

## The Incentive Bubble

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The past three decades have seen American capitalism quietly transformed by a single, powerful idea—that financial markets are a suitable tool for measuring performance and structuring compensation. Stock instruments for managers and high-powered incentive contracts for investors have dramatically altered the nature and level of incentives and relative rewards in our society, on both sides of the capital market.

In 1990 the equity-based share of total compensation for senior managers of U.S. corporations was 20%. By 2007 it had risen to 70%. Meanwhile, the investment management industry 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 at these funds is the “2 and 20” rule, whereby compensation is tied to the size of assets being managed (the 2%) and to managers’ performance as measured by the financial markets (the 20%, or “carried interest”). As detailed below, the rise of the alternative-assets industry has altered behavior through much of the financial sector. Financial-markets-based compensation has become the norm in modern American capitalism.

This transformation would be welcome if it served to structure incentives and rewards appropriately—indeed, nothing is more important for a market economy than the structure of incentives for managers and investors. Unfortunately, the idea of market-based compensation is both remarkably alluring and deeply flawed. The result has been the creation of perhaps the largest and most pernicious bubble of all: a giant financial-incentive bubble, or FIB. (“Bubble” acknowledges the unsustainability of market-based compensation, and the acronym reminds us of the intellectual flaws underlying this idea.) These changed incentives and rewards have contributed significantly to the twin crises of modern American capitalism: repeated governance failures, which lead many to question the stewardship abilities of American managers and investors, and rising income inequality.

The allure of financial-markets-based compensation stems from its connection to powerful narratives about entrepreneurship and the virtues of “sweat equity.” The translation of this intuition to managerial and investor compensation has proceeded without consideration of the differences in settings and the potential for distorted incentives. Moreover, those that monitor managers (boards of directors) and investors (largely state and corporate pensions funds) have readily outsourced performance evaluation and compensation to markets in order to

avoid their obligation to make tough decisions and in order to rationalize the excessively optimistic assumptions undergirding the solvency of their funds. The combination of a foundational myth and absent monitors over the past two decades gave rise to harmful incentives, asymmetrical payoffs, and windfall compensation levels.

Remedying these distorted incentives and restoring faith in the fairness of American capitalism will require that we pop the financial-incentive bubble by exposing the intellectual flaws behind it, restructuring compensation contracts and separating legitimate investment activities 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 the most efficient allocation of capital. More broadly, managerial and investment talent may be 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 cannot be relied upon in simple ways to evaluate and compensate individuals because they can't easily disentangle skill from luck. Widespread outsourcing of those functions to markets has skewed incentives and provided huge windfalls for individuals who now consider themselves entitled to such rewards. Until the financial-incentive bubble is popped, we can expect misallocations of financial, real, and human capital to continue. The misplaced incentives are simply too powerful.

### **The Ideal**

The promise of financial-markets-based compensation can best be illustrated by the dynamics of entrepreneurial firms. Most start-ups begin with entrepreneurs' owning large chunks of their companies. Over time other funders come in, diluting the entrepreneurs' stake. The most successful of these start-ups go public, creating significant wealth for both entrepreneurs and funders. This is the story of our most innovative firms, from Google to Genzyme. Entrepreneurs and funders are given appropriate incentives and are rewarded handsomely for their sweat equity—for taking risks and creating valuable products. All this seems just as it should be.

The appeal of this model has led to the use of financial-markets-based compensation at large corporations and investment firms. Mature corporations without large shareholders may become bloated with perquisites or preoccupied by empire building that satisfies managers rather than shareholders—the classic principal-agent problem. Here, financial-markets-based compensation seeks to align the interests of managers with those of shareholders and to reward the former in a way that is commensurate with their performance. Professional money managers have historically been compensated according to the size of assets under

management. Here again, market-based compensation enables hedge funds and private equity funds to rectify such “flat” incentives—which prevent truly good managers from being paid enough relative to poor managers.

