



About the Center for Applied Research

The Center for Applied Research (CAR) conducts targeted research designed to provide our clients with strategic insights into issues that will shape the future of the investment industry. Building on the success of State Street Corporation's established Vision thought-leadership program, CAR brings together resources within the industry and across State Street to produce timely research on the topics that are most important to investors worldwide.

CAR is an independent think tank that resides at State Street's corporate leve and comprises a global team of researchers located across the Americas, Europe/Middle East/Africa and Asia Pacific. CAR selects its research topics based on input from global investment management industry professionals. The 12- to 18-month research studies will include both primary research methods — driven by face-to-face interviews and surveys — and secondary research methods. Research is global in scope, covering the Americas, EMEA and Asia Pacific, and include topics such as:

- Investor behavioral shifts
- Asset depth
- Asset allocation patterns
- Regulatory implications
- Fee and alpha analysis
- Competitive landscape analysis

CAR can customize delivery approaches, providing company briefings, conferences and multimedia presentations to meet your c-suite and board of director needs at no cost.

If you would like more information about this study or the Center for Applied Research, you may contact the authors or send an e-mail to CenterforAppliedResearch@statestreet.com.

Introduction

What are the forces that will shape the future of the investment management industry over the next decade? That was the question we set out to answer when we began this research effort. Over the course of a 12-month period, we collected the views

of thousands of retail and institutional investors, asset managers, intermediaries and regulators from more than 60 countries. And, after extensive analysis of their responses, one thing became clear: The future of the investment industry will be determined by the actions investors take — healthy or unhealthy, rational or irrational. This is what we mean by the "influential investor."

THE FUTURE OF THE INVESTMENT INDUSTRY WILL BE DETERMINED BY THE ACTIONS INVESTORS TAKE—HEALTHY OR UNHEALTHY, RATIONAL OR IRRATIONAL.

But how are investors acting? Why are they behaving that way? Is the industry delivering meaningful value?

Understanding the answers to these questions will be the key to generating sustainable returns in the future. Only then can the industry begin to redefine the most important word in the investment management vocabulary: performance.

EXECUTIVE SUMMARY

The investment management industry is facing significant challenges that are changing how the industry thinks about performance, the delivery of value and the measurement of success. These changes are taking place against a backdrop of increased regulatory oversight and a growing awareness of the financial system's instability among all classes of investors.

Faced with uncertainty, many investors — both retail and institutional — are not acting in their own best interest, exhibiting behavior that appears to be at odds with their stated goals. This behavior is driven by an increased awareness of economic factors, such as central bank intervention and global convergence, and a series of deeply misaligned interests among many participants, including providers and intermediaries, asset owners and managers, and governments, regulators and politicians.

One thing is clear: When it comes to performance, one size does not fit all. The industry's value proposition must evolve to one that defines performance as personal. The current benchmark model does not speak to the needs of the investor. Relative performance based on peer groups or indices may serve the provider, but the investor's view of value is more complex and reflects their own personal blend of alpha seeking, beta generation, downside protection, liability management and income management.² In the future, the investor will be the benchmark.

To meet these challenges, the industry will need a keen understanding of the role of local intelligence in decision-making systems. It will need to streamline the delivery model at both industry and organizational levels to eliminate complexity and bring strategic priorities in line with what investors want most: personal performance. And finally, it will need to define a formula for sustainable returns to account for investors' unique performance goals, to align fees with value delivered and to be fully transparent so the investor can appreciate that value.

STUDY METHODOLOGY

Primary research

This study is based on input from more than 3,300 investment management industry participants across 68 countries. The Center for Applied Research obtained this input through surveys of 2,725 investors, and 403 investment providers and government officials. Surveys were conducted through an online platform in collaboration with the Economist Intelligence Unit, Scorpio Partnership and TNS Finance Amsterdam. In addition, we conducted face-to-face interviews with 200 executives and government officials from around the world to gain qualitative insights for our research.

Our analysis focused on selected investment community members representing a wide range of perspectives:

- Institutional investors Defined contribution/defined benefit plans, sovereign wealth funds, insurances, central banks, family offices and others
- Retail investors Mass basic, mass affluent and high-net-worth individuals
- Asset managers Traditional and alternative asset managers whose clients are institutional, retail or both
- Intermediaries Consulting firms and financial advisors
- · Regulatory bodies and government officials
- Others Academics, think tanks and industry associations

Geographical breakdown

A wide range of geographies were included.

- Retail: 14 countries were selected for participation:
 03 in the Americas, 7 in EMEA and 4 in APAC
- Institutional: 37 percent of respondents were from the Americas, 33 percent from EMEA and 30 percent from APAC, respondents represented 68 countries

Secondary research

We conducted secondary research and developed quantitative models, including:

- Country analysis of economic growth and political stability
- · Asset allocation patterns
- · Analysis of alpha production
- Analysis of fee compression levels
- Trust indices

Percentages and weightings

All percentages are rounded.

Charts displaying investors' view

- "Overall" results are equally weighted to give retail and institutional investors an equal voice
- Within the retail investor results, views of mass basic, mass affluent and high-net-worth have also been equally weighted

Charts displaying providers' view

"Overall" results are equally weighted to give intermediaries and asset managers an equal voice

Charts displaying industry views

- "Overall" results are equally weighted among categories to give industry participants an equal voice
- Where regulatory bodies did not respond to the question asked, the "overall" results shown are equally weighted between the provider and the investor view

PART I

How is investor behavior changing?

The future of the investment management industry will be determined by the actions that investors take — healthy or unhealthy, rational or irrational, self-interested or self-destructive. To be successful in the future, the industry must understand why investors behave the way they do.

What we found was surprising: Investors do not seem to be acting in their own best interest. While not always true, and not for every investor, there is ample aggregate evidence of this behavior. On the retail side, investor behavior is not aligned with their long-term goals. While on the institutional side, investors do not believe they are prepared to handle the risks associated with their actions.

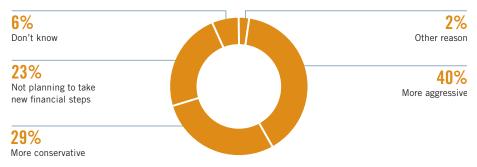
Retail investors: Do as I say, not as I do

When we asked retail investors what steps they need to take over the next 10 years in order to be prepared for retirement, the No. 1 response (40 percent) was to become "more aggressive." (See Figure 1.) However, when we analyzed their asset allocations, we found that cash was the No. 1 allocation, and the amount of the allocation was significant — an average of 31 percent. Asked to project their allocation 10 years from now, cash was still the dominant asset class. (See Figure 2.) At the same time, the largest growth is expected to be in fixed income. Given investors' stated need to be more aggressive, the preference for cash, combined with a movement toward fixed income, seems out of sync with the long-term goal of becoming more aggressive.

FIGURE 1.

Retail investors claim they will need to be "more aggressive" over the next 10 years to prepare for retirement.

Financial Steps for Retirement (Percentage of Survey Respondents)



n = 2,623

Note: Percentage of survey respondents by category when asked: Which financial steps are you taking to prepare for or during retirement in the next 10 years, if any? Please select one. Source: Center for Applied Research analysis.

INVESTORS ARE
NOT ACTING
IN THEIR OWN
BEST INTEREST.



