

# Asset Owners, Investment Management, and Commitment: *An Organizational Framework*

GORDON L. CLARK AND ASHBY H. B. MONK

**GORDON L. CLARK** is a professor in the Smith School of Enterprise and the Environment at the University of Oxford in Oxford, UK.  
[gordon.clark@ouce.ox.ac.uk](mailto:gordon.clark@ouce.ox.ac.uk)

**ASHBY H. B. MONK** is the executive director of the Global Projects Center at Stanford University in Palo Alto, CA.  
[amonk@stanford.edu](mailto:amonk@stanford.edu)

The global investment management industry has grown remarkably over the past 50 years. The increase in assets under management has been extraordinary, the growth in finance industry-related employment, nationally and globally, has shaded virtually all other industries except (recently) the social media giants. The importance of finance and the remarkable wealth generated by its denizens have made it the object of scrutiny by academics, policymakers, and commentators alike (see Wójcik 2013). But the industry is also difficult to concisely define and is highly differentiated, dominated by large investment banks and fund management groups on the one hand and many small and specialized intermediaries on the other hand (Arjaliès et al. 2017). Nevertheless, the volume of assets under management, the salaries paid to employees, and the importance of the industry for countries' retirement systems and the welfare of many millions of people are plain to see (Clark 2018c).

Whereas the investment management industry has created remarkable wealth and opportunities for itself, its value-added has been contested by its clients—that is, asset owners such as endowments, family offices, insurance companies, pension funds, and sovereign wealth funds (Ambachtsheer 2016; Monk and Sharma 2017). Indeed, one response to perceived shortcomings in the

industry has been the move to insource the investment management process, driven, in part, by a concern to directly manage the costs of producing long-term risk-adjusted rates of return. Equally, there has been a concern to ensure commitment to the performance objectives of clients otherwise discounted by the short-term rewards found in the investment management industry. These issues are at the core of this article and resonate with the academic literature on the principal-agent problem (Pratt and Zeckhauser 1985).

Bolton and Dewatripont (2005, 129) defined the principal-agent problem as: “the principal hires the agent to perform a task: the agent chooses her ‘effort intensity’  $a$ , which affects ‘performance’  $q$ . The principal cares only about performance.” Following Ross (1973), in their account, the principal-agent problem is resolved by focusing on performance and leaving the issue of monitoring “effort intensity” or “commitment” to the agent. By contrast, it is noted in this article that asset owners are increasingly concerned about commitment, partly because they can't directly observe the effort expended on their behalf by asset managers and partly because they are unable to determine whether long-term performance is due to luck, happenstance, or skill and expertise.<sup>1</sup> These issues

<sup>1</sup>Lack of commitment takes various forms and is evident in many ways. For example, whereas asset

are important because of evident asymmetries in the market, including asymmetries of expertise (favoring the sell side of the market), asymmetries of information (favoring the sell side of the market), and asymmetries of market power (favoring the sell side of the market).

Insourcing has been one response by asset owners to mediate the costs and consequences of being unable to observe commitment. Other strategies include the re-intermediation of the investment process via contracts that seek to ensure the alignment of interests between asset owners and asset managers. In many cases, asset owners have combined insourcing with re-intermediation in part because it (insourcing) involves organization-building, not just strategic interventions in the market for financial services (Clark and Urwin 2010). We illustrate this point by reference to the effect that size (assets under management) can have on the choice of strategy. As well, we show that insourcing is closely related to the scope (range of activities) of a financial organization and its reach (over time and space). In doing so, we illustrate the point made by Coase (1937) to the effect that the mode of organizing production is dependent, in part, on the configuration of the industry.

This article also introduces a three-tiered functional model of investment management that reflects recent initiatives by asset owners, especially pension funds.<sup>2</sup> Our framework begins with Tier 1, which defines how these types of organizations manage themselves in relation to their goals and objectives and in relation to similar organizations and the market for investment services. This is followed by Tier 2, which refers to capabilities and resources of asset owners recognizing that human capital is a key ingredient in the process of producing risk-adjusted rates of return along with systems of management and information that sustain the integration of the production process. Tier 3

---

owners may well expect cost-efficiency, asset managers are not always transparent about their direct and indirect trading costs. Equally, asset owners may well expect equal treatment in pooled investment vehicles but be unaware of the privileges extended to selected clients. Whereas asset owners expect commitment to an advertised investment strategy, asset managers may well economize on effort believing being close to a benchmark is sufficient in the face of the transaction costs involved in switching mandates.

<sup>2</sup>By emphasizing the functionality of various models of management, we follow the lead of Merton and Bodie (2004) who stressed the importance of assessing competing organizational forms in terms of their value for money.

takes us to market and nonmarket relationships across the global financial services industry, recognizing that these relationships can provide asset owners preferred access to investment opportunities involving other parties.

Having established the organizational building blocks for asset owners' investment management, the penultimate section deals with metrics and measurement: the metrics that capture key elements in the production process and its overarching goals and objectives. These metrics provide senior managers and those employed objective ways of understanding their contributions to the investment performance of beneficial institutions. We make the point that effective metrics and measurement have certain key characteristics such that they enable management across the organization while being flexible and adaptive given market risk and uncertainty (Lo 2012). Simplicity, transparency, and consistency are the key characteristics of effective metrics and measurement (Lowenstein 1996).

