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AGENCY COSTS OF OVERVALUED EQUITY

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In the past few years, we have seen many fine companies end up in ruins and watched record numbers of senior executives go to jail. And we will surely hear of more investigations, more prison terms, and more damaged reputations. Shareholders and society have borne value destruction in the hundreds of billions of dollars.[1]

What went wrong? Were managers overtaken by a fit of greed? Did they wake up one morning and decide to be crooks? No. Although there were some crooks in the system, the root cause of the problem was not the people but the system in which they were operating—a system in which equity became so dangerously overvalued that many CEOs and CFOs found themselves caught in a vicious bind where excessively high stock valuations released a set of damaging organizational forces that led to massive destruction of corporate and social value. The problem was made far worse than it had to be because few managers or boards had any idea of the destructive forces involved.

WHAT IS OVERVALUED EQUITY?

Equity is overvalued when a firm's stock price is higher than its underlying value. The problems I shall be discussing in this paper arise not when there are small overvaluations, but when there is substantial overvaluation, say by 100 or 1,000 percent. By definition, an overvalued equity means the company will not be able to deliver—except by pure luck—the performance to justify its value. If it could, it would obviously not be overvalued.

To my knowledge, with the exception of Warren Buffett (who hints at these forces in his 1988 letter to Berkshire shareholders[2]) no leaders in the business and financial community have recognized the dangers of overvalued equity. Nor have they publicly acknowledged their frequent contributions to creating this overvaluation.

Almost 30 years ago when Bill Meckling and I wrote our original paper on Agency Theory (Jensen & Meckling, 1976), we defined agency costs as the costs associated with cooperative effort by human beings. We focused on the agency costs arising when one entity, the principal, hires another, the agent, to act for him or her. While the issues are general, we developed the theory in the context of the conflicts of interest between corporate managers and outside equity and debt holders. We defined agency costs as the sum of the contracting, monitoring, and bonding costs undertaken to reduce costs due to conflicts of interest, plus the "residual loss" that occurs because it is generally impossible to perfectly identify the agents' interests with that of the principal. In that article and others since then, we (and others) viewed markets as potent forces to help control agency costs. What I describe here is how securities markets can sometimes create and exacerbate conflicts of interest between managers and owners rather than resolve them. Thus, this paper can be understood as expanding the range of costly conflicts of interest that the Agency Model can handle, in particular market and managerial optimism (even delusion) and the forces that allow or even encourage markets to become enablers of value-destroying managerial behavior. I hasten to add that the problems I address here are difficult ones, and I do not have solutions that I consider satisfactory at this time. It will take concentrated effort by the profession to work them out over the next five years or so.

In particular, I focus on how powerful forces leading to value destruction are created by situations in which securities markets substantially overvalue a company's equity. I am not going to spend much time discussing why or how such overvaluation occurs (although these are important for our eventual

complete understanding of the issues[3]) or whether it is consistent or inconsistent with market efficiency.[4] While these are interesting questions, I ask you to simply focus with me on the forces bearing on the many firms who experienced large stock price run ups and subsequent large declines in what has been described as the internet/technology/telecom bubble. I recognize that there are those who argue that there was no bubble at the turn of this century.[5] I have no desire to enter this debate here because I want to analyze what happens to organizations if and when their stock price, for whatever reason, becomes substantially overvalued.

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In part, the massive overvaluation of equity that occurred in the late 1990s and early 2000s is consistent with what we have seen in the past. Society often seems to overvalue what is new[6]—in this case, high-tech, telecommunications, and internet ventures. But we must be careful to not assume that the overvaluation that occurred was simply due to mistakes by market makers and investors. We now know that managers, securities analysts, auditors, investment and commercial banks, law firms, and others knowingly contributed to the misinformation and manipulation that fed the overvaluation. I need not list here all those individuals and firms who have been successfully prosecuted or have entered into billions of dollars of settlements as a result of their activities. But a short list of formerly reputable firms includes Enron, Xerox, Worldcom, Global Crossing, Vodaphone, Nortel, HealthSouth, Lucent, Tyco, Ahold, Royal Dutch Shell, Computer Associates and many others. I explain in what follows some of the reasons why overvaluation can induce inappropriate behavior on the part of the managers and the gatekeepers in situations where corporate equity prices become substantially overvalued.

It is important for managers and boards to recognize that overvaluation triggers organizational forces that are very difficult to control and which will almost certainly destroy value. For the first time in my career I can't tell a simple incentive story that will resolve the problem, and I'd like to enroll all of you in resolving these conflicts. But this much I do know: managers must avoid contributing to the trap, and boards of directors must take accountability for preventing the value destruction that overvaluation causes. The first step in the solution is to identify the phenomenon, because we cannot manage things that we cannot distinguish. Put differently, that which is undistinguished runs us.[7] And, distinguishing something means we must have language for it. That is my task in this paper.

