



NEUBERGER BERMAN

# 2018 Environmental, Social and Governance Annual Report

NEUBERGER	BERMAN
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Founded in 1939, Neuberger Berman is a private, 100% independent, employee-owned investment manager. From offices in 34 cities worldwide, the firm manages a range of strategies—including equity, fixed income, quantitative and multi-asset class, private equity and hedge funds—on behalf of institutions, advisors and individual investors globally. With more than 500 investment professionals and over 2,000 employees in total, Neuberger Berman has built a diverse team of individuals united in their commitment to delivering compelling investment results for our clients over the long term. That commitment includes active consideration of environmental, social and governance factors. Our culture has afforded us enviable retention rates among our senior investment staff and has earned us a citation from *Pensions & Investments* as a Best Place to Work in Money Management for six consecutive years.

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## OUR COMMITMENT TO ESG INTEGRATION



**GEORGE H. WALKER**

Chairman and Chief Executive Officer

At Neuberger Berman, we recognize that our clients expect rigorous ESG integration from their investment manager. We firmly believe that attention to material ESG factors helps make us smarter investors, and that engagement with companies on ESG topics helps them perform better for their investors and for society.

That's why 60%<sup>1</sup> of the assets managed by Neuberger Berman consistently and demonstrably integrate ESG factors in portfolio construction and security analysis.

### Proprietary Approach

ESG investing has become mainstream. According to the latest US SIF 2018<sup>2</sup> Trends Report, one in four dollars of U.S. assets under management is now invested in sustainable strategies, up from one in six in 2016. The proportion of sustainable assets is higher in Europe and Australia, and is growing even faster in East Asian markets, like Japan.

Increased popular interest in ESG investing has spurred controversy about what it means to be a sustainable company and how to assess ESG strengths and weaknesses given patchy corporate disclosure. This is exactly the type of market inefficiency that active managers like Neuberger Berman are engineered to address.

Our research and investment processes include financially material ESG factors. Under the leadership of Jonathan Bailey and our dedicated ESG Investing team, we have built a robust framework that inspires collaboration and innovation.

Tenured equity and credit research analysts control and monitor in-house proprietary ESG ratings tailored by industry. As we embrace many sources of external data, our Big Data team also uses unstructured data to tackle particularly complex ESG issues, such as company culture and climate-related risks.

In one recent example, the Emerging Market Equity team's ESG orientation precluded them from investing in a Brazilian mining company despite attractive financial metrics and led to an underweight in EMD. They evaluated the environmental risk from a qualitative perspective, since data on these practices are limited. Part of the analysis centered on the company's prior incident in November 2015, which was seemingly forgotten by many investors. In January 2019, a second incident at another tailings dam owned and operated by the same company resulted in tragic loss of life and underscored the value of incorporating environmental risk into our analysis. Our Emerging Market Equity and

<sup>1</sup>As of December 31, 2018.

<sup>2</sup>2018 Report on U.S. Sustainable, Responsible and Impact Investing Trends, US SIF, October 31, 2018.

Emerging Market Debt teams continue to integrate new insights stemming from this incident into our diligence of companies in the sector.

### **Engagement for the Long Term**

Engagement is a hallmark of Neuberger Berman's approach to active management. The judgment and credibility of our investment professionals encourages constructive long-term dialogue with management teams and board members. We fundamentally believe that meaningful change comes when ESG topics are raised consistently and strategically. Even where we have no proxy votes to cast, for instance in fixed income, we still have demonstrable influence on issuers.

Recently, a team of analysts and portfolio managers, led by Charles Kantor, drove significant governance reform at specialty chemicals manufacturer Ashland, and helped defuse an otherwise distracting and acrimonious proxy battle between Ashland and an activist hedge fund. Our group went well beyond letter-writing and worked collaboratively with management to change the company's governance structure, including board members and executive incentives.

As for proxy voting, careful scrutiny of proposals is a responsibility we take seriously. In 2018, we voted in favor of the majority of the shareholder proposals, including all proposals dealing with climate disclosure and gender pay equity reporting. We also supported 84% of proposals touching on political spending or lobbying. We opposed 11% of management proposals, including 15% of executive compensation plans.

### **Building a More Sustainable Market**

We are proud to work with some of the industry's leading organizations on cross-cutting ESG initiatives. Over the last couple of years, for example, we have worked with the UN-supported Principles for Responsible Investment (PRI) to encourage the credit agencies to formally incorporate ESG considerations in their ratings. In a 2017 paper, we argued such action would incentivize debt issuers to improve ESG performance and enhance ESG disclosures. Since then, all three major agencies have hired dedicated ESG experts and clarified their rating methodologies. Fitch even credited our paper with motivating its senior leadership to begin this journey.

### **Turning the Mirror on Ourselves**

As part of our commitment to best practices, with this report, Neuberger Berman starts publicly disclosing Firm Stakeholder Metrics, including diversity statistics.

As we strive to make Neuberger Berman an ever more dynamic and supportive place to build a career, we know we have more work to do, but believe we are making progress. In 2018, our pool of new hires once again improved upon the representation of women and minorities in our ranks. Diversity takes many forms, and we seek to foster an environment in which diversity of all types can flourish.

Being a great place to work is core to our strategy and culture. It enables us to compete effectively both on the people front, helping us to attract and retain the best talent, and on the client front, as you decide to whom you entrust the management of your irreplaceable capital. It is also the right thing to do.

As always, we are grateful for your partnership.





## OUR ESG PHILOSOPHY

As an active manager, Neuberger Berman has a longstanding belief that material environmental, social and governance (ESG) factors are an important driver of long-term investment returns from both an opportunity and a risk-mitigation perspective. Therefore, we take a comprehensive approach toward managing client assets, including the integration of ESG criteria into our investment process. We also understand that for many clients the impact of their portfolios is an important consideration in conjunction with investment performance.

“In 2018 one third of our Institutional clients formally asked how we incorporated environmental, social and governance factors into our investment processes. For many it was an important consideration in their decision to partner with us. Personally, this is one of the most exciting things about working at Neuberger Berman—constantly innovating our approach to sustainability and impact in order to better deliver the outcomes that matter to the people who entrust us with their financial future.”



– JONATHAN H. BAILEY  
Head of ESG Investing

NEUBERGER BERMAN



# 1989

First dedicated  
ESG-integrated strategy

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Proprietary ratings on all Russell 1000  
constituents

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**100%** FIRM ASSETS THAT  
ARE ESG AWARE

# A+

## Awarded Top Score

In the most recent UN-backed Principles  
for Responsible Investment (PRI) assess-  
ment report for its overarching approach  
to ESG strategy and governance\*

\*Please refer to page 51 for associated disclosure.

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**60%** Assets managed with consistent and  
demonstrable ESG integration

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**140 Colleagues in ESG across  
committee and working groups**

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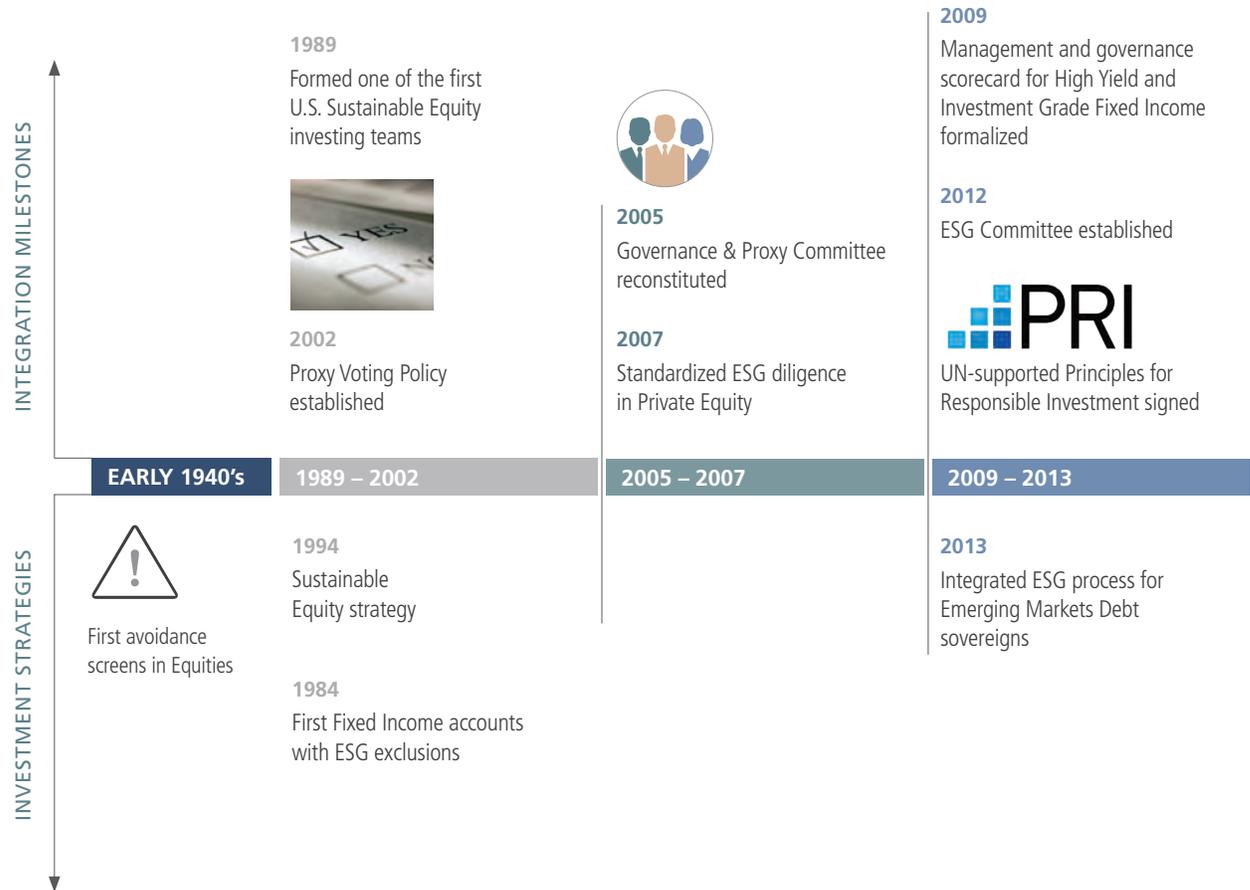
**3,052** Engagement meetings  
with corporate management teams  
across equities and credit