Seen this way, financial-markets-based compensation is founded on a compelling rationale. Implementation of these schemes, however, requires resolving an extremely thorny issue: how to distinguish between outcomes attributable to skill and those due solely to luck and make that distinction the basis for compensation. And therein lies the rub.

### **Skill and Luck: Alpha and Beta**

In order for these pay mechanisms to be successful, managers and investors should be rewarded only for success *beyond what would 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. A rising tide lifts all boats, so managers should only be compensated for “excess returns.”

At a start-up, that is not hard. We don't worry much that the wealth Larry Page and Sergey Brin generated for themselves by launching Google is undeserved. The vast majority of entrepreneurs fail or achieve only middling success. The same is true for the funders of their ventures. Clearly, fads and bubbles occasionally provide enormous returns, but we don't attribute the success of our best entrepreneurs to pure luck.

Measuring “excess returns” more generally, however, is difficult, and requires establishing the “normal” return for an activity. In most cases we view the normal return as what would have been generated by undertaking an activity of comparable risk—and measuring risk appropriately helps us assess how much of the return is truly skill based and how much is luck based. Someone running an oil company when the price of oil is skyrocketing doesn't need a lot of skill to earn high profits. So how do we measure the skill of a manager or an investor in that company when the price is skyrocketing?

Modern financial theory has developed some fairly elegant concepts, represented by the Greek letters alpha and beta, to help solve this problem. A company's exposure to market risk or other relevant risk factors dictates the expected or normal return. Companies that move opposite to or only a little with the market aren't required to generate returns as high as those of companies that move very much with the market. Beta represents the amount of risk a company presents to an investor because of how it moves with the market. Alpha represents any return earned by a company or an investor greater than what is expected in light of the beta of a stock or an investment strategy—the amount in excess of what is caused by a rising tide.

The 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**

Almost all current financial-markets-based compensation departs significantly from the demands described above. Ideally, top-level managers would receive company stock as compensation but any returns associated with the broader market or with their industry would be subtracted. In other words, stock compensation would be indexed to remove price appreciation arising from market returns. The manager of that booming oil company should receive pay reflecting the return of his company less the returns of comparable firms in the industry. That would provide an appropriate incentive for high performance and would measure the true incremental value the manager provided.

Indexed stock compensation has been exceedingly rare in the United States. The rapid spread of stock options over the past two decades resulted in large windfalls for managers because no effort was made to subtract average performance during a period of remarkable returns in asset markets. Moreover, wide varieties of misbehavior have been traced to 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 were at stake was inevitable. The corporate governance crises of the past 15 years had many roots; large stock option grants and the distorted incentives they provide loom large among them.

It is tempting to rationalize these arrangements by saying that they ensure an alignment of managers and shareholders: Managers win only when shareholders win. But the reality is far more complicated, because managers can dictate the timing and levels of market-based compensation. Indeed, the past 15 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. Changes in the structure of incentive contracts have begun—but managers’ sense of entitlement will erode only slowly.

### **The Uglier Reality of Investor Compensation**

The effects of financial-markets-based compensation on the investment management industry are less well understood and even more profound. Extraordinary asset returns in the late 1990s, the growing savings of baby boomers, and low interest rates in the early 2000s provided the perfect conditions for the rise of alternative assets. Pension funds had grown accustomed to—perhaps addicted to—double-digit returns. Cheap leverage and novel strategies allowed private equity and hedge funds to promise those returns. University endowments and foundations supplied intellectual cover for this growth by blessing the rise of

private equity and hedge funds as new, uncorrelated “asset classes,” providing a free lunch for investors. Every new asset class demanded an allocation, so entire industries were baptized as critical pieces of a prudent investment strategy for pension funds and foundations. By 2007 even 130-30 funds, which short 30% of their assets, were being touted as a new asset class. Funds of funds grew up to provide another layer of intermediation and fees in an effort to find skillful alternative-asset managers—“alpha generators.”

