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U.S. Competitiveness Project

THE GIANT FIB

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INTRODUCTION

The fragile compact that has sustained the American economy—a collective faith in markets to improve the well-being of Americans every generation—appears at risk. The increasing fragility of the compact is linked to the two dominant trends in American capitalism over the last two decades. First, stagnant median wages and rising income inequality have given rise to fundamental questions of fairness. Second, repeated, severe economic disruptions ranging from corporate governance crises to the financial crisis create questions in the popular imagination regarding the stewardship abilities of American managers. Indeed, these developments are causing individuals to question the entire enterprise. Efforts to advance the competitiveness of the American economy must build upon a restored compact.

Restoring that compact requires an understanding of the roots of these trends. Clearly, many economic and political factors are at work. In particular, changing returns to human capital associated with technological changes and changes in the regulatory approach to business have played large roles. But, ideas also matter. As John Maynard Keynes noted, “the power of vested interests is vastly exaggerated compared with the gradual encroachment of ideas.”

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The last three decades have seen American capitalism quietly transformed by a single, powerful idea—that financial markets are a suitable tool to measure performance and to structure compensation upon. This idea and the manifestation of it in financial markets based compensation have fundamentally changed the way managers and investors are evaluated and compensated, thereby changing their incentives. Stock instruments for managers and high powered incentive contracts for investors through the rise of the alternative asset industry have completely altered the nature and level of relative rewards in our society and now both sides of the capital market—investors and managers—face dramatically different incentives than just thirty years ago. The outsourcing of the evaluation and compensation of managers and investors to financial markets has gradually and silently entrenched itself in American capitalism.

The influence of this idea can be best measured by the transformation it has caused in the structure of compensation for high-level managers of American firms and investment managers. In 1990, the equity-based share of total compensation for senior managers of American corporations was twenty percent—by 2007, that share had risen to seventy percent.

Similarly, the investment management industry which helps dictate how capital is allocated in the economy has been transformed by the rise of private equity firms and hedge funds, both of which prominently feature market-based compensation as the basis of their supposed virtue. The norm in these industries—the so-called "2 and 20" rule whereby manager compensation is a function of the size of assets being managed (the 2%) and as a share of their performance as measured by financial markets (the 20%, or carried interest). As detailed below, the rise of the alternative asset industry had effects beyond their own boundaries as they changed the nature of reward and risk taking through much of the financial sector. Financial markets-based compensation has become the norm for both sides of the capital market.

Such a transformation would be welcome if it served to structure relative rewards appropriately. Indeed, nothing is more important for a market economy than the structure of incentives for managers and incentives. Unfortunately, the idea of financial markets based compensation is both remarkably alluring and deeply flawed. And, the result has been the creation of perhaps the largest and most pernicious bubble of all—a giant financial incentive bubble (FIB).The use of the term bubble denotes the unsustainability of the current use of financial markets based compensation—and the acronym serves to remind one of the intellectual flaws that underlie this idea. As described below, these changed incentives and rewards have contributed significantly to rising inequality and the repeated crises that are causing so many to question the nature of American capitalism.

The allure of financial markets based compensation stems from its connection to powerful narratives about capitalism related to the nature of entrepreneurship and the virtues of "sweat equity." The translation of this intuition to broader managerial and investor settings has proceeded without consideration of all the differences in settings and distorted incentives that would result from this translation. Moreover, financial markets based compensation has proliferated because monitors of managers and investors have happily outsourced performance evaluation and compensation to financial markets in order to avoid their obligations. The combination of a foundational myth and absent monitors has led to the proliferation of harmful incentives and windfall compensation levels that have characterized the last two decades.

Restoring faith in the fairness of American capitalism will require exposing the intellectual flaws of these ideas, popping the financial incentive bubble by restructuring compensation contracts toward more appropriate terms, and ensuring that legitimate investment activities are partitioned from systemically important financial institutions.