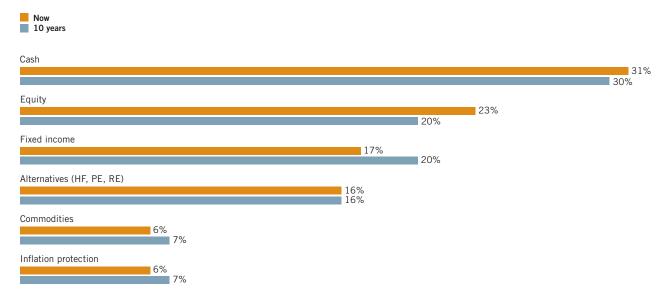
"RETAIL INVESTORS ARE OUTCOME-ORIENTED. WHEN THE OUTCOME IS NOT PREDICTABLE, THEY JUST GO TO WHAT IS."

-US retail asset manager

FIGURE 2.

Despite the recognition that they need to be "more aggressive," retail investors are heavily invested in cash — and plan to stay that way for the next 10 years.

Asset Allocation - Retail Investors (Percentage Allocation by Asset Class, Rank Ordered by Total)



n = 2,623

Note: Percentage allocation by asset class when asked: In which asset classes are you currently/ do you plan to be invested in? Please indicate in percentage (total should be 100 percent). Source: Center for Applied Research analysis.

Such conservative behavior may not be all that surprising and may even be justifiable, given the volatility in global markets and the large pre-retirement population. However, what is surprising — and worrisome — is the high level of asset allocation convergence across all demographics. For example, when we analyzed investor behavior by age group, we found that cash was the No. 1 allocation across all groups, both now and 10 years from now. Similarly, the increase in projected future allocation to fixed income did not change significantly between age groups.³

While there is nothing wrong with cash, it is at odds with investors' stated need to become more aggressive. What is driving this behavior? As a one US-based retail asset manager observed: "Retail investors are outcome-oriented. When the outcome is not predictable, they just go to what is."

Institutional investors: Aggressive moves, potential for unintended consequences

While we're seeing conservative behavior on the retail side, institutional investors are moving into more complex asset classes. Independent of type and despite divergent goals, institutional investors have been consistently increasing their allocation to alternative investments over the last decade.⁴ And, based on a recent State Street survey, this trend is likely to continue.⁵

In the United States, for example, 45 percent of survey respondents said the low-yield market environment had increased their appetite for alternative strategies. When asked about asset allocation changes, 56 percent are looking to the private markets, including private real estate, private equity and infrastructure. European pensions, SWFs and Asian central banks also expect to increase their allocations to alternatives. Alternative assets offer many benefits, including diversification, high alpha potential and the possibility of risk reduction. On its face, the convergence of institutional investors into these asset classes seems healthy.

As we dug deeper, however, we uncovered a troubling finding: Based on our investor interviews and survey work, we found that institutional investors aren't fully prepared to handle the complexity that comes with alternative assets. When we asked them to describe their largest challenges, "Complexity stemming from increased investments to alternatives" ranked No. 1. (See Figure 3.) Investors also see "having a deep understanding of potential risks" as the largest area of weakness in their talent pool.⁷

By increasing allocations to alternatives, despite concerns that they aren't prepared for the ensuing complexity, it seems that many institutional investors aren't acting in their own best interest either.

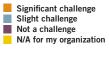
As one Canadian pension plan told us:

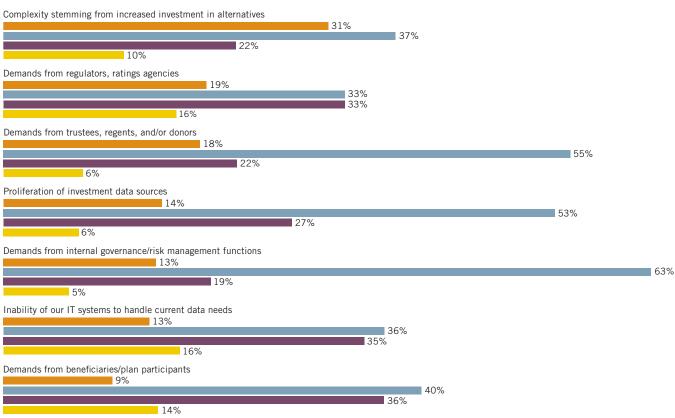
"IT HAS TAKEN US OVER A DECADE TO BUILD THE APPROPRIATE RISK
INFRASTRUCTURE TO HANDLE COMPLEX ASSET CLASSES.
I'M AFRAID THAT MANY INSTITUTIONAL INVESTORS ARE HERDING INTO
ALTERNATIVE ASSET CLASSES WITHOUT LAYING THE FOUNDATION.
THIS IS NOT GOING TO END WELL."

FIGURE 3.

While institutional investors' appetite for alternative investments shows no sign of abating, the complexity of those assets poses investors' largest challenge.

Challenges for Institutional Investors (Percentage of Survey Respondents, Rank Ordered by Significant Challenge)





n= 130

Note: Question asked: For each of the following, please indicate the extent to which it poses a challenge for your organization. Source: State Street 2012 Asset Owner Study.

PART II

What is driving investor behavior?

A rational response to instability

What would drive retail investors, young and old, the ultra-wealthy and those of modest means, to flock to cash when they know they must be more aggressive in order to prepare for retirement?

Why would institutional investors around the world continue to allocate more to alternative assets when the complexity stemming from the asset class is their No. 1 challenge, and they don't believe their staff has a deep understanding of the risk?

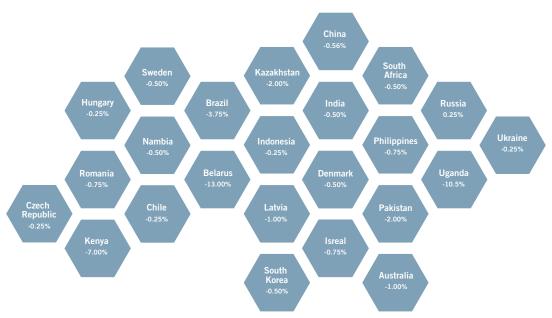
We wanted to understand the drivers behind these behaviors. What we found was they have been largely shaped by investors' growing awareness of the financial system's instability. Although it may seem counterintuitive, investors' seemingly irrational behavior is a rational response to the environment.

Awareness of economic trends

Two factors are converging to drive this heightened awareness of instability: worldwide central bank interventions, and increasing levels of global correlations and systemic risk.

Central banks around the world have instituted sizable quantitative easing measures over the last decade. The Bank of Japan launched their first quantitative easing program in 2001; in September 2012, it began its *eighth* round of easing to bring total assets purchases to ¥80 trillion. The European Central Bank handed out another €529.5 billion in loans to the region's struggling banks in February 2012 to take the easing program past €1 trillion. In September 2012, the US Federal Reserve Bank announced its third round of easing, QE3, on top of \$2.3 trillion already injected into the economy and committed to an additional \$40 billion per month thereafter. Also, in July 2012, the United Kingdom's Bank of England announced the purchase of a further £50 billion to bring total assets purchases to £375 billion — a number expected to rise to £425 billion by November.8 In the months prior to QE3 in the US (Sep 2012), there has been a synchronized government stimulus which amounted to more than 33 rate cuts from around the globe. (See figure 4)





Note: The visualization represents the total of the central bank interest rate cuts by country that have taken place in 2012 (YTD November 7, 2012). Source: Center of Applied Research analysis; Central Bank Rates; Global Rates.