A centerpiece of this transformation of the investment management industry has been an incentive structure that provides investment managers with significant returns via carried interest—or a share of returns as measured by financial markets. The logic was alluring to investors: Take my \$100, turn it into \$120, and I’ll happily pay you \$4 for the outsize return. Performance would be manifest in financial markets and thus would be real and verifiable. This logic, combined with the allure of a new asset class, sustained the transformation of the investment-management industry.

That logic, however, is deeply flawed. Most obviously, the 20% return in this example might not represent alpha, given the opportunity cost of capital for the investment. At a minimum, one might consider a crude hurdle rate meant to approximate that opportunity cost. If returns exceeded the hurdle rate, incentive fees would kick in. Most private equity funds have an 8% hurdle rate, but rates vary dramatically in the hedge fund industry, including 0%.

These incentive contracts make limited, if any, efforts to measure risks, and so returns cannot be measured accurately either. The entire premise of financial-markets-based compensation is that returns are extraordinary only after the risks undertaken have been accounted for. Crude hurdle rates are obviously insufficient. But simple comparisons with market returns—benchmarking—are also misleading. As my colleague Erik Stafford and the Princeton economist Jakub Jurek have shown, hedge funds as an asset class superficially appear to outperform market benchmarks, thereby justifying their compensation contracts. But this conclusion is naive. Accounting for both the strategies that hedge funds actually employ and the risks they undertake leads Stafford and Jurek to conclude that hedge funds destroy value given the risks they are undertaking.

This conclusion is remarkably damning, and it extends to the private equity industry, which overall has underperformed a simple strategy of borrowing money and using it to buy a diversified portfolio of midcap stocks. Only the leading 20% of funds meaningfully outperform naive market benchmarks. Of course, none of this should be particularly surprising. Various analyses have shown that individual managerial skill in financial markets is exceedingly rare. But the use of leverage and opaque strategies has allowed the alternative-assets industry to suggest the opposite.

A deeper problem in these incentive contracts is the effect on investors' risk taking. Imagine that you are a young hedge fund manager given such a contract along with potential investors who flock to stellar returns. The strategy is clear for anyone with a limited horizon: Undertake risks that may generate outsize returns and transform yourself into a star manager who accumulates funds rapidly. If the gambles fail, highly attractive returns are still available at your old job.

In short, we have come to evaluate and compensate managers on both sides of the capital market as if the market could precisely disentangle skill from luck. Professional sports provide a common and convenient metaphor for business and financial managers. But distinguishing skill from luck is relatively simple in sports. The success of Roger Federer or LeBron James comes almost exclusively from aptitude, hard work, skill, and expertise, with only an infinitesimal amount of luck involved. We pretend that we can assess managers and investors 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.

We might not worry about all of this if market-based compensation resulted merely in payments to individuals who are skilled at marketing themselves while not actually adding any financial or social value. Indeed, we reward such individuals all the time in product markets. But the fact that both sides of the capital market have become captive to the financial-incentive bubble is highly problematic for three reasons.

### CEOs Cash In

First, the inefficient risk taking engendered by these incentive contracts has widespread consequences for the allocation of capital in our society. Indeed, as detailed above, the recent financial crisis is the latest and largest manifestation of the disruptions a financial-incentive bubble can create. Significant spillovers arise when individuals are given such asymmetric incentives to pursue risk. Second, talent will continue to be misallocated in our economy as long as outsize rewards are available in certain professions. Third, the surge in income inequality that troubles many people today can be traced to windfalls for managers and investors and the rise of alternative assets. As a result of these generous contracts, the top 0.1% of the income spectrum is dominated by executives and financial professionals.

### Links to the Financial Crisis

Absent regulators, irresponsible intermediaries, and oblivious homeowners were all important agents in creating the financial crisis, but the transformation of investment banks into risk-hungry institutions was central to it—and that transformation is connected to the growth of 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 that provided them

with highly asymmetrical incentives. Large balance sheets, easily obtained leverage, and incentive structures that provide enormous benefits from rising stock prices will surely lead to more risk taking. The deeper connection between the financial crisis and financial-markets-based compensation stemmed from the rise of the alternative-assets industry.