It has become fashionable to bash capital markets and financial institutions. The purpose here is not to pile on. Indeed, the clear consensus in academic research today is that well-functioning financial markets and institutions play a vital role in economic growth by ensuring that capital is allocated most efficiently. Countries with better developed capital markets feature more robust economic growth and better environments for entrepreneurs. And, many innovations in financial theory have served valuable roles in creating risk management tools that advance our welfare.

More broadly, managerial and investment talent are critically important, if not the most important, ingredients in modern capitalism. Such talents should be richly rewarded when they are evident. The point here is more specific: financial markets can't be employed in simple ways to evaluate and compensate individuals because financial markets can't easily disentangle luck and skill. Accordingly, financial markets don't deserve the respect that is required to fully accept the practices of compensation that have become commonplace. More specifically, the widespread outsourcing of the evaluation and compensation of managers and investors to capital markets have skewed incentives throughout our markets and created significant windfalls to individuals who now consider themselves entitled to such rewards. Until the financial incentive bubble is popped, we can expect continued misallocations to financial, real and human capital through our economy; the misplaced incentives are simply too powerful. Correcting these misallocations of financial, real and human capital by popping the financial incentive bubble can provide the foundation for a considerably stronger American economy.

THE IDEAL

The considerable promise of financial markets based compensation can be best illustrated by the dynamics of entrepreneurial firms. Most start-ups begin with entrepreneurs owning large chunks of their firms. As they reach milestones, other funders come in thereby diluting the entrepreneur's stakes. The most successful of these firms go public and become part of the public capital markets creating significant wealth for the entrepreneurs and funders who guided the firm to this outcome. All of this seems just as it should be. Entrepreneurs are rewarded handsomely for taking considerable risks and creating valuable products. Financial markets serve to validate their success, create a measure of that success and result in significant compensation for those entrepreneurs via "sweat equity." This is the story of our most innovative firms, from Google to Genzyme. Such a system creates the appropriate incentives for the entrepreneurs and funders and seems just to most Americans.

The rationale for financial markets-based compensation can also be adapted to the setting of more mature firms. Rather than worry about providing incentives to entrepreneurs, here the concern is that mature firms have diffuse shareholders where no shareholders control significant fractions of the equity. The classic principal-agent problem arises and may lead to bloated corporations filled with perquisites or empire building that satisfies managers rather than shareholders. Here, financial markets-based compensation seeks to align the interests of managers with shareholder interests. In

both cases of startup firms and mature public firms, financial markets-based compensation promises to reward the best managers appropriately, to do so in a way that is commensurate with their performance and to rectify an underlying principal-agent problem.

The promise of financial markets-based compensation has been extended from firms to investors. Professional money managers historically were compensated by the size of the assets under management. Here again, financial markets-based compensation offered the promise of rectifying the problem of such "flat" incentives—that really good managers would not be paid enough for their skill relative to poor managers. If incentives could be structured that use financial markets to tell which money manager is doing better than another, then, as with managers of firms, professional investors could be evaluated in a fair way that aligned interests and rewarded performance. The rise of the alternative asset industry—hedge funds and private equity funds—has been predicated on the virtues of higher-powered incentive schemes that reward managers based on performance measured by financial markets.

Taken together, financial markets-based compensation is founded on a compelling rationale for entrepreneurs, professional managers and investors and these rationales have led to their widespread usage amongst managers and professional investors. Implementation of these schemes, however, requires resolving some extremely thorny issues. Specifically, they require the distinction between outcomes attributable to luck and skill to be absolutely clear and for that distinction to be the basis for compensation. And, therein, lies the rub.

SKILL AND LUCK: ALPHA AND BETA

In order for these mechanisms to be successful, they require that managers and investors are rewarded only for their success beyond what could normally be generated. Said another way, there are returns that one can generate by doing little and managers and investors shouldn't be compensated for those returns. They should only be compensated on the basis of "excess returns"—returns in excess of what would have been earned regardless.

In the start-up setting, this problem is not very difficult. We don't worry much that the wealth enjoyed by Larry Page and Sergey Brin generated by starting Google represents an undeserved windfall to them. The vast majority of entrepreneurs fail or achieve middling success so it would be hard to conflate the rewards of Page and Brin with windfall gains. The same is likely true for the funders of those ventures. Clearly, fads might provide occasional windfalls but it is hard to conflate the success of our best entrepreneurs with pure luck.