Throughout, this article frames the relevant issues, establishes the key elements underpinning industry-based organizational strategies, and plays-off the contested relationship between asset managers and asset owners so as to deepen our understanding of the emerging tendencies evident in the global industry. Being largely theoretical, we offer this analytical framework as a means of developing further empirical research, recognizing that its emerging properties are, inevitably, mediated by the type of asset owner, its particular mission, the regulatory framework in which it functions locally and globally, and the advantages and disadvantages accruing to asset owners by virtue of their size and scope (assets under management). In part, these issues are developed elsewhere. Equally, understanding the drivers behind organizational innovation in the industry and in particular settings remains a pressing research issue (Clark and Monk 2017).

## INVESTMENT MANAGEMENT IN THEORY

Asset owners contract with the investment management industry for investment services normally identified as some target risk-adjusted rate of return. This is true of endowments, family offices, pension funds, sovereign wealth funds, and other organizations that invest financial assets for their long-term future value. Over the past 50 years, it has been standard practice to

outsource the investment process subject to accepted theories of investment management (see Litterman et al. 2004) and industry norms and conventions that govern their practice (Arjaliès et al. 2017).

### Standard Model

The standard model of management is typically conceptualized in terms of the principal-agent problem: asset owners (principals) contract with asset managers (agents) to produce risk-adjusted target rates of return. In some cases, asset owners can claim special status in the market for investment management services because, directly or indirectly, they “own” or have the exclusive right to represent the owners of the stock and flow of financial assets that comprise their funds.

Two assumptions can be made that reflect, more or less, the circumstances in many markets. First, asset owners of the investment management industry seek to maximize their risk-adjusted rates of return net of costs. However, it is more complicated than this; not all asset owners do so considering the long-dated commitments they often carry into the future—for example, university endowments typically subsidize faculty salaries, infrastructure, and the like. For the moment, we can assume that asset owners have minimum rate-of-return targets that are approximated by maximizing the risk-adjusted rate of return net of costs. The second assumption is that asset owners lack the skills and expertise to produce their own rate-of-return target net of costs; outsourcing the investment management process involves, in part, the purchase of specialized investment management services that carry a premium in the marketplace.

There are also two attributes of global financial markets that complicate the process whereby contracts are written, performance is monitored, and adjustments are made by asset owners and asset managers in the face of performance. First, financial markets are subject to unexpected shocks that disrupt investment theories and practices—in some cases being short-lived in effect and, in other cases, having profound consequences for asset owners and asset managers alike (Lo 2012). Second, notwithstanding the premium on asset managers’ skills and expertise, market behavior is quite heterogeneous, reflecting the coexistence of competing theories and practices of investment management and the confounding effects of market risk and uncertainty

## EXHIBIT 1 The Management Problem

		Performance	
		Low	High
Commitment	Low	A	B
	High	C	D

Source: Authors.

(Arrow 2014). It is difficult to predict who will win and lose over the long term (Weitzman 2007).

### Governance of Contract

The governance problem is complex and multifaceted. In Exhibit 1, the problem is summarized over two dimensions—the investment performance of the provider against the relevant benchmark or standard, and the commitment of the provider to meet the current and expected performance requirements of asset owners. By convention, we can summarize “performance” over the relevant time period as established in the contract for investment services as either “low” or “high,” which means that either the provider under- or overperformed against the relevant investment target. We summarize “commitment” over the relevant period and with respect to the future as either “low” or “high” in the sense that the asset owner makes a judgment about the effort expended by the provider in seeking to fulfill the contract whatever the level of current measured performance.<sup>3</sup>

<sup>3</sup>What is “commitment” and how it is properly measured is an interesting issue. One way of testing commitment is whether the provider and/or their employees have “skin-in-the-game,” both on the upside and on the downside.

Performance could be thought sufficient to evaluate the value of any asset manager. Given market risk and uncertainty, however, asset owners are reluctant to hold asset managers to standards of performance that contain a significant stochastic component. Hence, asset owners also use measures of commitment to test whether current “high” performance is due to happenstance or is due to a level of internal commitment to the provider that suggests that high performance is sustainable over the longer term. Asset owners value high performance and consistent performance when benefiting from the long-term accumulation of returns.

Here, though, are significant issues of information availability, consistency, and integrity. Information on investment performance should be routinely available such that asset owners can combine past data on performance with current conditions and thereby make informed judgments as to the future. This suggests, of course, that information systems need to be consistent in terms of the collection and presentation of relevant data and information systems need to meet standards of integrity that allow for the formation and implementation of investment strategy. These standards are not always met. Asset managers may well seek to use the available information on performance for their own benefit and asset owners may find it difficult to obtain information on performance that allows for the direct assessment of competing asset managers.

## INVESTMENT MANAGEMENT IN PRACTICE

When an asset owner frames an investment strategy, it does so both with respect to its ultimate goal—a risk-adjusted rate of return over a specified period—and with respect to the elements or component parts that compose that strategy. In executing their investment strategies, asset owners write contracts with investment managers for separate components of those strategies represented, for example, in global equities, government bonds, infrastructure, and private equity. Asset owners rarely rely on a single provider for the production of all their financial investments.

Typically, asset owners have three responsibilities. First, they are responsible for framing the investment strategy, whether directly (relying on the skills and expertise of the board and executives) or indirectly (relying on intermediaries that specialize in these activities). Second, asset owners are responsible for oversight of

the implementation of their chosen strategy, including assessment of asset managers’ performance and commitment. Third, asset owners are responsible for orchestrating the investment process by matching up the various asset managers that make up the process of producing risk-adjusted rates of return. Some asset owners take on these responsibilities themselves, whereas other asset owners outsource these responsibilities. In between, asset owners employ a range of managers to facilitate the orchestration process, including asset consultants, custodians, lawyers, accountants, and so on (Arjaliès et al. 2017).

