

USING REASON FOR A BETTER WORLD

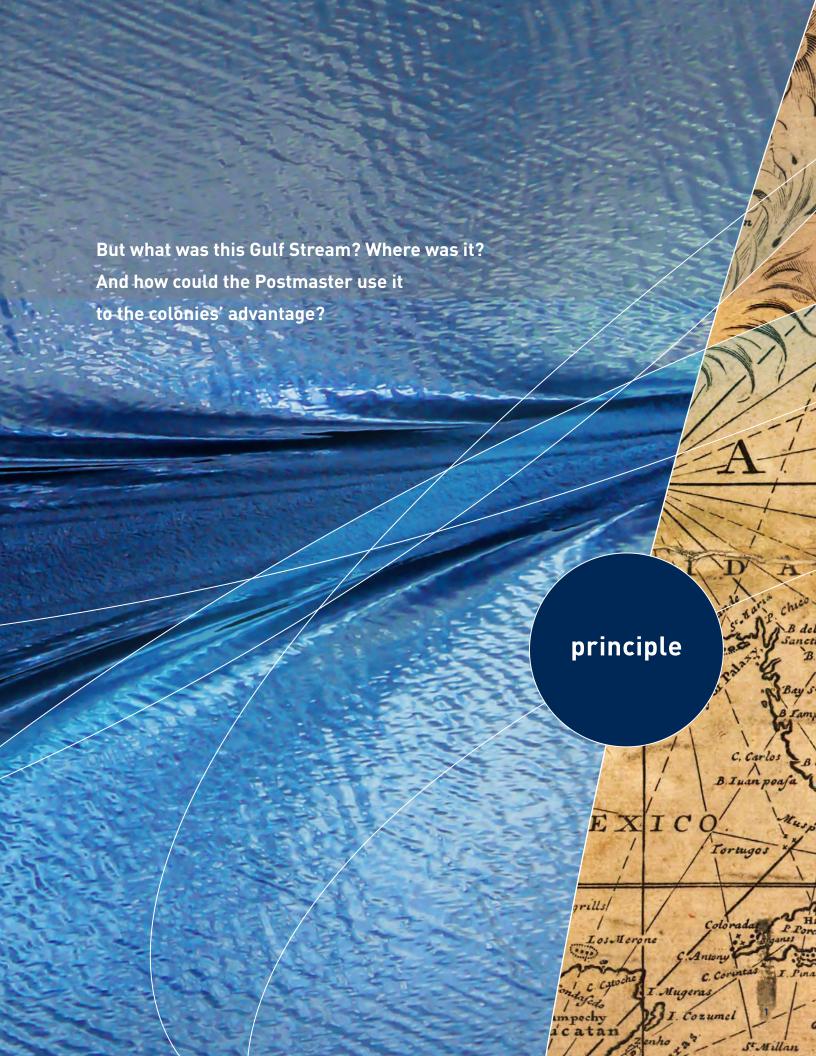
In 1768, during the period we know as the Enlightenment, the Deputy Postmaster General of the American colonies had a perplexing problem.

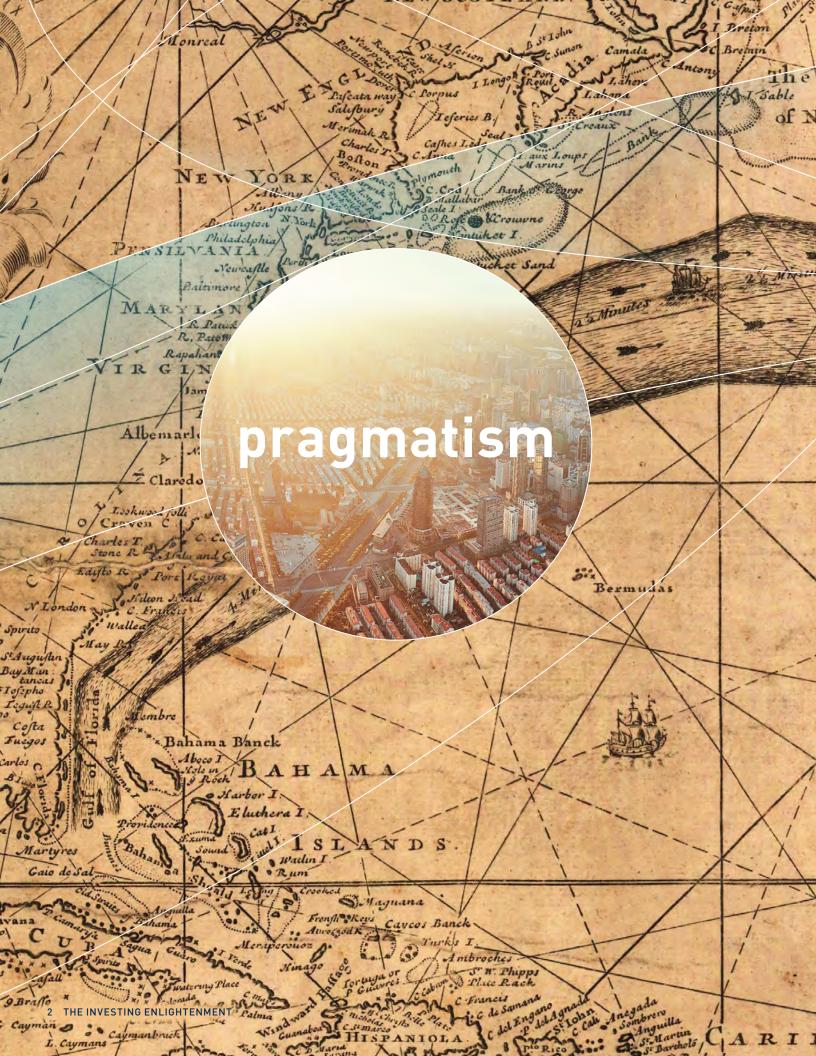
He wanted to know why British ships took so much longer to cross the Atlantic to the colonies than did ships from the colonies traveling back to Britain — a difference that sometimes amounted to weeks.¹

The young Deputy Postmaster was puzzled, so he asked a Nantucket Island whaling captain if he had an explanation.

The captain's answer not only explained those phenomena, it also explained why there were palm trees native to...Ireland.²

The captain told him about something the sailors called the "Gulf Stream," a warm-water "river in the ocean" that could propel a ship forward — or backward — depending on the ship's position within it. While this information is familiar to us today, at the time it was unknown to all but those who made their living on the sea.





With the help of the ship captain, the postal clerk began to assemble all the data he could find from various mariners to attempt to map out the physical location and direction of the Gulf Stream.

He published his Gulf Stream chart two years later.

PRACTICAL UNDERSTANDING

RESOLUTION

Unfortunately for the British, they ignored these charts. During one decisive battle of the Revolutionary War, the colonists received critical supplies and reinforcements from their French allies, while General Cornwallis and the British army got theirs...five days after they had to surrender.