The problem of measuring excess returns more generally, however, is difficult. In particular, measuring the "normal return" for an activity is required in order to isolate an excess return. In most cases, we identify a normal return as the return that would have been generated by undertaking an activity of comparable risk. In short, an appropriate measure of the risk associated with a firm or an investing strategy is required to assess how much of the returns are truly excess, skill-based returns and how much is normal, luck-based returns. Here, we're using luck in the sense that running an oil company when the price of oil is skyrocketing is a lucky place to be—you don't need a lot of skill to earn high profits. But the question remains: how do we measure the skill of the manager or investor in that oil company when the price of oil skyrockets?

Modern financial theory has developed a fairly elegant set of tools based on a simple intuition to help solve this problem—and these tools serve as the foundation of financial markets-based compensation. First, diversification is a powerful tool available to investors that can result in a "free lunch." As an investor's portfolio becomes more diversified, they can earn higher returns without taking on more risk. Second, if diversification is availed of by investors, then the risk represented by a firm is captured by the degree to which a company's stock moves with the market. In short, if a company moves positively with the market, then that stock is accentuating the ups and downs of the market portfolio held by that investor and, consequently, is more "risky." On the other hand, a company that does well when the stock market does poorly is not as "risky" because it provides payoffs when the market is doing poorly.

These notions of risk in the context of diversified portfolios map to the idea of expected or normal returns. Firms that move the opposite or little with the market will not be expected to generate as high returns as firms that move with the markets very much. In short, the exposure of a company to market risk dictates what an expected or normal return is. These tools to measure risk, expected returns and excess returns are now commonly known by managers and investors by the Greek letters that were employed in the development of that theory. Beta is used to denote the amount of risk that a company presents to an investor because of the way in which it moves with the market. Alpha, in turn, represents any return earned by a company or investor that is beyond what is expected because of the beta of that company or investment strategy.

These ideas form the basis of financial markets-based compensation. Managers shouldn't be rewarded for all the returns that their firms earn as a large chunk of it is a "normal" return that is associated with the market risk of that firm. Similarly, investors shouldn't be rewarded for the returns that their investments generate unless they are generating returns beyond the returns expected because of the risks of those investment strategies. Managers and investors should, however, be rewarded for the "alpha" they generate as those are truly a reflection of their skill, rather than luck. This precise decomposition of returns into those associated with luck rather than skill, into expected returns and excess returns, into beta and alpha is what financial markets-based compensation demands.

THE UGLY REALITY OF MANAGERIAL COMPENSATION

The reality of almost all financial markets-based compensation departs significantly from the demands described above. For the top level managers of firms, the ideal above would require that these managers receive, for example, stock in their companies as compensation but that any returns associated with the broader market or with their industry would be subtracted away. Said another way, any stock compensation should be "indexed" so that price appreciation arising from market returns would be subtracted or, more technically, any expected returns would be subtracted away. Returning to the example of the manager of the oil company when oil prices rise, such a managers should receive a payment that corresponds to the return of that company less the returns enjoyed by comparable firms in the oil industry. Such a payment would provide an appropriate incentive for managers to perform in an exceptional way and would measure the true incremental value that they and their workers are responsible for.

In fact, indexed stock options have been exceedingly rare and the rapid spread of stock options through the 1990s and 2000s resulted in large windfall gains to managers as no effort was made to subtract average performance during a period of remarkable returns in asset markets. Moreover, wide varieties of misbehavior have been tied to the incentives created by the "cliffs" in most compensation packages—strike prices and vesting dates. Reaching for extra earnings by cutting small corners when such large amounts are at stake was inevitable. While the corporate governance crises of the last fifteen years had many roots, the patina of "performance based compensation" allowed for large stock option grants and their nonlinearities created distorted incentives for managers anticipating potential payoffs that they could not have imagined a generation earlier.