From 1998 to 2006 hedge funds, funds of funds, and private equity funds grew by more than 25% a year, and the prime brokerage and banking businesses of investment banks came to rely on them for revenue. They generated significant transaction volumes and were price insensitive. But soon these funds, such as Citadel and Blackstone, were encroaching on the investment banks' core, most-profitable businesses—syndicated loans, market making, and proprietary trading. These funds were also unburdened by the relatively low-profit business of dealing with large numbers of customers. Alternative-assets managers soon became the largest clients *and* the largest competitors of traditional investment banks.

Talent quickly migrated from investment banks to hedge funds and private equity. Investment banks, accustomed to attracting the most-talented executives in the world and paying them handsomely, found themselves losing their best people (and their best MBA recruits) to higher-paid and, for many, more interesting jobs. Why service clients on the sell side when you can earn more and enjoy being courted on the buy side?

Observing the remarkable compensation in alternative assets, sensing a significant business opportunity, and having to fight for talent with this emergent industry led banks to venture into proprietary activities in unprecedented ways. From 1998 to 2006 principal and proprietary trading at major investment banks grew from below 20% of revenues to 45%. In a 2006 *Investment Dealers' Digest* article chronicling the rise of alternative assets and the resulting transformation of Wall Street, one former Morgan Stanley executive said, "I felt like we lost more people to hedge funds than to other investment banks." She said that extravagant hedge fund compensation—widely envied on Wall Street, according to many bankers—was putting upward pressure on investment banking pay, and that some prop desks were even beginning to give traders "carry." Banks bought hedge funds and private equity funds and launched their own funds, creating new levels of risk within systemically important institutions and new conflicts of interest. Another executive quoted in the article noted that "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 the transformation of Wall Street was complete. Faced with fierce new rivals for business and talent, investment banks turned into risk takers that compensated their best and brightest with contracts embodying the essence of financial-markets-based compensation. The rise of alternative assets created pressure throughout the investment management world to retain talent and to produce alpha, as these funds promised to do. The quest for higher returns led investors of all types to search for new securities that would provide the proverbial

free lunch, especially in the low-interest-rate environment of the early 2000s. Intermediaries obliged by repackaging loans. The real estate bubble and the securitization fad could not have exploded without complicit investors. Indeed, the premise of the alternative-assets industry—that alpha is there for smart people to get—has become a defining belief among investment managers. The reality is far more prosaic: Markets are roughly efficient, talent is remarkably scarce, and alpha is extremely hard to measure

## **The Way Forward**

The skills of managers and investors are among the most precious capabilities in our market economy. Accordingly, they should be richly rewarded. But they are extremely rare, and assessing them is a complex, multifaceted process requiring judgment. Contracts that control for risk and market performance can easily be constructed with mathematical formulations. Unfortunately, the translation into practice over the past two decades has been highly incomplete and naive, 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. Recognizing the intellectual flaws in these developments is a necessary—but only the first—step in rectifying the skewed rewards and incentives that have contributed to repeated economic instability and the growth of income inequality.

Three superficially attractive responses to these developments should be resisted. First, it is tempting to rely on regulation and taxes to reverse these practices. But such policy instruments are extremely blunt and will have unforeseen consequences. For example, limits on the deductibility of executive pay in the early 1990s provided a rationale for further explosion in equity-based compensation. Tax policy should be guided by fiscal needs and the imperatives of long-run growth rather than by vengeance or myopic considerations. The one area where policy may be helpful is in remedying the mischaracterization of labor income as capital income—widespread in the alternative-assets industry via the use of carried interest and currently condoned in tax policy.

Second, it is tempting to diminish the role of the skewed incentives identified above and reorient the debate toward ethics and morality: *If only we hadn't lost our sense of right and wrong.* Such complaints may be well-grounded, but they obscure just how important these high-powered incentives are. More can be achieved by understanding incentive structures and the ideas that underpin them than by bemoaning a decline in character or promoting the virtues of professionalism. And moving away from shareholder-centered capitalism toward stakeholder capitalism risks overcorrecting the excesses of the past three decades. Indeed, capitalism appears to be serving managers and investment managers at the expense of shareholders.