THE CONTEXT: GAMING THE SYSTEM

I've written in recent years about the fundamental problems of target-based corporate budgeting systems.[8] Because compensation is tied to budgets and targets, people are paid not for what they do, but for what they do relative to some target. And this leads people to game the system by manipulating both the setting of the targets and how they meet their targets. These counterproductive target-based budget and compensation systems provide the fertile foundation for the damaging effects of the earnings management game with the capital markets. The resulting lack of integrity is the foundation for the release of the value-destroying forces of overvaluation.

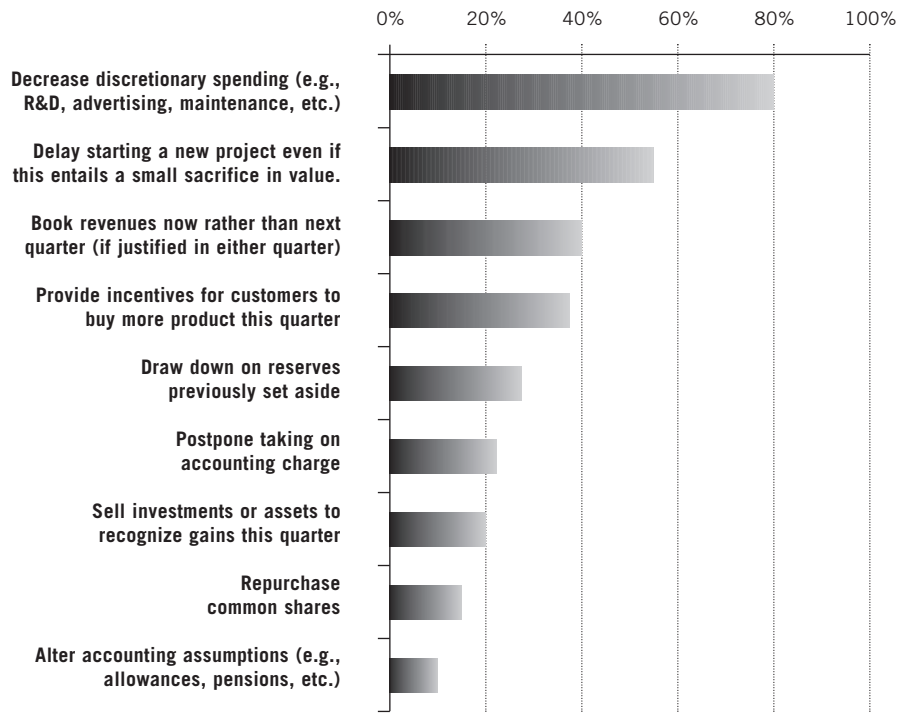
Corporate managers and the financial markets have been playing a game similar to the budgeting game. Just as managers' compensation suffers if they miss their internal targets, CEOs and CFOs know that the capital markets will punish the entire firm if they miss analysts' forecasts by as much as a penny. Just as managers who meet or exceed their internal targets receive a bonus, the capital markets reward a firm with a premium for meeting or beating the analysts' expectations during the quarter. When a firm produces earnings that beat the consensus analyst forecast for the quarter, the stock price rises on average by 5.5 percent more during the quarter than the returns on a size-matched portfolio. For negative earnings surprises, the stock price falls on average by –5.04 percent more during the quarter than a size-matched portfolio.[9] Generally, the only way for managers to meet those expectations, year in and year out, is to cook their numbers to mask the inherent uncertainty in their businesses. And that cannot be done without sacrificing value.

Indeed, "earnings management" has been considered an integral part of every top manager's job for at least the last two decades. But when managers smooth earnings to meet market projections, they're not creating value for the firm; they're both lying and making poor decisions that destroy value. I realize it is not fashionable to use such harsh language to describe what are almost universal practices. But when numbers are manipulated to tell the markets what they want to hear (or what managers want them to hear) rather than the true status of the firm, it is lying;[10] and when real operating decisions that would maximize value are compromised to meet market expectations, real long-term value is being destroyed.

Once we as managers start lying in the earnings management game, it's nearly impossible to stop because the game cascades forward. If we're having trouble meeting the earnings targets for this year, we push expenses forward, and we pull revenues from next period into this period. Revenues borrowed from the future and today's expenses pushed to tomorrow require even more manipulation in the future to forestall the day of reckoning.

The evidence indicates this earnings manipulation has become widespread. As Fig. 1 shows, Graham, Harvey & Rajgopal (2004) in their Survey of 401 CFOs asked the following question: "Near the end of the quarter, it looks like your company might come in below the desired earnings target. Within what is permitted by GAAP, which of the following choices might your company make?" They find 80 percent of CFOs saying that their companies are willing to delay discretionary spending such as R&D, advertising, and maintenance, and over 55 percent saying that their company would knowingly sacrifice a small value by delaying the start of projects. Almost 40 percent would book revenues now, rather than next quarter, or provide incentives for customers to buy now. These results are consistent with the widespread gaming that has been viewed as acceptable and normal business behavior in the last decade or two. This practice is one source of restated financial results that has become so common. Indeed, recently announced results (see Glater, 2005) indicate that in 2004 a record number (253) companies restated their annual audited financial statements—a 23 percent increase over 2003. In addition, another 161 companies restated their quarterly statements, another record high.