Taken together, the last fifteen years have witnessed mediocre stock market returns for long term investors, remarkable levels of managerial compensation via financial markets based compensation and repeated corporate governance crises tied to the ill-conceived managerial incentives created by these instruments. As described below, the last several years have begun to witness changes in the structure of incentive contracts but the windfalls of the last two decades have created a widespread sense of entitlement amongst managers that will only slowly erode.

THE UGLIER REALITY OF INVESTOR COMPENSATION

While managerial compensation practices have drawn some attention and begun to change in the best companies, the transformation of the investment management industry via financial markets based compensation is less well understood and even more profound.

The extraordinary asset returns of the late 1990s, the growing savings of the baby boomers, and the low interest rates of the early 2000s provided the perfect cocktail for the rise of the alternative asset industry. Pension funds had grown accustomed to, and perhaps addicted to, double digit returns. Pension plans came to routinely anticipate returns well above what could be reasonably expected, thereby justifying their underfunding. Cheap leverage and novel strategies allowed private equity and hedge funds to promise such returns. Endowments provided the intellectual cover for their growth as they blessed the rise of alternative assets as new, uncorrelated assets providing a free lunch for investors. Every "new" asset class demanded an allocation and so entire industries were baptized as critical pieces of a prudent investment strategy for every pension fund and foundation. By 2007, even 130-30 funds which short 30% of their assets were being touted as a new asset class demanding their own allocation. Funds of funds grew up to provide another layer of intermediation and fees in the effort to find skillful alternative asset managers—so-called alpha generators.

A centerpiece of this transformation of the investment industry has been an incentive structure that provided managers with significant returns via a "carried interest"—or share of returns as measured by financial markets. The logic was alluring to investors—take my $100, make it into $120 and I'd happily pay you $4 for the outsized returns and settle for $116. Performance would be manifest in financial markets so it would be verifiable and real. This logic, combined with the allure of a new asset class, sustained the transformation of the investment management industry.

This logic is very alluring and deeply flawed. Most obviously, the twenty percent return in this example might not represent alpha given the opportunity cost of capital for that investment. At a

minimum, one might consider a crude hurdle rate meant to approximate that opportunity cost. If returns exceed that hurdle rate, incentive fees would kick in. Most private equity funds have an eight percent hurdle rate but hurdle rates vary dramatically, including zero percent, in the hedge fund industry.

The deeper problem in these incentive contracts is the effects on managerial risk taking and the inaccuracy of risk measurement. First, imagine yourself a young hedge fund manager facing such an incentive scheme and facing potential investors who flock to stellar returns. The calculation is clear for those with a limited horizon—undertake risks that may generate outsized returns and transform oneself into the star manager that accumulates funds rapidly. Remarkable operating leverage and reasonable returns will ensure profits that boggle the mind. If the risks fail, highly attractive returns to your human capital are still available at your old job. It should come as no wonder that the 2000s saw investors enable risk taking throughout markets when they faced such incentives. The opacity of these funds further allows risk taking that outside funders can only approximately observe.

But, the deepest problem with these incentive contracts is that risks are not measured appropriately and so returns cannot be measured accurately either. The entire premise of financial markets based compensation is that returns are only extraordinary after accounting for the risks undertaken. Crude hurdle rates are obviously insufficient. But, simple comparisons to market returns are also misleading. As my colleague Erik Stafford and Princeton economist Jacob Jurek have shown, hedge funds as an asset class superficially appear to outperform market benchmarks, thereby justifying their compensation contracts. But these conclusions are naïve—accounting for the strategies that hedge funds actually undertake leads Jurek and Stafford to conclude that the industry has destroyed value given the risks they are undertaking. This would not surprise those investors that have lived through the market dislocations of the last several years when hedge funds have not protected capital.

The conclusion is remarkably damning and extends to private equity as an asset class. The private equity industry, in aggregate, has underperformed a simple strategy of a levered investment in a diversified portfolio of midcap stocks as such a strategy provides a comparable return with a lower risk profile. Only funds in the top quintile provide meaningful outperformance of reasonable benchmarks. Of course, none of this should come as a terrible surprise. Various analyses show that individual managerial skill in financial markets is exceedingly rare. But, the use of leverage and opaque strategies have allowed the alternative asset industry to suggest that something otherwise was true. In reality, the appropriate calculation of risk undermines the nature of the value proposition altogether of much of the alternative asset industry.

