Delegated Investing

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DOI:10.1093/acprof:oso/9780199959327.003.0015

Abstract and Keywords
What is best for the asset owner (principal) is usually not best for the delegated fund manager (agent). Principal-agent conflicts can be mitigated by appropriate governance structures and contracts. Poorly designed benchmarks cause agents to work against the asset owner’s goals. Effective boards can advocate for principals’ interests. Boards should build processes for investment decisions rather than making those decisions.

Keywords: principal-agent, agency problem, optimal contract, Irrelevance Result, nonlinear contract, delegated portfolio management, adverse selection, moral hazard, factor benchmark, financial advisor, boards, investment decisions

Chapter Summary
What is best for the asset owner (principal) is usually not best for the delegated fund manager (agent). Principal-agent conflicts can be mitigated by appropriate governance structures and contracts. Effective boards can advocate for principals’ interests. Boards should build processes for investment decisions rather than making those decisions.

1. New York State Common Retirement Fund
The New York State Common Retirement Fund (NYSCRF) had $140.6 billion in assets and more than a million participants in 2011, making it one of the largest pension plans in the world.\(^1\) This large pile of assets is controlled by just one man—the state comptroller, an elected official who serves as the sole trustee.

Over the years, many had tried to reform the governance of New York’s pension system, but despite repeated scandals, all such attempts failed. All that power vested in one person is an invitation for trouble, and that’s just what it has produced over the decades. Edward Regan, for example, was comptroller from 1979 to 1993 and was investigated in 1989 by the New York Commission on Government Integrity for directing state business to investment banks and lawyers who had donated to his political campaign. H. Carl McCall served as comptroller from 1993 to 2002 and came under fire for writing to companies in which the pension fund had invested, asking them to consider the resumes of his friends and family members. He even used state letterhead. McCall also was accused of directing pension fund legal business toward campaign contributors. McCall’s successor, Alan Hevesi, was forced to resign in 2006, eventually pleading guilty to accepting (p.492) $1 million in placement fees in exchange for directing NYSCRF pension money to certain investment firms. Hevesi went to prison.

Thomas DiNapoli, appointed in 2007 to fill out Hevesi’s remaining term as comptroller, introduced a number of reforms to improve transparency and prevent fraud. DiNapoli used outside advisors, consultants, and legal experts and established committees of professionals to advise him on the retirement system, investments, real estate, and actuarial valuations. Yet ultimately these structures and individuals were all merely advisory; the comptroller retained absolute control.\(^2\)

The NYSCRF was subject to the same principal-agent issues as corporate pension plans, including the self-interest of managers and the misalignment of manager and beneficiary incentives. But as a public pension plan, the NYSCRF had additional principal-agent problems related to the conflicting interests of taxpayers and politicians, since taxpayers bore residual responsibility for the plan’s liabilities.\(^3\) Public agencies often face limits on the salaries that can be paid to
employees, and thus the most talented investment managers, in general, are not available to public pension plans. The legislative and political process can also hamper the management of a public pension fund.

Eric Schneiderman, New York’s attorney general, has criticized the sole trustee model. “Being a sole trustee gives more power than a good comptroller should want and more power than a corrupt comptroller should have,” he said.4

But a board of trustees, instead of just one all-powerful trustee, has its own disadvantages. Trustees appointed by politicians, government officials, or unions may not have investment expertise and could be dominated by special interest groups. Or they could simply be crooks.

What is the right governance model for NYSCRF?

2. Principal-Agent Problem
Asset owners do not usually manage their own wealth. Instead, they employ an asset manager. This gives rise to an agency problem. The asset owner is the principal, who delegates portfolio management responsibility to the fund manager, who is the agent. The terms “principal” and “agent” come from common law.

(p.493) The problem of agency was introduced to economics by Ross (1973)—the same Stephen Ross who developed the theory of the multifactor model (see chapter 6). Agency problems are everywhere: they arise between employers and employees, landlords and tenants, clients and attorneys, patients and physicians, the public and politicians, and so on. In the context of asset management, the principal is the owner of the funds while the agent is the fund manager or advisor.

2.1. Agency Problems
Agency problems in delegated asset management arise because the asset owner (principal) and the fund manager (agent) have different utilities or risk aversions, incentives, horizons, skills, information sets, or interests. In addition, the principal’s ability to monitor the agent is limited. In the cases where monitoring is possible, it could be expensive, it can be done only infrequently, and the asset owner may not understand the information being uncovered in the monitoring process. Principals lack the ability to judge whether the agent
has talent or whether the agent is doing a good job. Even when a talented fund manager is employed, the principal does not know if the agent is working or shirking.

There are two key agency problems, with the terminology for both originating from insurance:

**Adverse selection** arises when the principal cannot verify the agent’s skills. The manager is always better informed than the asset owner. The manager claims to have alpha, but the asset owner is naturally skeptical. The asset owner cannot verify whether the manager is the next Warren Buffett or the next Bernie Madoff.

In the insurance context, adverse selection arises when individuals have more information than the insurer, so only individuals who know they are terminally ill are more likely to purchase life insurance. Not taking into account the adverse selection results in the insurer charging too low a premium.

**Moral hazard** arises when the principal cannot observe the effort put in by the agent and the agent has or can acquire superior information than the principal has. The asset owner hires the budding Warren Buffett. But the asset owner can’t monitor him. Instead of adding value to the asset owner’s portfolio, Warren is in fact adding value to his own portfolio and ignoring the asset owner’s. Worse, budding Warren is churning and front-running, thereby actually losing money for the asset owner.

In the insurance context, moral hazard arises (for example) when the insurer has sold an insurance policy covering theft. But the insurer can’t monitor the individual buying the policy, who now leaves his front door wide open, since he’s not bearing the loss. The insurer will end up underpricing the coverage if it does not take into account moral hazard.

Economists have studied ways to mitigate agency problems. Principals and agents can write contracts or construct governance mechanisms (economists call these *games*). The contract must make it worthwhile for talented, good agents to \(\text{(p.494)}\) work (the jargon for this is the *participation constraint*). The contract must also provide the right incentives for these agents to work hard, lest the talented fund
managers spend their time playing golf (this is called the \textit{incentive compatibility constraint}). The contract maximizes the principal’s value, and the contract takes into account the participation and incentive compatibility constraints.

Often the talented fund manager will be able to generate value that the asset owner cannot. This surplus will be split between the fund manager and the asset owner in a \textit{bargaining game}. In some cases, the fund manager may extract all the value, leaving the asset owner with nothing. A cynic would say the technical term for this is \textit{Wall Street}. Fred Schwed’s famous book, \textit{Where Are the Customer’s Yachts?}, is as relevant today as it was when it was published in 1940:

> Once in the dear dead days beyond recall, an out-of-town visitor was being shown the wonders of the New York financial district. When the party arrived at the Battery, one of his guides indicated some handsome ships riding at anchor. He said, “Look, those are the bankers’ and brokers’ yachts.”

> “Where are the customers’ yachts?” asked the naïve visitor.

I will show over the next few chapters that in several investment vehicles—mutual funds, hedge funds, and private equity—the average fund manager adds zero to, or subtracts value from, an asset owner using an appropriate benchmark. That is, the fund manager collects, on average, all the surplus. In some cases, however, the fund manager may still add value because the asset owner may not be able to implement the benchmark herself. In other cases, the client wants someone to hold his hand and the fund manager helps him stay the course (see chapter 4).