**32%** Institutional RFPs and DDQs  
asking about ESG in 2018

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**\$304 Billion**  
Assets Under Management

# OUR ESG HISTORY



**2014 – 2015**

**2015**

Emerging Market Equity  
Quantitative ESG Account  
Mandate

Private Equity portfolios  
customized with ESG

**2016 – 2017**

**2016**

ESG working groups created  
for Equities, Fixed Income and  
Private Equity

ESG Integration implemented  
for Fixed Income platform

**2017**

Dedicated ESG Investing  
team built

First Proxy Voting and  
Engagement Report published

Proprietary ESG ratings for  
High Yield Credit launched

**2018**



**2018**

Municipal Fixed Income  
Impact Strategy

Climate Modeled Insurance-  
Linked Strategies



**2018**

First ESG Fixed Income  
Engagement Report published

**2019**

**2019**

Private Equity Impact Strategy

**2019**

Firm-wide Climate-related Corporate  
Strategy in line with the Task Force on  
Climate-related Financial Disclosures  
(TCFD) established

Tool for Climate Value-at-Risk  
("VaR") Scenario Analysis launched

Inaugural ESG Annual Report  
published



## OUR COMMITMENT TO ESG INTEGRATION

### ESG INTEGRATION FRAMEWORK AT NEUBERGER BERMAN

Individual research analysts and portfolio managers are responsible for implementing ESG integration in their portfolios and investment research. We believe this bottom-up approach encourages strategy-specific innovation while allowing each portfolio management team to learn from best practices across the investment platform. Our ESG Investing team accelerates this process with top-down expertise and support.

The specific approach to ESG integration utilized by each portfolio manager will depend on multiple factors, including the objectives of the strategy, asset class and investment time horizon, as well as the specific research and portfolio construction, philosophy and process used by the portfolio manager.

Each portfolio management team determines how best to achieve its ESG integration objectives; it then lays out how to conduct research into ESG-related risks and opportunities; how to measure and compare ESG

issues at the security level; and how to construct portfolios influenced by these insights. We believe that the most effective way to integrate ESG factors into an investment process over the long term is for investment teams themselves to research ESG factors and consider them alongside other inputs into the investment process. For this reason ESG research is included in the work of our research analysts rather than employing a separate ESG research team. The investment teams can then choose how best to apply all the tools of active management.

## ESG Integration Framework



### AVOID

Excluding **particular companies or whole sectors** from the investable universe

#### INVESTMENT APPLICATIONS

##### ALL ASSET CLASSES

- Ability to implement in Separately Managed Accounts
- All UCITS Funds



### ASSESS

Considering the **valuation implications of ESG risks and opportunities alongside traditional factors** in the investment process

#### INVESTMENT APPLICATIONS

##### EQUITY

- Emerging Markets Equity
- Small Cap Intrinsic Value

##### FIXED INCOME

- Global Investment Grade
- Global Non-Investment Grade Credit
- Emerging Markets Debt
- Municipal

##### ALTERNATIVES

- Private Equity
- Private Credit

##### QUANTITATIVE

- ESG Factor

##### MULTI-ASSET CLASS



### AMPLIFY

Focusing on **'better' companies** based on environmental, social and governance characteristics

#### INVESTMENT APPLICATIONS

##### EQUITY

- Sustainable Equity

##### FIXED INCOME

- Global Investment Grade
- Global Non-Investment Grade Credit

##### QUANTITATIVE

- ESG Factor

##### MULTI-ASSET CLASS

##### ALL ASSET CLASSES

- Separately Managed Accounts



### AIM FOR IMPACT

Seeks to **intentionally generate positive social and environmental impact** alongside a financial return

#### INVESTMENT APPLICATIONS

##### FIXED INCOME

- Municipal Impact

##### ALTERNATIVES

- Private Markets Impact

This does not represent an exhaustive list of strategies applying this ESG integration framework.

## OUR COMMITMENT TO ESG INTEGRATION

### PROPRIETARY ESG ANALYSIS AND RATINGS

At Neuberger Berman, our research analysts have worked closely with our in-house ESG Investing team to rate corporations on material ESG metrics at the industry level. Core to development of this proprietary ESG ratings system has been our ability to marry the specialized sector expertise of our analysts with our dedicated internal ESG Investing team's perspective on complex ESG data sets. The issues that are material vary by sector and company. We attempt to measure performance on material ESG factors by using quantitative and qualitative analysis and continuously improving our analysis through engagement with individual companies.

#### Assessment of Environmental and Social Factors—A Cohesive Three-part Method





**JARED MANN, CFA**  
Senior Research Analyst—Commodity and Specialty Chemicals

## Dynamic Proprietary ESG Ratings in the Chemicals Sector

My work as an equity analyst covering energy- and resource-intensive industries exemplifies Neuberger Berman’s materiality-driven approach in practice. In evaluating the Chemicals sector, I particularly focus on workplace safety and sustainable product innovation over the long term in addition to environmental issues, such as greenhouse gas emissions, air quality and water management.

In my view, plant safety is a highly material social factor as it speaks both to management’s focus on employee well-being, and the reliability of a company’s plant operations and ultimately its profitability. Some safety performance can be assessed through mandatory regulatory filings or by using specialist third-party assessments.

A simplistic use of this information, however, can be misleading, as in the case of an engine oil and industrial lubricants company.

As a recent spin-off into an independent, publicly traded company, the short track record of regulatory filings and lack of publicly available health and safety policy documents led some third-party ESG ratings providers to negatively assess the issuer compared to its more established publicly traded peers.

We suspected they company’s health and safety practices were more robust than the data indicated given it was part of a relatively well-run parent until recently. A site tour and visit to the company’s headquarters helped demonstrate a safety culture and ESG awareness on par with better-ranked organizations.

Ultimately, our field work allowed me to incorporate this qualitative input into our proprietary ESG ratings. This reinforced my positive investment thesis grounded in fundamental financial analysis of the company.

Company Focus	ANALYST ASSESSMENT			
	Company #1 Commodity	Company #2 Specialty	Company #3 Coatings	Company #4 Agriculture
<b>OVERALL E+S RATING</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
Greenhouse Gas Emissions	A	B	C	D
Air Quality	A	B	C	D
Water Management	A	B	C	D
Energy Management	A	B	C	D
Hazardous Waste Management	A	B	C	D
Workforce Health and Safety	A	B	C	D
Environmental Stewardship of Chemicals	A	B	C	D
Management of the Legal and Regulatory Environment	A	B	C	D
Operational Safety, Emergency Preparedness & Response	A	B	C	D

**E+S Rating**

Stronger      Average      Weaker

Central Research Analyst’s view of the environmental and social characteristics of a company on material factors relative to the peer group. A–D quartiles where A is best, D is worst.



– **MICHELLE A. GIORDANO-VALENTINE**  
Senior Research Analyst—Insurance and Asset Management

## Custom Bottom-up Evaluation of Property and Casualty Insurers

As an analyst covering Financial Services, I have observed that ESG issues which are material can vary significantly between two ostensibly similar industries, for example, between insurers that provide life insurance and those that offer property and casualty (P&C) insurance. The customer journey is different for the two products. Where life insurance is often a single-time sale and the customer is unlikely to be involved in making a claim, customers often change P&C policies and most will make a claim. This means that customer satisfaction and the handling of complaints are more material for a P&C insurer, as they affect customer turnover.

While issuers may not always choose to disclose their customer satisfaction levels, there are reasonably well-understood ways to assess a company on this issue both qualitatively and quantitatively. In contrast, a material topic such as a P&C insurer creating incentives for customers to drive more safely is harder to “score” using an off-the-shelf data set. That is why I created my own assessment scores based on reviewing policies and my ongoing dialogue with individual insurers. These are the sorts of proprietary insights which enhance my understanding of company-specific risk and opportunity.

“Developing ESG ratings for the Insurance and Asset Management spaces was a collaborative effort whereby we determined the relevant issues, identified data sources to determine individual company exposure, policies and disclosure, and decided which companies are addressing the issues and which are lagging. I see this as an ongoing process as companies are becoming more sensitive to ESG issues and more aware of the need to disclose additional information about their policies.”

	ANALYST ASSESSMENT			
	Company #1	Company #2	Company #3	Company #4
<b>OVERALL E+S RATING</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
Environmental Risk Exposure	Stronger	Average	Average	Weaker
Policies Designed to Incentivize Responsible Behavior	Stronger	Average	Stronger	Weaker
Risk Management	Stronger	Stronger	Average	Average
Plan Performance				
Complaints Received/Customer Satisfaction Level	Stronger	Stronger	Stronger	Average
Responsible Product	Stronger	Stronger	Stronger	Average
Integration of ESG Risk Factors in Investment Management	Average	Stronger	Stronger	Stronger

**E+S Rating**

Stronger      Average      Weaker

Central Research Analyst’s view of the environmental and social characteristics of a company on material factors relative to the peer group. A–D quartiles where A is best, D is worst.

## Emerging Market Debt: Evolving ESG Best Practice

For over eight years, our Emerging Markets Debt team has formally integrated a quantitative framework for ESG data on sovereign debt issuers. These insights build a unique understanding that helps identify potential early, as in the decision to overweight the Ivory Coast in 2012 when a new president came into power, which boosted the outlook for ESG metrics and reforms from low starting levels at the time. In 2018, we enhanced this framework to include additional metrics on environmental scores, such as the country’s carbon footprint, its exposure to and preparedness to deal with environmental disasters. We extended our data-centric approach to corporate debt four years ago by utilizing specialist ESG research to build proprietary insights.