In short, we have come to evaluate and compensate managers on both sides of the capital markets as if we can precisely disentangle luck from skill through financial markets when this is clearly not true. Professional athletes provide a common and convenient way for business and financial managers to conceive of themselves. There should be, however, no confusion between the two. There is an infinitesimal amount of luck involved in the success of Roger Federer or LeBron James. It is all aptitude, hard work and resulting skill and expertise. Disentangling luck and skill is simple in competitive sports. In reality, managerial skill is hard to find and numerous studies have documented that skill in financial markets is exceedingly rare. We pretend that we can assess managers with the same precision through financial markets when in reality that ideal level of

measurement is unobtainable and current compensation arrangements don't even try to approximate it very seriously.

One might not worry terribly about all of this if financial markets based compensation was merely resulting in transfers to individuals skilled at marketing themselves while they are not actually adding value in obvious ways. We reward that all the time in product markets throughout our economy. The fact that both sides of our capital markets have become captive to the financial incentive bubble, however, is highly problematic for three reasons.

First, the growth in income inequality that troubles many today can be traced to the windfall gains to managers and investors and the rise of the alternative asset space. The top 0.1% of the income spectrum is dominated by executives and financial professionals as a result of these generous contracts and the windfalls they have created. Second, talent will continue to be misallocated in our economy when outsized windfall rewards are available in certain professions. Third, as detailed above, the inefficient risk-taking that these incentive contracts engender has widespread consequences for the allocation of capital in our society. Indeed, as detailed below, the recent financial crisis is the latest and largest manifestation of the disruptions that a financial incentive bubble can create.

LINKS TO THE FINANCIAL CRISIS

While absent regulators, irresponsible intermediaries and oblivious homeowners were all important agents in creating the financial crisis, the transformation of investment banks into risk taking institutions was central to the financial crisis and can be linked to the rise of the financial markets based compensation. At a basic level, the appetite for risk by managers of investment banks can be linked to the rise of compensation structures which provided them with highly asymmetric incentives. Large balance sheets, easily obtained leverage and an incentive structure that provides enormous payoffs to risking stock prices will surely lead to more risk taking. But, the deeper connection between the financial crisis and financial markets based compensation stems from the rise of the alternative asset industry.

Numerous press accounts from the mid-2000s chronicle the meteoric rise of hedge funds and private equity, the rapid evolution of them into investment bank's most important clients and ultimately the transitions of these funds into competitors with investment banks. From 1998 to 2006, hedge funds, funds of funds and private equity funds grew at greater than 25% per year and the prime brokerage and banking businesses of investment banks grew to rely on them for revenue. They were significant transaction volumes per customer and they were price insensitive. But, soon, these funds, including the largest ones like Citadel and Blackstone, were encroaching on the core, most profitable businesses—banking, syndicated loans, market-making and proprietary trading—of the investment banks. These funds were also not burdened by the relatively low-profit businesses of dealing with large numbers of customers.

The increasing competition of the alternative asset industry was not limited to business competition. Talent quickly migrated from investment banks toward the eye-popping compensation levels of the emerging alternative asset industry. Investment banks, accustomed to attracting the best talent of the world and paying them handsomely, found themselves losing their best people

(and their best MBA recruits) to higher paid jobs and, for many, more interesting jobs. Why service clients on the “sell-side” when one could earn more and enjoy the privilege of being courted on the “buy-side”? They witnessed the rise of an industry with even greater operating leverage, requiring even less capital and with compensation levels that made traditional investment bankers ashamed of their fee-based bonuses.