FIGURE 1 CORPORATE SURVEY OF 401 CFOs: ACTIONS TAKEN TO MEET EARNING TARGETS



"Near the end of the quarter, it looks like your company might come in below the desired earnings target. Within what is permitted by GAAP, which of the following choices might yur company make?"

Source: Provided to me by the authors Graham, Harvey & Rajgopal (2004).

ORGANIZATIONAL AND MANAGERIAL HEROIN

Now let us examine the damaging forces that are generated by what seems on the surface to be desirable, a high stock price. An important part of the problem is that in the early stages of overvalued equity, managers and boards are receiving exactly the wrong signals from the market and the world. To communicate the seductive and misleading nature of the environment, I liken it to organizational or managerial heroin. Like an addictive drug, manning the helm of an overvalued company feels great at first. If you're the CEO or CFO, you're on TV and covered by the press, investors love you, your options are increasing in value, and the capital markets are wide open to your firm. But as drug users learn, massive pain lies ahead.

The core source of the problems caused by overvalued equity lies in the following fact: by definition, if your stock price is overvalued we know that you cannot, except by pure luck, produce the performance required to justify that stock price. If you could it would not be overvalued. So as time goes by it begins to dawn on managers of such overvalued firms that times are getting tough. You realize the markets will hammer you unless your company's performance justifies the stock price. So after all value-creating alternatives have been taken, you start to take actions that destroy long-run value that

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you hope will at least appear to generate the market's expected performance in the short run. By doing this you postpone the day of reckoning until you are gone or you figure out how to resolve the issue.[11]

To appear to be satisfying growth expectations, you use your overvalued equity to make long-run value-destroying acquisitions;[12] you use your access to cheap debt and equity capital to engage in excessive internal spending and risky negative net present value investments that the market thinks will generate value[13]; and eventually you turn to further accounting manipulation and even fraudulent practices to continue the appearance of growth and value creation.

None of these actions truly improve performance. In fact, they destroy part or all of the firm's core value. But what is your alternative? How could you argue to your board that a major effort must be made to reduce the price of the stock? In the last 10 years there has simply been no listening in boards for this problem. The likely result for any CEO in this situation is that the board would respond by saying "If you can't do it, we will get someone who can." And the reality of this overvaluation problem will be even more difficult to detect when there are many firms (say in telecommunications or technology) that are simultaneously overvalued as they were in the recent boom. In the midst of this situation it can appear to managers and board members that other (overvalued) firms in their industry actually are producing the results demanded by the markets.[14]

It is often difficult to tell when a firm is substantially overvalued, and some have argued that without a way to tell whether a firm is overvalued nothing can be done about the problem. I believe there is a simple rule for managers to tell whether their stock price is overvalued: When managers perceive it is impossible for them to meet the performance requirements to justify the current price of their equity, the firm is overvalued. When managers cook the books or engage in other fraud and lying to support their firm's stock price, we know that they knew with a great deal of certainty that their firm was overvalued. Otherwise, they would not have pushed beyond the legal limits and risked jail or other damaging effects associated with lying to the capital markets.