At the same time, there is growing awareness — and worry — about increasing levels of global correlation and systemic risk. We measured global correlations among the weekly returns of 19 MSCI National Indices from 1996–2011 and found that the global markets are indeed becoming increasingly correlated. Even across asset classes, historical relationships are not static, and that makes diversification a very complex process — one that can lead to unintended results. For example, the traditionally negative correlation between commodities and equities reversed sharply in 2008, as a result of deleveraging and demand loss. ¹⁰

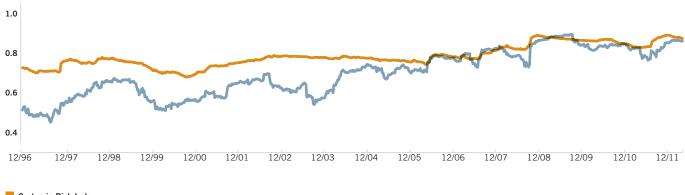
In a related analysis, State Street Associates, State Street's partnership of industry and academia, developed a systemic risk index¹¹ that measures the fragility of equity markets, and it showed that systemic risk has also been rising over the last 15 years. (See Figure 5.)

Central bank interventions, combined with the uncertainty associated with increasing global correlations — across markets and asset classes — and rising systemic risk are driving market instability. Investors' are increasingly aware of this instability and, faced with a changing landscape, are responding to it with behaviors that are in conflict with their long-term objectives.

FIGURE 5.

Correlations and systemic risk are increasing — and increasingly visible to investors.

Global Equity Markets Correlations and Systemic Risk Index, 1996-2011



Systemic Risk Index
Global correlation

Note: The Systemic Risk Index was developed by State Street. It measures the fragility of equity markets and susceptibility to drawdowns. Global correlation refers to the correlation between weekly returns of 19 MSCI National Indices from 1996 to 2011. The y-axis shows the values of the Systemic Risk Index and global correlations, which can range between 0 and 1. The x-axis shows the measurement period from December 1996 to December 2011.

Source: Center for Applied Research analysis; State Street Associates.

Misaligned interests

In addition to economic factors, investors are becoming increasingly aware of a series of deeply misaligned interests. When we looked across the investment ecosystem, we found that industry participants are creating barriers to healthy decision-making when they should be acting as facilitators.

Mistrust abounds

We considered four segments of the investment community — investors, providers, regulators and a broad category that we call "markets." The results offer compelling evidence that mistrust abounds among stakeholders and represents the largest barrier to healthy decision making.

Only one-third of retail and institutional investors believed their primary investment provider is acting in their best interest.¹² Investors reported that they do not receive sufficient financial education from their advisors — not surprising, given that a recent global literacy survey found that not one out of 28 countries received a passing grade.¹³

Regulation and politics were cited as the top two external impediments to institutional investment decisions.¹⁵ When we asked investors for their views on regulatory effectiveness and cost, 64 percent said they believe that regulation won't help address current problems.¹⁶ Adding insult to injury, the majority also believes that the costs will be passed on to them. Responding to the same set of questions, the majority of regulators agreed. Fifty-five percent of regulators believe regulation won't help address current problems, and 64 percent believe the cost will be passed on to investors.¹⁷







GGO/O
OF INVESTORS ARE NOT PARTICULARLY LOYAL
TO THEIR PRIMARY INVESTMENT PROVIDER.¹⁴

Skepticism about markets

We also tested how participants viewed the markets themselves. Retail investors cited "skepticism of markets" as the No. 1 obstacle to becoming more involved in their finances. Their concern is well-founded as the US Federal Trade Commission's Consumer Sentinel Network Data Book has documented a 62 percent increase in financial fraud claims, among other types, in the last three years. Moreover, in 2011 there were abounds 1.5 million individual claims. On the institutional side, a global survey of the CFA Institute's membership of regulators showed "market fraud" as one of the most important ethical issues facing global markets.

From the WorldCom scandal in 2002 to the Madoff Ponzi scheme in 2008 and the manipulation of the interest rate benchmark LIBOR, the global financial press has been full of stories of market fraud, scams and schemes. Add to that the 2008–2009 financial crisis, in which complex US mortgage-backed securities and underwriting practices played a crucial role, and it is no wonder investors and providers alike are questioning whether the markets are working for or against them.

THREE DIMENSIONS OF MISALIGNMENT

When we looked deeper at this pervasive misalignment among industry participants, it became apparent that it exists across three primary dimensions: time, financial interest and knowledge. Each dimension contributes to our understanding of how the investment community is creating barriers to healthy decision making.

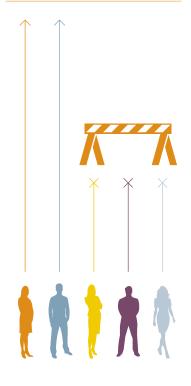
Time: Short-term versus long-term focus

The tendency to focus on the short term is a human characteristic. Behavioral economists refer to it as hyperbolic discounting — "a way of accounting in a model for the difference in the preferences an agent has over consumption now versus consumption in the future." Put another way, instant gratification often trumps a future — and potentially greater — reward.

The friction between short- and long-term interests is nothing new in the industry. We are all too aware of how earnings pressure can sabotage long-term strategic initiatives. In a survey of financial executives, 80 percent reported that they would decrease discretionary spending on research and development, advertising and maintenance; 55 percent said they would delay starting a new project to meet an earnings target — even if such a delay entailed a sacrifice in value.²² The focus on short-term rewards goes beyond the way the industry manages its business; it increasingly defines how we invest. Between 1945 and 1965, the average fund held a typical stock for about six years. By 2005, the holding period had compressed to 11 months.²³

ARE CREATING
BARRIERS TO HEALTHY
DECISION-MAKING
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INVESTOR GOALS





Why, then, does our study find that 64 percent of survey participants "somewhat" to "strongly" agree with the following statement: "Long-term decisions are important to me"?²⁴ Certainly a focus on the long term would be in the best interest of investors and providers, but the behavioral evidence suggests that short-termism is much more prevalent. This misalignment of interests — and self-perception — is one factor that is driving unhealthy decision-making.

Financial interest: Opacity versus transparency

The second dimension of misalignment is financial interest — specifically with respect to the transparency of fees versus the value that is delivered. Opacity and the lack of delivered value relative to fees is the cornerstone of the mistrust investors harbor toward providers. Our research showed that 46 percent of institutional investors believe the fees they pay are not commensurate with the value that is delivered. And there is ample evidence for the reason: There are only a handful of managers that have consistently outperformed their respective benchmarks. For example, in a recent study, "Measuring Luck in Estimated Alphas", [Also: The full title of the study is "False Discoveries in Mutual Fund Performance: Measuring Luck in Estimated Alphas"] Barras, Scaillet and Wermers conducted an analysis of US actively managed open-ended domestic equity mutual funds that existed between 1975 and 2006. The authors found that after risk adjustment, well under 1 percent of funds achieve superior results after costs. Misalignment of financial interest is another barrier to healthy decision making.