Observing the remarkable compensation levels in this industry, sensing a significant business opportunity and having to fight for talent with this emergent industry led banks to venture into a set of proprietary activities in unprecedented ways. From 1998 to 2006, principal and proprietary trading at major investment banks grew from less than twenty percent of revenues to forty five percent of revenue. In a 2006 Investment Dealers Digest article that chronicled the rise of alternatives assets and the resulting transformation of Wall Street, a former Morgan Stanley executive summarized the dynamic on Wall Street: “I felt like we lost more people to hedge funds than to other investment banks.” She went on to say “that extravagant hedge fund compensation-which many bankers say is widely envied on Wall Street-is a source of upward pressure on investment banking pay, and that some prop desks are even beginning to give traders carry.”

Various banks bought hedge funds and private equity funds and launched their own funds—creating new levels of risk within systemically important institutions and new levels of conflict. As an industry executive noted in that article, this increasingly created situations where “a given party is often at the same time a competitor, a counterparty, a partner and a customer in all different parts of the organization.”

By 2007, contemporaneous accounts made clear that the transformation of Wall Street was complete. Faced with fierce new rivals competing for business and talent, investment banks transformed themselves into risk-taking institutions that compensated their best and brightest with contracts that embodied the essence of financial markets based compensation.

More broadly, the rise of alternative assets created pressure throughout the investment management world to retain talent and to produce alpha, as these funds promised to. That quest for alpha led investors of all types to search for new securities that provided the proverbial free lunch, especially in the low interest rate environment of the early 2000s. Intermediaries obliged by repackaging loans that catered to the alpha-hungry investment management industry of that period. The real estate bubble and securitization fad could not have exploded without a complicit set of investors convinced that alpha was there for the taking. Indeed, the premise of the alternative asset industry—that alpha is there for smart people to get and one can be paid on the basis of that alpha—has become the defining belief for the investment management industry. The reality is far more prosaic—markets are roughly efficient, talent is remarkably scarce and alpha is extremely hard to measure.

THE WAY FORWARD

Managerial and investor skill are the most precious capabilities in our market economy. Accordingly, skilled managers and investors should be richly rewarded. But skilled managers and investors are also extremely rare and assessing their abilities is a complex, multifaceted process. Contracts that control for risk and market performance can easily be written down in mathematical

formulations. Unfortunately, the translation to practice over the last two decades through the explosion of the financial incentive bubble has been highly incomplete and naïve, sometimes consciously so. The remarkable windfalls to managers and investors of all types have given rise to a sense of entitlement that burdens us still and that will be hard to reverse. Realizing the intellectual flaws in these ideas is a necessary, but only the first, step in rectifying the skewing of rewards and incentives that has contributed to repeated economic instability and recent rises in income inequality.

Three superficially attractive responses to these developments should be resisted. First, it is tempting to consider regulatory and tax instruments to reverse these practices. Such instruments are extremely blunt and will have unforeseen consequences. For example, the limit on the deductibility of executive compensation in the early 1990s targeted at high executive compensation provided a rationale for a further explosion in equity based compensation. Moreover, the agents responsible for creating such regulations and tax instruments may well be captured by those most at risk because of these instruments. Tax policy should be guided by fiscal needs and the imperatives of long run growth rather than vengeance or myopic considerations. The one area where policy may be helpful is that the opportunistic mischaracterization of labor income as capital income that is widespread in the alternative asset industry, and that is currently condoned in tax policy, should be remedied.

Second, it is tempting to diminish the role of the misplaced incentives identified above and reorient the debate toward ethics and morality. If only we hadn't lost our sense of right and wrong, goes this logic. Such complaints may be well-grounded but shifting the debate toward morality obscures just how important these high-powered incentives are. More can be solved by understanding incentive structures and the ideas that underpin them than bemoaning a decline in character or promoting the virtues of professionalism. Relatedly, reorienting away from shareholder-centered capitalism toward stakeholder capitalism risks an overcorrection from the excesses of the last three decades.

Third, it is tempting to respond that markets will self-correct against these excesses so little is required in terms of action. Such complacency about markets overlooks the profound agency problems that characterize modern capitalism. Entry will not solve the problem of pension funds that are not monitoring, given their monopolistic position. Similarly, more entry of new alternative asset funds will not solve this problem as their self-interested managers will happily mimic the incentive schemes that provide their brethren with windfall gains. Markets are powerful but they are not a panacea when monopolies are present and when agents aren't serving their captive principals.