Two things make this story especially compelling. The first is the inherent curiosity of this Deputy Postmaster, the famously inquisitive Benjamin Franklin. The second is that Franklin's scientific interest was inspired and enabled by the Age of Enlightenment, an intellectual movement of the 17th and 18th centuries.

A hallmark of the Enlightenment was a combination of principle and pragmatism. Principle is the idea of a better world, and pragmatism is the resolution to achieve that idea using reason. Franklin had an *idea* — to find a better way — and a *resolution* for how to get there: a "river in the ocean."

But, he needed data, and that data was not necessarily readily available. However, Franklin's tenacity and adherence to science — another product of Enlightenment thinking — led him to obtain and organize whatever data he could find. As a result, he created a practical understanding of this powerful force of nature where before there were only doubts.

The Age of Enlightenment was filled with discoveries like this one — discoveries that "offered certainties in a world of doubts." 3

In many ways, we are in a similar period of time when it comes to the current transformation of how we invest. Innovations within the investment industry are providing an opportunity, a new method of reasoning that could help solve some of society's most pressing issues.

HOW CAN WE CREATE SUSTAINABL VALUE?

582 institutional investors

750 individual investors

25 interviews

COMBINING PRINCIPLE AND PRAGMATISM TO IMPROVE RETURNS

There are significant challenges in our world today, ranging from deep income inequality to climate change. There are also advances in understanding and analysis that allow us to take a pragmatic approach to a critical but seemingly elusive question: How can we leverage the capital markets to improve not just risk-adjusted returns, but our society as a whole? In other words, how can we create sustainable value?

The most significant of these developments revolves around how we incorporate environmental, social and governance (ESG) factors into business and investment decisions, what is commonly referred to as "ESG integration," a type of ESG investing.

To answer this question, we conducted a global survey of almost 600 institutional investors who are or are planning to implement ESG into their investment process. This group is obviously not representative of all institutional investors; rather, they are on the vanguard of ESG investing. We also surveyed 750 individual investors, including both ESG and non-ESG investors. We also conducted 25 interviews with executives in our industry. (See Methodology Appendix for more information.)

Based on the results of this survey, and extensive secondary research, we will outline a holistic model for integrating ESG considerations into investment decisions.

The goal with this research is to provide a pragmatic approach to ESG integration that delivers on the principle of sustainable value creation through risk-adjusted returns. A way to find, and chart, our own Gulf Stream.

From Values to Value: The Rise of ESG Integration

The focus on ESG as a means to sustainable value creation is on the rise. When it was formed in 2006, the United Nations-backed Principles for Responsible Investment (PRI), a global investor initiative and "the world's leading proponent of responsible investment," included 100 signatories with \$6.5 trillion in assets under management (AUM).

As of the end of 2016, there were 1,600 signatories representing \$62 trillion in AUM.6 That represents a 16- and tenfold increase, respectively, in just 10 years.

A recent study by the US SIF Forum for Sustainable and Responsible Investment estimates \$8.72 trillion of ESG investments⁷ in the US alone, up 33% from 2014. ESG investing now represents about 20% of total assets under professional management in the US.⁸ The Global Sustainable Investment Association (GSIA) estimates the size of the global sustainable investment market at \$21.4 trillion at the beginning of 2014, up from \$13.3 trillion in 2012.⁹

ESG investing and interest, both globally and domestically, are on an upward trend. Additionally, ESG factors are also seen as signaling tools for volatility and risk.¹⁰

Three pivotal elements created the foundation for this growth. First, on the policy side, changes in directives (such as the 2015 US Department of Labor ruling on ESG in Employee Retirement Income Security Act (ERISA) plans) reduced the limitations on pension funds looking to incorporate ESG issues in their process.¹¹ Also important is the EU Non-Financial Reporting Directive, which requires 6,000 companies to report ESG information on an annual basis beginning in 2017.¹²

Second, on the academic front, a growing number of empirical studies show a positive relationship between ESG factors and corporate financial performance, ¹³ supporting the premise that ESG can improve financial returns for companies.

1,600

PRI signatories

\$62 trillion

represented in AUM as of end of 2016

Third, the industry has made substantial efforts to develop much-needed standards for companies to measure and report on ESG performance (e.g., the formation of the Sustainability Accounting Standards Board, SASB, in 2011,¹⁴ and the formation of the International Integrated Reporting Council, IIRC, in 2010).¹⁵ Together these developments are a response to structural demographic and societal changes, important innovations in data and analytics, and, most importantly,

the industry's tireless search for better risk and return opportunities in a highly competitive environment.

However, there are several misconceptions we need to overcome before we can truly begin to realize the potential benefits of integrating ESG factors into the investment decision-making process.

The good news? Traditional barriers for ESG investors are becoming less pronounced.

The three most commonly perceived barriers to ESG investing are







A perception that ESG integration means sacrificing financial returns Because of that perceived loss of financial returns, fiduciary duty of fund trustees precludes ESG investment Investors' performance expectations are too short-term to fully obtain the positive effects of ESG performance

From Faith to Facts: Overcoming Misconceptions of ESG

Although these barriers haven't completely disappeared, one of the first surprises in our research found they are much lower than is commonly believed.



Misconception #1: ESG Integration Means Sacrificing Financial Returns

Despite the fact that the many academic studies on this are essentially neutral, the belief that ESG integration means sacrificing financial returns is the most common theme among those who object to ESG investing. In the 2015 PRI joint study with Cerulli Associates, "misperceptions of negative impact of investment performance" was noted as a major challenge by 60% and a moderate challenge by 28%. In



Fact:

Just one-third of institutional investors thought incorporating ESG factors would mean missing returns.

However, in our survey, we asked, "Do you believe incorporating ESG factors necessarily means missing out on potential returns in your portfolio?" Only a third (35%) of institutional investors agreed. One-half disagreed.

In the case of individual investors, the percentages were the same: again, only a third (35%) believe ESG investment means sacrificing returns.¹⁸ What's more, less than

a third of respondents (29%) saw concerns of underperformance as a barrier to adopting ESG investments.

As perceptions change surrounding ESG, there may also be a shift in the fiduciary obligations to integrate ESG criteria.



Misconception #2:

Fiduciary Duty
Precludes ESG
Integration

For many years, the prevailing view was that fund fiduciaries could not take ESG issues into account because their role is to maximize the returns of beneficiaries. Recently, however, the US Department of Labor's Employee Benefits Administration issued an interpretive bulletin regarding ERISA guidelines that clearly states fund fiduciaries can take ESG criteria into account.¹⁹

Indeed, within the past two years the PRI has published several studies²⁰ that suggest it's a failure of fiduciary duty not to take ESG criteria into account.²¹



Fact:

Only a small percentage of institutional investors see fiduciary duty of fund trustees as a barrier.