\section*{2.2. Optimal Contracts in General Agency Problems}

Solving principal-agent problems and finding optimal contracts is difficult. Two Nobel Prizes have been awarded in this area: James Mirrlees received one in 1996 for solving models involving both adverse selection and moral hazard. (He is best known for his result, cited by the Nobel committee, that the optimal marginal tax rate for the rich should be 0%.) Leonid Hurwicz, Eric Maskin, and Roger Myerson were awarded the 2007 Nobel for developing the field of mechanism
design, an area closely linked with agency theory. Many principal-agent problems can be interpreted as games and solved using the insights developed by these authors.5

(p.495) Several principles from agency theory can help us design systems to get fund managers to act in the best interests of asset owners. One general principle is that the fund manager has to “look more like the asset owner” and by doing so will “act more like the asset owner:”

Outcome-based contracts enable the fund manager to share the principal’s reward. These types of contracts include bonuses paid if a certain outcome is obtained—for example, when outperforming a benchmark. Another type of outcome-based contract is a relative performance contract, where the agent is paid for outperforming a peer group.

Behavior-based contracts allow the asset owner to more closely monitor what the fund manager is doing, constraining his behavior and curbing his opportunities to exploit and deceive his employer. Examples of such restrictions include not allowing a manager to trade derivatives contracts or specifying the amount of risk or leverage a manager can take on. At the same time, effort can be rewarded.

Inference-based contracts are based on the principle that the fund manager should receive disproportionately high rewards for outcomes that are more likely if she is diligent and disproportionately low rewards for outcomes that are likely only if she shirked or was negligent. This principle means that, in general, nonlinear contracts are optimal.

Reputation is important. Agents know that their reputation is essential for winning new clients and maintaining professional standing. So the desire to preserve a spotless reputation helps keep agents in line. Even a single serious allegation can do real damage.

In the asset management industry, certain types of contracts are prohibited by law for certain types of investment managers. For example, under the 1970 amendment to the Investment Advisers Act of 1940, mutual fund performance fees can only be symmetric (see chapter 16). This rules out nonlinear inference-based contracts for mutual funds. On the
other hand, some contracts that permeate industry generally are not optimal, as I explain later. One of these turns out to be benchmarking using basic asset class indexes.

In asset management, implicit contracts turn out to be as important as explicit ones. Asset managers receive compensation on assets under management, so the ability to attract flows from future clients is a powerful long-term incentive and in many cases is even more powerful than the explicit incentives in the manager’s contract with existing clients. Explicit contracts are under the control of the principal, whereas implicit contracts are subject to market forces. Incentive schemes arising from implicit contracts are often of a winner-takes-all variety, which leads to excessive risk taking.

The key insight of agency theory boils down to this: the agent is out to screw you, not because the agent dislikes you but because the agent is human and therefore cares first and foremost about himself. As asset owner, you recognize this and can design a system (a management structure, a contract, or a governance system) that can mitigate these effects, and in the best case the tendencies of the agent to enrich himself work to your advantage. For example, you know the agent wants to maximize his own profit, so you allow him to earn some in a way that increases your earnings (the outcome-based contract). Another example: you pay enough so that the best agents come work for you, but you make sure they are adding value for your portfolio and not for their own (the behavior-based contract). Agency theory is about recognizing the conflicts between the principal and agent and working with the agent in the presence of these conflicts to enhance the principal’s interests.

What if you don’t get the contract right? Well, as Martin Wolf said, “With the ‘right’ fee structure mediocre investment managers may become rich as they ensure that their investors cease to remain so.”

3. Delegated Portfolio Management
We now turn to the special set of agency issues in delegated portfolio management.
Asset management generally has multiple principal-agency issues, many of them in conflict with each other. Consider the principal-agent relationships involved in NYSCRF summarized in Figure 15.1. In relationship (1), the comptroller is the sole trustee of the fund, and so is the agent of beneficiaries, who are the asset owners. The comptroller is responsible for overseeing internal fund managers and selecting external fund managers in relationship (2), and these agents are better informed than the comptroller (adverse selection), and the comptroller cannot observe their efforts in running the fund 100% of the time (moral hazard). The comptroller is aided by consultants, but this adds another agency dimension—relationship (3) between the comptroller as principal and the consultant as agent. The consultants themselves, in relationship (4), may be principals in their dealings with fund managers, like those employed to search and screen for best-in-class fund managers.

The taxpayer lurks in the background and is actually the ultimate principal. Government, through the taxpayer, hires the public sector employees—relationship (5). NYSCRF, like many public funds, targets certain economic priorities deemed to be important by the state. The fund, for example, takes a special investment interest in New York businesses. Thus, in some cases, the fund managers may be agents—relationship (6)—of the taxpayer. The comptroller himself is elected by New York residents, so he is an agent of
the taxpayer in relationship (7). And finally, in relationship (8), some consultants working on NYSCRF matters are engaged by government rather than the comptroller, and so they serve as agents ultimately of the taxpayer and not the comptroller.

There are usually several layers of intermediation between the asset owner and the ultimate portfolio manager, and each layer brings additional principal-agent conflicts (and additional fees). For the current setup of NYSCRF, the beneficiaries as principal go through the comptroller, who then is principal to the fund manager. A given fund manager may himself outsource to fund managers beneath him. Not surprisingly, the ultimate goals of the asset owner carry less and less weight going down the chain of agents. Performance also suffers.

Chen, Hong, and Kubik (2010) study intermediation in mutual funds (see chapter 16). Intermediation is actually very common in the mutual fund industry, where more than a quarter of funds outsource management to unaffiliated advisory firms (Vanguard’s outsourcing to Wellington is a good example). Chen, Hong, and Kubik find that mutual funds managed externally underperform those managed internally.

Although all of these principal-agent relationships concern portfolio management issues, let’s focus on the ones closest to the fund manager, where actual investments are being managed. In this case, there are two key differences between the standard principal-agent relationship and the delegated portfolio management one.

**3.1. Uniqueness of Delegated Portfolio Management Agency Issues**

A large part of what portfolio managers do is acquire information. The manager who takes a fundamental approach pores over company reports and visits firms to gain insights into a company, while a quant manager writes code to analyze data to forecast future stock price movements. Thus portfolio management typically involves the search for an information signal, which can be the basis for action. This makes the agency problems in portfolio management different from standard agency problems, which are usually about direct performance—for example, how many widgets is the factory worker making? In standard agency problems, the agent does not acquire information and only decides how many widgets to make. The second difference from standard agency problems is that the fund manager controls both returns and risk of the
portfolio. In the classical formulations of agency problems, the agent usually only controls a rate of output (how many widgets do you make on average?), not its variability (what’s the range of widgets we’re likely to make today?).

What the asset owner can observe is also different from the standard principal-agent setup. In the standard moral hazard problem, effort or action is unobservable. The principal is unsure of how much the factory worker is slacking or working. But the factory owner does know that the worker is either slacking or working, or more generally somewhere in the spectrum between totally slacking off or all-out working. The choice set or the action set of the worker is limited. In the portfolio management problem, the asset owner does not know the full set of portfolios that could have been selected but (sometimes) observes the final portfolio selected. That is, the reverse of the standard principal-agent set-up occurs: the asset owner observes the action chosen but not the action set. The very first paper in the delegated portfolio management field, Bhattacharya and Pfleiderer (1985) solved these issues and found that the principal needed a nonlinear contract to hire the best agents and ensure the best agents made the right portfolio selection.