Whether asset owners assume all responsibilities or a mix of responsibilities depends on how they deal with three kinds of asymmetries embedded in the investment management process. In brief, there are asymmetries of expertise, information, and power. These are summarized and presented in order of their immediate importance to asset owners:

**Asymmetry of expertise.** Asset owners often lack the skills and expertise of asset managers. In large part, this is because each component part in the chain of intermediation is highly specialized, requiring a combination of domain-specific expertise along with relevant experience through which to judge the importance or otherwise of issues related to realizing superior risk-adjusted rates of return. Specialization is characteristic of the investment management industry, with systems of compensation and career advancement tied to the deepening of expertise and its successful application in moments when customary practices fail in the face of uncertainty (Glode et al. 2012). At the same time, the apparent rewards for specialization reinforce the segmentation of the industry within and between service providers and reinforce the premium on orchestration.

**Asymmetry of information.** The investment management industry is awash with information. Market data from around the world are available on a real-time basis, whether through cable channels that specialize in providing color-commentary, or through specialized data providers that slice and dice the available data into usable chunks consistent with the immediate requirements of asset-specific and domain-specific investment teams, or through third-party entities like custodians and reporting agencies that deliver information tailored to asset owners’ responsibilities. The demand for information, the delivery of information relevant to investment decision-making, and the screening of information such that it is relevant to asset owners’ responsibilities

presuppose asset owners have the expertise to identify and acquire the information they need for the tasks they must undertake. Otherwise, asset owners are provided information packages that meet tests of relevance but, more often than not, fail tests of decision-criticality.

**Asymmetry of market power.** The global investment management industry is remarkably concentrated, both in terms of the share of assets under management held by the largest investment asset managers and in terms of the significance of global financial centers, such as London and New York compared to European regional centers such as Amsterdam, Frankfurt, Paris, and Stockholm (in relation to London). The industry has grown as financial assets have grown in size and significance in relation to industrial corporations. It has evolved to become a multifunctional asset-accumulation business where, by some accounts, the threshold size of a competitive global asset manager is now approximately US\$250 billion. Smaller, highly specialized asset managers persist at the margins of financial markets, especially in asset classes not widely accepted across the industry (Clark 2016).

The concentration of the industry has had at least two significant effects on the relationship between asset owners and asset managers. In the first instance, the average asset owner is rarely able to give effect to a bespoke investment contract with a major asset manager. In many cases, the average asset owner is offered investment services on a take-it or leave-it basis. The average asset owner may also face asset thresholds such that any offer of an investment contract by a major asset manager comes with a minimum commitment. Furthermore, smaller asset owners may well be placed into queues according to their likely commitment, thereby privileging larger asset owners over smaller asset owners. In the second instance, the average asset owner may be required to sign a contract for services that is at a variance to the norms and conventions of the industry. The average asset owner has neither the resources, expertise, nor the information that would enable it to rewrite proffered contracts for services in their own interests.

These three asymmetries—expertise, information, and market power—frame the relationships between investment asset managers and asset owners. There are, of course, exceptions. For example, some of the largest asset owners are able to elicit bespoke deals using their size and significance in the global marketplace to demand special services. In these cases, the standard bilateral commercial relationship is replaced with an

ongoing commitment on both sides of the investment contract. In other cases, the average asset owner can command the attention of the largest asset managers if their investment requirements are innovative and/or representative of the changing demand for investment services across the industry. Yet in other cases, the prestige and reputation of an asset owner could be such that it is able to obtain a variance on the minimum commitment and jump the queue in terms of attaining investment services in a timely manner.

## INSOURCING AND RE-INTERMEDIATION

One alternative to outsourcing is insourcing—the direct production of risk-adjusted rates of return through internal skills and expertise, the orchestration of the production process by management, and the integration of information with each stage of the production process. This strategy of management is often referred to as the make- (insourcing) or buy-option (outsourcing) (Baker et al. 2001, 2002).<sup>4</sup> These issues have gained a new lease of life with the advent of spatially extensive supply chains linking major corporations with their suppliers at the periphery of the global economy (see Grossman and Helpman 2004, 2005).

### Fundamentals

The decision to insource over outsource the production of risk-adjusted rates of return involves replacing supply contracts that link asset owners to external asset managers with employment contracts binding the institution's employees to the mission of the organization. In doing so, senior managers seek to directly manage the production of risk-adjusted returns and directly observe and motivate employee commitment to the goals of the organization. There are significant challenges in realizing the benefits of insourcing over outsourcing, including the *effective* management of the production process and the *capacity* of senior managers to observe

---

<sup>4</sup>At issue is the theory of the firm—why it exists, its functions, and the boundary between the firm and the market. See Coase (1937) and the research program that has followed in his wake (Spulber 2009 provides an overview; see also Hart 2011 critique). There is vibrant literature available on related topics, including transaction costs (Williamson 1996), models of management including hierarchies (Hart and Moore 2008), and compensation (Fehr and Schmidt 1999).

and motivate employees. Not surprisingly, asset owners may well combine selective insourcing with a strategy of re-intermediation with favored investment service providers.