In our survey of institutional investors, only 10% see regulations on or general counsel's interpretation of fiduciary duty as a barrier to ESG integration. Furthermore, 40% of asset owners and 51% of asset managers agree or

"We are investing for the long term and therefore ESG is a natural place for us."

EXECUTIVE AT
LARGE ASSET
OWNER IN CANADA

strongly agree that the concept of fiduciary duty is shifting toward encouraging or even requiring ESG integration.

At the same time, 40% of respondents either agree or strongly agree that their board supports ESG implementation.
Only 22% disagree or strongly disagree.

But are investors patient enough to realize those benefits? In certain ways, yes.



Misconception #3:

Performance Expectations Are Too Short-Term for ESG Integration

The same studies that show a positive relationship between ESG factors and corporate financial performance also show that the potential financial benefits from ESG take time to be realized — typically in the range of six or seven years.²²

Yet contrary to what many expect, institutional respondents in our survey showed they are realistic about the time frames required to see the benefits of ESG integration on investment performance. When asked about the time frames for achieving

outperformance from ESG, 75% of institutional investors said they expect outperformance in three years or more, and 45% said five years or more.





The majority of investors see long-term gains as being more important than short-term ones.

In the case of retail investors, this number was lower — at 42% — yet there's still reason for optimism. Far more individual investors view achieving long-term (more than three years) gains as very important or important (59%), compared to only 34% who value short-term market outperformance (less than one year).

So how are investors implementing ESG? The answers are varied and need further exploration to understand how ESG can deliver sustainable value.



THE EDGE OF ENLIGHTENMENT: THE CURRENT STATE OF ESG STRATEGIES

In our survey, we asked respondents which strategies they were using to take advantage of these shifting tides (see Figures 1 and 2 for institutional and retail, respectively). Exclusionary or negative screening (a type of values-based investment) is the most popular strategy, used by 47% of respondents, both institutional and retail.

Figure 1: Choices of ESG Investing Strategies by Institutional Investors (respondents could select more than one option therefore percentages don't add to 100%)

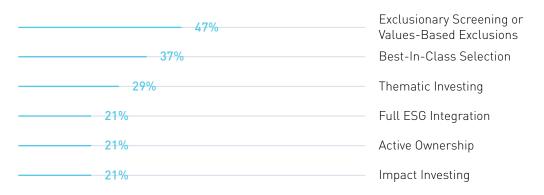
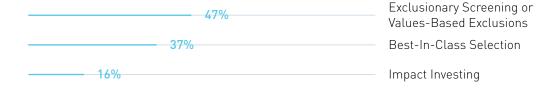


Figure 2: Choices of ESG Investing Strategy by Retail Investors





ESG Integration: Driving the Investment Enlightenment

The CFA Institute defines ESG investing in six ways: exclusionary screening or negative screening, impact investing, best-in-class selection, thematic investing, full ESG integration and active ownership.²³ We used this classification in our survey. The CFA Institute also notes that these methods are not mutually exclusive and are often used in combinations by both value- and values-motivated investors, as described below. Values-based investors are those making an investment decision based on their moral values and beliefs while value-based investors are motivated by an economic gain.

VALUES-BASED INVESTMENT

Exclusionary or Negative Screening:

Avoiding securities on the basis of traditional moral values, standards and norms. This type of strategy is the oldest and most popular type of ESG investing. Faith-based finance is an example of this type of strategy.

Impact Investing: Investing with the disclosed intention to generate and measure social and environmental benefits alongside a financial return. It's also considered a type of values-based investment, even though a financial gain is expected from this strategy.

VALUE-BASED INVESTMENT

Best-In-Class Selection: Preferring companies with better or improving ESG performance relative to sector peers.

Thematic Investing: Investing that's based on trends or structural shifts, such as social, industrial and demographic trends, including clean tech, green real estate, water security, etc.

Full ESG Integration: Investing with a systematic and explicit inclusion of ESG risks and opportunities in investment analysis.

FNGAGEMENT

Active Ownership: Entering into a dialogue with companies on ESG issues and exercising both ownership rights and voice to effect change.

In our study we focus on full ESG integration, as we believe this type of value-based strategy has the potential for better risk-adjusted opportunities and sustainable value creation. This is the type of investment that can marry principle and pragmatism, characteristic of the Investing Enlightenment.

As is common in a time of transition — as it was during the Enlightenment — the most popular solutions are not always the most effective.

Indeed, only full ESG integration has the potential to deliver on the goal of sustainable value creation for all investors...but only 21% of institutional respondents use it, either alone or in combination with other strategies.²⁴

And yet, investors see full ESG integration as having a variety of benefits. Chief among them is ESG integration's role in fostering a long-term investment mindset, cited by two-thirds (62%) of

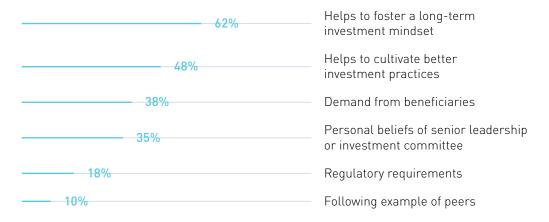
institutional investors (Figure 3). Also, nearly half (48%) cited helping to foster better investment practices.

Significantly, these motivations for ESG integration are market-driven, with 38% citing demand from beneficiaries and 35% pointing to initiatives by executives. Only 18% say their interest is driven by regulatory requirements and 10% say peer pressure is most relevant.

But if full ESG integration produces these results, why isn't it the dominant strategy? It all starts with data.

Figure 3: Reasons for ESG Investing (Institutional)

(respondents could select more than one option therefore percentages don't add to 100%)



62%

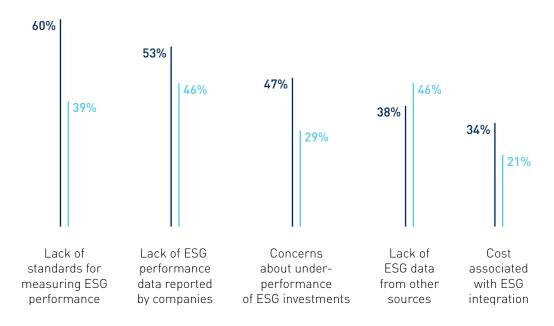
believe ESG integration helps to foster a long-term investment mindset

Figure 4: Barriers to ESG Integration

(respondents could select more than one option therefore percentages don't add to 100%)



Retail



Materiality, Misunderstanding, and the Dearth of Quality ESG Data

Investors rely on a wide range of high-quality financial data to make their investment decisions. However, our research shows that the primary barrier to ESG integration is the lack of standardized, high-quality ESG data to incorporate in their investment decision-making process. Much like Ben Franklin couldn't reliably exploit the benefits of the Gulf Stream without access to detailed information, the promise of ESG integration can't be realized without the proper data.