While a flurry of new regulatory initiatives — Dodd-Frank, MiFID II and RDR, to name a few — attempt to address issues around fee transparency, fiduciary standards and unbundling investment advice from commissions, it remains to be seen whether they will be effective. And although investment providers may not relish the thought of regulatory oversight, transparency ranked No. 2 among the areas most likely to be affected by regulation. (See Figure 6.) While well-intentioned, these regulatory initiatives may not produce appropriate transparency — digestible forms of information that investors need.

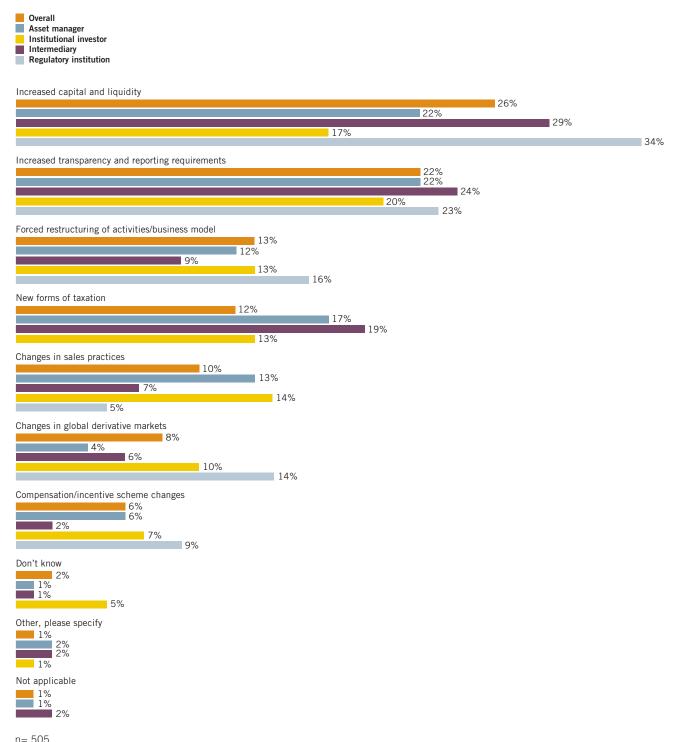
THE GROWING PAPER TRAIL FORMED BY THE DODD-FRANK LAW
IS 20 TIMES TALLER THAN THE STATUE OF LIBERTY.



FIGURE 6.

Increased transparency will have a significant effect on the industry — but whether transparency translates into usable information for investors remains to be seen.





Note: Question asked: Which of the following areas of regulatory focus do you expect will have the most profound effect on your firm/investment management industry over the next 10 years? Source: Center for Applied Research analysis.

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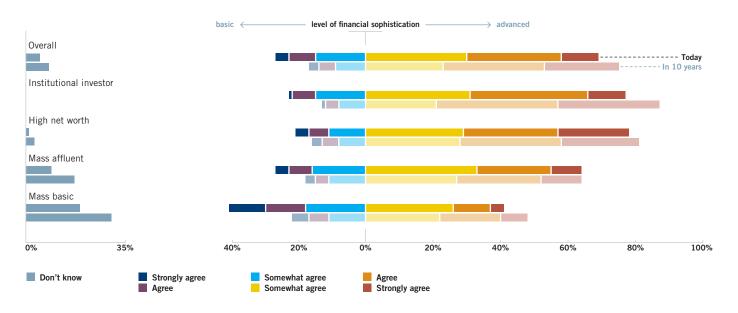
Knowledge: We don't know what we don't know

The third dimension of misaligned interest concerns knowledge and the role unrealistic expectations may play in investor self-awareness. We surveyed for self-perceived levels of financial knowledge across all classes of retail and institutional investors — and we found an abundance of confidence. Nearly two-thirds of retail investors believed their current level of financial sophistication was advanced. The numbers are even higher for institutional investors. (See Figure 7.)

FIGURE 7.

The majority of investors see themselves as financially sophisticated.

Financial Sophistication: Now and in 10 years (Percentage of Survey Respondents)



n = 2,724

Note: Question asked: How would you describe your behavior in the following categories: now and in 10 years? My level of financial sophistication is very low/my level of financial sophistication is very advanced. Please rate each statement: somewhat agree, agree or strongly agree. Source: Center for Applied Research analysis.

Are these self-assessments accurate or are investors overly optimistic about their level of sophistication? Overconfidence is, after all, a human trait — and there is no shortage of overconfidence in the investment community. A UK-based behavioral finance strategist James Montier found that almost 100 percent of fund managers globally believed that their job performance was "average or better," when clearly only 50 percent can be above average.²⁸

Exacerbating this overconfidence effect is the equally human tendency to set unrealistic expectations. For example, the median assumed rate of return for US public defined benefit plans is 7.9 percent — despite the fact that actual median return was only 3.2 percent for the last five years, and 6.0 percent for the last 10 years.²⁹ Many of these assumed rates were set years ago, and there is political resistance to change despite changes in the economic environment. Varying levels of actual knowledge versus perceived knowledge, combined with unrealistic expectations, are creating sizeable barriers to healthy decision making.

PART III

Is the industry delivering value?

Clearly, the industry is facing sizable challenges. Increasingly aware of the instability of the global financial systems, many investors aren't acting in their own best interest; some are exhibiting behavior that is at odds with their stated objectives. There is a significant misalignment of interests across different classes of industry participants, and most investors are overconfident about their level of financial sophistication. Against this shifting backdrop, we wanted to understand whether the industry was delivering on its value proposition — and whether that value proposition would be sustainable in the future.

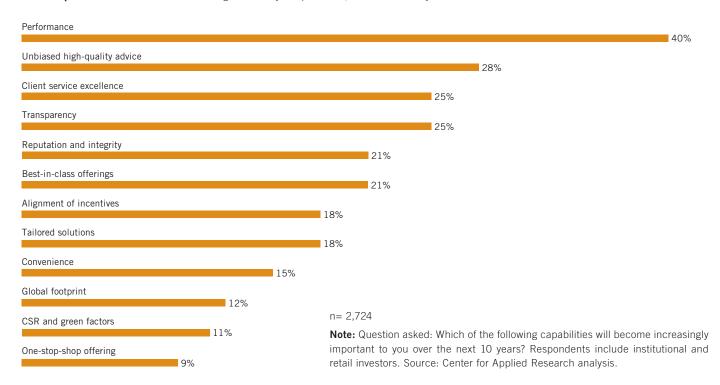
Rethinking the value proposition

We began by trying to understand how investors define value. We asked retail and institutional investors which provider capabilities would become increasingly important to them over the next 10 years. Performance was the overwhelming choice; respondents ranked it as No. 1. (See Figure 8a.)

FIGURE 8A.

Performance will be the No. 1 driver of investors' perception of value in the next decade.

Most Important Value Drivers (Percentage of Survey Respondents, Rank Ordered by Total)

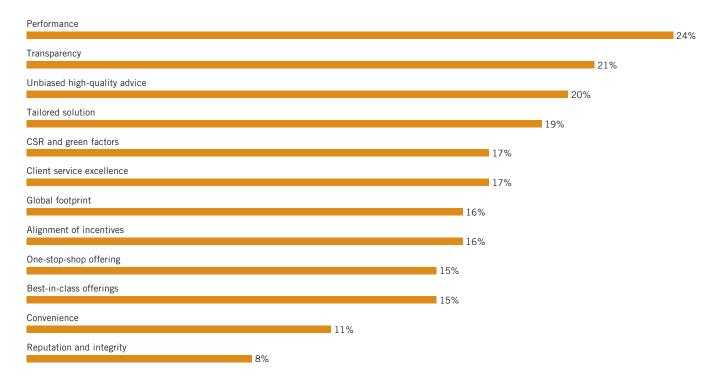


We then examined whether investors thought their providers were delivering on the values they cared most about. We asked the same group to identify providers' greatest weakness. Once again, performance was No. 1. (See Figure 8b.)