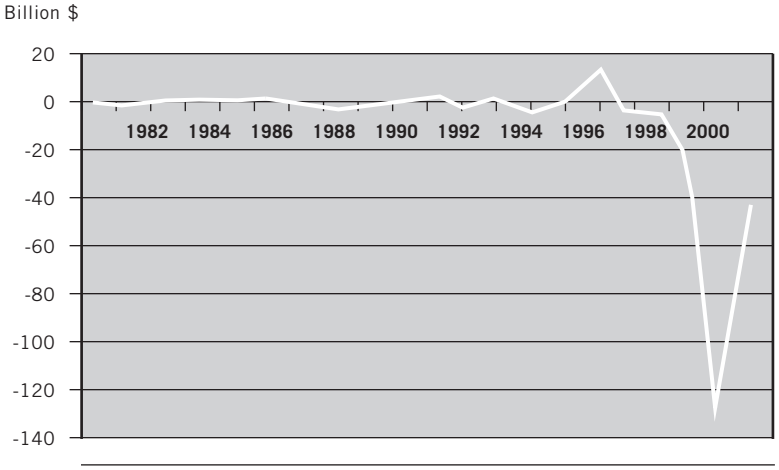
EXAMPLES AND EVIDENCE

Consider Enron. My guess is that at the time of Enron's peak market value of $70 billion, the company was actually worth about $30 billion. It was a good, viable business; the company was a major innovator. But senior managers' efforts to defend the $40 billion of excess valuation (which was a mistake that was going to go away anyway) effectively destroyed the $30 billion core value. Enron's managers had a choice: they could have helped the market reduce its expectations. They could have found the courage to reset the company's value. Instead, they destroyed it by trying to fool the markets through accounting manipulations, hiding debt through off-balance sheet partnerships, and over-hyped new ventures such as their broadband futures effort. In doing this Enron's managers gambled with their critical asset—Enron's reputation for integrity. One cannot make markets if the parties to the contracts do not believe that the market maker will in fact live up to the contracts they are entering into. For detailed discussions of the history of the rise and collapse of Enron and Lucent, see McLean & Elkind (2003); Swartz & Watkins (2003); and Endlich (2004).

In their important recent study "Wealth Destruction on A Massive Scale? A Study of Acquiring-Firm Returns in the Recent Merger Wave," Moeller, Schlingemann & Stulz (2005) provide dramatic evidence of the magnitude of the agency costs of overvalued equity in the recent period. Figure 2 summarizes their results. They document that in the three-day period surrounding the announcement of acquisitions in the period 1998–2001, acquiring firms lost a total of $240 billion as compared to a loss of $4.2 billion in all of the 1980s. In addition, unlike the 1980s where the losses to bidders were offset by the gains to sellers (for a net synergy gain of $11.5 billion), in the 1998-2001 period the losses to acquirers were not offset by the gains to the target firms. Indeed, the losses to acquirers exceeded the gains to targets for a net synergy loss of $134 billion. The losses were concentrated in 87 large-loss transactions,where the loss to the bidder was greater than $1 billion[15] Because the losses to acquiring firm shareholders in these deals were on average $2.31 per dollar spent on the acquisition, the authors argue (and I agree) "that an important component of the market's reaction to the announcement is a reassessment of the standalone value of the acquirer."

FIGURE 2 SOME EMPIRICAL DATA ON AGENCY COSTS OF OVERVALUED EQUITY

Yearly Net Present Values associated with Merger Activity: 1980-2002



Aggregate Net Present Value associated with merger activity is defined as the sum of the product of the fractional abnormal return of each announcement in the 3 day window spanning the announcement day multiplied by the equity capitalization of the acquirer.

Source: Provided to me by the authors Moeller, Schlingemann & Stulz (2005).

Consistent with the theory I offer here, the bidders appeared to be substantially overvalued. The bidders in large loss deals had statistically significantly higher Tobin's q[16] and market to book ratios (at the 1 percent level) than the bidders in other deals in the same time period and all bidders in 1980-1997. In addition, as predicted by my theory, the large loss bidders financed their deals with dramatically and statistically significant (at the 1 percent level) higher equity; 71.6% for the bidders in large loss deals as opposed to 35.2 percent for the other bidders in the same time period and 30.3 percent for all bidders in the 1980–1997 period.

The authors find that the "firms that make large loss deals are successful with acquisitions until they make their large loss deal." They conclude that "the magnitude of the losses in comparison to the consideration paid is large enough and the performance of the firms after the announcement poor enough that in most cases the acquisitions lead investors to reconsider the extremely high stand-alone valuations of the announcing firms."

The evidence is consistent with the argument I offered above where management makes acquisitions to con the market into believing that management is going to create the value that the market expects, and is able to continue to fool it for some period of time by providing the illusion of growth. When the market finds out that the high value and growth was an illusion the firm's value falls precipitously, because all the overvaluation will disappear as well as the value of the core business that has been compromised by the attempts to avoid discovery.

But the data is also consistent with the hypothesis that the earlier acquisitions truly created value. Additional work must be done to sort this issue out. The case of Nortel provides evidence in favor of the hypothesis that management was destroying value in most, if not all, of its earlier acquisitions.

Between 1997 and 2001, under the leadership of its new CEO, John Roth, Nortel acquired 19 companies at a price of more than $33 billion and paid for many of these acquisitions with Nortel stock, which increased dramatically during that period. When Nortel's stock price crashed, most of the acquisitions were written off. More importantly for the issue of value destruction, Nortel not only wrote off the value but also closed down the activities of most of these acquisitions. Nortel destroyed those companies and in doing so destroyed not only the corporate value that the acquired companies—on their own—could have generated but also the social value those companies represented in the form of jobs and products and services.

As Shleifer & Vishny (2003) argue, it is possible for a firm to use its overvalued stock to acquire real assets at less than their economic value, and to benefit its original shareholders even if its stock price later falls. If Nortel's acquisition strategy had satisfied the Shleifer-Vishny conditions, Nortel's original shareholders would have benefited from its activities during the boom. But they did not. Let's look at the history.