There is, moreover, a second element to the decision to insource over outsource production. Outsourcing each element of the production process to asset managers carries with it the problem of orchestrating the component parts of a decentralized production system, wherein each part may well demand a domain-specific contract consistent with the market for skills and expertise. Likewise, outsourcing carries with it the problem of reconciling very different sources of information with the goals of the organization (Clark and Monk 2017). In many cases, asset owners may find their claims for bespoke functions and services denied by virtue of the market power of suppliers. By contrast, insourcing offers asset owners the opportunity to integrate the production process through standardized employment contracts and the control of information acquisition and reconciliation, and thereby discount the power of asset managers.

Integration of the production process, whether by insourcing or a selective mix of insourcing and re-intermediation, can be advantageous on a number of counts. First, either way a direct connection can be established between the different component parts of the investment production process and the ultimate goals of the organization. Second, the costs and consequences of individual units shirking or remaining aloof from the goals and objectives of the organization can be directly observed and made transparent through the organization. Third, the acquisition and reconciliation of information can be framed around asset owners' needs, thereby providing a bridge between these organizations and the providers of information.

### Dimensions of Insourcing and Re-intermediation

As suggested previously, the size of an organization is one ingredient in (a) the decision to insource and/or pursue selective re-intermediation, and (b) the nature and scope of strategies. These two elements of the management problem are summarized in Exhibit 2. Here, it is assumed that asset owners are either large or small (being of a size to justify the insourcing of some or all of its investment activities). It is also assumed that asset owners may limit their insourcing activities

## EXHIBIT 2 Institutional Size and Scope

		Scale	
		Small	Large
Scope	Limited	A	B
	Wide	C	D

Source: Authors.

with a mix of insourcing and/or outsourcing—that is, re-intermediation.

A relatively small organization able to begin insourcing the production of investment returns may well do so at first on a limited basis, concentrating its skills and expertise on ensuring that those activities make a significant contribution to its performance (Box A). At a certain point, management can then vary the mix between insourcing and re-intermediation so as to impose discipline on its external asset managers, while building up its skills and expertise for crossing over from its core activities to other activities that are complementary rather than competitive with its existing commitments. By contrast, a large organization with the internal capabilities and management resources consistent with a wide scope of activities can create investment teams across all asset classes and investment strategies, thereby internalizing the entire production process (Box D).

In between, there are, in certain jurisdictions, large investment asset owners that focus on a relatively limited scope of activities concentrating on superior performance in those activities, while using their market positions—for skills and expertise and for the services of external asset managers—to sustain control over their own organizations and asset managers (Box B). Equally, there are in some jurisdictions relatively small organizations that can maintain a wide scope of investment activities

reflecting, in certain situations, the maturity of the local market for investment services and/or, in other situations, the overreach of senior managers (given compensation and incentives) (Box C). In either case, these may be relatively efficient organizations in that they are able to effectively manage performance and commitment against the outsourced option.

Also important are issues related to the reach of investment organizations. In Exhibit 3, the reach issue has two dimensions—temporal and geographical. For many asset owners, the mismatch between their interests and the interests of external asset managers is due to the very different time horizons underpinning these types of organizations. Some asset owners can look out as far as 80 years or beyond, whereas the business models of many external asset managers are founded on short time horizons. This mismatch affects both performance and commitment and can affect the commitment that asset managers make in their own skills and expertise, the information resources available to their investment activities, and the like. By contrast, many asset owners have a single “home,” whereas the largest investment managers collect assets and distribute returns on a global basis (see Bachher et al. 2016).

Lacking capabilities and resources, an asset owner may be hostage to the short termism of asset managers and dependent on the local industry for investment services (Box A). The same type of organization may, however, by happenstance, be located in a global financial center and have access to investment products that take it from the local to the global (Box C). In either case, its performance may be dependent on the vicissitudes of financial markets and suppliers. On the other hand, with the long-term perspective, a larger asset owner investment organization may be able to convert its long-term perspective from a local focus into a global focus, thereby realizing its performance and commitment goals (Box B to Box D). Just as importantly, a small investment group with a long-term horizon may use re-intermediation to realize its global ambitions.

## BUILDING BLOCKS OF INVESTMENT MANAGEMENT

The design of organizations and their systems of management are topics of significance across the social sciences (Williamson 1996). Here, issues of design and management are considered against the existing default

## EXHIBIT 3 Reach of an Organization

		Temporal	
		Short Term	Long Term
Geographical	Local	A	B
	Global	C	D

Source: Authors.

model—that is, the organizational model that dominates the global asset management industry, which is, in effect, a divide-and-conquer model designed to enhance the authority of senior managers given the premium claimed by high-performing asset-class-specific portfolio managers (Clark and Monk 2017). Not surprisingly, the largest asset managers are best understood as portfolios of activities rather than coherent and integrated organizations. This is one solution to the issue of performance and commitment (see Clark 2018a for other solutions).

Here, a model of management is developed that provides a framework through which to orchestrate the process of investment commitment and performance. As indicated below, each aspect of the framework contributes to the coherence of the organization and, as a consequence, distinguishes this asset owner-focused model of investment management from the default model that dominates the industry. Crucially, we take as a given the purpose of the organization, which, on the asset owner side of the market, is more than maximizing the risk-adjusted rate of return—it is to be found in the conversion of performance into the welfare of beneficiaries.

**Organizational framework.** This level sets the parameters for the organization, including how it manages itself in relation to its goals and objectives and the boundaries of the organization in relation to similar organizations and the market for investment

management services. High-performing asset owners are able to motivate long-term commitment through a framework that combines culture, governance, and knowledge management, thereby enabling effective decision-making across time and space. This type of framework is a necessary condition for performance and commitment but is not sufficient as the only driver of effective investment decision-making.