FIGURE 8B.

While performance is what investors value most, it is also seen as the weakest link in their providers' value proposition.

Largest Weaknesses of Investment Providers (Percentage of Survey Respondents, Rank Ordered by Total)



n= 2.724

Note: Question asked: Based on your investment providers' current capabilities, which of the following areas represent the largest weaknesses? Respondents include institutional and retail investors. Source: Center for Applied Research analysis.

Performance is in the eye of the beholder

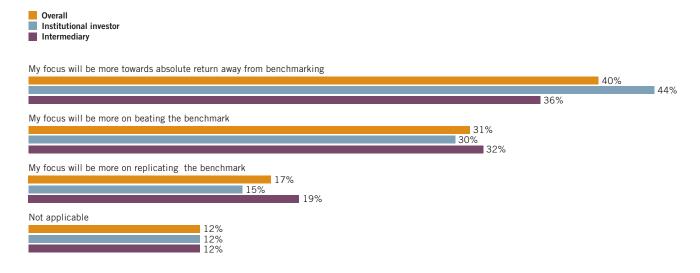
So, while performance is what investors value most, it is also seen as the weakest link in their providers' value proposition. Surely the industry has not intentionally failed to deliver value through performance. What is more likely: Asset managers and providers do not fully understand what investors mean by "value" and "performance."

The definition of "performance" is shifting. Our research shows that institutional investors and intermediaries are planning a strategic move away from benchmarking — and toward an absolute return model — over the next 10 years. (See Figure 9a).

FIGURE 9A.

Investors are moving away from benchmarking as a measure of success — and failure.

Top Strategic Model Preference: Absolute Returns (Percentage of Survey Respondents, Rank Ordered by Total)



n = 202

Note: Question asked: What changes do you expect to make to your strategic model and investment strategy? Please select one. Source: Center for Applied Research analysis.

As one European-based executive from a fund manager told us:

"THERE IS AN AGENT VERSUS PRINCIPAL PROBLEM IN OUR INDUSTRY.

THE BEST MEASURE I HAVE COME ACROSS OF MEASURING A PROVIDER WOULD BE TO LOOK AT HIS OR HER OVERALL PERFORMANCE AND THEN COMPARE THAT TO WHAT WOULD HAVE HAPPENED IF HE OR SHE HAD GONE ON HOLIDAY FOR THE PERIOD AND LEFT FLOWS TO BE ALLOCATED PARI-PASSU TO THE ORIGINAL PORTFOLIO AT THE BEGINNING OF THE PERIOD. THIS WILL GIVE A TRUE MEASURE OF THE ONE ASPECT OF PORTFOLIO MANAGEMENT NEVER MEASURED, BUT YET [IS] A HUGE COMPONENT OF PERFORMANCE: INVESTMENT TIMING AND FRICTION COSTS — IN SHORT, THE REAL VALUE ADDED."

PERFORMANCE, IT SEEMS, IS IN THE EYE OF THE BEHOLDER.

PART IV

Where do we go from here?

How will the industry measure success — and failure — in the future? How can we incorporate this concept of the "influential investor" into new models for sustainable returns?

Benchmark and peer-group performance has been institutionalized over many decades; our existing delivery models are built around it. But the evidence for change — "unhealthy" investor behaviors, a growing awareness of economic instability, misaligned interests across the investment community — is compelling. Moving away from the current model won't be easy, nor will it be a panacea, but it would be one step forward.

All performance is personal

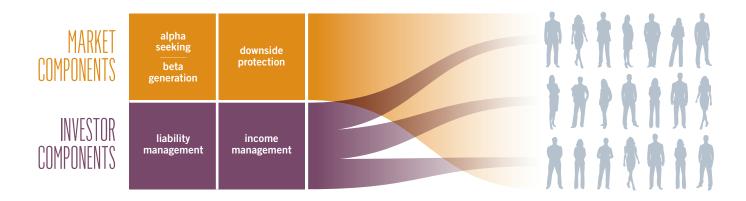
If the industry is to generate returns in the future, the most important word in our investment management vocabulary — performance — must be redefined. The industry's value proposition must evolve to one that frames performance in terms of the investors' objectives — what we call "personal" performance — and makes that value fully transparent to the investor.

From the investor's perspective, of course, all performance is personal. Discerning investors are looking for value across four components: alpha seeking/beta generation, downside protection, liability management and income management. We think of these components as analogous to an income statement and a balance sheet, with assets that must be grown or protected, and liabilities that must be managed. How an individual investor's objectives align with each of these components is highly personal.

What would an investor-defined benchmark look like? We created a four-component performance model in which key value drivers become the building blocks for "personal" solution. (See Figure 9b.) Two components — alpha seeking/beta generation and downside protection — are related to market forces and are common to most investors. The last two components — liability management and income management — are risk exposures that are unique to each investor. In this model, the four components become building blocks from which organizations can create a solution that is personalized to meet investors' needs and objectives.

FIGURE 9B.

These four components of value — from the investors' perspective — will be the building blocks of "personal" performance.



Source: EDHEC, "Asset-Liability Management Decisions for Sovereign Wealth Funds" (2010); Center for Applied Research analysis.

Many investors continue to look for alpha — and they are willing to pay for it; if it's delivered — and beta generation is an important component depending on the level of asset class or geographic efficiency. Downside protection is becoming increasingly important given growing concerns about market volatility. But the other two components are not universally important to all investors. To illustrate how these components play out among different classes of investors, we offer a few examples.

EXAMPLE 1: OIL-FUNDED SOVEREIGN WEALTH FUNDS

While alpha seeking is a key objective if the fund wants to add return, the income-management component could be customized to address the risk exposure from the oil endowments. Short positions in oil commodity futures or long positions in companies that benefit from a decrease in oil prices, such as airlines, would fulfill this objective. The SWF could also hedge against — or exploit — inflation and interest rate volatility within the liability-management component of its personalized performance framework.³⁰

EXAMPLE 2: A PENSION FUND

A pension fund might find all four components attractive. Alpha/beta generation is important to meet the fund's assumed rates of return — or to exceed it if there is a funding gap. Downside protection can also play a critical role, given the importance of minimizing asset loss and reducing funding ratio volatility. Liability management is necessary to match future liabilities with assets. Finally, even income management may be important to diversify away from business risks from the plan sponsor that could affect its ability to make contributions.

EXAMPLE 3: AN INDIVIDUAL INVESTOR

For a private investor, alpha/beta generation will likely be a fundamental component of value. Since most individuals would like some downside protection, potential losses could be minimized by defining and managing to an acceptable risk target. But some may also want liability management to help align their goals with their retirement income needs and current investments, such as house or family support. Finally, income management would decrease exposure to the investor's primary source of income. For some, that might mean diversifying away from their legacy assets or company stock. For others, it could be avoiding stocks in their employer's industry group and investing in non-correlated industries and asset classes.