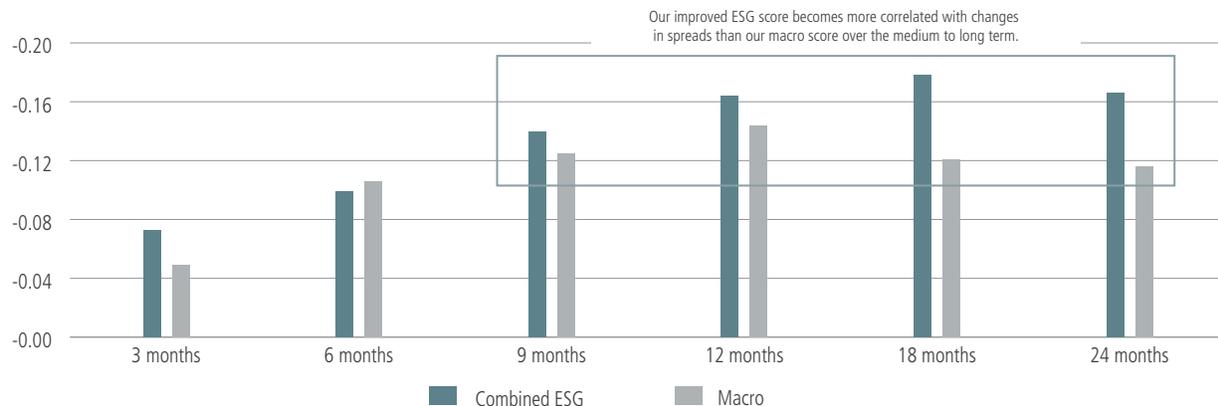
We have found that proprietary ESG scoring ensures more consistent judgment across sectors and holdings than that provided by third parties because it reflects our own views on financial materiality. Through enhanced analysis we have uncovered some generally applicable best practices for the analysis of ESG factors in emerging market corporate debt:

- Backtesting empirical data against performance helps demonstrate the financial materiality of ESG indicators and identify the most relevant inputs for our overall analysis of specific issuers. For example, our research suggests the long-term relationship of carbon emissions to financial ratios and bond spreads is relevant across a wide swath of emerging market corporates, while waste management policies appear impactful to a narrower subset of issuers.
- Corporate and sovereign risks are intertwined and require coordinated analysis.
- Engagement on ESG issues extends beyond voting rights. Ongoing dialogue with issuers improves an investor’s ability to identify significant ESG risks, monitor trends and hold issuers accountable for results.

These last two practices were particularly relevant in the case of a sovereign-owned oil company that we underweighted given the negative impact of government involvement on their credit profile. After a corruption scandal arose, we actively engaged with the company to assess management’s response and increased our position given confidence in their implementation and fundamental governance.

### CORRELATION OF NEUBERGER BERMAN’S ESG SCORES WITH SUBSEQUENT CHANGES IN HARD CURRENCY SOVEREIGN CREDIT SPREADS

Correlation of ESG and macro scores with change in spreads over six time horizons, 2000 – 2018



Source: Neuberger Berman, Bloomberg. A negative lagged correlation (a higher bar) indicates that a lower ESG or Macro score has been followed by wider credit spreads. Data covers the period Q1 2000 to Q1 2018.



**LAWRENCE ZICKLIN<sup>3</sup>**

Neuberger Berman  
Board of Directors

## Ethics in Practice—Always Putting the Client First

Ethical governance, transparency and integrity are central to building a corporate culture to last. Larry Zicklin joined Neuberger Berman in 1969 and served as its Managing Partner for over two decades. As an instrumental shaper of Neuberger Berman's history, Larry recounts Neuberger Berman's early leadership in ESG and describes the governance principles that guide its board today. Beyond his ongoing contribution to Neuberger Berman, Larry teaches university-level courses on Business Ethics and Professional Responsibility, advocates for financial transparency in politics, and supports access to higher education through generous gifts to two New York City colleges.

### **How would you describe the Neuberger Berman culture?**

When I joined Neuberger in 1969, it was just a group of entrepreneurs that shared a common overhead. People shared ideas, challenged each other, and even competed a bit. That spirit of entrepreneurialism and independent thinking still pervades Neuberger.

That said, I think there's a single key to why Neuberger is successful, and that is the concern for clients. In 1969, the partners who were managing money cared very much about meeting client needs.

Today, our investment professionals care just as deeply. There is always the concern about how the client objectives are being met. I think it all revolves around that sense of responsibility to clients. It's

funny: people in Wall Street want to make a lot of money—that's not a surprise—but the competition to do well for our clients at Neuberger Berman was always an even greater challenge than the competition to make more money.

### **How did Neuberger Berman come to be an early pioneer in ESG investing?**

Neuberger Berman was a pioneer in excluding certain types of investments. Early on, we excluded tobacco and asbestos because these moves made sense from an investment point of view based on the prospects of increased regulation and decreased market demand.

In 1988, our partner and Portfolio Manager Janet Prindle pitched socially responsive investing as the way the world was going. She was right. This led to the founding in 1989 of what we now call the Sustainable Equity Strategy. In the '80s and '90s, the impact of poor governance gained prominence as we witnessed the scandals at Drexel, Worldcom and Adelphia, to name a few. ESG investing, however, really hit an inflection point about 10 years ago, before the market crisis. Since then, I think corporate business ethics have improved with greater awareness of the ability to avoid potholes through ESG investing.

<sup>3</sup>Neuberger Berman does not maintain a formal relationship with the Center for Political Accountability. Lawrence Zicklin is a former employee of Neuberger Berman and served as the Non-Executive Chairman of the Board from 1999 to 2003. He rejoined the Board in 2009 and continues to serve as an independent director.

### What role does the CPA-Zicklin Index play in promoting transparency in political spending?<sup>4</sup>

I am on the board of the Center for Political Accountability (CPA), a non-profit, non-partisan organization that was created to bring transparency and accountability to corporate political spending. At the CPA our mission is to shine a light on corporate political spending, to continue to improve transparency and accountability, and to ensure that companies act in ways that are in accord with the values of their shareholders.

The CPA-Zicklin Index benchmarks S&P 500 companies and is the only index of its kind. It measures how companies are disclosing and managing the risks associated with their political spending. Having a ranked index makes all the difference in the world because companies do not want to find themselves at the bottom of the list. CPA is working to make political disclosure and accountability the norm and to establish best practices for major companies. Companies that have weak or non-existent disclosure and accountability policies are now seen as outliers.

Companies, by the way, actually thank the CPA. Public disclosure of corporate political spending helps alleviate pressure on them from political interests. In some cases, corporations are even filling a gap where government representatives may be unable to execute policy, for example, by implementing corporate policies on gun sales or climate change.

In today's world with the internet and social media, there are fewer and fewer secrets. For the millennial generation, the customer is becoming the ultimate regulator.

<sup>4</sup>Please refer to page 38 for more information on how the CPA-Zicklin Index is used at Neuberger Berman.



SHAREHOLDER RESOLUTIONS  
SUPPORTED IN 2018:

84%

IN RELATION TO  
REVIEWING POLITICAL  
SPENDING OR LOBBYING

100%

IN RELATION TO RACE AND/OR  
GENDER PAY EQUITY REPORT

100%

IN RELATION TO CLIMATE  
CHANGE

Source: Neuberger Berman.

# ESG REPORTING AT NEUBERGER BERMAN

We offer standardized ESG reporting to our clients across public equity, fixed income and private markets. The reports combine well-understood third-party vendor data with insights directly from our research analysts. For many portfolios, we also provide carbon foot-printing and climate value-at-risk (VaR) analysis.

Interactions with issuers and case studies are tracked in periodic engagement reports as well. Clients of our “Aim for Impact” investment solutions receive regular impact reporting as an important component of impact measurement and management.

### Sample Portfolio

**SECTOR ALLOCATION**

**IMPACT THEME ADDRESS BY USE OF PROCESS**

**PROJECT IMPACT SPECTRUM**

**GEOGRAPHICAL ALLOCATION**

**INDEX RELATIVE WEIGHT**

**PLAC-BASED RELATIVE POTENTIAL FOR BURNET**

As of September 30, 2018  
 1. Scenario: Realistic Base Case  
 2. MSCI Emerging Markets II

### Sample Portfolio - ESG Scores by Sector and Country

Industry Adjusted Score by Sector and Country<sup>1</sup>

Sector	Final Industry Adj. Score		Sector	Final Industry Adj. Score	
	Portfolio	Benchmark		Portfolio	Benchmark
Information Technology	5.77	4.05	Czech Republic	6.10	4.33
Financials	5.39	5.33	Taiwan	5.91	5.25
Materials	4.26	4.24	Other	4.64	
Utilities					
Energy					
Communication Services					
Consumer Staples					
Health Care					
Industrials					
Consumer Discretionary					

### Sample Portfolio - ESG Top and Bottom Holdings

Highest ESG Rated Positions in the Portfolio

Portfolio Holding	ESG Weighted Average Score	ESG Industry Adjusted Score	Overall ESG Rating	ESG Momentum	Country	Sector
Taiwan Semiconductor Manufacturing Co., Ltd.	7.1	8.5	AA	Stable	Taiwan	Information Technology
Komercni banka, a.s.	5.3	8.1	AA	Stable	Czech Republic	Financials
BB SA - Brazil, Bolsa, Balcao	5.7	7.6	AA	Stable	Brazil	Financials
Finlandia Ties Co., Ltd.	5.4					
FirstRand Limited	5.5					

Lowest ESG Rated Positions in the Portfolio

Portfolio Holding	ESG Weighted Average Score
Baidu, Inc. Sponsored ADR Class A	2.9
Sunny Optical Technology (Group) Co., Ltd.	4.1
CI Capital Holdings, Inc.	4.0
Kweichow Moutai Co., Ltd. Class A	3.7
China Resources Gas Group Limited	4.1

As of September 30, 2018  
 Scenario: Realistic Base Case  
 1. Scenario: Realistic Base Case  
 2. MSCI Emerging Markets II

### Sample Portfolio - ESG Summary

Portfolio Score		ESG Coverage	
Portfolio	Benchmark <sup>1</sup>	Coverage	MSCI ESG Coverage (%MM)
Final Industry Adjusted Company Score <sup>2</sup>	4.66	4.32	85.47%
Weighted Average Key Issue Score <sup>3</sup>	4.71	4.45	96.47%
Environmental	5.53	5.48	
Social	4.78	4.50	
Governance	4.61	4.18	
Carbon Footprint	309	479	
Carbon CO <sub>2</sub> emissions of value invested <sup>4</sup>	2,194,442	6,557,070	

ESG Ratings Distribution<sup>1</sup>

ESG Ratings Momentum<sup>1</sup>

As of September 30, 2018  
 1. Scenario: Realistic Base Case  
 2. MSCI ESG Research LLC  
 3. MSCI Emerging Markets Index  
 4. ESG SUMMARY REPORT



## RECENT INNOVATIONS AND INSIGHTS

### ESG INVESTING IN PRIVATE EQUITY: 2018 REFLECTIONS

Neuberger Berman believes that material ESG factors are an important part of the due diligence of any private investment. We conduct this diligence when we invest alongside other general partners (GPs) on particular transactions and when we invest in private equity funds through primary, secondary or general partner stakes. Given our unique positioning as an active and diversified fund investor and co-investor in the private equity ecosystem, we engage with our partners to share and promote best practices and resources related to ESG integration.