The marked differences between standard principal-agent problems and delegated portfolio management problems have caused the field of delegated portfolio management to develop relatively slowly compared to other areas of contract theory. In Stracca’s (2006) excellent survey, he says that because of these differences, “the literature has reached more negative rather than constructive results and the search for an optimal contract has proved to be inconclusive even in the most simple settings.” Stracca is correct—economists have not yet developed a sure-fire (p.499) way to guarantee that you won’t get screwed by your portfolio manager. But the situation is not all dismal. I believe many useful principles are available to asset owners, but some of these unfortunately are neglected in industry practice.
3.2. Irrelevance Result

A common way to reward a fund manager is to pay her for beating a benchmark, which is typically set to be an asset class index like the S&P 500. The agent’s compensation is typically structured in a linear way, so she gets a base salary and then some fraction or multiple of the outperformance. We often choose linear contracts not because they are optimal (they generally aren’t), but because they are convenient. In standard agency problems, linear contracts satisfy the participation constraint (a high enough base salary entices the talented agents to come to work) and the incentive-compatibility constraint (as the talented agent has an incentive to work hard).

Amazingly, the linear contract does not get the manager to behave in an optimal way for the asset owner. This Irrelevance Result, discovered by Stoughton (1993) and Admati and Pfleiderer (1997), states that linear contracts have no useful role in delegated portfolio management. The agent, who controls both the mean and risk of the portfolio, can always undo what the principal wants to achieve. Put another way, the “Irrelevance Result” is that the manager’s effort does not depend on how much he gets paid. This is remarkable because linear payments for outperformance of asset class indices are so common, yet they are not beneficial to asset owners.

The setup of Stoughton-Admati-Pfleiderer is very realistic: the principal selects from multiple agents, just like the asset owner has a multiplicity of (supposedly talented) fund managers to choose from, all hawking their own brand of alpha, and there is hidden effort which arises because asset owners cannot look over the shoulders of all the fund managers they hire to determine whether or not they are shirking. The linear benchmarks based on the S&P 500, or similar asset class benchmarks, do not optimally share risk, do not allow the principal to achieve optimality, weaken a manager’s incentives to expend effort, are not useful in screening out bad managers, and play no role in aligning manager preferences with the investor’s.

The Irrelevance Result highlights the importance of the optimal portfolio of the asset owner. We cannot talk about the agency relation between the fund manager and the asset owner without first determining the optimal portfolio for the asset owner. In chapter 14, we saw that this must be based on
a foundation of factor risk. Thus there are two decisions that
cannot be delegated to agents: the level of risk to be taken and
the key sources of risk premiums to be exploited, which both
depend on the characteristics of the investor and her
liabilities, income, and wealth (see Parts I and II of this book).
Getting this benchmark right is step one so that all agency
distortions can be measured relative to it.

(p.500) The Irrelevance Result says that even if we have the
right benchmark for the asset owner, the benchmark is
irrelevant for the fund manager’s actions when she is paid
using a linear contract. But we can give the agent a different
benchmark.

3.3. Optimal Design of Benchmarks
One way to break the Irrelevance Result is to use a smarter
benchmark. The benchmarks in the simple Stoughton-Admati-
Pfleiderer setups are simple, static asset class benchmarks,
like a traditional S&P 500 index. If we insist on using a linear
contract, then it is possible to hire the best agent, and get the
best agent to optimally put in effort, by changing the static
benchmark to a smarter dynamic benchmark. This is what Ou-
where the number of shares in each asset varies over time,
rather than using a passive index where the number of shares
invested in each asset is fixed.

The factor benchmarks, which chapter 14 considers, do
precisely this. In dynamic benchmarks, the number of shares
varies over time and in a factor benchmark the time variation
is engineered to optimally maximize exposure to factor risk.
Although this is not exactly the same optimal benchmark that
Ou-Yang’s setup would predict (and Ou-Yang’s optimal
benchmark can be difficult to compute), the overall concept is
that we should move toward giving delegated portfolio
managers smarter dynamic benchmarks if we retain linear
payment structures. At the very least, we know from the
Irrelevance Result that the static benchmark does not create
any value for the asset owner.

Factor benchmarks also pick up common or aggregate shocks
over which agents have no control and then relative
performance evaluations offer better risk-sharing because they
filter out the common shocks and reward or penalize the
actions over which the agent does have control. Factor
benchmarks, if chosen correctly, also make it harder for agents to “fake skills” that masquerade as excess returns (or alpha; see chapter 10) relative to passive indexes. In particular, investment strategies with highly skewed payoffs, like those exposed to volatility risk, are best measured with dynamic factors that explicitly account for nonlinear risk.

The basic setting in the Irrelevance Result is a one-shot delegation model, where the asset owner finds portfolio managers over a single period. In that sense, it is similar to the Capital Asset Pricing Model. The single period is often not a constraint, as chapter 4 shows, because dynamic problems are simply a series of (p.501) one-period problems if we can rebalance. For large investors, however, there is a two-, or sometimes three- or four-, stage process where an asset allocation decision (which should be a factor allocation decision) is made at the highest level and then asset managers are chosen who specialize in single asset classes. This two-stage process generates misalignments of interest that are costly to the asset owner.

Static asset class benchmarks introduce further costs in addition to the Irrelevance Result in a multistage delegated setting. Van Binsbergen, Brandt, and Koijen (2008) show that smarter, nonstatic benchmarks can overcome the disadvantages of decentralized investment management. These benchmarks often involve leverage and unusual positions of sector, or subasset class, holdings and would be hard to use in practical settings. However, the general idea remains valid: the static, asset class benchmarks so common in the industry today are bad for asset owners. The industry should move to smarter benchmarks. Factor benchmarks, therefore, have a significant role to play both as a tool for investment performance and as a tool for ameliorating agency issues.

3.4. Optimal Contracts

The Irrelevance Result says that linear contracts do not get the fund manager to act in the interests of the asset owner. So we could move to nonlinear performance contracts.

Nonlinear Contracts

The pioneering work of Bhattacharya and Pfleiderer’s (1985) paper, which opened up the field of delegated asset management, derived an optimal nonlinear contract. It was
quadratic and penalized both negative and positive deviations of the return away from the benchmark. It is natural to expect that compensation should be lower when managers underperform. Quadratic contracts seem unnatural because they also result in lower compensation when the manager has outperformed. And the greater the outperformance, the larger the penalty!\textsuperscript{13} We don’t see quadratic contracts in the real world (at least not yet). But we do see plenty of nonlinear contracts in hedge funds and other alternative asset vehicles. Even if a wrong benchmark is chosen, leading the manager to shirk, having an option-type performance fee will help in motivating the manager to increase her effort.\textsuperscript{14} Thus nonlinear contracts should be more widely embraced.