It is clear that, with respect to performance, one size does not fit all. Within this new, more granular definition of "performance," the investor is the benchmark.

The road ahead

Change presents new opportunities for the industry. But capitalizing on them won't be easy. There are a few barriers to delivering more personal performance, not the least of which is an institutionalized reliance on outdated constructs. The current system has been built around a concept of performance that is defined relative to market indices, consulting quadrants, Morningstar-style boxes, rockstar stock pickers and research analysts. The investor doesn't usually figure into the equation — but this is changing.

WITHIN THIS NEW, MORE GRANULAR DEFINITION OF PERFORMANCE, THE INVESTOR IS THE BENCHMARK.



Investors themselves are also a barrier. Any new definition of performance will require a much deeper understanding of investors, their unique decision-making systems and the components of performance that are relevant to them.³¹ Concept of decision-making systems. Each of these areas will warrant more research and innovation vigor around decision-making and behavioral economics. Those who choose to ignore these factors for much longer will find themselves struggling to keep up.

To ensure this new definition of performance is economically viable, it will become increasingly important to scale investment management while addressing capacity constraints. Supporting systems and processes will be paramount in driving down costs.

Our analysis looked at several of these factors and how they are affecting the industry.

Decision-making requires local intelligence

There is often a mismatch between economic forecasts and the socio-political realities in a given country. Investor behavior is only partly explained by the economic conditions of a country. To fully understand the drivers of investor behavior, firms must develop deep local intelligence in addition to macrolevel forecasts.

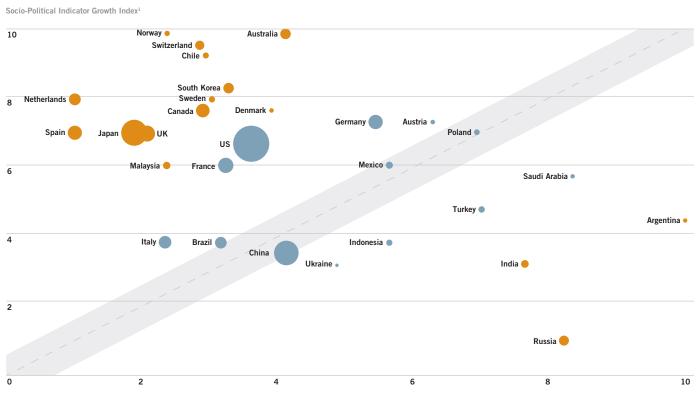
We analyzed Liquid Financial Wealth Economic Growth Projections for 2012–2020 and compared them to an index of socio-political variables, such as the level of corruption and political stability, for 29 countries. As you can see in Figure 10, there are significant mismatches between the predicted outcomes from the two sources. Take Russia, for example. While LFW projections are aggressively bullish, the socio-political conditions are anemic and put Russia at the bottom of the list.

There is an obvious disconnect between economic and socio-political projections, and there is much about individual- versus country-level decision-making that we do not understand. These decision systems affect investor behavior, both in terms of physical constraints, such as closed markets, and emotional constraints, such as skeptical cultures. The industry needs to be more aware of how these systems operate at the local level.

FIGURE 10.

Social and political decision systems affect investor behavior. There is a mismatch between economic forecasts and a country's social and political realities.

Economic Versus Socio-Political Realities



Liquid Financial Wealth (LFW) Economic Indexed Growth Projections, 2012–2020

- O Circle size weighted by LFW (2011)
- Prominent mismatches

Note: ¹The overall socio-political indicator growth index is based on seven different non-economic parameters: 1) Size of labor force; 2) Level of corruption; 3) Level of protectionism; 4) Level of indebtedness; 5) Internal stability; 6) Political stability; and 7) Infrastructure; ²the original country growth projections in percentages were normalized to a scale of 1–10.

Source: The Crumpton Group; Crumpton Group LLC is a strategic international advisory and business development firm, consisting of former agents from the Clandestine Service of the Central Intelligence Agency, government officials and investment management professionals. Center for Applied Research analysis.

STREAMLINE DELIVERY

Another barrier to redefining performance as "personal" is the industry's outdated delivery model. At both the industry and organizational levels, conventional systems are challenged by complexity.

Industry model: More is not better

The industry's product delivery model offers a mind-numbing array of choices to investors. Consider this: There are 73,343 funds³² worldwide delivered through more than 810,000 banks.³³ In Europe alone, there are more than 3,100 asset managers.³⁴

According to a 2012 MFS Investing Sentiment Survey, 40 percent of investors think investment products are "overly complex," and 34 percent feel "overwhelmed" by the investment choices available to them.³⁵ Is it any wonder that retail investors find comfort in cash?³⁶

Psychologist Barry Schwartz has demonstrated that too much choice leads to reduced happiness and a feeling of missed opportunities. "At this point," he writes in *The Paradox of Choice*, "choice no longer liberates, but debilitates. It might even be said to tyrannize." Put another way, "the fact that some choice is good doesn't necessarily mean that more choice is better." ³⁸

Are investors immune from the paradox of choice? Apparently not. Research from a behavioral finance study shows that participation rates in voluntary retirement plans decrease between 1.5 and 2.0 percentage points per every additional 10 mutual funds offered.³⁹ Investment providers who cite "new product development" as their No. 1 strategic priority in the next decade might want to be particularly vigilant about rationalizing existing offerings and aligning new offerings with investors' perception of value.⁴⁰

THERE ARE 73,343 FUNDS ³²
WORLDWIDE DELIVERED
THROUGH MORE THAN 810,000
BANKS.³³ IN EUROPE ALONE,
THERE ARE MORE THAN 3,100
ASSET MANAGERS.³⁴

Investors in a jam: When is enough, enough?

The paralyzing effect of too many choices became clear when researchers conducted an experiment in a California grocery store. They set up a sampling table with a display of jams. In the first test, they offered 24 different jams to taste; on a different day they displayed just six. Here's what happened:⁴¹

Test #1 / 24 jams

More shoppers stopped at the display, but...



of those who stopped at the 24-jam table made a purchase.

Test #2 / 6 jams

Fewer shoppers stopped, but...



of those who stopped at the six-jam table eventually purchased a pot.

"TOO MUCH CHOICE IS DEMOTIVATING."

concluded Sheena Sethi-Iyengar of Columbia University and Mark Lepper of Stanford.

As options proliferate, there is a point where the effort needed to distinguish between alternatives may outweigh the benefits. At that point, most consumers just give up.

Organizational model: The complexity tax

Organizations can be complex — and that complexity can harbor costly inefficiencies. Organizations must find a way to streamline processes and systems so that resources are deployed in service of delivering value to investors.

The industry dynamics are changing at a rapid pace. As a result, the issue of complexity has broadened from an operational focus to one that affects long-term strategic priorities. With rapidly evolving conditions — the flurry of regulatory changes, for example — it doesn't take long for an organization's infrastructure and processes to become obsolete. Integrating legacy systems with newer structures makes managing business priorities and organizational complexity a fine line to walk.

We wanted to quantify the business impact of this organizational complexity. We spoke with more than 30 key industry executives — all asset managers or asset owners — and asked them to identify the largest areas of value destruction in their organization. Core business processes, business support systems, data management and talent management were the most common incubators of inefficiencies. (See Figure 11.) Beyond the issues of cost, complexity is a tax on organizations and is getting in the way of delivering value.