## **How to Burst the Bubble**



Third, it is tempting to respond that markets will self-correct against these excesses, so little action is required. Such complacency overlooks the profound conflicts of interest that characterize modern capitalism. Competition will not solve the problem of pension funds that fail to monitor the investment managers they hire, given the monopolistic position of those funds. Similarly, competition from new alternative-assets managers will not solve the problem, because self-interested managers will happily adopt 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. Would-be monitors of managers and investors have been happily complicit in growing the financial incentive bubble instead of restraining it. Their stance can be traced to the plausible deniability provided by outsourcing evaluation and compensation to financial markets. Instead of actually assessing a CEO's efforts in a subjective way that might subsequently be proved wrong, board members can fall back on the notion that managers will do well only when the stock does well. Assessing CEO performance is a difficult, time-consuming, far from foolproof process. Why not simply let the market do it?

Similarly, the heavy use of alternative assets and funds of funds allows pension fund and endowment managers to point the finger at others when returns are poor. A few additional layers of fees are a small price to pay for shifting that responsibility. More pointedly, managers seeking to boost earnings have come to rely on optimistic assumptions about pension assets that can be rationalized only by accessing new asset classes. And alternative assets provide the illusory hope that underfunded pension plans can be made whole again by simply changing asset allocations. A great irony of the current configuration is that universities and pension funds—representatives of some of the interests most deeply disturbed by recent economic disruptions and the rise in income inequality—have been absent monitors and, as significant capital providers, enablers of the financial-incentive bubble.

Monitors must begin to wrest control back from managers and investors to rectify the skewed incentives and rewards of the financial-incentive bubble. Managerial compensation has already made some advances: The turn to restricted stock and vesting based on longer-term accounting metrics is best practice at some leading corporations today. Board members must continue the move toward subjective, longer-term, accounting- and finance-based measures of compensation. Judgment must replace the mindless outsourcing of decision making to markets and compensation consultants. Compensation for the best managers may remain as high, but the form it takes should change dramatically.

Pension funds, foundations, and endowments must question anew the suitability of the diversification model they have followed and the compensation contracts provided to their

asset managers. First, “new” assets can’t be simply repackaged, leveraged existing assets. Second, alternative assets can’t be expected to magically provide the excess returns that will cure insolvent pension plans. Third, foundations and funds of modest size should question whether active and outsourced investment is appropriate, given the fees and limited evidence of managerial quality. Fourth, if investor quality is as scarce as the evidence suggests, and traditional tools for measuring it are suspect, the advisability of paying additional fees to a fund of funds or a consultant to find skillful managers should be reevaluated. Indeed, pension fund consultants have played a critical role in ratcheting up compensation by benchmarking the incentive contracts of all funds to those earned by truly good investment managers, as if the right incentive scheme were enough to ensure exemplary performance. Finally, and most important, the largest capital providers should, as some have begun to, renegotiate incentive fees toward a significantly longer term with 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. That investment activities should be separated from intermediary activities, as suggested by the Volcker rule and others, is a basic but still unheeded lesson from this financial crisis. The financial-incentive bubble led institutions into risk taking and into severe conflicts of interest where customers were often competitors and where notions of fiduciary responsibility quickly seemed antiquated.

The fraying of the compact of American capitalism by rising income inequality and repeated governance crises is disturbing. But misallocations of financial, real, and human capital arising from the financial-incentive bubble are much more worrisome to those concerned with the competitiveness of the American economy.

An economy can be only as strong as the allocation mechanisms that ensure that capital of all types moves toward its highest social use. When risk is repeatedly mispriced because investors enjoy 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 relative compensation is as distorted as it has been by the financial-incentive bubble over the past several decades, one can only assume that human capital is being misallocated, to a disturbing degree. Awakening our monitors to their responsibilities and to the flaws of market-based compensation provides the best hope for correcting these misallocations and strengthening the U.S. economy for the challenges of this century.