(p.502) General agency theory predicts that constraints form important parts of behavioral-based contracts and will mitigate agency problems for principals. In the Stoughton-Admati-Pfleiderer world, portfolio managers were unrestricted in the portfolio positions they could take. This allowed them to perfectly control both the return and risk of the portfolio and completely eliminate the effects of the incentive fee. Restrictions could be placed as schemes to induce manager effort. Placing restrictions allows us to move beyond the Irrelevance Result in some cases, and we see many restrictions on what managers can do in the real world. There are restrictions on portfolio risks (duration, tracking error, betas, concentration, and so on) and on what can and cannot be held (universe, derivatives, and so on). Theory shows that constraints form an important part of an optimal contract.\textsuperscript{15}
Transparency and Disclosure
In choosing an investment manager, there is one other important consideration for an asset owner and this should go, wherever possible, into the optimal contract. Suppose there are two types of investors: skilled investors (Warren Buffets) and unskilled investors, (Bernie Madoffs). Bernie Madoffs cannot produce true alpha, but they are clever. They can mimic high returns that look similar to the Warren Buffetts for a time, say by selling options (see chapter 10), but they will go bust eventually. Foster and Young (2010) show that no compensation contract can separate skilled from unskilled managers solely on the basis of their track records. This is in contrast to the manipulation-proof portfolio evaluation measures that we discussed in chapter 10 that did allow us to (eventually) detect true skill statistically. But any compensation contract that filters out the mimicking Bernie Madoffs also deters all the truly skilled Warren Buffetts from participating. This seems to place the asset owner in a bind: if you can detect the Bernie Madoff, you won’t be able to hire the Warren Buffett. But if you can hire the Warren Buffett, you may be hiring the Bernie Madoff.

The key to moving past the depressing Foster and Young (2010) conclusion is noting that in their analysis, the compensation contract is a function based solely on past returns generated by the manager. This looks very general: it nests bonuses, clawbacks, and all linear and nonlinear contracts. But it restricts the asset owner to looking at past returns. An immediate implication is that we need to look beyond past returns. We need transparency of managers’ positions and strategies, and we should take into account reputation and all other information pertinent to their investment management business. Institutional investors should be familiar with the separately managed account as a way of making the manager’s trades completely transparent.

Disclosure is fundamental in addressing agency conflict in delegated investment management. Many studies show that greater transparency in fee payments lowers agency costs and results in better performance for investors. Unfortunately, fund managers use obfuscation of fees to their advantage. Bundling, or making fees more opaque, results in lower returns to investors and higher payments to fund managers. Financial advisors often receive kickbacks from mutual fund companies and so have incentives to steer
investors into poorly performing products, or ones ill-suited for asset owners. The more transparent these kickbacks are, the better the asset owner can see the distortions that other agency relations place on her welfare.

**The Agent Has a Career, Too**

Agents serve current principals, but they also wish to nurture relationships with future principals. That is, agents also have career concerns. Chevalier and Ellison (1999) study the labor market of mutual fund managers. They find that younger managers are more likely to be fired when performance is bad. Younger managers do not want to differ from the status quo—they hug benchmarks and want to hold more conventional portfolios. This is all the more reason to use smart, factor benchmarks: a young manager who acts in the principal’s best interest by taking on nonlinear factor risk when this factor risk is not reflected in a run-of-the-mill S&P 500 benchmark is likely to be rewarded with termination when her performance dips below the S&P 500. Factor benchmarks benefit both agents and principals.

3.5. Paying Financial Advisors and Asset Managers

There are several methods of payment:

**Commissions**: Many financial advisors act as brokers and receive compensation—which can be substantial—for products they sell to their clients. This gives advisors an incentive to steer clients to the wrong funds. It also encourages financial advisors to recommend excessive trading to their clients to maximize fees. Bergstresser, Chalmers, and Tufano (2009) show that broker-sold funds underperform direct-sold funds, even before subtracting any distribution charges! Brokers exhibit no evidence of market timing ability, or superior asset allocation skills, for their clients. I interpret Bergstresser, Chalmers, and Tufano’s sad results as a prime example of the principal-agent problem: brokers put their own interests first. Investors should try never to compensate their financial advisors this way.

**(p.504) Fee Based on AUM**: The fee based on assets under management (AUM) is the most common form of advisory fee, representing 85% of advisory-firm revenue. Fees based on AUM predominate in institutional settings. The problem with fees set as a percentage of assets is that if the market does
well, the AUM grows even if the agent does nothing. Why should the asset owner pay for time and effort *not* spent with the advisor or fund manager?

The history of AUM-based fees is interesting. The first independent investment adviser, Arthur Clifford, began his practice in Pasadena, California, in 1915 and charged *fixed* fees for his services. This was in contrast to the commission-based fees, which brought large conflicts of interests. Across the country, in Boston, Theodore Scudder started Scudder, Stevens & Clark in 1919 to provide independent advice to clients. It charged fees of 1% of all transaction amounts—a commission-based scheme. Scudder found this did not generate enough revenue and was contrary to the firm’s philosophy as it encouraged churning. So he switched to the much more profitable model of charging a *proportional* 1% fee on assets. In both cases, Clifford and Scudder were revolutionary because everyone else was charging commission-based fees. For a long time investment advice by commission-free advisors was limited to wealthy clients. Unfortunately, it was Scudder’s proportional fees rather than Clifford’s fixed fees that became the model for the industry.

Institutions paid fees largely based on (mainly brokerage) commissions up until the 1960s. At that time, a few institutions did charge 1% but offset those fees with brokerage commissions. The Morgan Bank took the lead in charging fees of 0.25% of assets in the late 1960s, and it was predicted that Morgan would lose business. Only one account actually left, and Morgan became a leader for the whole industry. Gradually the proportional fees started ratcheting upward (rather than downward, as might have been expected from competition) to current levels.

Today fees based on AUM are high at 1% for individuals and a little less than 50 basis points for institutions. As Charles Ellis (2012) says, “investors already own those assets, so investment management fees should really be based on what investors are getting in the returns that managers produce.” In the context of agency theory, Ellis is saying the fixed fee to induce agent participation is way out of line. But the incentive fee reflecting the value truly added by the agent is much too low. An investor would be fine paying large fees, if those fees resulted in added performance that increases the AUM, rather than fees that immediately reduce AUM. For institutions
especially, this means that more fees should be incentive based and fees based on AUM should be much, much smaller. Individuals [p.505] should also move away from fees based on AUM, but I do not recommend a large proportion of incentive fees, as I explain below.

From the standpoint of the financial advisor, a disadvantage of fees based on AUM is that it subjects a lot of the advisor’s income to the vagaries of the market. In the parlance of factor theory, the factor choice should be the decision of the client, not the financial advisor. Yet the financial advisor is being paid as a function of factor risk not under her control.

**Percentage of Net Worth and Income**: This is like the fee based on AUM, except it allows the financial advisor to levy a proportional fee on (usually) a much bigger number. The advantage for the financial advisor is that it enables him to charge fees to clients that would not normally satisfy minimum AUM levels. Thus it opens up new clients to serve but with the same disadvantage for the clients as the fee based on AUM. Why would the investor want to pay for time not spent with you?

**Flat Fee**: Agency theory says that the flat fee should be set high enough to attract the best financial advisors. This is an attractive option for the client. The disadvantage is that there is no incentive fee to induce effort. That is, the client might be able to attract the best financial advisor. But with no incentive fee, the world’s best financial advisor may be playing golf instead of working for you. As long as the flat fee is high enough to satisfy the participation constraint, however, this may be optimal, as I explain below.