Nortel's quest to transform itself clearly damaged this former mainstay of the telecommunication sector and its shareholders. With a year-end 2001 valuation of just $24 billion, the company's stock fell by more than 90 percent from its peak in September of 2000.[17] Moreover, I calculate the estimated agency cost of overvalued equity for Nortel at $44.5 billion (measured in 2001 dollars). As of the end of 2001, Nortel's stock price was 44 percent lower than the level of its stock price of $13.16 on Oct. 1, 1997, when Roth took over as CEO. The 12/31/2001 cost of capital-adjusted breakeven share price for Nortel's October 1997 shareholders was $21.33, assuming a 12 percent cost of equity capital net of dividends. This means the breakeven total value of Nortel at the end of 2001 was $68.5 billion for its shareholders of October 1997. Thus in the period 10/1/97 to 12/31/01, shareholders lost a total of $68.5 – 24.0 = $44.5 billion as a result of the failed strategy associated with the overvaluation. As these numbers make clear, the eventual price decline suffered by Nortel involved far more than the elimination of its overvaluation; it involved a significant destruction of Nortel's core value, mainly, through acquisitions and overinvestment.

But the agency costs of overvalued equity in the mergers and acquisition market is only a part of the total costs this phenomenon has imposed on firms and society. It extends also to greenfield investments and other major business decisions that occurred as a result of the widespread availability of cash from the equity and debt markets. In effect, the availability of such funds creates a new version of the agency costs

of free cash flow that I called attention to in my paper of that title (Jensen, 1986a). In that paper I focused on the free cash flow generated by internal operations, but as we now know similar problems can be generated by excessive access to capital when a firm's equity is substantially overvalued. It can also lead to substantial overinvestment similar to the kind that I emphasized in Jensen (1993). Lucent, Xerox, Worldcom, and Quest are several other prominent examples in which major waste occurred. Many billions of dollars were spent laying fiber optic cable around the world, and over 90 percent of it has gone unused—dark, in the language of the industry. Even venture capitalists fell prey to the phenomenon as witnessed by the many high tech and highly promising startups that succumbed to the agency costs of overvalued equity. Many of these startups received far too much funding too quickly and not only wasted it, but also made decisions that foreclosed future survival. It will be quite fruitful for us to understand the details of how these forces operated in the venture capital and private equity market during this period.

Because neither top managers nor board members have had the language to talk about the dangers of overvalued equity, few have fully understood it. And even those who have sensed the problem have been unable to stop the game.

Consider the failure of eToys, a famous Internet startup: eToys' CEO Toby Lenk (who watched his stockholdings rise to $850 million on its first day of trading on the NYSE in May 1999) was quoted as saying that day to his CFO, "This is bad. We're going to live to regret this."[18] Lenk knew something was wrong, but he and his management team went ahead and built the capacity for $500 million in sales and advertised similarly. Sales peaked at $200 million, and in February 2001, just 21 months after that first heady day, the company filed for bankruptcy protection and was eventually liquidated—another victim of the agency costs of overvaluation and failed governance. eToys did not have to fail, and Lenk was not able to stop it, even though he seemed to understand the dangers. The story of TheStreet.com is similar and told in detail in a recent book.[19]

FAILED GOVERNANCE AND FAILED INCENTIVES

The market for corporate control solved many of the problems of undervalued equity in the 1970s and 1980s through hostile takeovers, leveraged buyouts, and management buyouts.[20] It could not, and cannot, however solve the agency problems of overvalued equity. It is difficult, to say the least, to buy up an overvalued company, eliminate its overvaluation, and make a profit.

In addition, equity-based compensation in the form of options, restricted, unrestricted, or phantom stock holdings by executives could not solve the problem either. In fact, in the context of overvalued equity such equity-based incentives are like throwing gasoline on a fire—they make the problem worse, not better. One obvious action that directors and compensation committees can take to reduce the problems with equity-based incentives is to impose unwinding constraints on such holdings that prevent managers from being able to realize equity gains in the short run. (See Jensen, Murphy & Wruck (2004) for an extended discussion of recommendations for changes in executive compensation practices.)

Consistent with the counterproductive effects of equity-based compensation in situations of overvaluation, Efendi, Srivastava & Swanson (2004), in their recent study of 100 firms who restated their earnings in 2000 and 2001, document that firms with CEOs who have large amounts of "in-the-money" options are much more likely to be involved in restatements. Indeed, as compared to their control sample of 100 matched firms with no restatements the average value of in-the-money options for CEOs of restating firms is $30.1 million vs. $2.3 million for the no-restatement firms.[21] They also find in their logistic regressions

that the likelihood of an earnings restatement is "significantly higher for firms that make one or more sizable acquisitions, or are constrained by a debt covenant" and are more likely to have weaker corporate governance systems as measured by whether the CEO is also the Chairman of the Board and whether the board is "more likely to give the CEO a salary increase that is not warranted by the firm's performance."