Which data? Our survey noted lack of data on ESG or sustainability performance reported by companies (53% of institutional and 46% retail). lack of ESG data from other sources (38% institutional and 46% retail). and lack of standards for measuring ESG performance (60% institutional and 39% retail) as the dominant concerns. Over 80% of respondents agree or strongly agree that there is a lack of standards around ESG integration. Less important, although still relevant, are concerns about the costs associated with ESG integration, noted by 34% of institutional investors and 21% of retail investors. (See Figure 4)

80%

of respondents agree or strongly agree there is a lack of standards around ESG integration The casualties of this lack of data are many. One of the most critical, however, is a point of view on materiality. A piece of information is material if it is likely to affect financial performance.

After all, while stakeholders care about a wide variety of ESG issues, not all the issues are critical for value creation.

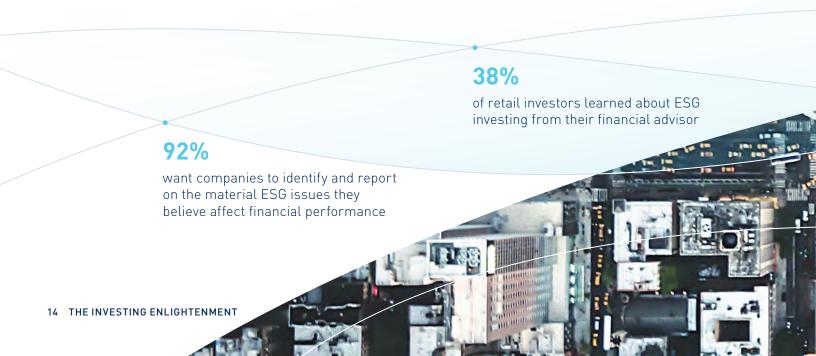
Materiality

Research shows that companies that perform well on these material ESG issues have higher financial performance than those that perform poorly on them. In fact, the companies that perform well on material issues, and poorly on all the rest, have the best financial performance.²⁵

Yet one of the central issues in ESG investing is getting information on the small subset of material ESG issues that affect financial performance (though SASB is focused on improving this).

Even if a company is producing a sustainability report — and more and more are doing so²⁶ — it's difficult for investors to find hard numbers on what ESG issues the company regards as important for shareholders versus stakeholders. Toward that end, a remarkable 92% of investors want companies to identify and report on the material ESG issues they believe affect financial performance.

This lack of data contributes directly to the high level of misunderstanding that persists about ESG strategies in general and, in particular, about ESG integration.



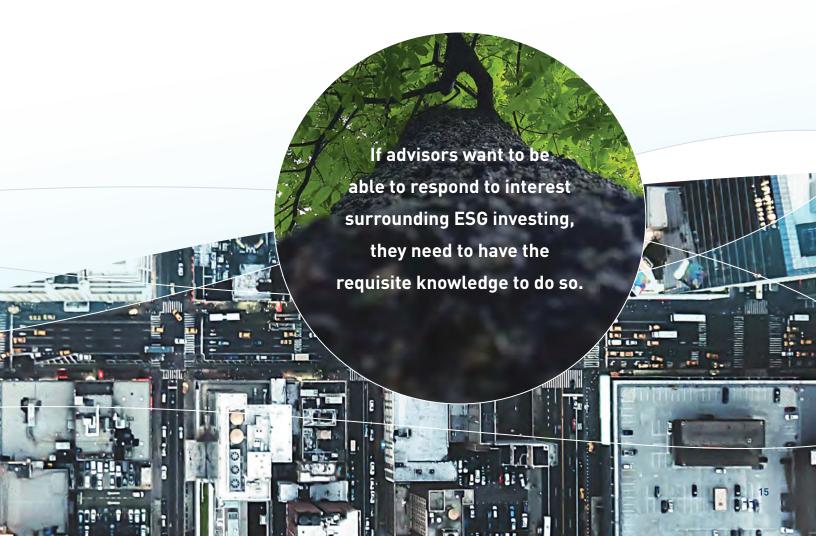
Misunderstanding

Without data on material issues, it's impossible to have the knowledge and understanding necessary to make, and advise on, investment decisions.

In the case of individual investors, our industry is falling behind in providing knowledge on this topic. When we asked retail investors how they learned about ESG investing, only about a third (38%) said from their financial advisor. The vast majority (83%) answered that their knowledge came from their own research or family and friends.

Our research suggests that advisors should expect an increasing number of their clients will be contacting them about ESG investing. If advisors want to be able to respond to that interest, they need to have the requisite knowledge to do so.

In this last point lies the key to unlocking the potential of fully integrated ESG: the role of the investors themselves.



50% HOW DO WE CHART COURSE? 16 THE INVESTING ENLIGHTENMENT

INVESTORS: ENABLING ENLIGHTENMENT

Our research shows the critical role that investment organizations and financial advisors play in ESG investing.

"You need to ask yourself:
Are you doing ESG integration because you are mandated to do so or because you believe in it?
Success will depend on this answer."

SENIOR EXECUTIVE AT GLOBAL ASSET MANAGEMENT ORGANIZATION In the case of advisors, this can be seen by comparing the results of "ESG investors" vs. "non-ESG investors." Whereas 47% of ESG investors think that recommendations of their financial advisor are important or very important to integrating ESG in investment decisions, only 19% of non-ESG investors feel the same way.

This could be because 55% of ESG users have been approached by their advisors about ESG investing in the past 12 months, compared with only 22% of non-ESG investors. Advisors can help their clients start thinking about ESG investing.

Supporting this assertion, about one-half of each group (49% for ESG investors and 51% for non-ESG investors) agree or strongly agree that they want their advisor to communicate more about ESG investing (vs. 7% and 12% of ESG and non-ESG investors, respectively, who disagree or strongly disagree).

What does all of this mean? To implement full ESG integration, investors and investors' advisors need to take responsibility for making it happen.

The question remains, of course, how? Like Franklin, we need to chart a course that puts principle and pragmatism — sustainable value and data-enabled integration — at the core of investing. We need to build on the innovations in data and methods that set the stage for the Investing Enlightenment.