**Hourly Fee**: This is rare, but it does remunerate on actual effort put in by the agent. This makes financial advisor compensation more like a lawyer’s. A typical “low-cost” hourly fee is $300.20

**Pay on Outperformance Relative to a Benchmark**: This is also rare but gaining traction. This is exactly the incentive fee advocated by agency theory. It is subject to the Irrelevance Result. You need the right benchmark, and the benchmark itself is not sufficient with a linear contract. Thus all the same conclusions of Sections 3.3 and 3.4 apply. I recommend,
though, that this remain a small part of advisor compensation for the following reasons.

Financial advisors perform a large variety of tasks, including often acting as principals themselves in a further delegated principal-agent asset management problem. In addition, they serve as therapists, legal and tax advisors, family counselors, and mediators. Many financial planners will argue that these are in fact more important than actually managing the client’s portfolio. (My arguments in chapter 4 back this up. Even the act of rebalancing is as much a psychological one as an economic decision.)

The multidimensional role of financial advisors, which is not shared by most delegated fund managers in institutional contexts (including hedge fund and private equity managers, which I discuss in chapters 17 and 18, respectively), (p.506) makes financial advisor compensation special. I follow Holmstrom and Milgrom (1991) in recommending that incentive payments that are common in institutions not be a major part of the compensation structure of financial advisors. Holmstrom and Milgrom show that when an agent has several different tasks to perform—as financial advisors do—then incentivizing the agent to perform well on one task diverts attention from other tasks. The agent then focuses disproportionate time or effort on the tasks that are compensated well. When the agent is asked to multitask, or the tasks are not easily measured, the optimal incentive contract is closer to a fixed wage without any incentive contracts. Holmstrom and Milgrom argue this is in fact why we do not observe incentive payments, or only very small ones, in many situations. For individual investors, a financial advisor provides services on many dimensions that are hard to measure, and so financial advisor compensation fits squarely in the Holmstrom and Milgrom category. Only a minor part of compensation for a financial advisor should be incentive based.

At the same time, there are too many disadvantages of fees based on AUM or as a percentage of net worth and income. For a small retail investor, my advice is to find one of the growing number of financial advisors who charge flat or hourly fees. Make sure you’re paying enough to get the best
financial advisors to work for you. Pay extra for services that the flat fee does not cover.

Benchmarks, however, are still important. The benchmark allows the investor to see what value is being added by the financial advisor; even though the advisor is receiving little incentive compensation relative to the benchmark. The benchmark should be something an investor can do on her own at low cost, without the advisor: a simple combination of index funds, a “default” target-date fund (although these have many disadvantages; see chapter 5), or a simple factor portfolio for the more sophisticated investor (see chapter 14). Most financial advice results in clients underperforming simple benchmarks: in a study of the Oregon University System, Chalmers and Reuter (2012b) report that investors using brokers underperform those not using brokers by in excess of 1.5%. Broker fees paid by clients account for 0.9% of this, and the rest comes from brokers recommending riskier portfolios stuffed with expensive products that do not perform as well as simple benchmarks. Pay well when advice is good, but to recognize good advice you need a transparent and demanding benchmark.

3.6. Summary

There is often a multiplicity of agency relations in asset management. The role of consultants, for example, often lends another set of agency issues rather than (p.507) resolving existing ones between asset owners and fund managers. Solving one agency relation can exacerbate another.

I offer several recommendations:

1. By themselves, linear contracts with traditional static (S&P 500-like) benchmarks are useless and in the worst case cause managers to destroy value. (This is the Irrelevance Result.)
2. Smarter benchmarks, particularly factor benchmarks, will ameliorate agency issues when used in linear contracts.
3. Nonlinear, option-like compensation contracts can optimally motivate fund managers.
4. Constraints play an important role in contracts, with fewer constraints for more talented fund managers.
5. Disclosure is paramount: optimal contracts should be as transparent as possible.
6. The 1% fee for individuals (or 50 basis point institutional fee) based on AUM is exorbitant. Minimize payments based on AUM.
7. Incentive fees for financial advisors should only represent a fraction of total compensation. Retail investors should pay flat fees or by the hour.
8. Benchmark your financial advisor by using a simple, fixed combination of index funds.

4. Boards
A large number of principals are often represented by a board, just as in a corporate setting. Boards have long been known to be a good monitoring system to temper the opportunism of agents and a large literature in corporate finance, both theoretical and empirical, emphasizes the importance of independent directors on boards. Effective boards advocate for the principals’ interests. By monitoring and interpreting information, boards mitigate principal-agent problems.

While boards themselves are agents of those they represent, like beneficiaries, family members of a family office, and an entire nation for a sovereign wealth fund, in this section I concentrate on the board as principal and discuss its role in relation to a fund manager as its agent.

I pay special attention to the concerns of NYSCRF in this section. Edward Regan, who served as comptroller from 1979 to 1993, attempted to change the NYSCRF’s governance structure to a board and tried to reform himself out of a job as sole trustee. He recalled,

(p.508) In the 1980s, when I was the comptroller, I proposed legislation calling for a small board of investment experts for the pension fund, representing local governments and active and retired state government workers. Within weeks of its introduction, however, the bill was the subject of amendments intended to grant additional seats to favored interest groups. So I withdrew my support.

Having a pension board dominated by special interests groups, especially with a majority of representatives lacking
professional investment knowledge, would be a recipe for disaster. How should NYSCRF select a board, assuming we select a board model as the optimal governance structure?
4.1. Board Membership

Corporate finance theory and empirical data suggest that independent boards add the most value. I discuss two models NYSCRF could emulate: the Canada Pension Plan Investment Board (CPPIB) and the New Zealand Superannuation Fund (NZSF), the sovereign wealth fund of New Zealand. Both have boards independent of their governments.

CPPIB is a dedicated fund manager whose job is to invest the assets of the Canada Pension Plan to “maximize investment returns without undue risk of loss.” It is set up at “arm’s length from governments.” Under the terms of the 1997 Canada Pension Plan Investment Board Act, CPPIB is governed by a twelve-person board of directors. They are appointed by the Federal Finance Minister in consultation with the provinces (except Quebec, which does not participate), and with the assistance of a nominating committee, for a term of three years. Terms are staggered such that no more than half the directors’ terms expire in any one year. Directors are eligible for reappointment, with a maximum service of three terms. Directors must have investment expertise, “with a proven financial ability or relevant work experience such that the board will be able to effectively achieve its objects.” Additionally, directors must be “representative of the various regions of Canada.” There are no government officials on the board. CPPIB does not submit investment strategy or business plans to the government for approval; nor does it require government approval for compensation policies or pay levels. To change the governance structure of CPPIB and its mandate requires approval by the federal government and two-thirds of the provinces representing two-thirds of the population. Senior vice president and chief investment strategist Donald Raymond comments, this is “more difficult than changing the Canadian constitution.”

In many ways, NZSF is similar to CPPIB. NZSF invests government contributions to New Zealand Superannuation. In 2029, the New Zealand government began making withdrawals from the NZSF to help meet the cost of pension benefits. NZSF is an independent crown entity. It is overseen by an independent board, called the Guardians Board, who operate at arm’s length from the government but make quarterly reports to the Minister of Finance. The NZSF has a “double arm’s length structure” from the government. First,
the New Zealand government appoints an independent Nominating Committee. The government does not control the pool of candidates, making this the first arm of independence. The Nominating Committee identifies candidates for the Guardians Board. The Minister of Finance must select members from the list made by the Nominating Committee. The Guardians and management of NZSF decide investment policy and make investment decisions independent of government, which is the second arm of independence.