We define *culture* as the norms and conventions that provide an asset owner's employees with guidelines as to their expected behavior and relationships with other employees (Brennan et al. 2014). In effect, the culture of an organization is to be found in the informal terms and conditions that come with accepting employment in such an organization. *Governance* refers to the principles and practices of investment decision-making across the organization, whether that be found in a hierarchical set of procedures or some combination of deference and delegation by place in the organization which, taken together, provides a map of investment decision-making (Clark and Urwin 2008, 2010). *Knowledge management* systems are those that bind the investment process together, exploiting the separate knowledge of investment leaders in favor of the overall performance of the asset owner (Clark 2018b).

**Capabilities and resources.** Realizing the advantages conferred by an effective organizational framework relies on the mobilization of asset owners' capabilities and resources (Teece 2003; Teece et al. 1997). The human capital of employees is a key ingredient in the mix, and can be highly differentiated both in terms of measurable attributes and in terms of their fit with the mission of their fund. More than in many other industries, the mobilization and commitment of embodied skills and expertise is the litmus test of a successful investment organization over the long term (Clark 2018a).

Elsewhere, it has been suggested that the capabilities of an asset owner are to be found in the quality of its *staff*, the process of investment *decision-making*, and the *information systems* that allow an asset owner to understand its place in financial markets and design and implement investment strategies that are both timely and effective. These capabilities are the key elements in the production function of an investment organization, suggesting that these three elements distinguish the investment management industry from many other types of service industries (Clark and Monk 2017). The orchestration of these capabilities across investment

organizations allows for the realization of performance targets and the commitment of skilled employees in ways that are more than the sum of its parts.

**Market and nonmarket relationships.** It is possible that asset owners are held captive by their own internal cultures, governance routines, and knowledge management systems. Likewise, it is likely that an organization's capabilities and resources define what is possible and what is not possible in terms of investment performance and the commitment of its employees. Note that the theory of the firm provides two salutary lessons in this regard. First, the boundaries between asset owners are often blurred by what asset owners can or cannot do on their own account given the advantages of specialization. Second, as asset owners reach into the future and across space, they often do so through partnerships with others either better placed or more proficient in terms of their project-specific capabilities and resources. Re-intermediation, which involves the alignment of interests between asset owners and market providers, is fundamental to best practice in this regard.

Three elements underwrite the longer-term performance and internal commitment of these types of investment relationships: the *alignment* of interests, *access* to investment opportunities, and *symmetrical and flexible* terms and conditions. Separately and together each element provides the terms of engagement through which asset owners negotiate these types of investment relationships. The alignment of interests provides a check by which to judge current expectations as against the likely performance and commitment of the parties to these types of arrangements.

## METRICS COMMITMENT AND PERFORMANCE

Measures of performance are taken to represent the effectiveness of investment organizations, their orchestration of the investment process, the decision-making of skilled investment managers, and their responsiveness to market opportunities (Litterman 2004). Measures of performance also allow for the comparison of investment organizations, especially those that offer investment services to asset owners. Measures of commitment are not so easily identified and calibrated. The internalization of investment services has taken place, in part, because the asset owners have been unable to calibrate sell-side gestures of commitment.



Effective metrics of performance add value to an organization. Equally, ineffective metrics can hamper the performance of an organization, its component parts, and the commitment of its professionals (Muller 2018). Here, we summarize our metrics framework reflecting research in relevant disciplines as well as the particularities of investment management industry.

- Effective metrics are consistent (not in conflict) across the organization such that the performance of each part of the organization can be understood through its overall performance.
- Effective metrics are function- and/or task-relevant, being framed with respect to the organization and the goals and mandates of its constituent functions.
- Effective metrics are parsimonious and transparent, erring on the side of simplicity and clarity such that debate over their applicability, meaning or relevance is minimized.
- Effective metrics are relatively few in number, being focused on key activities and resources such that overlaps are minimized and staff members are conscious of their responsibilities.
- Effective metrics are flexible and/or adaptive given market risk and uncertainty. That is, there is a process whereby metrics are adapted and revised in relation to investment experience.

Overall, effective metrics are consistent with the interests of those that directly benefit from the performance of the organization, including beneficiaries, stakeholders, and regulators. Ineffective metrics do not connect functional or task-specific activities to the overarching purpose of the organization. In this respect, perhaps the most important metric of performance is that which summarizes the effectiveness of the organization as a whole.

*Metric (1): the risk-adjusted rate of return of the organization over the short-, medium-, and long-term, whereby the long-term is conceptualized in terms of beneficiaries' welfare (e.g., an adequate pension). Made explicit in this metric is the link between operational goals and the ultimate purpose of the organization.*

This metric has a number of advantages. In the first instance, it shifts the focus from short-term investment

performance to how that performance translates into something of value to the institution and its beneficiaries. Second, it is less about the maximization of the short-term rate of return and is more about the sum of risk-adjusted rates of return over the medium to longer terms. Third, it shifts the focus from the relative performance of separate and sometimes competing portfolio managers to the overall success of the organization and the contribution that separate portfolio managers make in realizing its mission.

The organizational framework of such an institution can play an important role in sustaining the credibility of this metric. As suggested previously, the culture of an organization is key to motivating investment managers to abide by its overall mission as opposed to their separate and often-times competing interests in maximizing short-term remuneration, industry reputations, and so on. To the extent that the governance of investment decision-making makes explicit the links between the activities of portfolio managers and the mission of the organization, with cooperation and collaboration within the organization as the litmus test of any portfolio manager's contribution to its purpose, the mission-led culture and governance of an organization are crucial ingredients in sustaining the knowledge management systems that bind the investment process together.