The best way forward requires spotlighting the ultimate enablers of the financial incentive bubble. Aside from the intellectual allure of these ideas, would be monitors of managers and investors have also been happily complicit in the growth of the financial incentive bubble, instead of restraining it. Their complicit stance can be traced to the plausible deniability provided by outsourcing evaluation and compensation to financial markets. A board member charged with assessing the efforts of a CEO can feel quite self-satisfied by allowing for significant fractions of equity to dominate compensation packages. Rather than actually assessing their efforts in a subjective way which can be subsequently proven wrong, board members can simply say that

managers will only do well when the stock does well. Subjective assessments of CEO performance are a difficult, time-consuming process that can go wrong. Why not simply let markets do it?

Similarly, pension fund and endowment managers could more actively allocate and invest assets but heavy use of alternative assets and funds of funds allows them to point fingers at others when returns are poor. A few additional layers of fees are a small price to pay for that shifting of responsibility. A great irony of the current configuration is that universities and pension funds—representatives of some of the interests most disturbed by recent economic disruptions and income inequality—are absent monitors and, as significant ultimate capital providers, the enablers of the financial incentive bubble.

Monitors must begin to wrest control back from managers and investors in order to rectify the skewed incentives and rewards of the financial incentive bubble. Managerial and investor compensation has already made some advances. The turn to restricted stock and the vesting of those investments based on longer term accounting metrics is a useful best practice at some leading corporations today. Embracing longer term accounting metrics—especially returns on invested capital—provides a useful antidote to the easy attraction of financial markets based compensation. Board members must continue the move toward subjective, longer term, accounting and finance based measures of compensation. Levels of compensation for the best managers may remain as high as is currently the case but the form should change dramatically.

At the investor level, pension funds, foundations and endowments must question anew the suitability of the endowment model and the compensation contracts provided to their asset managers. First, "new" assets that provide a free lunch from a diversification perspective can't simply be repackaged, levered existing assets. Second, foundations and funds of more modest sizes should question if active and outsourced investment is suitable given the fees and limited evidence on manager quality. Third, if investor quality is as scarce as the evidence suggests and traditional tools to measure investor quality are suspect, then paying a fund of funds additional fees to find skillful managers should be reevaluated. Finally, and most importantly, the largest capital providers should engage, as some have begun to, in renegotiation of incentive fees toward longer term structures with considerably better performance and risk assessment. Alpha is neither easily captured nor easily measured and investment practices should reflect that basic reality.

The role of alternative assets in the financial sector deserves special attention given their influence on systemically important institutions. The partitioning of investment activities from intermediary activities, as suggested by the Volcker Rule and others, is a basic, and still unheeded, lesson from this financial crisis. The financial incentive bubble led these institutions into risk taking and into severe conflicts of interests where customers were often competitors and where notions of fiduciary responsibilities quickly seemed antiquated. High quality investors should be rewarded handsomely outside of the context of large financial institutions and these institutions should not be competing for talent or business with these investors.

CONCLUSION

While the fraying of the compact of American capitalism created by rising income inequality and repeated governance crises is disturbing, the misallocations to financial, real and human capital

created by the financial incentive bubble are perhaps most worrisome. An economy can only be as strong as the allocation mechanisms that ensure that capital of all types move toward their highest social uses. When risk is repeatedly mispriced because investors are facing skewed incentive schemes, financial capital is being misallocated. When managers undertake unwise investments or mergers in order to meet expectations that will trigger large compensation packages, real capital is being misallocated. And, when the relative rewards to human capital become as skewed as they have over the last several decades because of the financial incentive bubble, one can only expect that human capital is becoming misallocated to a disturbing degree. All of these misallocations—particularly to human capital—are the truly destructive consequences of the financial incentive bubble. The awakening of our monitors to their responsibilities and to the flaws of financial markets based compensation provides the best hope for correcting these misallocations and strengthening the American economy for the challenges of this century.