In both CPPIB and NZSF, board members are selected for skills and experience. This certainly helps, but I believe it is not a prerequisite. In some cases, recruiting investment professionals can shift the board away from the fund’s base constituency and weaken legitimacy and the ability to communicate effectively with the fund’s asset owners. Investment professionals who are especially close with financial intermediaries may in fact generate more agency problems, and potentially higher costs, in steering business toward those intermediaries.28

This has happened, for example, at Dartmouth College, where members of the board and endowment investment committee have been accused of enriching their own investment management firms.29 Tellus Institute, a not-for-profit research and policy organization, puts Dartmouth in the spotlight for its large number of trustees and committee members involved in running money for the university.30 It singled out the conflict of interests involved when CIO Davis Russ left in 2009. The investment committee chair and trustee Stephen Mandel played the CIO role on a voluntary part-time basis, but at the same time Mandel’s firm, Lone Pine Capital LLC, managed money for Dartmouth’s endowment. “It dawned on me that we seemed to be spending hundreds of millions on conflicted transactions,” said a former trustee of Dartmouth.31 In September 2009, 4% of Dartmouth’s endowment was in Mandel’s fund.

Another governance model that I recommend NYSCRF not follow is that of CalPERS, the large state pension fund in California. CalPERS is beset by political interference.32 Its board is not independent of government. On the contrary, it has four government ex-officio members. Six of the thirteen board members are from unions. Thus there are not many
board members directly and independently representing beneficiaries.

The main requirement for board members should be independence; director competence should be continually upgraded by education, and this process itself enables principals to better monitor and evaluate agents.

4.2. What Boards Should Do

**Own Factor Risk Sources and Exposures**

Two things cannot be outsourced by boards, and these are the two most important decisions in asset management: the level of risk to be taken and the key sources of factor risk premiums to be exploited. These decisions must be made based on the characteristics of the asset owner (see Part I) with an emphasis on how these characteristics allow the investor to collect long-run factor risk premiums or insure against short-run factor risk calamities (see Part II). The board of CPPIB, for example, owns the Reference Portfolio. The Reference Portfolio is the capstone of CPPIB’s strategic risk-taking framework and is, in effect, a factor exposure decision. It is a passive factor mix that is reasonably expected to match its liabilities and can be implemented in low-cost, passive vehicles. (CPPIB practices factor investing; see chapter 14.) Through the choice of the Reference Portfolio, the board of CPPIB has pinned down its desired level of risk and the factor risk premiums to be exploited in the long run.
Build Processes to Make Investment Decisions, But Do Not Make Investment Decisions

Boards should build processes for a fund manager to make investment decisions, rather than make direct investment decisions themselves. Elroy Dimson, a prominent U.K. finance professor, asks how often a board or committee should meet if the primary role of an investment committee is to set investment objectives, make asset allocation decisions, and select money managers—in other words to produce alpha? The answer is simple: NEVER.34

The board has hired the asset manager (agent) to make these decisions. And the fund manager is closer to markets and has better information than the board. The board must anchor and own the long-run investment strategy, but it does not implement that strategy. For the asset manager to do that well, there has to be communication and reporting set up so that the asset owner can trust the manager. The asset owner should put in place processes so that the asset manager can make investment decisions, but the board should not make investment decisions itself.

This advice aligns with theory. Aghion and Tirole (1997) show that if the principal intervenes and overrules the agent’s choices, he reduces the agent’s incentives to make good choices, and thus the agent is less incentivized to create value. Constant intervention destroys the opportunities and incentives for lower levels to learn. Always second-guessing the manager undercuts autonomy and any performance incentives arising from it. And of course, intervention is destructive to firm culture and leads to a lot of wasted effort and politicking.

Set Consistent Goals

The board has the responsibility to create an environment where a professional investment culture can flourish, consistent with the comparative advantages of the investor, investment beliefs and strategy, and the institution’s ability to implement. The last is crucial. CPPIB has empowered its investment manager (agent) and given it an active investment mandate. The Reference Portfolio serves as the benchmark to measure the active performance. The Reference Portfolio
represents a low-cost, investable alternative to active management and it is transparent, demanding, and simple.

To implement the active mandate, CPPIB pays its managers well (although nowhere near the highest levels of Wall Street); the board supports its manager and gives it appropriate resources to pursue active management. Most of the funds are managed internally, at great savings to beneficiaries. Although sufficient pay is part of creating a strong investment culture, it is certainly not the only consideration. Equally important is the board’s ability to assess and support the manager’s ability to build and retain skills. At the opposite extreme, the large state pension fund of CalPERS is hamstrung by many state constraints, especially on pay. Joseph Dear, CIO of CalPERS, has said the CPPIB model is not “politically feasible” (p.512) in California and so CalPERS is forced to outsource more active management, with fewer savings for California state workers.35 A similar problem is that a board may give an investment manager a mandate for active management, but without giving sufficient resources to pursue that goal, the board sets up the agent to fail. There must be consistency in the goals for both the principal and the agent.

Set Clear Boundaries
There should be bright lines between what the board (principal) does and what the manager (agent) does.

At CPPIB, the division of responsibility between the board and management is clear. The board sets the Reference Portfolio—the factor risk decision—and management takes responsibility for any deviation from it in trying to beat the Reference Portfolio benchmark. The board sets constraints on how much deviation is possible from the Reference Portfolio, consistent with constraints being part of the optimal contract in Section 3.4, with other constraints on the portfolio holdings. CPPIB’s structure allowed management to put in place human resource policies that supported the execution of this strategy, including a compensation system that is performance based and allows CPPIB to attract talented people. These human resource policies could be justified in the context of the Reference Portfolio—if CPPIB’s active management outperformed the passive Reference Portfolio, net of costs, these policies add value.
NZSF also has a clear division of responsibilities between the Board of Guardians (principal) and management (agent). Like CPPIB, the board does not make investment decisions. The Guardians set investment policy, decide on an appropriate level of risk, approve and monitor investment strategies, appoint the custodians, and deal with other oversight matters but leave investment decisions to management. Management advises the Guardian Board on investment policy and implements the agreed investment strategies.

**Avoid Ad-Hoc Modifications to Long-Term Strategy**

Many ad hoc responses induce pro-cyclical behavior. During the financial crisis from 2007 to 2009, many boards resorted to panic selling and abandoned rebalancing. CalPERS’ equity portfolio shrank from more than $100 billion in 2007 to just $38 billion in 2009. Stock lending blew up and CalPERS sold equities to raise cash. CalPERS also sold stocks to meet its commitments to private equity and real estate partners. The CalPERS board became skittish. The forced selling occurred at precisely the wrong time, when prices were lowest and expected returns were highest. The CalPERS board did not establish a formal rebalancing policy until 2009.

