pain.

B. The Neoclassical View

CAPM. Efficient Market Hypothesis. Capital markets are *efficient.* They use all of commonly available information to determine share prices. Without inside information no one can "beat" the market.

One difficulty CAPM -- poor explanatory power when tested empirically. Equally damaging to the Efficient Market Hypothesis is that one of its most important implications – the Random Walk Hypothesis – has been resoundingly rejected in empirical tests.

A few years ago, a leading proponent of the Efficient Market Hypothesis gave a talk at the University of Vienna in which he heavily criticized the growing literature in behavioral finance and economics.

In 2013, Eugene Fama and Robert Shiller won Nobel Prizes.

V. Managerial Compensation

The managerial compensation literature can also be broken down into two broad segments -- a neoclassical and a behavioral view. Neoclassical view sees high compensation packages received by top managers as the outcome of competition for their talents. The market for top managers is efficient and operates like any labor market.

The alternative view postulates the existence of considerable managerial power over boards of directors, when it comes to designing compensation contracts. CEOs nominate people to serve on their boards, often serve on other boards, and have considerable control over their own boards. To a large extent, top managers write their own compensation tickets.

Frydman and Saks (2010) examined managerial compensation in 50 large companies going back to 1936. Managerial compensation was "remarkably flat" from 1945 until the mid-1970s, i.e. during the "Golden Age of American Capitalism." Companies grew large as did their profits. Dow Jones went from 152.58 on January 2, 1945 to 947.73 on January 3, 1969. Why did competition for talented managers during these prosperous times not drive up managerial compensation proportionally? Even more puzzling is why managerial compensation began to rise during the "lost decade" of the 1970s, when the Dow Jones fell from 947.73 to 824.57 on January 2, 1980? Managers began enjoying higher pay at a time when their shareholders were experiencing wealth losses.

In 1992, average CEO pay for firms in the S&P 500 was about $2.5 million. By 2000, it had soared to roughly $12 million. This dramatic increase suggests a remarkable increase in competition for managers during the 1990s, if the neoclassical view is valid.

Gabaix and Landier (2008) explain increases in managerial pay by increases in the size of corporations. This explanation for the growth in managerial compensation treats firm size as exogenous (Marris, 1964, Ch. 2). Mergers are the fastest way for a firm to grow. Managers are often awarded for consummating big mergers. In 2016 Charter Communications acquired Time Warner for $65 billion. Charter's board of directors rewarded its CEO, Thomas M. Rutledge, with a stock option that raised his total compensation from $16.4 million to $98 million.

Murphy and Zabojnik (2004) argue that more general managerial talents like knowledge of finance and accounting are now in greater demand. One reason why managers with more general knowledge may now be in greater demand is that firms are considerably more diversified than they were immediately after World War II. Here the argument encounters a similar difficulty as the previous one. Several studies have estimated "diversification discounts." One often cited study found the diversification discount to be 13-15% (Berger and Ofek, 1995). Hoechle, Schmid, Walter and Yemack (2012) link the size of the discount directly to poor corporate governance.

As with the CAPM, the explanatory power of models to explain executive compensation is often very weak. Estimates of models using data from before the 1990s, predominately found the size of a company to be the most significant variable explaining managerial compensation. In one famous study, a $1,000 increase in shareholder wealth led to a $3.25 increase in the CEO's compensation. This changed in the 1990s. Did the change in incentives facing managers lead them to emphasize shareholder wealth to a greater extent? Did this cause the stock market boom? Alternatively, did managers recognize that a stock market boom was afoot, and convince their boards of directors to change their pay packages so that they could ride the stock market on its way up?

VI. Mergers

Every stock market boom in the United States has been accompanied by a merger wave. If stock market rallies are fueled by over optimism, then some of this over-optimism likely spills over into the concurrent merger wave and precipitates ill-conceived mergers.

> *Jesse Markham:*
> The literature provides convincing evidence that the abnormally large volume of mergers formed in 1897-1900 stemmed from a wave of frenzied speculation in asset values. Several students of the early merger movement agree that the excessive demand for securities was an impelling force in the mass promotion of mergers after 1896 (Markham, 1955, p. 162).

Robert Shiller, writing about the same period, “The most prominent business news in the papers in recent years had been about the formation of numerous combinations, trusts, and mergers in a wide variety of businesses, stories such as the formation of U.S. Steel out of a number of smaller steel companies.” Shiller quotes a *New York Times’* editorial from April 1901, prophesizing that the U.S. Steel merger will avoid “much economic waste” and effect “various economies coincident to consolidation.” Such optimism explains U.S. Steel’s share price rise to $55 from the $38 it was floated at in 1901. By 1903 it had plunged to $9.