“Many clients share our focus on environmental, social and governance issues in private equity. We thoughtfully weigh the investment implications and real-world impacts of these considerations.”



– ANTHONY D. TUTRONE  
Global Head of Alternatives

### **Engaging the Industry**

In 2018, we held roundtables in New York and London, convening over 30 leading private equity managers with whom we partner. Participants from around the world represented a range of investment strategies and sizes, from mid-cap growth equity to large-cap buyout. Aiming to foster sharing of ESG best practices and resources, the roundtables featured presentations by industry practitioners and thought leaders, including representatives of the Sustainability Accounting Standards Board (SASB) and the United Nations-Supported Principles for Responsible Investment (PRI). Productive peer discussion and knowledge exchange ensued.

Many leading GPs acknowledge ESG as an important driver of risk mitigation and increasingly as a source of opportunity integral to value-creation plans during the ownership period. While there is still only anecdotal evidence of the benefits of ESG improvements to exit valuations, certain ESG-related topics receive GP attention across industries. GPs view topics such as cybersecurity, diversity and climate-related issues as potentially material to financial value from the perspective of both competitive advantage and reputational risk management.

### **ESG and Sustainability in Focus**

We expect investor focus on ESG diligence and reporting to continue to increase in the coming years. Interestingly, while some smaller GPs identify resource constraints as a challenge to implementing ESG best practices, in our experience, the leaner the firm, the more likely it is to have a senior investment professional overseeing ESG implementation and to hold the entire investment team accountable for ESG integration—both best practices from our perspective.

Another notable trend is greater focus on social or environmental sustainability, particularly with respect to the UN Sustainable Development Goals. Identifying the intersection of macro trend-driven opportunities and attractive risk-adjusted financial returns is critical to impact investing within private equity. We believe the intersection of sustainability and returns will be an exciting area of focus for more GPs going forward.

As a newly appointed member of the PRI Private Equity Advisory Committee, Neuberger Berman strives to promote ESG integration best practices, bringing to bear our unique perspectives on the private equity ecosystem. In this role, we will continue to engage with our partners to share ESG integration best practices and to elevate the private equity industry as a whole to ultimately deliver results for our clients.



## RECENT INNOVATIONS AND INSIGHTS

### AIM FOR IMPACT: MUNICIPAL BONDS

We believe a proactive and systematic approach to investing in municipal bonds can be an interesting opportunity for investors who care about the social and environmental impact of their investments.

The Neuberger Berman Municipal Impact strategy seeks to invest in a manner that targets the following social and environmental impact themes: (i) improve sustainable growth and employment (which includes access to basic needs such as housing and education), (ii) improve health outcomes, (iii) address climate change and energy needs, and (iv) conserve the natural environment.

## Neuberger Berman Municipal Impact Framework\*

In order to assess fit for the Municipal Impact strategy, we seek to understand the potential impact of a particular bond issuance from multiple angles. Over 10 years ago, the Neuberger Berman Municipal team first began partnering on balanced portfolios with the Neuberger Berman Sustainable Equity team. Today we apply a three-pillar methodology in which positive and negative factors within this framework are balanced and debated to reach an investment decision:

- 1. SUSTAINABLE ISSUER** Issuer-level analysis that assesses whether the issuer is well managed with respect to governance, fiscal sustainability and management of material social and environmental issues.
- 2. USE OF PROCEEDS** Project-level analysis to determine whether bond proceeds used for a project will generate effects on the community and environment that are essential, significant and positive overall.
- 3. PLACE-BASED POTENTIAL FOR IMPACT** Place-level analysis to assess whether the location of the project has a higher level of relative need, and thus a higher potential for the project to contribute to solutions to social or environmental challenges.

## Engagement as a Tool to Influence Change

As investors, we can signal that environmental, social and governance considerations matter by incorporating them into our investment criteria and process, but we can go a step further in our role as an investor and engage with issuers to help influence outcomes. When a project goes awry for a bond in our portfolio, we engage with the issuer to help identify and work toward a solution to secure the stability of cash flows, but also to lead to better social and environmental outcomes. This is especially the case with high yield municipal issuances.

Past engagements include dialogue with a distressed charter school, nonprofit entity and a clean water project. In the case of the distressed charter school, its charter was up for renewal at a local school district, and before the negotiation period began, a new superintendent

was tasked with auditing the school's finances. The superintendent voiced some concerns regarding transparency of fund allocations and compliance with special education mandates. The relationship between the superintendent and the charter school's executive director quickly soured, and bondholders were notified that the charter was likely to be revoked, which would likely close the school. As one of the three bondholders, we took the lead to mediate the situation. Both sides would suffer losses if the charter school were to close. The charter school's students would be relocated to the already over-capacity public school mid-year, and our cash flows from the charter school bonds would be in jeopardy. Ultimately, after a long series of discussions and negotiation, the charter was renewed primarily due to Neuberger Berman's engagement on the issue.

## Fundamental Focus on Outcomes

At Neuberger Berman, how we apply this framework into our investing processes is crucial to our Municipal Impact strategy. Our fundamental, bottom-up investment approach naturally lends itself to incorporating impact pillars considered by each seasoned investment professional. The application of our impact methodology is independently reviewed on a quarterly basis. Active engagement enhances our ability to deliver investment results to achieve our investors' financial goals and also augments our ability to influence positive outcomes in line with our investors' impact goals.

With \$10 billion in assets under management and relationships with over 100 broker dealers, the Neuberger Berman Municipal team experiences broad market access and robust deal flow. The Neuberger Berman Municipal Impact strategy allows investors to achieve their typical financial objectives for investing in municipal bonds—capital preservation, income generation and tax efficiency—while also delivering on their impact objectives to support sustainable communities and address some of the most pressing social and environmental challenges.

\*Please refer to page 52 for associated disclosure.



**“Our goal as impact investors is to invest in the communities with the most need and in projects that do the most good for people and the planet.”**

– **JAMES A. LYMAN**  
Director of Research, Municipal Fixed Income



**INGRID S. DYOTT**

Managing Director, Co-Portfolio Manager  
Neuberger Berman Sustainable Equity

## 20 Years of Sustainable Investing

The Neuberger Berman Sustainable Equity strategy, which has a longstanding track record going back to 1989, provides a differentiated solution that integrates sustainability considerations in the fundamental research process. As a 20+ year veteran running a portfolio, Co-Portfolio Manager Ingrid Dyott reflects on how the industry has evolved over the course of her career and how this strategy has remained consistent.

### **How did ESG shape your investment career?**

My first job out of college was at a small research boutique that analyzed companies based on non-traditional measures of corporate performance, including environmental impact. When I moved to Neuberger Berman as an investment research analyst, I discovered that my questions could raise awareness of what matters to investors, and influence corporate strategy and disclosure. I chuckle today when I recall a phone call that I made years ago to the Investor Relations group of a major public company. When I asked for environmental information I was told, “You must have the wrong number.” Times have changed, and I like to think that we at Neuberger helped move the conversation forward.

### **What does “sustainability” mean to you?**

For me, the term “sustainability” reflects a commitment to long-term value creation. Our team looks to invest in companies that we believe can thrive over time because their business models and business practices reinforce and create lasting economic opportunity. This could take the form of productivity gains shared with employees and customers, corporate reputational strength and innovative approaches to operational efficiency.

We recently changed the name of our strategy from Socially Responsive Investing to Sustainable Equity. The new name, in addition to bringing us in line with current industry vernacular, also better reflects our underlying investment philosophy.

### **Has your investment process changed through the years?**

At its core, fundamental research entails an essential focus on investigative hard work: financial analysis, management interviews, and the study of end-markets and competition. The Sustainable Equity team has always interweaved sustainability into its evaluation of investments as a determinant of quality.

Practically speaking, however, we now have access to a bigger toolbox. Investors' growing awareness of the relevance of environmental, social and governance issues has spurred more corporate disclosure and fueled the availability of new ESG data sets.

We have embraced new sources of information, but we also recognize that each new data point demands a nuanced evaluation to best understand how it fits into our assessment of investment suitability. There are no simple formulas and no shortcuts.

In my experience, investment insights come from layering and integrating the most relevant and material information on top of a solid analytical framework. That's how we can identify areas of structural growth and financial durability in an increasingly resource-constrained world.

### **How do you engage management teams?**

We always question company management teams about their commitment to and execution of sustainability programs: Which policies and incentives are in place to encourage good behavior? To what degree does the board exercise oversight? Company on-site visits help provide a real sense of corporate culture at the heart of an organization.

Although the broad lines of investigation have not changed, our understanding of what is material and what constitutes leadership within an industry is always advancing. It used to be having an environmental policy showed leadership. Now, leaders are innovators, willing to set science-based emissions reduction targets, for example.

### **How would you gauge the progress of ESG objectives globally?**

In the global economy, corporate sustainability and the implementation of ESG are driving tangible benefits, but there is no shortage of future opportunities. For example, early in my career when I started tracking pollution from industrial production, I never thought I would see "closed loop" factories that recycle by-products to produce virtually no external waste. Yet, here we are. Overall global economic output has even become more energy-efficient. If you look over the past several decades, the amount of energy needed to produce \$1,000 of GDP is nearly half of what it used to be, according to the World Bank.