The opposite problem is that boards are often attracted to asset classes or strategies that have done well and enter after a period of strong gains when future expected returns are low. This also tends to generate pro-cyclical investing. As real estate returns were heating up during the mid-1990s, CalPERS followed aggressively and ramped up its real estate allocations from a 5% low in 2005 to a peak of more than 9% in 2008—just as real estate was crashing. In 2001, CalPERS’ loan-to-value ratio in its real estate portfolio was only 19%. By 2004, the leverage CalPERS was using in its real estate transactions had reached 41% and was projected to reach 50%. In addition to juicing its real estate investments with more leverage, the board jumped on the real estate bandwagon and delegated decisions to outside partners so that deals would not get caught up in “red tape.” But CalPERS retained the risk. CalPERS only began an external due-diligence process for its real estate investments in January 2008, which was after the market had peaked and many real estate investments had already soured.
Joseph Dear, CIO of CalPERS, described CalPERS’ real estate investments as “a disaster.” CalPERS’ real estate holdings lost over 70% of their value between 2008 and 2010. Some of the individual deals are sorry stories indeed. In New York, CalPERS lost $500 million after lenders took control of the Stuyvesant Town-Cooper Village property in which it had foolishly invested. In 2005, CalPERS bought 9,000 lots of residential housing in Mountain House, California, from Trimark Communities. By 2008, CalPERS was forced to value the deal at negative $305 million (an “asset” with a negative value!) due to the losses suffered plus the interest it paid on the leverage. That same year, Mountain House was declared the most “underwater” community in America. All of this pro-cyclicality was due to poor judgment, lack of risk controls, and a failure to set risk boundaries: these shortcomings created the worst possible alignments between CalPERS and its real estate investment advisors. In addition, complexity and high costs obscured CalPERS’ true underlying factor risk exposure.

Norway’s sovereign wealth fund has so far had the opposite experience. It was the largest buyer of equities in the fourth quarter of 2008 and it was able to cling to its rebalancing rule while others abandoned theirs. Norway had decided on a process for rebalancing, rather than having a board make rebalancing decisions. But Norway also experienced poor active returns during 2008 and 2009. At the time, many in Norway called for the active mandate to be rescinded from its fund manager, NBIM. But the Ministry of Finance did not act in haste. I was one of three researchers asked to analyze the fund’s investments as part of building consensus for change. In keeping with our report, the active mandate was not removed and the fund came through the experience more robust. In contrast to CalPERS, Norway was not caught up in the real estate bubble. The Ministry of Finance had studied the feasibility of real estate investment during the span of rising property prices in the mid-2000s. It approved the fund’s investments in real estate only in 2010, after real estate had crashed. And when it did so, it moved cautiously—placing a 5% limit of real estate on the total portfolio, aiming to do as much as possible in-house for cost savings, and adding properties slowly.
As an investor, Norway moves slower than a supertanker. Usually long lags are a disadvantage, but the delays induced by Norway’s need for broad-based consensus are an advantage: they allow the effects of business cycle variation to be mitigated and they partly counteract the tendency for procyclical investment behavior. The Norwegian Ministry of Finance builds the framework for NBIM, its agent, to make investment decisions, but the Ministry of Finance does not itself make investment decisions. These decision processes are owned by Parliament, which represents the ultimate principals—the Norwegian people. The lengthy decision-making process avoids the tendency to make ad hoc modifications to long-term strategy. It helps Norway stay the course.

**Face Up to Noncommercial Considerations**

Many public pension funds and sovereign wealth funds have important noncommercial considerations. The board may want to take account of these in setting its investment objectives and strategies. Noncommercial considerations can hinder investment performance, but can be important to give the board legitimacy in the eyes of the underlying owner. The board itself, after all, is an agent. Any loss from this constraint should be measured.

In reforming NYSCRF, these noncommercial goals could be considered. (It would be even better if the noncommercial goals were eliminated as constraints can only reduce investment returns; see chapter 3.) The role of the NYSCRF as a public asset should be reflected in the board’s investment policies. In the case of NZSF, a wider mandate comes from its enabling legislation, which states that the Guardians must invest the fund in a manner consistent with best-practice portfolio management, maximizing return without undue risk, and avoiding prejudice to New Zealand’s reputation as a responsible member of the world community. The Guardian Board has determined that excluding companies manufacturing cluster munitions and nuclear weapons is consistent with the latter. CPPIB, in contrast, has no noncommercial considerations and has an investment-only objective.

**The Board Should Benchmark Itself**

Finally, decisions at the board level should be measured and benchmarked, just as the performance of the
manager is measured and benchmarked. This is not often done, but boards need to measure themselves.

5. Agency Issues as a Factor
Since agency issues are pervasive, it is not surprising that agency issues affect prices. Agency contracting issues, especially those affecting large institutions, give rise to short-term persistence, long-term reversals, momentum effects, and other patterns in risk premiums.

An obvious effect is that herding arises when managers all follow the same benchmark. Herding can also arise from career or reputational concerns, even when managers have different contracts. When many managers want to buy or sell the same stocks at the same time, prices are affected. A large literature, beginning with Harris and Gurel (1986) and Shleifer (1986), documents index reconstitution effects. When a stock moves into an index such as the S&P 500, the price of that stock jumps as many investors, both index and active managers benchmarked to the S&P 500, buy on the same day. After inclusion, the newly added stock has higher correlations with the S&P 500 than before inclusions. The opposite effects occur when stocks are removed from the S&P 500. The literature estimates price effects of 3% to 5%, and these have become stronger since the 1990s.

Stocks widely held by institutions have lower returns, and institutional flow has predictive power for stock returns. Vayanos and Woolley (2013) show that delegated portfolio management can give rise to momentum and long-term reversals. Suppose a negative news shock hammers the fundamental value of stocks. Investment funds holding these stocks experience losses. This triggers outflows by investors who now regard these managers as less talented than they originally thought. They withdraw funds, but the withdrawal is sticky, so it occurs over several periods. As a consequence of the flows, funds sell assets, and this further depresses prices. Eventually prices dip below fundamental values, expected returns eventually rise, and flows come back into the funds originally dumping the stocks. Consistent with delegated portfolio management being behind momentum effects, we see momentum in every large, liquid asset class: stocks, bonds, commodities, and currencies. These asset classes are where institutions dominate. But we do not
observe momentum in over-the-counter stock markets, where individuals dominate and where there are few institutional investors, as Ang, Shtauber, and Tetlock (2013) show.

Principal-agent issues are pervasive, and having good governance or good structures to mitigate agency issues are comparative advantages that an asset owner should capitalize on. An asset owner with the ability to stay the course, with a board that can support a manager over the long haul, or a board that is in a position to collect risk premiums cheaply, does not look like the average investor. These investors can harvest the various factor risk premiums outlined in chapter 7 and are good candidates for factor investing. In fact, trying to harvest certain factor risk premiums such as volatility, which involve disastrous drawdowns once every decade or so, without good governance structures can destroy institutions when losses occur. Many institutions should envy CPPIB, which has independence enshrined by law, a board that trusts the manager, a factor approach, the ability to hire and pay the best people, and can partner with the best managers in the world.

Large investors might be in a position to choose not to be part of the herd. Some part of herding is caused by many investors having the same explicit or implicit contracts. These investors can choose factor benchmarks other than the common S&P 500 or similar long-only market-weighted benchmarks. In doing so, these special asset owners provide liquidity to, and reap liquidity premiums from, those investors forced to rebalance to standard indices. Naturally this requires a degree of internal maturity and trust between principal and agent and, by definition, a type of high-quality principal-agent relation that the average investor does not possess.

6. New York State Common Retirement Fund Redux

Clearly having just one person in charge of the vast assets of NYSCRF is not optimal. As a New York Times editorial said, “What the comptroller’s office needs is an independent, financially savvy board of directors to approve the awarding (p.517) of investment contracts—with the single goal of protecting and increasing state pension assets, invested for more than a million workers and retirees.”