Overvalued equity is but one example of problems that cannot be solved by compensation/incentive systems alone. Good control systems and monitoring by intelligent people of integrity in a well-designed governance system are always necessary for effective control of corporate agency problems. But the problem here is that we do not now know how to create such well-functioning governance systems. More research on the design of governance systems is required, and it must go forth in the next five years or so, taking clear account of the agency costs of overvalued equity, as well as traditional agency problems associated with rational conflicts between managers and equity and debt holders, agency problems involving information asymmetries, managerial self control problems, managerial biases such as systematic optimism, and market pricing mistakes.

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It is also puzzling to me that short selling could not solve the problem. And there certainly were those who refused to buy into the overvaluation as sensible. Two of the more successful hedge funds (run by George Soros and Julian Robinson at Quantum Fund and Tiger Management, respectively) closed shortly before the bubble began to burst. In their paper "The Limits of Arbitrage," Shleifer & Vishny (1997) argue that it is possible "that arbitrage becomes ineffective in extreme circumstances, when prices diverge far from fundamental values," The experience in the recent bubble is consistent with their arguments. Understanding why short selling and those who refused to buy into the overvaluations were not sufficient to limit the phenomenon is an interesting area for additional research, and this would obviously be aided by further considerations of the legal and social costs and constraints surrounding short selling and arbitrage.[22]

Obviously regulation was not sufficient to prevent the damage from the overvaluation. It is hard to create laws that prevent people from spending their money foolishly without damaging the productivity of the market system. We have yet to see whether the legal system will be able to punish sufficiently those who engaged in fraud to provide preventative incentives in the future. And this is another area that can benefit from careful analysis beyond that which is currently available.

Thus, it appeared that the major, and perhaps the only private, solution to the agency problem of overvalued equity was the corporate governance system. And what we witnessed was massive failure in which the boards of directors of company after company did not stop the corruption and the associated destruction of organizational value. Many, including me, have warned for decades that corporate governance systems were woefully inadequate. The results of the last few years have substantially buttressed this position. The result has been widespread re-examination of governance systems and principles and calls for a reform of governance systems that leaves top management effectively unmonitored.[23] This is not a simple task.

One change that could help boards protect themselves and the firms they serve from the counterproductive effects of overvalued equity would be to establish a regular practice of communicating with short sellers of the firms securities. This would require a major shift in the belief systems and culture of most boards and management teams. One of the most difficult tasks in dealing with the organizational costs

of overvalued equity is getting data and analysis that indicates the market price is substantially out of line with the fundamental value of the firm. Short sellers are an obvious source of potentially valuable information for the governance system. Indeed, it should probably be standard practice for the audit and compensation committees of every major corporation to talk to major short sellers of their stock to hear their story and their reasoning. Such information would have to be carefully evaluated, but my guess is that it would often prove to be of great value to the audit committee in performing their task. Establishing such practices would require abandoning the generally held belief that short sellers are evil and damaging to the firm. Compensation and Audit committees might well discover important information about failings in their company's strategy and/or management team by communicating with short sellers who have bet on future declines in the price of the company's stock. And that might allow the board to take action to eliminate the overvaluation before the damage to the true underlying value of the organization became too great.[24]

Some suggest that one solution to the problem of overvalued equity is for the firm to issue overpriced equity and pay out the proceeds to current shareholders. I have grave doubts that this is a sensible or even workable solution for several reasons. First there are requirements for full disclosure to shareholders, both present and future that management would probably have to violate to accomplish this transfer of wealth from new shareholders to old shareholders. And there is a question whether it can be done because regulations require firms to specify what the funds will be used for, and who would be foolish enough to buy high-priced equity so that other shareholders could be bought out? Furthermore, assuming the transaction could be completed, it will surely generate strong pressures on managers and boards from the new shareholders when they discover they have been taken to benefit the old shareholders.

Moreover, legitimizing the principle that it is okay as a matter of practice to engage in transactions that benefit one group of shareholders at the expense of another is likely to cause a serious increase in agency conflicts between various groups of shareholders at the expense of overall corporate efficiency and value creation. Pursuing this line of thought leads to the conclusion that managers and the board will maximize long-run value (private and social) by treating all shareholders equally—and this means present and future shareholders in particular. I believe it is impossible to create a system with integrity that is based on the proposition that it is okay to exploit future shareholders to benefit current shareholders. I realize this is not a generally accepted proposition in today's finance profession, not even among scholars, but it would take us too far from my topic to discuss it thoroughly.

Some might be tempted to conclude that the problems associated with overvalued equity are likely to be an occasional episodic phenomenon that may not recur for many years. I doubt this. Although it is probably true that an event like the recent simultaneous overvaluation of many firms will occur only occasionally, we can expect there to be problems with a few substantially overvalued firms on a annual basis. Consider the cases of Planet Hollywood and Boston Chicken, founded in 1991 and 1985 respectively, went public in the early 1990s, and have both been bankrupt (twice in the case of Planet Hollywood, once in 1998 and again in 2001). Krispy Kreme is another example of overvaluation that had nothing to do with the recent internet/technology/telecom bubble.