FIGURE 11.

Complexity is a tax on investment organizations and impairs their ability to deliver value to investors.

Organizational Complexity, 2012 (Business Impact per Category, in Percentage)¹

 Inefficient core business processes²
 Inefficient business support system³
 Inefficient data management⁴
 Inefficient talent management⁵
 Others

 25–30%
 20–25%
 15–20%
 10–15%
 5–10%

100%

Note: ¹Based on interviews with asset owners and asset managers; Each category was determined based on more than 30 interviews, within which we asked, Which are the largest areas of value add versus value destruction for clients? with open-ended responses. ^{2,3}Inefficient core and business support processes represent operational costs associated with duplication of people, processes and technology across core and support business functions, e.g., processing derivatives represents operational costs associated with manual intervention; ⁴Data management represents inefficient market and reference data management; ⁵Talent management represents inefficient use of skill

sets and geographic locations

Source: Primary interviews; Center for Applied Research analysis.

ORGANIZATIONS MUST
FIND A WAY TO
DEPLOY RESOURCES
IN SERVICE OF
DELIVERING VALUE
TO INVESTORS

Rising costs and cognitive biases

At a fundamental level, this complexity is driven by two factors — the rising cost of processed information and the cognitive biases of the human mind. It might seem counterintuitive to state that information costs are rising, when technology has become more accessible. But while the cost of raw information has decreased, the sheer volume of data makes distilling relevant and actionable information from that data a daunting and expensive task. To put this into perspective, consider that 2.5 quintillion bytes of data are created every day — and 90 percent of the data in the world today has been created in the last two years.⁴²

When decision-makers are faced with copious amounts of ambiguous data — and a finite amount of time to consider it in — they make decisions that are satisfactory, but not necessarily optimal. Behavioral economists refer to this phenomenon as "bounded rationality."⁴³

Optimal decision-making requires ongoing and comprehensive planning, where each interconnection and every process is carefully understood and designed to ensure streamlined operations. To flourish in such a complex environment, investment management organizations must have a "kaizen" — a Japanese concept meaning "continuous improvement" — mindset toward streamlining their organizational models.

A new model for success

In the future, we believe that success will be defined in terms of the sustainability of returns relative to the investor. Truly sustainable returns — those that meet investors' individual goals — must start with a deep understanding of the value components that are meaningful to the investor. But in order for the investor to fully appreciate — and be willing to pay for — those returns, the value components delivered and the fees charged must be transparent. Over time, this new model for success will help to improve the alignment of interests across all industry participants, provide incentives for streamlining delivery models and reduce barriers to healthy decision-making.

"THE STRUCTURE OF THE INDUSTRY AND THE CULTURE OF ITS LEADERS ARE BUILT ON AN EXPERIENCE WHICH IS UNIQUE IN HISTORY AND ALMOST CERTAINLY UNREPEATABLE. THE QUESTION IS, DO WE HAVE ENOUGH COURAGE TO CHANGE?"

—US-based asset manager

A new formula for sustainable returns



Source: Center for Applied Research.

Where:

Sustainable returns refers to a condition that allows for a long-term risk and return target;

F = Personal value, where personal value is a function of the four components of value: alpha and beta generation, downside protection, liability management, and income management

T = Transparency of sustainable returns, personal value and fees.

SUMMARY

At the beginning of our study, we asked: What are the forces that will shape the future of the investment management industry over the next decade?

The simple answer is the investors themselves — their behavior, the factors that influence their behavior, and their personal definition of value. Our research has shown that many investors are not acting in their own best interests, largely in response to increased awareness of the instability of the financial system brought on by a combination of economic events and some deeply misaligned interests across members of the investment community — most notably, the disconnect between investors' desire for performance and their perception that providers aren't delivering. In response, the industry's current value proposition must change.

We believe this industry will continue to do what it has always done so well in the past — embrace the change. Investors must rethink their goals and be sure their investment activity is "healthy" and supports their objectives. Investment providers will need to develop a deeper understanding of what drives investor behavior and streamline their delivery models so they can deploy resources in service of providing meaningful value to investors.

Our research shows that now is the time for a new definition of performance — one that is highly "personal" to the investor. Success — or failure — will be measured by models that focus on the long-term sustainability of returns, defined in terms of value to the investor and articulated with full transparency.

In the future, the investor will be the benchmark, and we anticipate that the returns generated as a result will far outweigh those of the past. Now that's an influential investor.

"TO CHANGE SOMETHING,
BUILD A NEW MODEL
THAT MAKES THE EXISTING
MODEL OBSOLETE."

- Richard Buckminster Fuller

Authors

By Suzanne L. Duncan, Vanessa N.R. Forero, Kelly J. McKenna, Nicola Roemer and Nidhi V. Shandilya

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Notes and references

- 1 Twelve-month period ending in November 2012.
- 2 The term "income management," used throughout, refers to source-of-funding management, i.e., that component of performance that diversifies or hedges against the investor's primary source of revenue or wealth. For an individual, that source could be their employment industry or company stock. For an SWF, it could be the primary revenue source for the fund, e.g., oil or other natural resources.
- 3 Center for Applied Research Survey analysis. Question asked: In which asset classes are you currently/do you plan to be invested in? Please indicate in percentage (total should be 100 percent). Data analyzed across different age groups and showed few significant differences in allocations among them.
- 4 IMF. Global Financial Stability Report 2011 and 2012. "Global pension fund asset allocation to alternative investments were 11 percent in 2006 and 16 percent in 2010. "SWFs with long-term investment horizons have been increasing the share of real estate and alternatives in their portfolios a trend likely to continue."
- 5 State Street Institutional Investor Services Survey analysis. Question asked: Has the current low-yield market environment increased your organization's appetite for alternative investment strategies to meet funding demands?
- 6 State Street 2012 Asset Owner Survey analysis. Question asked: Does your organization plan to increase its allocation to any of the following strategies over the next year -- equity, fixed income, cash, alternatives. Select all that apply.
- 7 Center for Applied Research Survey analysis. Question asked: Where does your firm have / expect to have the largest gaps in your employee qualities over the next 10 years? Select up to two. Understanding investor needs; Dedicated to following industry ethical standards; Having a deep understanding of potential risks; Having a global investment perspective; Knowledgeable across asset classes; Anticipating changes in market conditions; Specializing in an area of investment strategy; Other, please specify.
- 8 Source: http://www.bbc.co.uk/news/business-15198789; http://www.bankofengland.co.uk/monetarypolicy/Pages/qe/ default.aspx; http://www.guardian.co.uk/business/2012/sep/19 japan-asset-purchases-global-demand-china.