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But one cannot simply adopt a board without thinking through the complete governance structure of how the board is appointed, the membership of the board, the role of the board in relation to the government, the broader role of the pension fund assets in relation to the finances of state government as a whole, and the powers of the board and its relation with its agent (fund managers or CEO). A board by itself is no panacea.

Principal-agent theory helps us to recognize the conflicts between the principal and agent and to design a system so that the principal can work with the agent in the presence of these conflicts to enhance the principal’s interests. When applied to the problem of delegated portfolio management, principal-agent theory suggests that the board of NYSCRF should own the two most important decisions: the level of risk to be taken and where the risks should be taken. There should be consistency of goals and a clear demarcation of responsibilities between the board and its fund manager. If the board of NYSCRF gives its fund manager an active mandate, then adequate support and resources should be made available so that the fund manager can achieve that goal. It is important for the board to avoid ad hoc modifications of long-term strategy, which often lead to pro-cyclical investment behavior.

Delegated portfolio agency theory says that the benchmark choice is extremely important. In fact, according to the Irrelevance Result, traditional static benchmarks are useless at motivating fund managers (with linear contracts) and in the worst cases cause managers to destroy value. Smarter benchmarks, like factor benchmarks, can ameliorate agency issues. Constraints, disclosure, transparency, and reputation play an important role in asset management contracts. Contracts need to be designed to engage the best portfolio managers (to enable the best portfolio managers to participate) but also give the best portfolio managers incentives to expend effort in creating value for the principal. This involves nonlinear incentive fees.

The overall message from agency theory is that the asset owner should not be surprised that the agent’s primary concern is not for the principal. Greg Smith, a former executive director of Goldman Sachs, caused a ruckus by resigning and then publishing a scathing op-ed in the New
York Times on March 14, 2012, criticizing Goldman’s “toxic and destructive” culture which, he said, placed the client a distant second (well, maybe third or fourth):

I don’t know of any illegal behavior, but will people push the envelope and pitch lucrative and complicated products to clients even if they are not the simplest investments or the ones most directly aligned with the client’s goals? Absolutely. Every day, in fact.

(p.518) The asset owner should not be surprised that, according to Smith, the agent (Goldman) took advantage of principals (clients). That’s simply what the agent does. The principal’s first job is to wake up to this fact; common sense tells us self-interest is paramount, and therefore agents often do not look out for the principal. Then the principal should use agency theory to minimize the ways in which the agent can take advantage of her and in fact use the agent’s motives to the principal’s advantage.

Notes:

(1) This example is based on the case “Who Watches the Watchman? New York State Common Retirement Fund,” Columbia CaseWorks ID#110307.

(2) Strictly speaking, the state comptroller has direct, full control over all assets except real estate. Under Section 423(b) of the New York State Retirement and Security Law, all real estate transactions need approval from the Real Estate Advisory Committee. But the members of the committee are appointed by the comptroller! For further information on the sole trustee function and other responsibilities of the comptroller, see Sanzillo (2012).

(3) Under Article V, Section 7 of the New York State constitution, the public pension liabilities rank among the most senior of all unsecured state debt. Put another way, state pensions have the same seniority as general obligation New York state bonds.


(5) Textbook treatments of this material are Salanie (1997) and Bolton and Dewatripont (2005).
Fund flows in mutual funds, hedge funds, and private equity are examined by Chevalier and Ellison (1998), Fung et al. (2008), and Kaplan and Strömberg (2009), respectively. For all of these cases, assets under management increase when past returns have been high.


In some problems the agent controls the variance (what’s the maximum and minimum number of widgets you make each shift?), but the agent does not control both the mean and variance, which the fund manager does.

See also the literature survey by Bhattacharya et al. (2008). A somewhat dated, but lucid, review is by Lakonishok et al. (1992).

This paper is also remarkable because it is the first principal-agent model where the agent’s action affects both the return (drift) and the risk (diffusion) simultaneously, which is the key issue in the delegated portfolio management problem, and Ou-Yang succeeds in deriving an optimal linear contract breaking the Irrelevance Result.

Makarov and Plantin (2012) argue that is optimal for agents to fake alpha by taking on tail risk that cannot be correctly measured by static indexes.

This was first analyzed by Sharpe (1981).

Quadratic contracts penalize excess volatility. In the real world, volatility constraints are imposed using tracking-error constraints. Constraints do play an important role in optimal contracts as I further elaborate in Section 3.4.

This is shown by Li and Tiwari (2009).

See Dybvig, Farnsworth, and Carpenter (2010) and He and Xiong (2011).

See, for example, Gabaix and Laibson (2006), Stoughton, Wu, and Zechner (2011) and Edelen, Evans, and Kadlec (2012). Some economists, like Carlin and Manso (2010), have built models for the optimal amount of fee obfuscation that a fund manager should practice to deceive asset owners!

This is drawn from Charles Schwab’s 2007 book, The Age of Independent Advice: A Remarkable History.

See Ellis (2012).


Karabulut (2010) and Mullainathan, Noth, and Schoar (2012) also find little value-added from the average financial advisor. Like Chalmers and Reuter (2012b), they also show that financial advice is associated with lower risk-adjusted returns.

See Fama and Jensen (1983) and Hermalin and Weisbach (2003) for summaries.

Monitoring and constraints are substitutes. Almazan et al. (2004) find that investment restrictions on mutual funds are more likely when their boards are less independent.


Gordon (2007) shows that independent directors are much more valuable than insiders at adding value to firms. The earlier literature, like Hermalin and Weisbach (1991) found little relation between board independence and higher firm value, but now there are many papers showing this link. Independent directors also are associated with better outcomes regarding CEO turnover, executive compensation, fraud, opportunistic timing of stock option grants, and investment efficiency. See Bebchuk and Weisbach (2010) for references.


See information at http://www.nzsuperfund.co.nz/
(28) See Ang and Kjær (2011). Levit (2012) shows that in some situations, the expertise of some board members can actually subtract value.


(33) Chapter 14 discusses these points in the context of factor investing.


(36) This material is drawn from “California Dreamin’: The Mess at CalPERS,” Columbia CaseWorks ID#120306, 2012.

(37) Creswell, J., “Pensions Find Riskier Funds Fail to Pay Off,” *New York Times*, April 1, 2012,


(40) Ang, Goetzmann and Schaefer (2009). It recommended the fund take up factor investing; see chapter 14.

The first papers to show that delegated portfolio management can affect risk premiums were Roll (1992) and Brennan (1993).

In addition to the other references in this section, see Dasgupta, Prat, and Verado (2010) and Cuoco and Kaniel (2010).


Shleifer (1986) originally hypothesizes these effects are due to downward-sloping demand curves, but they are also consistent with herding as a subsequent literature has emphasized.

This literature is summarized in Ang, Goetzmann, and Schaeffer (2011). Boyer (2012) finds inclusion (and exclusion) effects in the BARRA value and growth indices, along with greater movement with these indices after they have been included in the index. Boyer finds the effect exists only after 1992, which is when the BARRA indices were introduced.

See Gompers and Metrick (2001), Leippold and Rohner (2009), and Lou (2012), among many others.

See Asness, Moskowitz, and Pedersen (2013).


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