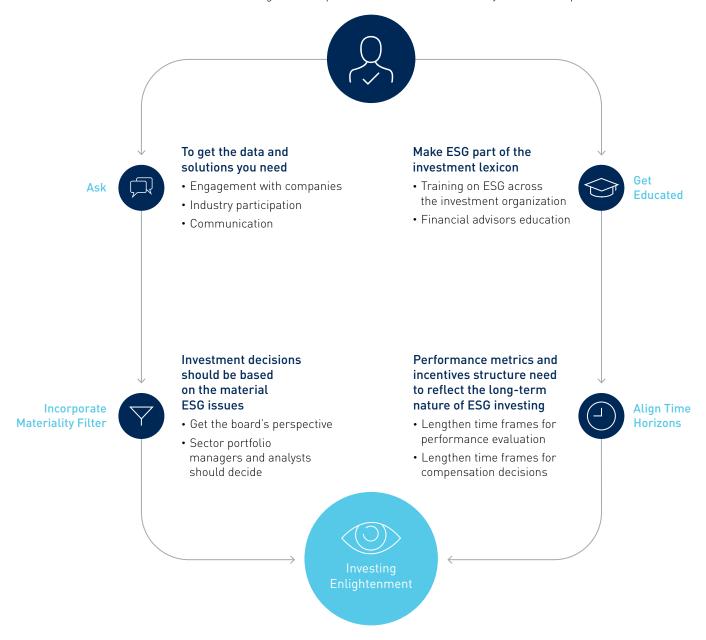
Our research shows us how...and it begins with a new model for investing.

Figure 5: The Effective Adoption of ESG Integration

Take Ownership

Walk the talk

- Decisive support from investment organization's C-suite and board on ESG issues
- Individual investors' alignment of portfolio decisions to what they believe is important



Elements of the Investing Enlightenment: A New Model

Based on our research, we propose implementing a simple five-element model (Figure 5).

It begins with being accountable, for getting educated, and asking for the information you need. Getting educated leads to the necessary capabilities and models for ESG integration, which must be supported by the appropriate time frames. Asking leads to the availability of data and solutions once a materiality filter has been incorporated. These five elements will bring the Investing Enlightenment to our industry.



Take Ownership

In the case of institutional investors, like all important initiatives, top management and board support are essential. Taking ownership comes in the form of ensuring a company-wide adoption of ESG principles, establishing guidelines for engagement with portfolio companies, and supporting industry initiatives.

Even though our institutional sample was focused on investors who are already practicing or planning to practice ESG investing, 30% cited explicit support from senior management as a way to overcome barriers to ESG integration (Figure 6).

The importance of top-level ownership, especially from the CEO and CIO, would obviously be higher where such senior leadership support doesn't exist. And while getting explicit support from fund fiduciaries was relatively unimportant (16%), this would also be more important when fund fiduciaries are sitting on the fence or even opposed to ESG integration.

Figure 6: Reducing the Barriers to ESG Integration

(respondents could select more than one option therefore percentages don't add to 100%)



We suggest that senior management and the board should each publish a public declaration in support of ESG integration, briefly explaining why and how it will be implemented.

In the case of individual investors, they need to be clear about how they're taking ESG factors into account in their investment decisions. According to our research, 50% of ESG investors say that climate change is factored into their investment decision process in a significant or very significant way. For income equality and gender inequality that number was 42% in both cases. If these issues are important for individual investors, they can use their portfolio allocation decisions to address these concerns, while at the same time targeting the achievement of their long-term investment objectives.²⁷

This action requires, of course, additional familiarity with ESG integration and all of its elements and impacts.

50%

of ESG investors say climate change is factored into their investment decision process



For institutional investors, more efforts need to be put in place to increase the knowledge about these types of strategies beyond ESG specialists. Full ESG integration cannot be done when there is a sharp dividing line between the sector portfolio managers and analysts who are only held responsible for financial analysis, and a separate (and usually small) group of ESG analysts who handle proxy voting and attempt to influence the decisions of the sector specialists.

ESG integration requires a strong degree of internalization of ESG factors by the sector specialists and building the necessary expertise in them to do so. In other words, ESG should become part of the investment organization's DNA.

The most common practice for reducing barriers to ESG integration is providing training on ESG to portfolio managers and analysts across the organization. In our interviews with institutional investors who are at advanced stages of ESG integration, we found that integrating ESG analysis into financial analysis was the most fundamental step. Often this involved training, with the ultimate goal of making sector portfolio managers and analysts responsible for determining what they believe are the material ESG factors and how they may affect financial performance.²⁸ Training also needs to be extended to financial advisors, given they play a key role in

educating and coaching individual investors. We'll discuss this in more detail in the Communication section.

However, building these capabilities across the organization is a necessary but not sufficient condition for full ESG integration. Changes to the investment process will not be successful if time horizons around performance metrics and incentives are not adjusted accordingly.



Aligning Time Frames

As we've shown, realizing the financial benefits of ESG integration is a long-term endeavor. Our current performance metrics, however, are not.

Figure 7 on the next page shows the time frames asset owners use to evaluate external managers and internal portfolio managers, and the time frames used by asset managers to evaluate internal portfolio managers and sub-managers. These time frames are shorter than the

time frames for investors' expectations about when ESG will deliver outperformance. Whereas 47% of asset owners and 43% of asset managers believe this to be five years or more, only 10%–20% use these time frames in evaluating investment performance.

Figure 8 shows that investors' time horizons are longer than the ones they use for performance evaluation and that asset owners are more long-term oriented than asset managers. The investment time horizons of asset owners are more closely matched to time frames for getting outperformance from ESG than are those for asset managers.

Whereas 37% of asset owners have investment time horizons of 10 years or more, this is true for only 11% of asset managers. An even greater misalignment is how time frames are used for determining compensation (Figure 9). The dominant practice (70%) is to make annual compensation decisions, with 13% doing so quarterly or semi-annually and 17% doing it every two years or more.

"Our client base has drastically evolved. Now more people want to align their investments with their mission, in a more thoughtful way than exclusionary screening."