These elements are also important in sustaining the commitment of investment professionals to the organization. Each can be measured in terms of its effectiveness, as indicated by the opinions of its staff and by observing behavior. Turning to metrics of performance, the senior managers of successful investment departments normally survey their staff (yearly) as regards their views about the quality of their fellow employees, the investment decision-making process, and the informational infrastructure underpinning investment activities. These surveys are typically anonymous and the results are reported to the staff and the board of the institution.

*Metric (2): measures the commitment of staff to the long-term mission of the organization by taking into account the recruitment and retention of staff, the effectiveness of the institution's investment decision-making process, and the quality of the information systems that underpin the investment function.*

This metric frames "commitment" in terms of the *enhancement* of the organization in achieving its

long-term objectives. It allows members of the investment department to contribute to sustaining the mission of the organization without open conflict about the inevitable resource constraints faced by any organization and its managers. This is important in growing organizations as opposed to static organizations (measured in terms of assets under management) that face difficult challenges when attempting to reconcile competing claims for department-specific enhancements given fixed budgets. This is a very different model of management than one that dominates some leading investment managers that cultivate open dissent in the interests of identifying “winning claims” (see Clark 2018b).

Cultivation of shared commitment in these ways is an important way of sustaining the longer-term mission of the organization, notwithstanding the necessity to evaluate, on a regular basis, the investment performance of portfolio managers and their teams. A balance is to be struck between holding investment managers accountable for their performance measured against industry peers *and* measured against their contribution to the long-term performance of the organization. This suggests a third metric, which is designed to ensure transparency across the organization while using a parsimonious metric that allows for comparison of investment performance.

*Metric (3): the risk-adjusted rate of return of the unit or asset-class-specific investment team is assessed both in terms of its industry peers (medium-term) and in terms of its contribution to the long-term performance of the organization.*

It has been suggested here, and elsewhere, that the production of investment returns is fundamentally reliant on the size, scope, and reach of an organization, its human capital, and the information infrastructure, including its knowledge management systems (see prior discussion). As suggested previously, the performance and commitment of its staff to the long-term objectives of the organization drives the means by which risk-adjusted rates of return are translated into beneficiaries’ long-term welfare. Reflecting the importance of human capital, here is the relevant metric.

*Metric (4): the skills and expertise of investment staff, taking into account the particular requirements of the organization at any point in time, as well as the long-term quality of the investment staff in relation to its expected size, scope, and reach.*

In the short term, it is often an issue of having sufficient human resources to implement the organization’s chosen strategy. In the long term, however, the issue is the measured quality of staff, not the absolute quantity of human resources that holds sway. This metric has four distinctive components, including recruitment, retention, career enhancement within and outside the organization, and the reputation of the organization in relation to its industry peers as a place that rewards human capital and provides a pathway to career success in the global investment management industry.<sup>5</sup>

The success of the recruitment function can be measured against the organization’s needs for particular skills and expertise. The success of its retention function is also measurable as regards similarly placed individuals in other organizations. Career enhancement can be directly observed by senior managers and boards, while there are various ways of measuring the organization’s reputation through short-term placements, deals for access with educational institutions that produce younger professionals, and the like.

Important to any measurement of the value of the investment function is a metric that focuses on the costs of producing performance and commitment. At one level, this is a simple task wherein the various inputs to production are attributed direct and indirect costs over the short- and long-term. It is important that any measurement of the costs of production is consistent with other metrics, especially their focus on the long term over the short term. At another level, it is also important to estimate the absolute and relative costs of production (compared to outsourcing).

*Metric (5): the long-term direct and indirect costs of the investment department being measured in terms of staff costs, infrastructure costs, space and running costs, and the costs of shared services (within the organization) relative to performance and commitment and the observed or imputed costs of outsourcing these services.*

Compensation is an important ingredient in sustaining these organizations and is affected by the place

<sup>5</sup> Multiattribute measures of employee performance can promote metrics management by employees rather than the integration sought by senior executives. For all the virtues of the balanced scorecard approach to corporate management, for example, it runs the risk of becoming the “object” of behavior rather than a “means” of achieving “consistency of vision and action” across organizations (Kaplan and Norton 1996, 85).

of an organization in the global and local market for talent. The precise formulation of the compensation component of the cost metric will depend, in part, on the closeness of the market for talent, the expected rate of turnover (not too little, not too much), and the scope of the organization. Just as metrics can be used to instill a sense of responsibility in an organization, it is just as possible that a short-term focus on costs (such as salaries) can be self-defeating over the long term—when cost-consciousness leads to economizing on talent rather than appropriately incentivizing talent based on performance and commitment.

With respect to market and nonmarket relationships, it has been suggested that the long-term performance of an investment organization is dependent on the cultivation and development of investment opportunities inside and outside of financial markets. Just as human resources can be distinguished in terms of quantity and quality, so too can deal flow be distinguished in terms of access and long-term value (investment performance and commitment). As investment organizations enter into new areas of activity such as infrastructure, private equity, and venture capital, they often enter a queue for access to the highest-quality investment opportunities.

*Metric (6): the access to deals, quality of investment partners, and continuity of investment relationships by asset class, across the organization, and among peers.*

Each is directly observable and measurable and can be reported through to the governing bodies of the organization. In part, these elements reflect the pecking orders apparent in the global investment management industry. In part, they also reflect the relationships that bind asset owners with their peers, locally and globally.