Unfortunately, sometimes progress can take longer than expected. When I joined Neuberger Berman, women represented 15% of board members at *Fortune* 500 companies. The good news is, today, that number has gone up to 22%, according to Heidrick & Struggles.<sup>5</sup> The bad news is that it is meager progress! For the first time in 21 years, our portfolio was only recently able to include an S&P 500 company with both a woman CEO and board Chair—and it is not the same person!

As I learned at the start of my career, sometimes a simple phone call can fuel awareness and initiate change. I am gratified to say that today when I enquire about board diversity, I'm likely to have my call returned by a CEO or a board Chair. Fortunately, the days of "Sorry, wrong number" are behind us.

Ultimately, the success of sustainability endeavors has to be grounded in integrity. When goals are based on shared principles applied consistently, then companies, investors and the global community all stand to gain.

<sup>5</sup>The Heidrick & Struggles Board Monitor 2018: *Appointments of women to boards hit record high.*



## RECENT INNOVATIONS AND INSIGHTS

### MODERN SLAVERY: AN EMERGING ESG RISK

Modern slavery—typically defined as contemporary forms of servitude, forced labor and human trafficking—has increased in prominence in recent years, and jurisdictions like the United Kingdom, Australia and the State of California have introduced legislation aimed at improving disclosure of modern slavery risk by companies.<sup>6</sup>

The challenge for investors is to go beyond putting out broad statements of concern or asking ad hoc questions about the topic to companies, and instead to integrate modern slavery risk mitigation into a robust and repeatable investment process. In this way it represents an example of how investors can integrate emerging ESG risks before they are well understood by the market as a whole.

To start, investors need to distinguish the relevance of modern slavery to a portfolio in terms of its salience and its materiality. In this context, we define salience as a measure of the potential significance of impact on people or the planet, and materiality as a measure of the issue's potential to affect the company's financial performance. An issue is more likely to be financially material if it significantly affects cash

flows, but reputational damage can also be financially material by impacting a company's cost of capital over time.

Incidents of modern slavery will almost always be salient and will sometimes be financially material. One example of financial materiality occurred in 2016, when shipments of Stevia sweetener produced by PureCircle were impounded on entering the U.S. based on information that the production company's history involved forced convict labor. PureCircle's statement in response to the incident caused a 10% drop in the price of the Malaysian company's shares and led to increased public scrutiny of the sourcing practices of buyers, including the Coca-Cola Company.<sup>7</sup>

<sup>6</sup>Legislations referenced are as follows: UK Modern Slavery Act, 2015; NSW Modern Slavery Act, 2018; California Transparency Act, 2010.

<sup>7</sup>ShareAction (2016), Investor Briefing-Forced Labour: What Investors Need to Know.

“Management engagement is a hallmark of our investment process. This puts us in a good position to discuss labor issues and to steer our holdings toward enhanced monitoring and enforcement of anti-slavery practices, as we recently did with a Korean auto manufacturer. In practical terms, our focus on sustainable business models leads to relatively few holdings in the mining, agriculture and labor-intensive manufacturing sectors where forced labor is often found. Additionally, we screen for labor practices of all of our companies integrating multiple third-party data sources.”



– MARCO A. SPINAR, CFA  
Associate Portfolio Manager  
Emerging Markets Equity

There have also been prominent cases of significant impacts on the financial performance of companies due to compensation payments to victims of modern slavery. In 2016, for example, Golden Prize Tuna Canning, a Thai seafood processing company, paid \$1.3M in compensation to migrant workers following allegations of modern slavery.<sup>8</sup> In an even more striking case, in 2015, Signal International, an American marine construction firm, paid \$20M to resolve the claims of Indian workers who were found to have been victims of human trafficking while employed in the company's oil rig repair operations in Mississippi and Texas. In conjunction with the payment, Signal International, 47% of which was owned by a state retirement plan, filed for bankruptcy, putting at risk \$70M of pension fund investments.<sup>9</sup>

Rather than react to modern slavery incidents after the fact, investors need a systematic process to proactively identify companies that are at high risk of involvement in modern slavery. Anticipating this risk helps prioritize engagement efforts and potentially shapes divestment decisions. To assist with this analysis, we have developed a three-part Modern Slavery assessment:

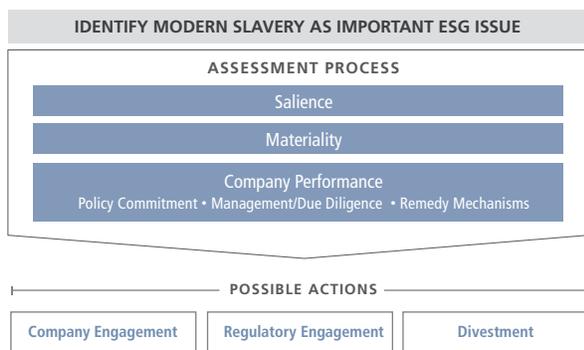
1. Determine salience by considering the likelihood of modern slavery incidents and their potential magnitude in the context of a company's industry and business
2. Evaluate the possible financial materiality of the discovery of modern slavery incidents at the company
3. Review each company's performance at managing modern slavery risks through its own policies, procedures and disclosures

We look at two broad ways in which a company could be connected to modern slavery:

- Production risks, such as incidents within a company's operations or supply chain. Much-publicized examples include those in the electronics, apparel, agriculture or construction industries.
- Facilitation risks, such as when hotels or airlines are used to traffic human beings, or banks are used to facilitate transactions related to such activities.

<sup>8</sup>ShareAction (2016), Investor Briefing-Forced Labour: What Investors Need to Know.

<sup>9</sup>New York Times (2015), "In Bankruptcy Filings, Maritime Company Says It Settled Labor Case."



Our assessment process starts top-down, drawing on diverse sources of global data to determine the likelihood and magnitude of potential modern slavery risk for a given company. Because each data set has its own strengths and weaknesses, and many rely on historical incident patterns, they need to be considered with judgment rather than formulaically.

The list of companies where the risk is likely to be salient is then further prioritized by an assessment of financial materiality. Materiality is higher for companies exposed to legal and regulatory requirements specific to modern slavery, or prone to significant reputational damage or disruption to their operations.

While for many other ESG issues we look to the Sustainability Accounting Standards Board (SASB) as a starting point for assessing materiality, SASB does not yet highlight the issue as material for any broad industry. This is where being active, long term-oriented investors gives us an opportunity to add value. Through bottom-up analysis, we can identify companies that our analysts think may likely be at risk either today or in the future as a result of evolving popular and regulatory expectations.

Following an assessment of salience and financial materiality, companies are evaluated based on how they are managing modern slavery risk. Best practices as laid out by advocacy groups like Know the Chain, CORE, Walk Free Foundation, as well as industry initiatives like the Consumer

Goods Forum, Global Business Initiative to End Human Trafficking and Responsible Sourcing Network are helpful in this assessment.

While most prominent ESG data and analytics providers include some indicators that are relevant to the issue of modern slavery, these are rarely helpful in determining company performance. For example, one ESG data provider simply asks whether a company's code of conduct for suppliers explicitly prohibits forced labor, but does not provide a comprehensive picture of company performance relative to this standard. It is therefore essential for analysts and portfolio managers to directly engage with companies on this topic and to reference proprietary research and publicly available data, including from specialist NGOs and local media.

A recent example is an engagement that our Emerging Markets Equity team undertook with a Korean automotive company which we had assessed as being at elevated risk in terms of salience and materiality. There was evidence of historical incidence of modern slavery within the wider corporate group that suggested the potential for poor management within this specific business. However, during our engagement, the company was able to provide additional information about how it managed the risk in both its direct operations and its supply chain. This feedback increased the investment team's comfort in maintaining the investment.

While portfolios of small- to mid-capitalization companies in emerging markets may be perceived to be at greater risk of exposure to modern slavery, the complex nature of global supply chains and regional regulation impact developed markets and larger capitalization companies, as well. We will continue to support increased legal and regulatory action to reduce the incidence of modern slavery around the world, and take actions to assess the risk of modern slavery to our investment portfolios.

More broadly, modern slavery represents an example of the complex and evolving nature of ESG investing. A poorly understood salient issue can quickly become financially material. It is incumbent upon investors to take proactive steps to manage and mitigate emerging ESG risks.

“Climate change is real and will impact risk and return across industries and asset classes. As an asset manager with a long-term perspective, we believe that it is important to our clients to assess the potential implications of climate change for the companies in which we invest. We will continue to engage with management teams and clients on this important topic.”

– **GEORGE H. WALKER**  
Chairman and Chief Executive Officer



## RECENT INNOVATIONS AND INSIGHTS

### FIRM-WIDE CLIMATE-RELATED CORPORATE STRATEGY

Neuberger Berman is committed to understanding our climate-related risks and opportunities, and to managing those risks which are material to our business. In 2019, we developed a firm-wide climate-related corporate strategy in line with the voluntary disclosure recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

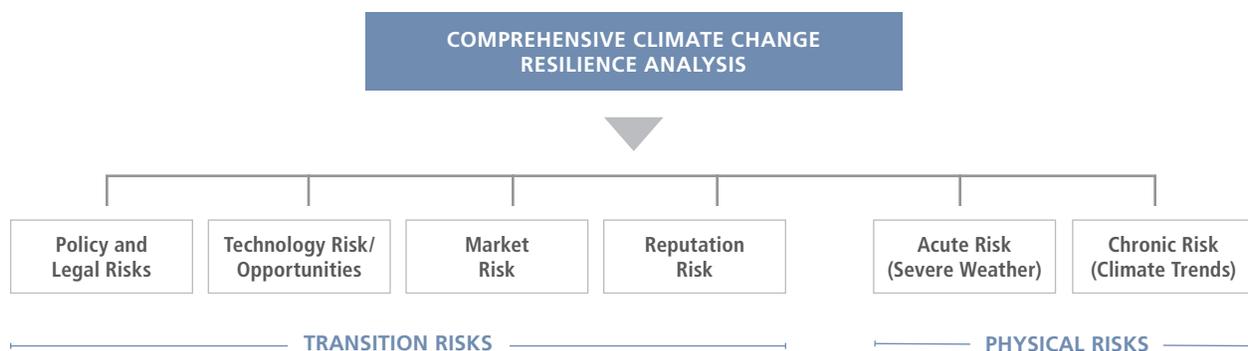
Overseen by Neuberger Berman’s Board of Directors, alongside Chief Officers for Investment (CIOs), Risk (CRO), Operations (COO), Portfolio Managers and the firm’s ESG Investing team, this corporate strategy addresses transition risks due to changes in legal, regulatory and technological frameworks, and physical risks to our locations and operations. The strategy also considers investment opportunities and our own operational resilience.