SENIOR EXECUTIVE AT MID-SIZE ASSET MANAGEMENT FIRM IN THE US

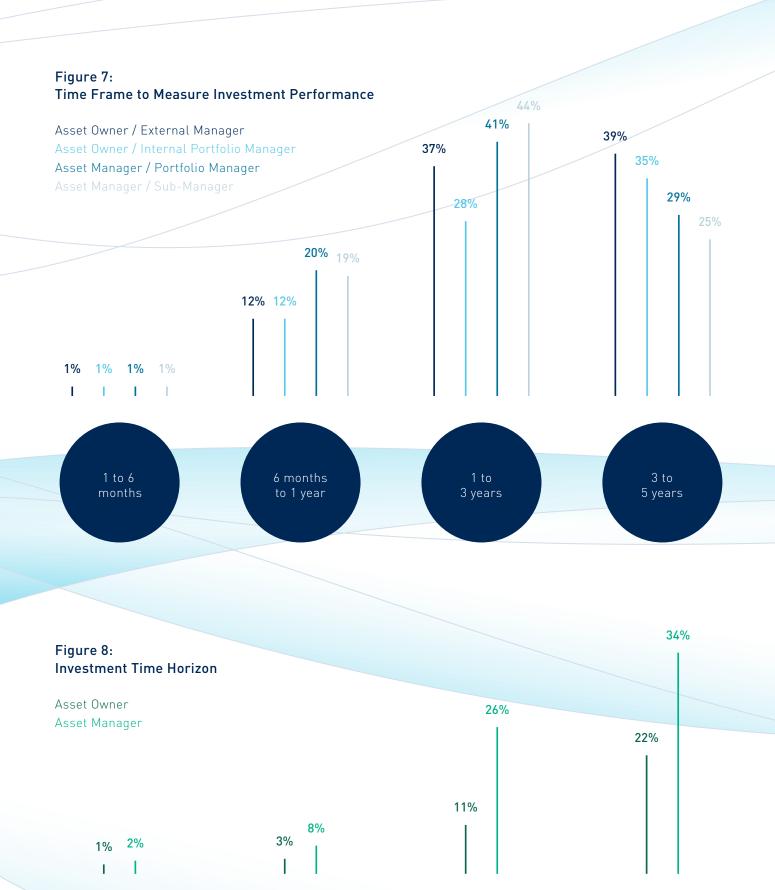
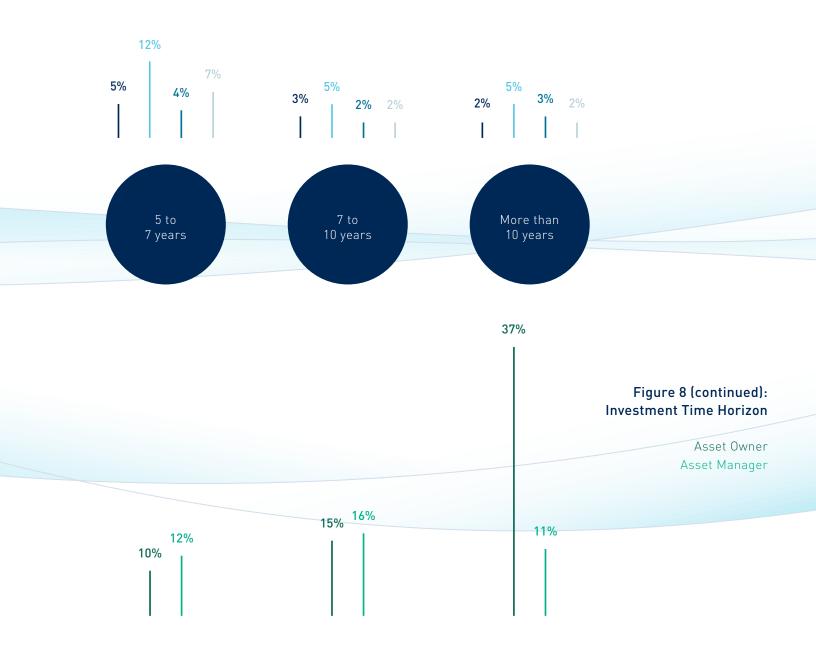


Figure 7 (continued): Time Frame to Measure Investment Performance

Asset Owner / External Manager
Asset Owner / Internal Portfolio Manager
Asset Manager / Portfolio Manager
Asset Manager / Sub-Manager



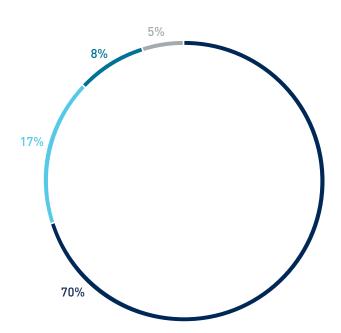
do so for performance of two years or more

70%

of institutional investors link compensation to annual performance

Figure 9: Institutional Investors' Time Frames for **Awarding Compensation**

- Annually
- Two years or more
- Semi-annually
- Quarterly



Yet as we demonstrated in our 2014 study The Folklore of Finance, capital markets are notoriously short-term oriented, as companies go from one quarterly conference call to the next.²⁹

There are several initiatives involving both the corporate and investment community that are addressing this issue and attempting to lengthen the time frame of decision-making for both.³⁰ One example of this is the Focusing Capital on the Long-Term initiative.31 Another is CECP's Strategic Investor Initiative, where CEOs presented long-term plans to a live audience on February 27, 2017.32 A third is the Coalition for Inclusive Capitalism.³³

For ESG integration efforts to be successful, we must extend performance measurement time frames to more closely match investment horizons.

As we've shown throughout, that effort can and will be driven by data... but only if investors ask for it.

"Investors need to continue to act collaboratively when it comes to company engagement and requests for disclosure. to ensure a unified investor voice and Ito ensure that companies aren't inundated with disclosure requests."

SENIOR EXECUTIVE
AT ASSET OWNER
ORGANIZATION
IN AUSTRALIA



Ask

Asking has three components:

- Engagement: Instilling the practice of investors regularly asking companies for the material ESG data they need.
- Industry participation: Asking other stakeholders to support key initiatives for the advancement of the standardization of ESG measurement and performance data.
- Communication: Making sure individual investors ask their financial advisors for information about products and solutions in line with what matters to them.

Engagement

Engagement is about meeting with management and the board (which over half of asset managers and 40% of asset owners do) and asking for ESG disclosures (done by two-thirds of investors). Through engagement, investors can determine which ESG issues the company believes are material and can influence these issues through discussion and even proxy voting.

Engagement is a way of breaking the finger-pointing of companies complaining that investors don't give them credit for ESG performance, while investors say that companies don't give them the information they need to do so.³⁴ Engagement is a major resource commitment, so again leadership support is necessary.

We recognize that the amount of resources that can be devoted to engagement are a function of the investor's size, and so smaller firms need to be very targeted in their efforts and/or work with groups who represent groups of investors.³⁵
What's more, in the case of asset owners, engagement can also come in the form of asking their asset manager about their engagement activities.

Industry participation

Investors need to participate in and support industry initiatives and other actions to facilitate ESG integration.

An important area concerns data standards and reporting requirements.

Regulations requiring ESG reporting by companies were cited by 42% of institutional investors as a way of removing the barriers to ESG integration. Related to this, around 78% agree or strongly agree that the regulatory push toward more ESG disclosure will facilitate better integration of ESG factors, and slightly more (85%) cited the evolution of sustainability reporting standards.

When investors engage and participate in industry initiatives, higher-quality data on ESG performance, so desperately needed, will follow. Our research also shows that 41% percent of asset owners and 29% of asset managers felt that big data could help address the data problem.

Investors should explore the offerings of different data vendors (both general and specialized), including some new capabilities coming to market based on new technologies (natural language processing, artificial intelligence, and machine learning), and determine which ones best meet their needs. While a specialist ESG group can do the background work, sector portfolio managers and analysts need to take ultimate responsibility for this decision.

Echoing the desire for greater standardization in ESG data, 40% of institutional investors said that greater uniformity among ESG data providers would be useful.