Over-optimism apparent in merger wave of the late 1960s. "P/E magic." The conglomerates' P/E magic of the 60s resembles the kind of Ponzi scheme that Shiller claims characterizes all stock market bubbles.

The profitability of mergers. In a recent survey, I identified:

3 US studies reported significant increases in profitability for merging firms;
1 with some positive changes and others insignificantly different from zero;
5 with profit changes either significantly negative or insignificantly different from zero;
2 UK studies reported profit changes equal to or above zero; 2 insignificantly different from zero, and 2 significantly less than zero.
4 studies in Japan all reported no changes or declines in profits for merging firms;
9 other studies for countries ranging from Australia to Sweden also tend to find modest changes in profits at best, with declines outnumbering increases.

Of the 18 studies of the effects of mergers on sales or market shares that I identified, *none* reported a significant increase, 12 reported significant declines.

In a large multinational study, my colleagues and I found that around 30 % of mergers were accompanied by profit increases and sales declines, another 30% exhibited increases in both sales and profits, suggesting increases in efficiency, while a roughly equal number had declines in both sales and profits implying decreases in efficiency.

Event studies. Early contributions often reported large positive abnormal returns for acquirers for long periods leading up to a merger announcement; subsequent declines over long stretches beginning immediately or with a short lag. An obvious interpretation would be that the relative rise in the acquirer's share price before the announcement led to the merger, and the merger itself caused the subsequent decline. This interpretation not generally the one provided by the authors. One dismissed the decline in the acquirers' share prices after the mergers as "puzzling."

Perhaps to avoid reporting such puzzling results, many later studies only reported abnormal returns for short “windows” around the merger announcements. These studies generally found small and insignificant abnormal returns for the acquirers. Because large premiums had to be paid to the acquired companies’ shareholders to consummate the deals, event studies using short windows typically concluded that the mergers were wealth creating – acquired firms’ shareholders gained, the acquirers’ shareholders did not lose.

There are two difficulties with this interpretation. First, ignoring post-announcement losses to acquirers' shareholders over long time intervals does not make them go away. Agrawal, Jaffe, and Mandelker (1992): abnormal returns to acquirers' shareholders over the 5 years after the mergers.

1955-87, a significant -10%. The only sub-period exhibiting positive returns was the lost decade of the 1970s (4.1%, statistically insignificant).

Second difficulty involves implication regarding the motives of the acquirers' managers. Mark Sirower and I estimated a mean loss for acquirers' shareholders of -$50.7 million over the two years after the mergers, roughly 2% of the acquirers' pre-merger market values. The standard deviation around this mean was $1,892 million, however, 37 times the size of the loss. Why do managers, who are ostensibly maximizing the wealth of their shareholders, undertake such risky investments with negligible expected returns? An obvious answer is that most of the money at risk does not belong to the managers.

Two other behavioral theories of mergers

Richard Roll's Hubris Hypothesis

Shleifer and Vishny (2003): Overvaluation Hypothesis

Without knowing what the managers of acquiring firms were thinking at the time of an acquisition, it is difficult to choose among the behavioral theories of mergers. What is not at question is that shareholders of acquiring firms suffer substantial post-merger losses for mergers undertaken during stock market booms.

Leeth and Borg (1994): post-merger losses to acquirers for acquisitions during the 1920s stock market boom (1925-1930) almost 24%.

Langetieg (1978): losses of over 26% for mergers during a time period ending in the peak year of the 1960s boom (1969).

Loderer and Martin (1992): abnormal returns for acquirers during the 1960s stock market boom (1966-1969) -61.2%.

Burcin Yurtoglu and I: wealth losses to acquirers for mergers during the 1990s stock market rally of -19%.

Moeller, Schlingermann and Stulz (2005): wealth losses of -12% for mergers taking place during this rally (1998-2001).

Total wealth loss to acquirers shareholders -- $240 billion.

VII. Conclusions

Andrew Lo recounts an experience he endured as a second year assistant professor in 1986. When reading Lo's discussion of the incident, I was reminded of the referee report I received as an assistant professor at Cornell University castigating me for claiming that managers might sometimes pursue a goal other than profits maximization.

The literature has come a long way since the late 1960s and 1980s.

Or has it? Stocks. Managerial compensation. Mergers. Why should anyone even be concerned about corporate governance.
Markets govern.

Slot machines.

Public Choice. *The Myth of the Rational Voter* (Bryan Caplan). The vote by Britons in 2016 to leave the European Union seems hardly rational, as does the vote by Americans in the same year that elected Donald Trump as president. *Expressive* voting.

A paradigm shift?

Paul Samuelson can be said to have caused such a paradigm shift with the publication of *The Foundations* in 1947.

The rise of behavioral finance and more generally behavioral economics in recent years suggests that another scientific revolution may be afoot. One can imagine in a few years economics departments requiring their graduate students to pass tests in psychology and neuroscience.