We believe ESG analysis should be based on materiality and customized by asset class and investment style by systematically modeling climate-related risk and opportunity. This approach enables each portfolio manager to integrate climate-related risks into his/her respective investment process in a manner that is appropriate for investment decision-making. We believe that climate change is a relevant risk and opportunity for all strategies, but the degree and mechanism by which it may be material will vary among asset classes, individual strategies and investment time horizons. Therefore, depending on the holding period, the short-, medium- and long-term risks will be considered accordingly.

We have implemented top-down scenario analysis for modeling transition and physical risk at the company level in line with the recommendations of the TCFD. We run multiple scenarios to estimate the impact of warming average temperatures at levels of

less than 1.5° C and less than 2° C. These scenarios consider both the potential impact of physical risks and transitional risks and opportunities, including regulatory and technological changes. The portfolio analytics output helps us understand the Climate Value-at-Risk for the portfolio. This analysis currently focuses on our listed public equity and corporate issuer fixed income portfolios, but over time we seek to expand scenario analysis to other portfolios. No scenario will be perfectly accurate, but by systematically modeling climate-related risk and opportunity, our portfolio managers are better informed about how their portfolios are positioned. They can then choose how best to apply all the tools of active management, whether that is to engage or ultimately to sell a security when it no longer offers an attractive risk-adjusted potential return.

As a firm, Neuberger Berman has taken a number of steps to reduce our own operational footprint. For example, we have invested in technology to make our data centers more efficient, and have completed several energy-saving initiatives within both our headquarters in New York, and our office spaces globally. Furthermore, we have also committed to offset 100% of our greenhouse gas emissions from global travel annually using a reputable third-party offset provider. The offsets we purchase support carbon-reduction projects and ultimately contribute to mitigating climate change.



Source: Task Force on Climate-related Financial Disclosures.



## RECENT INNOVATIONS AND INSIGHTS

### ESG AND BIG DATA

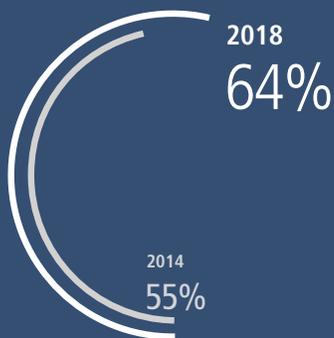
We believe Big Data capabilities will transform our ability to generate ESG insights and augment analysis beyond the commonly used ESG ratings. While still nascent, we see three additional pillars of analysis that should contribute to ESG and Impact efforts over time. First, unstructured ESG-related data like corporate speech, online employee feedback, injury incidents reported to government agencies and regulatory filings can provide ESG insights. Second, scenario analysis around climate risks will require Big Data resources to forecast and measure company physical and transitional risks. Lastly, online residue can confirm or deny company impact and act as a tool for monitoring ongoing outcomes that may not be evident otherwise.

“For longer-term investors, the big data opportunity is about fundamentals, and we see opportunities to shed light on critical company ESG characteristics using alternative data sets to augment more widely used third-party sources.”



– MICHAEL RECCE, PhD  
Chief Data Scientist

Percentage of S&P 500 Companies that Discussed ESG Topics in Earnings Calls



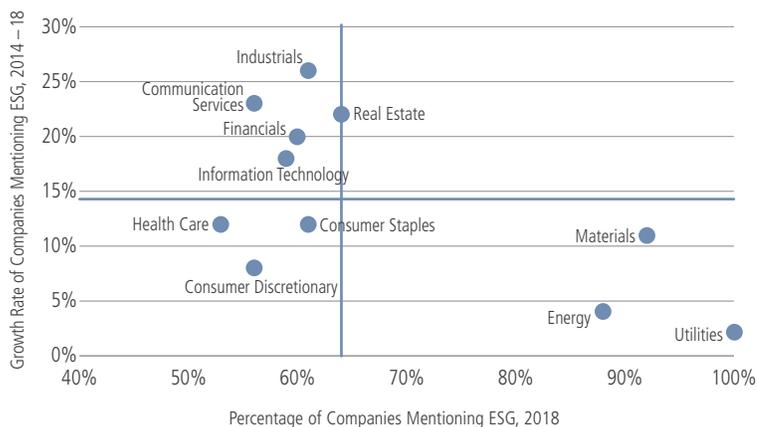
Source: Neuberger Berman, Capital IQ.  
Data as of December 31, 2018.

## Sourcing ESG Insights from Corporate Speech

After analyzing ESG keywords from quarterly earnings call transcripts of the S&P 500 Index, we found that the number of companies mentioning ESG topics in their opening prepared comments has increased from 55% to 64% over the past five years. All sectors saw an increase, but the growth rate was particularly high in sectors such as Industrials, Real Estate, Communication Services and Financials. The data reflect the increasing importance of ESG considerations at the executive level and amongst the analyst community. In some cases an increased focus on ESG topics during the earnings call was a leading indicator of ESG and financial performance.

## S&P 500 COMPANIES MENTIONING ESG ON EARNINGS CALLS

Data as of December 31, 2018



Source: Neuberger Berman, Capital IQ.



**PROF. ROBERT ECCLES**

Visiting Professor of Management Practice at  
the Saïd Business School at Oxford University

## Investing for Returns Can Support Sustainable Development

Leading sustainability academic Robert Eccles is currently a Visiting Professor of Management Practice at the Saïd Business School at Oxford University. He is also the Founding Chairman of the Sustainability Accounting Standards Board (SASB) and was one of the founders of the International Integrated Reporting Council (IIRC). During our client roundtable in Stockholm, we spoke to Bob about his research on the opportunities and challenges faced by investors who simultaneously seek to deliver market-rate financial returns and support sustainable development.

### **Can we talk about how your research helped demonstrate the link between sustainability practices by companies and their financial performance?**

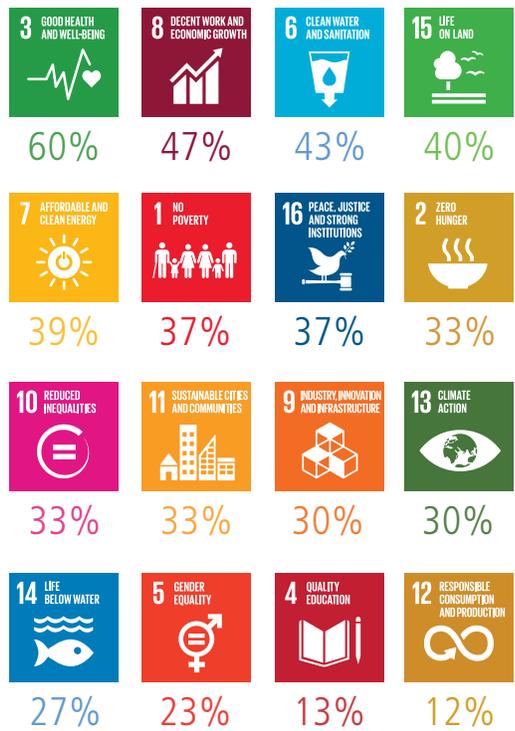
I often go back to a paper that I co-authored with Professors George Serafeim and Ioannis Ioannou, which was published in *Management Science* in 2014<sup>10</sup> because it seemed to help accelerate the discussion on this subject. In the study, we took a matched sample of 180 companies: 90 of which had voluntarily adopted leading environmental and social practices in the early 1990s and 90 of which had not. These practices included things like adopting energy- and water-efficiency goals, or putting in place diversity and equal opportunity policies, or promoting business ethics. The two groups were statistically identical in terms of sector membership, size, operating performance, capital structure and growth opportunities. Yet a value-weighted portfolio of “high sustainability” companies put together in 1992 generated 4.8 percentage points more of average annualized abnormal stock returns than a value-weighted portfolio of “low sustainability” companies over the following 18 years.<sup>10</sup> They also outperformed on measures like return-on-equity and return-on-assets.

<sup>10</sup>Source: Robert Eccles, Ioannis Ioannou, George Serafeim, “The Impact of Corporate Sustainability on Organizational Processes and Performance” (February 2014), *Management Science*, Vol. 60, No. 11, pp.2835-2857. (Last revised 1 Feb 2017).



The United Nations Sustainable Development Goals (SDGs) provide a common set of social and environmental outcomes that governments, non-profits, companies and investors can work together to achieve. The outcomes for people and the planet can be translated into investable solutions, such as improving sustainable growth and employment, improving health outcomes, promoting gender equality, addressing climate change and energy needs, and conserving the natural environment. This common framework across asset classes, combined with other impact dimensions—such as depth, scale, and who is being affected and their level of need—is helpful to align and aggregate impact objectives across a portfolio.

**PERCENTAGE OF SASB MATERIAL ISSUES MAPPED TO EACH SUSTAINABLE DEVELOPMENT GOAL**



Source: Costanza Consolandi and Robert G. Eccles, "Supporting Sustainable Development Goals is Easier than You Might Think", *MIT Sloan Management Review*, February 15, 2018.

**You've been a big proponent of companies and investors focusing on financially material sustainability issues. How has the Sustainability Accounting Standards Board (SASB) helped with this?**

The SASB is an industry group that gets to the heart of identifying the issues that impact financial performance, as well as sustainability. To help build a quantitative framework, the SASB identifies financially material issues, which are the issues that are reasonably likely to impact the financial condition or operating performance of a company, and therefore are most important to investors. Key to the success of the initiative has been the rigorous standards-setting process modelled on the work of the Financial Accounting Standards Board. Now that the Standards are codified for 77 different industries, there is clarity on what companies should consider to voluntarily disclose and the topics that investors should consider engaging them on. It is great to see some companies already choosing to align their disclosure with the SASB standards.