- 9 Central Bank Rates(http://www.cbrates.com/decisions.htm), Global Rates (http://www.global-rates.com/interest-rates/ central-banks/central-banks.aspx)
- 10 Source: http://www.cboe.com/Institutional/ JPMCrossAssetCorrelations.pdf. About 40 percent of current commodity/equity correlation is a spillover from FX/ equity correlation.
- 11 Further detailed information may be found in the research article, "Principal Components as a Measure of Systemic Risk," by Mark Kritzman, Yuanzhen Li, Sebastien Page and Roberto Rigobon, *Journal of Portfolio Management*, Vol. 37, No. 4, Summer 2011.
- 12 Center for Applied Research Survey analysis. Question asked:
 To what extent would you agree or disagree with the following statements in today's environment? Please select one: Financial Institutions are most likely to offer products and services in the investment firm's own best interest, or b) Financial Institutions are most likely to offer products and services in the client's best interest.
- 13 Visa Inc. and *Kiplinger's Personal Finance* magazine. Visa's International Financial Literacy Barometer 2012. The study surveyed 25,500 participants in 28 countries. In no country did the financial literacy rate exceed 50.5 percent.
- 14 Center for Applied Research Survey analysis. Questions asked:
 Based on your current interactions with your primary investment provider, please indicate the extent to which you agree or
 disagree with the following statements. Please rank on a scale
 of 1-6 where 1=Strongly disagree and 6=Strongly agree. 1) I go
 to my primary investment provider first for any new investment
 need; 2) I am not seriously considering switching providers for my
 current investments; 3) I recommend my provider to my peers.
- 15 Center for Applied Research Survey analysis. Question asked: Which of the following hinder/impede your investment decisions the most? Select up to two. Politics; internal company hindrance; regulation; media; lack of talent; legal/contractual obligations; high cost of switching providers; lack of sophistication; other; we don't face any obstacles in our investment decisions.
- 16 Center for Applied Research Survey analysis. Question asked: What impact do you think financial regulation will have over the next 10 years on the investment management industry? Please select one: 1) Operational changes, which means decreased cost for me, or 2) Operational changes, which means increased cost for me.

- 17 Center for Applied Research Survey analysis. Question asked: What impact do you think financial regulation will have over the next 10 years on the investment management industry? Please select one: 1) Regulation will address the current problems, or 2) Regulation will not or insufficiently address the current problems (e.g., shadow system).
- 18 Center for Applied Research Survey analysis. Question asked: What hinders you from becoming more actively involved in your own investment decisions? Please select one. Lack of time; Lack of knowledge; Lack of money to pay fees; Skepticism about the markets (I look at the markets but I am too skeptical to make new investments); I am not interested in investing; I avoid being involved because of what I might find out; I don't need to be actively involved, as my partner / a family member takes care of it; None of the above, I am actively involved; Don't know.
- 19 Source: Forbes Online. "Financial Fraud Is Growing, Post Madoff" http://www.forbes. com/sites/financialfinesse/2012/06/07/ financial-fraud-is-back-stronger-than-madoff/
- 20 CFA Financial Market Integrity Outlook 2011. 5,735 members of the CFA Institute participated in the survey.
- 21 Source: http://economics.about.com/library/glossary/gldefhyperbolic-discounting.htm
- 22 John Graham. "Value Destruction and Financial Reporting Decisions." 2006.
- 23 John Bogle. "The Mutual Fund Industry 60 Years Later: For Better or Worse?" 2005.
- 24 Center for Applied Research Survey analysis. Question asked: For each of the following pair of statements please indicate which one best describes you personally today and in 10 years. Please select one: 1) Long-term decisions are important to me, or 2) It is important I make good decisions for the short-term horizon.
- 25 Center for Applied Research Survey analysis. Question asked: Based on your current interactions with your primary investment provider, please indicate the extent to which you agree or disagree with the following statement: My primary investment provider's fees are adequate.

- 26 Laurent Barras, Olivier Scaillet and Russ Wermers, "False Discoveries in Mutual Fund Performance: Measuring Luck in Estimated Alphas", Journal of Finance, Vol. 65, No. 1 (February 2010): 179-216. Also see Burton Malkiel. The Financial Review. "Reflections on the Efficient Market Hypothesis: 30 Years Later." 2005. According to Malkiel, roughly 15 percent of traditional long-only active funds have outperformed their specified index on a sustainable basis. Also see Kenneth R. French. "The Cost of Active Investing." April 2008. In that paper, French concludes that "...under reasonable assumptions, the typical investor would increase his average annual return by 67 basis points over the 1980 to 2006 period if he switched to a passive market portfolio..."
- 27 Jean Eaglesham. Wall Street Journal. "Overhaul Grows and Slows." 2011.
- 28 James Montier. "Behaving badly." 2006.
- 29 Center for Applied Research analysis (for assumed rate of returns): The data is based on an analysis of the top 1,000 US public and corporate pension plans as of September 2010. Only 185 funds reported their assumed rate of return. The weighted average assumed return for public pension plans was 7.92% and for corporate plans it was 8.16%. The overall weighted average assumed rate of return for both corporate and public pension plans was 7.99%. The median assumed rate of return for both types of plans was 8%); Reuters, based on data provided by Callan Associates. For actual rates of returns: http://www.reuters.com/article/2012/07/23/ us-usa-pensions-finreturns-idUSBRE86M1AA20120723.
- 30 EDHEC. "Asset-Liability Management Decisions for Sovereign Wealth Funds." 2010. Center for Applied Research analysis.
- 31 Source: Innosight LLC. Concept of decision making systems. For further reading, see "Building a Growth Factory" by Scott Anthony and David Duncan. http://www.amazon.com/Building-a-Growth-Factory-ebook/dp/BOOA102LRE/
- 32 Source: ICI. http://www.iifa.ca/documents/1341497862_2012_Q1%20International%20Media%20Release%20Text.pdf
- 33 Source: IBIS. http://www.ibisworld.com/industry/global/globalcommercial-banks.html
- 34 Source: EFAMA. http://www.efama.org/statistics/SitePages/ Asset%20Management%20Report.aspx
- 35 MFS investing sentiment survey 2012 http://www.mfs.com/wps/portal/mfs/us-investor/ market-outlooks/news-room/press-releases/!ut/p/ c5/04_SB8K8xLLM9MSSzPy8xBz9CP0os3j_

- 36 Center for Applied Research Survey analysis. Question asked: In which asset classes are you currently/do you plan to be invested in? Please indicate in percentage (total should be 100 percent).
- 37 Barry Schwartz. The Paradox of Choice. 2003
- 38 Ibid.
- 39 Source: Sheena Sethi-Iyengar, Gur Huberman and Wei Jiang. Pension Design and Structure: New Lessons from Behavioral Finance, pp.88, 91. Oxford University Press. 2004.
- 40 Center for Applied Research Analysis. Question asked: What are your top strategic business priorities over the next 10 years? Select up to two. Mergers and acquisitions; divestitures; new product development; new solutions development; expanded risk management capabilities; investment talent planning/talent management; governance model changes; client analytics/segmentation; compensation structures; expanded regulatory compliance capabilities.
- 41 Source: Sheena Sethi-Iyengar, Gur Huberman and Wei Jiang. *Pension Design and Structure: New Lessons from Behavioral Finance*, pp. 88, 91. Oxford University Press. 2004.
- 42 IBM. What is big data? http://www-01.ibm.com/software/data/bigdata/
- 43 Herbert Simon. "Bounded rationality and organizational learning." 1991. Bounded rationality is the idea that in decision-making, rationality of individuals is limited by the information they have, the cognitive limitations of their minds, and the finite amount of time they have to make a decision. It was proposed by Herbert A. Simon as an alternative basis for the mathematical modeling of decision-making, as used in economics and related disciplines.

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State Street Financial Center
One Lincoln Street
Boston, Massachusetts 02111–2900
+1 617 786 3000
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