These metrics presuppose that there is a premium on parsimony and transparency, thereby discounting obvious temptations to “game” the reporting process. Nonetheless, some elements are more difficult to quantify than others, including the skills and expertise of investment staff. In many respects, there is a close relationship between an investment professional’s past performance, industry reputation, and perceived skills and expertise. At the same time, it is apparent that certain investment strategies may be more successful than others, whatever the manager’s skills and expertise. In Clark and Monk (2018), these issues are developed with an extended treatment of the types of metrics summarized above,

along with a detailed exposition of how to measure these types of metrics and others in practice.

## CONCLUSIONS

In this article, we established the logic underpinning recent developments in the industry wherein asset owners have sought to claim control over the investment process by insourcing the production of risk-adjusted rates of return and/or selective intermediation. It was suggested that this issue can be conceptualized as involving control of the production process and direct oversight over the commitment of those employed directly or indirectly to realize the goals and objectives of these types of financial institutions. It was noted that these issues are problematic because of three asymmetries in the market for investment services: asymmetries of expertise, information, and market power. Insourcing is a means of resolving the costs and consequences of these asymmetries for financial institutions, even if insourcing brings its own challenges, including governing the scope and reach of institutions’ activities. As such, re-intermediation provides an opportunity to ensure asset owners maintain balance between insourcing and outsourcing.

One response to the management challenges associated with insourcing has been to adopt metrics of performance and commitment that can be used to govern the relationships between senior executives and the investment staff of beneficial institutions. By convention, this issue is often described as the principal-agent problem (Pratt and Zeckhauser 1985). As such, it is often treated as an unresolved conundrum bedeviling the modern corporation whatever its industry or functions (Jensen 2000). Here, however, it is suggested that financial institutions have sought to manage this relationship through sets of metrics that make transparent, at least, the terms and conditions whereby their interests can be resolved according to institutions’ long-term goals and objectives. Indeed, it is suggested that the single most important metric (#1) underpinning investment performance and commitment is the “ultimate purpose of the organization.”

Three related issues were combined to resolve the management “problem”: the nature and scope of investment activities were framed with respect to the overarching long-term investment strategy; investment performance was valued in terms of its contribution to realizing beneficiaries’ long-term welfare;

and short-term contracts for investment services were replaced by longer-term employment contracts. In theory, the most effective financial institutions are those able to combine each element together while ensuring continuity in the investment process and the commitment of staff to both the objectives of the institution and their own career prospects. Each element comes with its own challenges. Often implicit in an employment contract is a trade-off between higher salaries and bonuses available in the market for financial services and the opportunities available within a beneficial financial institution to develop skills and expertise within an asset class and across asset classes.

A management model was presented that could enable an asset owner to better realize its goals and objectives. Our model began with an organizational framework built upon accepted internal norms and conventions, efficient governance principles and practices, and knowledge management systems that bind the investment process together across the institution. This framework was followed by mobilizing an asset owner's capabilities and resources, including its staff (quality and quantity), the process of investment decision-making, and the information infrastructure that enables timely and effective investment strategy. The third part focused on market and nonmarket relationships, which can be understood as access to external investment opportunities aligned with the long-term interests of an institution. The most effective financial institutions are those that knit together these elements into coherent decision-making.

While these building blocks are, no doubt, observable among leading asset owners across the world, it is important to give effect to each element. In that regard, we also identified a set of metrics that provides, in theory at least, asset owners with a means of focusing on the key variables in each tier of the investment process and a means of measuring progress to date. It is tempting to have many metrics and many measures of performance against those metrics. This is the focus of Clark and Monk (2018), who provide a worked-through means of implementing an extensive set of metrics through measures that can be realized by the senior managers of asset owners. Just as we argue that parsimony and simplicity are the keys for framing metrics and realizing their benefits, it is just as important to be able to give effect to these metrics with measures that are salient and operational. At the limit, of course, where there are

many metrics and many measures of performance against those metrics, the management problem can become a problem of reconciliation rather than the realization of long-term goals and objectives.

## ACKNOWLEDGMENTS

The authors wish to thank our research sponsors and our collaborators at the University of Oxford and Stanford University for their insights and comments on previous drafts of this article. We would also like to thank Dane Rook, Rajiv Sharma, and Roger Urwin for their continuing interest in our research program. This draft was processed and corrected by Jennifer Sabourin. None of the above should be held responsible for the views and opinions expressed herein.

## REFERENCES

- Ambachtsheer, K. P. 2016. *The Future of Pension Management: Integration, Design, Governance, and Investing*. Hoboken, NJ: John Wiley and Sons.
- Arjaliès, D. L., P. Grant, I. Hardie, D. MacKenzie, and E. Svetlova. 2017. *Chains of Finance: How Investment Management Is Shaped*. Oxford: Oxford University Press.
- Arrow, K. J. 2014. "Commentary." In Scheinkman, J. A. *Speculation, Trading, and Bubbles*. New York: Columbia University Press, 81–88.
- Bachher, J., A. Dixon, and A. H. B. Monk. 2016. *The New Frontier Investors: How Pension Funds, Endowments, and Sovereign Wealth Funds Are Changing the Business of Investment Management and Long-Term Investing*. Basingstoke: Palgrave Macmillan.
- Baker, G., R. Gibbons, and K. J. Murphy. 2001. "Bringing the Market Inside the Firm." *American Economic Review* 91 (2): 212–218.
- . 2002. "Relational Contracts and the Theory of the Firm." *Quarterly Journal of Economics* 117 (1): 39–84.
- Bolton, P., and M. Dewatripont. 2005. *Contract Theory*. Cambridge MA: MIT Press.
- Brennan, G., L. Eriksson, R. E. Goodin, and N. Southwood. 2014. *Explaining Norms*. Cambridge: Cambridge University Press.
- Clark, G. L. 2016. "The Components of Talent: Company Size and Financial Centres in the European Investment Management Industry." *Regional Studies* 50 (1): 168–181.