**The other sustainability measurement framework that is front and center at the moment is the UN's Sustainable Development Goals. How do you reconcile this with the SASB?**

SASB has identified the material issues that matter to investors. The SDGs are the things that matter to the world. It stands to reason, therefore, that if you want to optimize for both outcomes you need to map the SASB material issues onto the UN SDGs, to find out where the overlaps are.

Research I conducted with Costanza Consolandi suggests that the biggest overlap for the SASB material issues is with three SDGs: good health and well-being, decent work and economic growth, and responsible consumption and production. By contrast, the education and marine-conservation goals do not appear to be as materially relevant to investors.<sup>11</sup> That may suggest that the corporate sector isn't going to make much of a contribution to those SDGs.

Turn the same lens the other way around and one can see that, in the environmental category, water, wastewater and hazardous materials management hits more SDGs than, say, greenhouse gas emissions; in social capital categories, access and affordability hits more SDGs than data security, fair marketing or human rights; and in the human capital categories, fair labor practices are relevant to more SDGs than, say, employee health and safety or compensation and benefits. Armed with that information, an investor can not only focus on the issues that are most material to its portfolio companies, but focus deeper on those material issues that contribute most to the sustainability goals.

If we take that map of SASB-SDG overlaps and map that, in turn, onto industry categories, it tells us which industry sectors stand to have the most impact on the sustainability goals. What we found is that Healthcare, Consumption, Resource Transformation and Non-Renewable Resources are the four industry sectors that can have the most impact on the SDGs. At a very high level, therefore, investors can conclude that, if the companies in these sectors get things right in a commercially material sense for their investors, it will also have a relatively higher impact on the SDGs than getting things right in other sectors.

**What comes next in the measurement of sustainability and impact?**

Impact data is the next important piece we need to start completing the puzzle. The Impact Management Project (IMP) is facilitating a global network of standard-setting organizations, including the SASB, to coordinate efforts that can accelerate widespread impact measurement and management. The norms established under the Impact Management Project, by a sizable cross-section of the market, provide a shared definition of impact and the type of data that one would therefore expect to find in any good impact framework and impact report.

<sup>11</sup>Consolandi and Robert G. Eccles, "Supporting Sustainable Development Goals is Easier than You Might Think", *MIT Sloan Management Review*, February 15, 2018.

## COLLABORATIONS & ENGAGEMENTS WITH THE INDUSTRY

We recognize that we have a responsibility to improve the functioning of capital markets as a whole by encouraging the broader implementation of ESG investing activities. We believe this can best be achieved by working collaboratively with clients and others in the investment industry, including by engaging with individual companies and whole industries, conducting joint research on ESG topics, and supporting the creation and use of industry-standard ESG disclosures.

While we support many highly impactful groups and initiatives, each year we seek to particularly focus our efforts where we feel our leadership can make a unique and significant difference.



In 2018, Neuberger Berman actively contributed to PRI's work by leading the ESG in Credit Ratings Initiative, which encourages the credit rating agencies to more robustly integrate ESG into their ratings. Specifically, we directly engaged the major credit ratings agencies to provide transparency on how ESG considerations affected the review of each issuer. We also called on them to name issuers who are not providing sufficient disclosure of material ESG topics. We are pleased to see that the major agencies have responded to collaborative efforts, including by hiring additional ESG specialists, providing greater transparency on industry-specific ESG rating methodologies and identifying specific examples of where ESG risks led to ratings changes. Separately, we were recently appointed as a member of PRI's Private Equity Advisory Committee.



Neuberger Berman is a proponent of SASB, which aims to develop and maintain standards for public company ESG disclosures using a rigorous process of evidence-based research and broad, balanced stakeholder participation. As a founding member of the SASB Alliance and the SASB Standards Advisory Group, and as a member of its Investor Advisory Group, Neuberger Berman colleagues from across equities, fixed income and private equity played an active role in encouraging the adoption of the SASB standards by companies in 2018. One way we did this was by publicly laying out our commitment to integrate the SASB guidelines on materiality into our evaluation of the proxy votes that we cast on behalf of clients before the 2018 proxy voting season began. We have been pleased to see the same from other asset managers and some proxy advisory firms.



Neuberger Berman is a member of the Advisory Board of the IMP, which is a global network facilitating an industry standard for impact measurement and management. We utilize the framework in our impact investing strategies; in 2018, we partnered with the IMP to demonstrate the potential application of its framework to public equity investing through a working paper. We also continue to engage in dialogue with the IMP on its forward-looking strategy to continue to drive awareness and application of the framework globally.



Neuberger Berman is one of the founding participants in EPIC, a collaboration of asset owners, asset managers and asset creators that aims to change the way corporate value is measured and disclosed. In 2018, our portfolio managers played a role in identifying new metrics to demonstrate long-term value, especially in the healthcare sector. Through roundtables hosted at our New York headquarters and additional events, we worked with other participants on how best to incorporate the United Nations Sustainable Development Goals (SDGs) into the EPIC framework.



As a long-time member of CECP<sup>12</sup>, Neuberger Berman shares CECP’s vision that corporations and their leaders can and should be a force for good in society. In 2018, we continued to encourage companies to share decision-useful long-term plans with long-term investors through our role on the Advisory Board of CECP’s Strategic Investor Initiative (SII). Equity research analysts participated in SII’s CEO Investor Forums and provided practical and direct feedback to the CEOs on their long-term plans.



Neuberger Berman is a member of the Ceres network of investors and companies, who tackle the world’s biggest sustainability challenges, including climate change, water scarcity and pollution, and human rights abuses. In 2018, we continued our leadership role in the Climate Action 100+ campaign as a lead investor, engaging a systemically important greenhouse gas emitter on taking action to reduce greenhouse gas emissions across the value chain and implementing the recommendations of the Task Force on Climate-related Financial Disclosure.

<sup>12</sup>Neuberger Berman has been a member of the CEO Force for Good (CECP) since 2012.

<sup>13</sup>2018 Report on US Sustainable, Responsible and Impact Investing Trends, US SIF, October 31, 2018.



Neuberger Berman is a signatory of the UN Global Compact and is committed to aligning our operations with universal principles on human rights, labor, environment and anti-corruption, and to taking actions that advance societal goals.



In 2018, Neuberger Berman celebrated 30 years of membership of US SIF by sponsoring the organization’s biennial “Report on US Sustainable, Responsible and Impact Investing Trends.” The latest report found that one in four dollars under professional management in the United States is invested responsibly and that the value of responsibly invested assets had grown 38% since 2016.<sup>13</sup>



Neuberger Berman is an ally of the WBA, which seeks to provide access to information about how companies are contributing to the United Nations SDGs. In 2018, we collaborated with civil society and business networks, as well as multilateral organizations, to assist the WBA in the determination of which SDGs should be the focus of benchmarking first.



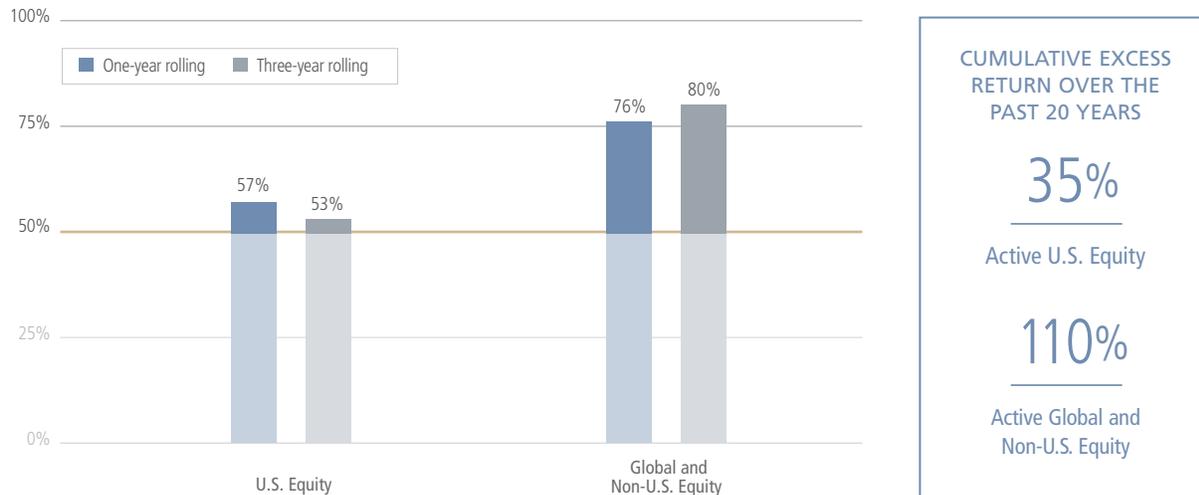
## ACTIVE MANAGEMENT AND ESG

Given the surging interest in ESG investing, investors have faced the dilemma of evaluating active versus passive approaches to ESG integration. Passive ESG strategies—particularly those that seek to implement an ESG tilt using third-party data—can be perceived as a low-cost approach of implementing client sustainability or impact preferences. While we understand the appeal of a potential cost savings, we believe the analytical limitations and performance outcomes of passive ESG highlight the importance of active ESG integration.

We looked at rolling one- and three-year monthly returns over the 20 years from January 1, 1999 to December 31, 2018, for both active and passive socially conscious funds.<sup>14</sup> As shown below, active U.S. ESG equity strategies across capitalizations beat their passive counterparts after fees more than 50% of the time. The success of active management was even more pronounced in global and non-U.S. ESG equity portfolios, with active outperforming passive at least 70% of the time. From both an impact and performance perspective, our research indicates an active approach has historically been superior.