While investors can't mandate any of these things to happen, they can help to bring them about. Strong empirical data, in the form of actual performance of ESG integration funds and studies by the academic community, will help make the case for ESG integration and put to rest the myth that incorporating ESG factors is detrimental to investment performance.

Communication

Financial advisors can, and must, help their clients start thinking about ESG investing. Of course, communication is a two-way street; there's always the question of who starts the conversation: the advisor or the client. Not surprisingly, more ESG investors (62%) plan to approach their advisor about ESG investing in the next 12 months than non-ESG investors (43%). But this shows interest in ESG investing even by those not currently practicing it. Further supporting the level of interest in this group is the fact that nearly one-half (49%) of non-ESG investors believe talking to their advisor about ESG investing would be useful. This suggests that there's an opportunity for advisors who are willing to start the conversation. The fact that 69% of ESG investors also have this view further suggests that major client opportunities exist with ESG investors if financial advisors have the requisite knowledge.

Futhermore, open communication with their financial advisors about their interest in ESG as part of a long-term investment strategy should also result in adjustments to the products and solutions presented to the investor. Financial advisors should be prepared with concrete solutions for these investors, which are only set to grow. In fact, more than half of retail investors say ESG factors will be increasingly important to them in the next five years.

62%

of ESG investors plan to approach their advisor about ESG investing in the next 12 months As we've previously noted, data is the key to resolving the barriers to full ESG integration and the promise it holds.

Through engagement and other sources, such as sustainability and integrated reports by companies, investors can get the data on ESG performance they want and need. But for all the reasons we discussed earlier, it's critical to put this data through a materiality filter.



Incorporate Materiality Filter

Data are only useful if they can be of use in achieving investment goals. This requires a clear understanding of which ESG factors are material for financial performance.

Tellingly, two-thirds (64%) believe this determination should be made by the board of directors. The importance of the board in determining ESG materiality factors is also supported by a growing body of academic literature.³⁶ In comparison, only 39% of surveyed respondents believe the Chief Sustainability Officer should lead efforts on determining which ESG factors are material for financial performance, followed by 32% for the Chief Executive Officer. Equally telling, only 14% think that the Chief Financial Officer or Head of Investor Relations should do so, indicating that the investment industry doesn't believe these roles are in tune with ESG integration yet.

Our research suggests that constructing this filter is ultimately the responsibility of sector portfolio managers and analysts. While it is useful for them to know what the company believes to be material and SASB's standards can be helpful, these sector specialists must take ultimate responsibility for the materiality determination. With a point of view on the material ESG issues. sector portfolio managers and analysts skilled in ESG can then build investment models that incorporate both financial and ESG factors. Two-thirds of institutional investors now believe it's possible to build models that show the relationship between material ESG factors and financial performance.

67%

of institutional investors believe it's possible to show the relationship between material ESG factors and financial performance words the thinking

PURSUING THE PROMISE: SUSTAINABLE VALUE

Will the course of this Investing Enlightenment always be smooth? Probably not. Benjamin Franklin charted the Gulf Stream, but missed the fact that it moved with the seasons and other conditions.

It was the continued acquisition and integration of data —the continued combination of principle and pragmatism — that fulfilled the promise of Franklin's idea.

We strongly believe in the promise that full integration of ESG holds: sustainable long-term value creation not just for our clients, but for society as a whole.

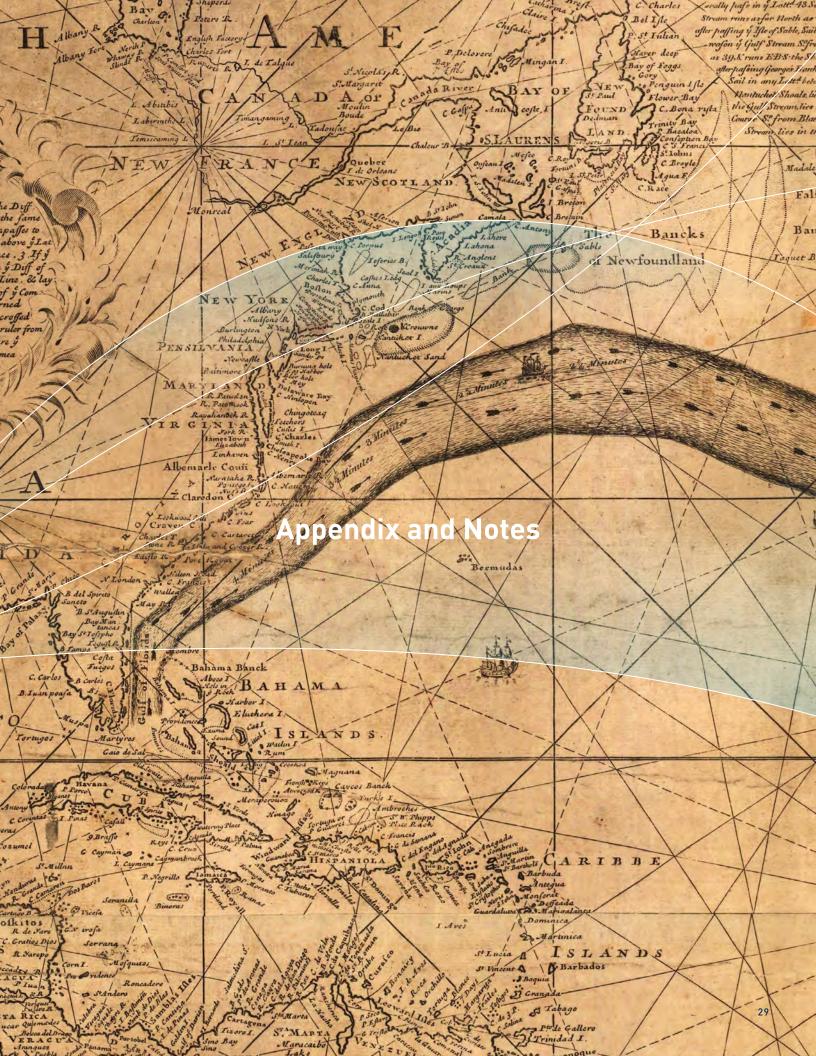
To get there, we need to embody the spirit of the Enlightenment: We need to take on the challenge that integration presents.

We need to ask for the data and solutions that illuminate and enable the material factors for investing, and build models based on these data.

We need to educate ourselves on what's possible, and practice it.

We need to make ESG the core of our investment strategy to bring about the Investing Enlightenment, a new age of reason.

> The promise of ESG is worth it.



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Robert G. Eccles is Chairman of Arabesque Partners. He's a Visiting Professor of Management Practice at the Saïd Business School at the University of Oxford. Previously a tenured Professor at Harvard Business School, he has also taught at the MIT Sloan School of Management. Professor Eccles is the Founding Chairman of the Sustainability Accounting Standards Board and one of the founders of the International Integrated Reporting Council. The focus of his work is leveraging the capital markets to support sustainable development. Current topics of interest include integrated reporting, materiality, fiduciary duty, and how sustainable corporate and investment strategies can contribute to financial performance.