- . 2018a. “Learning-by-Doing, Knowledge, and Investment Management.” *Journal of Economic Geography* 18 (2): 271–292.
- . 2018b. “The Culture of Finance.” In Beaverstock, J., Cook, G., Johns, J., McDonald, F., and Pandit, N. (eds.) *The Routledge Companion to the Geography of International Business*. London: Routledge, 513–534.
- . 2018c. “Financial Intermediation, Infrastructure Investment, and Regional Growth.” *Area Development and Policy* 2: 217–236.
- Clark, G.L., and A. H. B. Monk. 2017. *Institutional Investors in Global Markets*. Oxford: Oxford University Press.
- . 2018. “Long-Term Investor Performance: Principles, Practices and Metrics and Measures.” Working paper, University of Oxford and Stanford University.
- Clark, G. L., and R. Urwin. 2008. “Best-Practice Pension Fund Governance.” *Journal of Asset Management* 9 (1): 2–21.
- . 2010. “Innovative Models of Pension Fund Governance in the Context of the Global Financial Crisis.” *Pensions: An International Journal* 15 (1): 62–77.
- Coase, R. H. 1937. “The Nature of the Firm.” *Economica* 4 (16): 386–405.
- Fehr, E., and K. M. Schmidt. 1999. “A Theory of Fairness, Competition, and Cooperation.” *Quarterly Journal of Economics* 114: 817–868.
- Globe, V., R. C. Green, and R. Lowery. 2012. “Financial Expertise as an Arms Race.” *The Journal of Finance* 67: 1723–1759.
- Grossman, G. M., and E. Helpman. 2004. “Managerial Incentives and the International Organization of Production.” *Journal of International Economics* 63: 237–262.
- . 2005. “Outsourcing in a Global Economy.” *Review of Economic Studies* 72 (1): 135–159.
- Hart, O. 2011. “Thinking about the Firm: A Review of Daniel Spuder’s *The Theory of the Firm*.” *Journal of Economic Literature* 49 (1): 101–113.
- Hart, O., and J. Moore. 2008. “Contracts as Reference Points.” *Quarterly Journal of Economics* 123 (1): 1–48.
- Jensen, M. C. 2000. *A Theory of the Firm: Governance, Residual Claims, and Organizational Forms*. Cambridge, MA: Harvard University Press.
- Litterman, B. 2004. *Modern Investment Management*. New York: John Wiley.
- Lo, A. 2012. “Adaptive Markets and the New World Order.” *Financial Analysts Journal* 68 (2): 18–29.
- Lowenstein, L. 1996. “Financial Transparency and Corporate Governance: You Manage What You Measure.” *Columbia Law Review* 96: 1335–1362.
- Kaplan, R. S., and D. P. Norton. 1996. “Using the Balanced Scorecard as a Strategic Management System.” *Harvard Business Review* 74 (1): 75–85.
- Merton, R.C., and Z. Bodie. 2004. “The Design of Financial Systems: Towards a Synthesis of Function and Structure.” *Journal of Investment Management* 3 (1): 1–23.
- Monk, A. H. B., and R. Sharma. 2017. *Reframing Finance: New Models of Long-Term Investment Management*. Stanford: Stanford University Press.
- Muller, J. Z. 2018. *The Tyranny of Metrics*. Princeton: Princeton University Press.
- Pratt, J., and R. Zeckhauser, Eds. 1985. *Principals and Agents: The Structure of Business*. Boston: Harvard Business School Press.
- Ross, S. A. 1973. “The Economic Theory of Agency: The Principal’s Problem.” *American Economic Review* 63 (1): 134–139.
- Spulber, D. 2009. *The Theory of the Firm: Microeconomics with Endogenous Entrepreneurs, Firms, Markets, and Organizations*. Cambridge: Cambridge University Press.
- Teece, D. J. 2003. “Expert Talent and the Design of Professional Services Firms.” *Industrial and Corporate Change* 12: 895–916.
- Teece, D. J., G. Pisano, and A. Shuen. 1997. “Dynamic Capabilities and Strategic Management.” *Strategic Management Journal* 18: 509–533.
- Weitzman, M. 2007. “Subjective Expectations and Asset-Return Puzzles.” *American Economic Review* 97 (4): 1102–1130.

Williamson, O. E. 1996. *The Mechanisms of Governance*. Oxford: Oxford University Press.

Wójcik, D. 2013. "Where Governance Fails: Advanced Business Services and the Offshore World." *Progress in Human Geography* 37 (3): 330–347.

#### **Disclosure**

The authors are pleased to acknowledge the support of Stanford University, and members of the research consortium on financial institutions coordinated by the Global Projects Center of the Faculty of Civil and Environmental Engineering. Support for research on the management of investment institutions has been provided, in part, by members of the research consortium and AustralianSuper. The authors remain wholly responsible for the content of this article and the implications drawn thereof.

*To order reprints of this article, please contact David Rowe at [d.rowe@pageantmedia.com](mailto:d.rowe@pageantmedia.com) or 646-891-2157.*