WHAT CAN WE DO ABOUT IT?

I believe the solution to the problem of massive overvaluation is to stop it from happening in the first place. To do so means going against our very human reluctance to endure short-term pain for long-term benefits. We must refuse to play the earnings management game. Joe Fuller and I (Fuller & Jensen,2002)

have written more extensively about how to accomplish this in "Just Say No to Wall Street: Putting A Stop to the Earnings Game." We must stop creating and consuming the heroin. If our company's stock price begins to get too high, we must talk it down. Warren Buffett is one of the few CEOs who regularly and beneficially warns shareholders and markets when he believes Berkshire Hathaway is overvalued. Although widely admired, few have followed Buffett's lead in these and other policies—the rationale seems to be that his policies are too "quirky" to be of practical use to the majority of businesses and boards.

We must help others in the business and financial communities recognize that growth is not a synonym for good or for value. Senior managers must understand what drives value in their organization and align internal goals with those drivers, not with analysts' expectations. Senior managers must promise only results they believe they can deliver, and they must provide auditable metrics on how they are performing against those strategic plans. Business educators teaching students the desirability of maximizing value must distinguish it from maximizing current stock price and teach about the dangers of overvaluation.

Resetting corporate value and resetting the conversation between corporate management and Wall Street won't be easy, but I see a window of opportunity. Executives and boards of directors are asking how to invest in their integrity. One of the major ways boards can do this is by taking responsibility for eliminating the target-based budget and compensation systems that create a climate of low integrity by punishing truth telling and rewarding gaming, lying, and value destruction in their organizations. This window won't remain open forever. We must seize the moment to identify the problem and learn from it, so we do not find ourselves trapped once again in a vicious, destructive cycle. It is time now for boards of directors and senior managers to recognize that it is their responsibility to ensure that new cases are not added to the current load of damaged companies.

Note

This paper, revised March 2005, is forthcoming in **Financial Management,** *Spring 2005. It may be downloaded without charge from the Social Science Research Network Electronic Paper Collection at http://ssrn.com/abstract=480421.*

ENDNOTES

1 This paper is drawn from my Keynote Lecture to the October 2004 Financial Management Association New Orleans Meetings. The first version of these ideas was presented at the European Financial Management Association, London, June 2002; see Jensen (2004). I am indebted to Joe Fuller, Kevin Murphy, Harry and Linda DeAngelo, Jeff Skelton, and Eric Wruck for conversations on these issues; and to Editors Lemma Senbet, Jim Seward, Alex Triantis, and anonymous referees for suggestions.

2 "We do not want to maximize the price at which Berkshire shares trade. We wish instead for them to trade in a narrow range centered at intrinsic business value.... Charlie Munger and I are bothered as much by significant overvaluation as significant undervaluation," Warren Buffett, Berkshire Hathaway Annual Report, 1988.

3 Some have argued that if the overvaluation occurs because the market has used a discount rate that is far too low there will be no ill effects from the overvaluation. I disagree if the low discount rate is the result of the market underestimating the risk of the firm. When the market realizes the risk has been substantially underestimated, it will require increased financial performance to compensate for it. And if the managers have already taken all value-creating projects at the unrealistically low cost of capital, they will be in the game of trying to deliver performance that is impossible, as well as recognizing that many of the projects they have taken are value-destroying at the new cost of capital.

4 Under- or over-valuation of a firm can be due to market inefficiency, or it can occur in a market that is semi-strong form efficient (when the market does not have the information available to managers). It does not matter for my analysis here whether markets are efficient or not. Indeed, we know that in an efficient market, when the current stock price is an unbiased estimate of the firm's true value, half of the firms will be overvalued and half will be undervalued. Given the information available to market participants, we just don't know which is which. But, let's be clear that managers who have better information than the market can know when their firm's stock is dramatically under- or overpriced. Even in situations where optimism leads managers to believe there is no overvaluation we can expect the damaging forces described here to operate, because in the end such delusional managers will not be able to deliver the performance required by the market to justify the valuation.

In their recent paper, Aghion & Stein (2004) develop a model in which fully rational investors and managers can end up over-focusing on a strategy such as maximizing growth or margin to the extent that they create cycles and sacrifice long-run value in the interest of giving the market what it wants in the short run.

5 Pastore & Veronesi (2004). For an opposing view, see Johansen & Sornette (2000).

6 Railroads, canals, automobiles, and telephones are but a few historical examples. See Kindleberger (1978) for an excellent discussion of manias and crashes and the fraud that inevitably accompanies them.

7 I'm indebted to Steve Zaffron for my understanding of the importance of this phenomenon.

8 See Jensen (2001); Jensen (2003).

9 See Table 1 of Skinner & Sloan (2002).

10 And when we pretend managing earnings is something other than lying we forsake the social control mechanisms that would otherwise put limitations on this activity in management and board room circles.