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Mirtha D. Kastrapeli leads the Sustainable Investment research effort at State Street's Center for Applied Research. She co-authored the 2016 study Discovering Phi: Motivation as the Hidden Variable of Performance, and the 2014 paper The Folklore of Finance: How Beliefs and Behaviors Sabotage Success in the Investment Management Industry. She has almost 14 years of experience in the private and public sector, analyzing capital markets and helping shape public policy. Kastrapeli is a regular speaker at key conferences and client events globally, including those by Barron's, Institutional Investor and the Sovereign Investor Institute.

About the Center for Applied Research

The Center for Applied Research (CAR) is an independent think tank residing at State Street's corporate level and comprises a global team of researchers.

Building on the success of State Street'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 presents at conferences and provides executive briefings for clients and their boards of directors as a value-add service.

If you would like more information about the studies or the Center for Applied Research, you can contact the authors or send an email to CenterforAppliedResearch@StateStreet.com.

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Methodology

Two global surveys form the basis of this research project, one of institutional investors and the other of retail investors. The survey of 582 institutional investors was evenly split between asset owners and asset managers, as well as between equity and fixed income investors.

Below is the distribution by AUM:

Less than \$1 billion	22%
From \$1 billion to \$10 billion	25%
From \$10 billion to \$25 billion	17%
From \$25 billion to \$100 billion	15%
From \$100 billion to \$250 billion	9%
From \$250 billion to \$500 billion	6%
\$500 billion or more	6%

By time of incorporating ESG strategies (Are you currently implementing an ESG framework in your investment process?):

Yes, for the past year	29%
Yes, for the past 2–5 years	33%
Yes, for 6 years or more	14%
No, but planning to	24%

Participating institutions included public pension plans, corporate pension plans, insurance companies, family offices, sovereign wealth funds, endowments, foundations and charities. Participating asset managers included institutional-oriented asset managers, retail-oriented asset managers, blend retail/institutional asset managers with a retail focus, and blend retail/institutional asset managers with an institutional focus. Institutional respondents span 29 countries: Australia, Belgium, Brazil, Canada, Chile, Colombia, Denmark, Finland, France, Germany, Hong Kong, Italy, Japan, Luxembourg, Mainland China, Mexico, Netherlands, New Zealand, Norway, Peru, Singapore, South Korea, Spain, Switzerland, Sweden, Taiwan, United Arab Emirates, United Kingdom and the United States.

The retail survey included 750 respondents. Of those, 571 are currently implementing some type of ESG strategy. Participating retail investors included mass market, mass affluent and high-net-worth individuals. The sample includes 24 countries: Australia, Belgium, Brazil, Canada, Chile, Colombia, Denmark, France, Germany, Hong Kong, Italy, Japan, Mainland China, Mexico, Netherlands, Norway, Singapore, South Korea, Spain, Switzerland, Taiwan, United Arab Emirates, United Kingdom and the United States.

By investable household assets (all retail investors): What is the approximate value of your household's net investment assets (i.e., excluding your primary household residence)?

Less than \$100,000	26%
\$100,000 to \$250,000	20%
\$250,000 to \$1 million	36%
\$1 million to \$5 million	12%
\$5 million or more	6%

By time of implementing ESG strategies (ESG investors only):
Are you currently implementing an ESG framework in your investment process?

Yes, for the past year	34%
Yes, for 2-5 years	26%
Yes, for 6 years or more	16%
No, but planning to	7%
No, and not planning to	17%

Both surveys were cross-sectional and were conducted by CoreData on behalf of the Center for Applied Research between November and December 2016 using an online survey platform. Quantitative analysis was then conducted through a partnership between the State Street Center for Data Excellence and CoreData. All percentages are rounded. Survey data were supplemented by 25 in-person interviews.

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 process that includes evidencebased research and broad,
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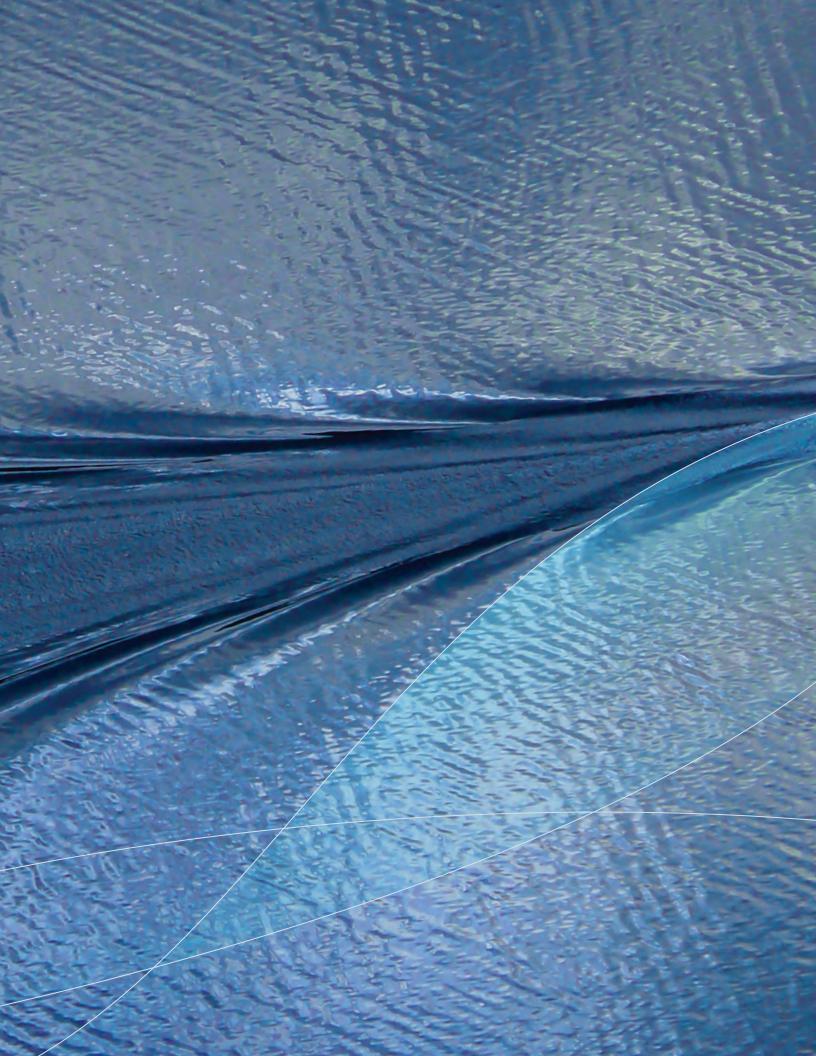
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