11 Although I choose to emphasize the fear factor in determining managerial actions in the face of overvaluation, there is another force in operation that can also play a role in driving managerial behavior: managerial optimism. See Heaton (2002) for an excellent discussion of the agency costs (and benefits) of managerial optimism in various situations. I emphasize the fear issue because although optimism can play a role in the beginning, and make it harder for managers to stop the overvaluation when it is easier to do so, in the end it is the fear of failure and other punishments that will come with the crash that drives otherwise honest managers to commit the fraud we have witnessed.

12 See Shleifer & Vishny (2003) for an analysis of acquisitions driven by erroneous valuations by the equity markets. Shleifer & Vishny allow markets to make mistakes in valuation of companies, but assume that managers are perfectly informed and rational. However, because they also assume that mergers have "no long run real consequences" their very useful analysis misses the point that I am emphasizing here: how mistaken market valuations create organizational forces that destroy long-run value.

13 Polk & Sapienza (2004) provide evidence that overvaluation generates increased real investment by firms. Baker, Stein & Wurgler (2003) also provide evidence that is consistent with the hypothesis that overvaluation affects the real investment decisions of equity dependent firms; and Baker & Wurgler (2002) provide evidence that is consistent with the notion that firms raise more equity capital when their equity is overvalued.

14 See Martin (2005), pp. 253f; and Belson (2005) for discussions of how WorldCom's fraud affected AT&T's actions and its future.

15 The total loss for the shareholders of these 87 large loss announcements in the three days around the announcement was $397 billion (a cumulative abnormal return of –10.6 percent).

16 Even when adjusted for the industry q of the bidder. Tobin's q is defined as the book value of assets minus the book value of equity plus the market value of equity, divided by the book value of assets. The market-to-book ratio is the reciprocal of the book-to-market ratio as defined by Fama & French (1992).

17 And the damage was evident in its accounting results as well as employment. In July 2001 Nortel reported a record $19.4 billion second quarter loss followed by a $3.6 billion loss in the third quarter. Its CEO resigned effective November 1, 2001. Employment shrunk from 72,900 when Roth took over in 1997 (and from a high of 94,500 people) to a projected 45,000 by the end of 2002.

18 Sokolove (2002).

19 See Cramer (2002).

20 Agency problems with undervalued equity was the dominant story of the 1970s and 1980s. See Myers & Majluf (1984) for analysis of the effects of undervaluation when managers and markets have asymmetric information; Jensen, (1986b); Jensen (1988); and Jensen (1989) for an analysis of undervaluation and control market solutions to these agency problems in the 1970s and 1980s.

21 I would prefer to see the data in a somewhat different form that addresses more directly the causality issue. We would like to know for all firms (not just restating firms) whether the probability of a restatement is greater for firms with higher equity-based pay than for firms with lower equity based pay.

22 For theory and evidence on the ability of constraints on and costs of short selling to contribute to overvaluation see Harrison & Kreps (1978); Jones & Lamont (2002) ; Lamont (2004); Lamont & Stein (2004); Lamont & Thaler (2003) .

23 In a recent paper, Holmstrom & Kaplan (2003) argue that "the U.S. corporate governance system has performed very well…" (29) over the past two decades. They base their conclusions on an analysis of the performance of the U.S. stock market over this period. I disagree with their conclusion, not because I disagree with their analysis, but because the semantics they have chosen are misleading. They have implicitly defined corporate governance in a way that includes anything that causes corporations to behave more efficiently. I define corporate governance as the internal control system headed by the board of directors, who in turn are elected by corporate shareholders. I defined the four control forces operating on the corporation in Jensen (1993) as 1. internal control and governance system headed by the board of directors; 2. capital markets; 3. political/regulatory system; and 4. product and factor markets. Holmstrom & Kaplan effectively define the "U.S. corporate governance system" to include all four of these control forces (although they do not explicitly discuss the product and factor markets). If the internal governance systems of U.S. public corporations had indeed functioned well, it would not have been necessary for the corporate control market of the 1970s and 1980s to arise to displace those failed governance systems. In effect, the invention of hostile takeovers and leveraged buyout associations broke up the inefficient conglomerates that the failing internal governance systems had allowed to arise. Moreover, the hostile takeovers, LBOs, and MBOs forced the slimming down and disgorgement of overinvestment in slow-growing and declining industries by breaking them up and taking them private. These innovations were effectively new forms of management and governance, and they replaced the old in many firms. I believe it is inappropriate to treat these market solutions to failed internal corporate governance systems as effective governance themselves. This is particularly true if our focus is on how to improve internal corporate governance systems so that we do not have to rely on other far less effective capital, product and factor markets, regulatory, or political solutions to resolve the internal governance failures.

24 I am indebted to Jeff Skelton for helping me see this.

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