### ACTIVE ESG EQUITY HAS HISTORICALLY BEEN MORE SUCCESSFUL THAN PASSIVE OVER MARKET CYCLES

Percentage of Time in Which Active ESG Equity Strategies Have Beaten Passive Ones after Fees, January 1999 through December 2018



Source: Morningstar. Morningstar category net average annualized return covering 229 (rolling one-year returns) or 205 (rolling three-year returns) time periods (January 1999 through December 2018). Weighted averages are based on the number of socially conscious ETFs, passively managed open-end U.S.-domiciled funds and actively managed open-end U.S.-domiciled funds with one- or three-year track records as of December 31, 2018, including funds that have been liquidated. Performance is based on funds' oldest share class. Investing entails risks, including possible loss of principal. **Past performance is no guarantee of future results.**

<sup>14</sup>Please refer to page 52 for associated disclosure.



## ENGAGEMENT PROXY VOTING STATISTICS

## APPROACH TO ENGAGEMENT AT NEUBERGER BERMAN

At Neuberger Berman, portfolio managers and research analysts cultivate healthy and productive exchanges of ideas with their investment companies. The points of view we present are often amplified by industry-specific expertise, a preference for longer holding periods and a penchant for building lasting relationships with management teams, board members and diverse stakeholders.

“Active managers that hold concentrated positions with long investment horizons have an outsized responsibility to use their formal and informal influence to support sustainable value creation. We have a long tradition of being unafraid to take strong positions in order to bring positive change, whether at individual companies or in the market as a whole.”



— JOSEPH V. AMATO  
President and Chief Investment Officer—Equities

3,052

ESG-SPECIFIC  
ENGAGEMENTS HELD\*

4,894

NUMBER OF MEETINGS VOTED\*

\*In calendar year 2018.

Ultimately, engagement aims to positively influence corporate behaviors to drive long-term, sustainable returns for our clients. In our meetings, we prioritize material ESG issues which we believe can have the largest impact on the preservation and/or enhancement of the value of our clients’ assets. These include the advancement of actionable disclosure and initiatives to mitigate risk.

We seek to engage with companies in a constructive and pragmatic manner, communicating our views and concerns directly to management and the board. When necessary, we have taken more assertive positions, including formal written communication identifying our areas of concern and recommended course of action, the nomination of director candidates, the filing of shareholder proposals and proxy contests.

We see engagement as an extension of good portfolio management, which cannot be outsourced. Conducting our own independent engagements is an important component of fulfilling our fiduciary obligation to clients. In 2018, we conducted 1,324 in-person and in-depth meetings with management teams in our offices for equity investments and another 1,728 for fixed income investments.

As a multi-asset class manager, we engage with issuers across the capital structure using a range of tools and approaches guided by our Governance and Engagement Principles. We also fulfill our fiduciary responsibility through proxy voting. Overseen by our Governance & Proxy Committee, we have publicly and transparently laid out our voting guidelines and procedures.

We work collaboratively with asset management peers and our clients on both individual engagements and on market-wide initiatives. In 2018, we continued our work with SASB and our analysts engaged with companies on disclosing their use of the standards. We participated in the Climate Action 100+ initiative as a lead investor, engaging a systemically important greenhouse gas emitter on taking action to reduce greenhouse gas emissions across the value chain and implementing the recommendations of the Task Force on Climate-related Financial Disclosure.

Last, but not least, we’ve taken a public position in our Proxy Voting Guidelines in explicitly endorsing the Center for Political Accountability’s CPA-Zicklin Index as a tool of evaluation on political lobbying disclosure, continuing our practice of providing issuers with practical views on the tools investors use to judge their management of ESG risks and opportunities.

## Giving Voice to Shareholder Concerns

### Background and Outcome: Continuity in Two-year Push for Better Governance

In 2017, we highlighted our engagement with Nuance Communications, a mid-cap technology company, which we have owned for over five years. A pioneer in speech recognition software, Nuance appeared well-positioned for the proliferation of virtual assistants in professional and consumer applications. However, poor governance and an entrenched CEO and Board of Directors led to a failed strategy, excessive pay and a stalled CEO succession.

When the company was not responsive to our private engagement efforts, we made our concerns public through two public letters. Our efforts were overwhelmingly endorsed by other shareholders, which delivered an unprecedented vote against the Board and governance practices at the annual shareholder meeting.

When the Board again failed to address the rebuke from shareholders, we highlighted our concerns in another public letter. In 2018, this campaign finally led to very significant positive changes:

- The company appointed a new CEO and removed the exiting CEO from the Board of Directors.
- Shareholders elected seven out of nine directors, including a new, highly regarded technology CEO, who is now serving as Independent Chairman.
- Three long-serving directors whose actions were misaligned with shareholders received poor shareholder support and were forced to resign.
- The Board adopted bylaw changes to provide key shareholder rights we advocated for, including majority voting and a right to call a special meeting.
- Consistent with our demands, the Board reconstituted the Compensation committee, replaced its compensation consultant, and instituted a new executive compensation plan with greater alignment between performance and pay.
- The Board unified its separate Governance and Nominating committees into one, providing greater accountability, and re-assigned committee leadership.
- Under the new CEO, the company announced major new strategic initiatives, including selling and spinning off non-core businesses.

We have continued to engage with Nuance's management and board, both in person and on calls, and to provide a long-term investor perspective while recognizing the company's willingness to have open and deliberative discourse with us on these matters. Particularly worth mentioning has been our ability to speak with the new Chairman and independent directors and the effort new board members have made to assure us of new standards of governance and accountability. Given time, we believe the actions from management to simplify the business while creating value for shareholders, paired with focus from the board as evidenced by the changes in shareholder rights and the compensation plan, position the company well for a successful turnaround.



#### ISSUE

Catalyzing Change at the Board Level

#### CATEGORY

Governance

#### ASSET CLASS

Equity

#### STRATEGY

Intrinsic Value

#### SECTOR

Packaged Software



#### ANALYST

Amit Solomon, PhD  
Research Analyst and  
Co-Portfolio Manager

**ISSUE**

Securing Private Data from Theft

**CATEGORY**

Social

**ASSET CLASS**

Fixed Income

**STRATEGY**

Investment Grade Credit

**SECTOR**

Information Technology, Software

**ANALYST**

Zack Schroeder  
Research Analyst, Technology

**ENGAGEMENT CASE STUDY**

## Data Center Operator Focuses on Security

**Background: Cybersecurity Exposure in the Data Center**

A leading global software company planned to raise capital in the investment grade credit market to finance an acquisition. The company's business model focuses on large data centers that store proprietary software and customer data, which we believed exposed the company to a high degree of cybersecurity risk.

Despite an otherwise favorable credit profile, we were concerned about the sufficiency of the company's data security infrastructure. A cybersecurity breach could result in compromised customer data—a key factor used in our ESG scoring methodology for technology companies—with the potential to create meaningful customer loss, litigation expenses and credit quality deterioration.

**Scope and Process: Validating Cyber and Data Security Best Practices**

During the new issue process, we engaged with the issuer on multiple occasions, including through a group investor call and subsequently in a direct manner with senior management. Our engagement with the issuer was focused on evaluating the company's cyber and data security practices as critical factors in our investment decision.

We assessed information regarding its data security investments and cybersecurity-specific staffing levels, among other factors. We concluded that the issuer has implemented business practices sufficient to lower the risk of potential data security breaches. For example, the issuer's EVP of Security reports directly to the Board of Directors, which we believe demonstrates the importance of data security to the company.

**Outcome: Reassurance on Security and Establishment of Ongoing Monitoring**

Our team invested in the new issuance based on the overall strength of their credit profile and our view that management was taking appropriate steps to mitigate the data security risks we identified as part of our ESG scoring process. We intend to maintain ongoing dialogue with the issuer as we monitor the company's data security practices going forward.

## Energy Player Delivers Pipeline of Improvements

### Background: Valuable Infrastructure Grounded in Past Success

Throughout 2018, we intensified our engagement with a large cap energy company we have invested in since 2005. Our original investment in the company reflected our view of its irreplaceable infrastructure assets, strong returns on invested capital (ROIC) and solid execution.

Over the past five years, however, these attractive characteristics began to wane and we asked management to address key governance priorities:

- Successfully navigate a complicated regulatory environment
- Simplify the corporate structure to better streamline execution
- Reduce debt leverage to help lower financing costs
- Improve communication with shareholders and provide clarity on goals

### Scope and Process: Constructive and Knowledgeable Dialogue

We regularly met with both the management team and members of the board, often at our offices. The dialogue centered on a presentation to management that communicated our dissatisfaction as long-term shareholders with the shift from rigorous and conservative financial management to more aggressive guidance and capital deployment. We explained that the complex corporate structure made cash flow analysis challenging, which hurt investor perceptions of asset quality.

These issues distracted investor attention from recent improvements in safety and community relations. Following an oil spill several years ago, the company significantly increased spending on maintenance and safety, instituted more inspections, drills and training programs, and linked employee and executive compensation to safety outcomes. Understanding that stakeholder support affects regulatory approval, the company cultivates comprehensive outreach programs to indigenous groups and local communities. We felt that simplifying the business would make these programs easier to administer and more visible to investors.

### Outcome: Swift Simplification and Improvement in Execution

Following our engagement, the board rapidly laid out a more return-focused strategy, returned to a simpler corporate structure with fewer subsidiaries, and improved credit quality through asset sales. The company also improved its investor communications, with ESG disclosures that tell a story of learning from past missteps and rigorously assessing environmental impact. Stock ownership incentives helped align company leadership with its shareholders.



#### ISSUE

Reversing Complexity and Strategic Drift

#### CATEGORY

Governance

#### ASSET CLASS

Equity

#### STRATEGY

Kantor Group

#### SECTOR

Energy



#### SENIOR RESEARCH ANALYSTS

Ralph A. De Feo, CFA, CPA  
Kantor Group

Ronald B. Silvestri  
Equity Research



## ENGAGEMENT CASE STUDY

# Healthcare Company Relies Too Heavily on Price

### Background: In Context of Pending LBO, Vulnerable Sources of Growth

With intensified focus on reducing healthcare costs for society at large, we expect that companies in the healthcare sector to have difficulty raising prices to the extent they have historically. The growth of revenue and earnings over time will increasingly rely on volume growth and innovative solutions to improve the lives of patients. We undertook due diligence of this healthcare issuer in the context of a leveraged buyout financing syndication process.

### Scope and Process: Evaluating Future Pricing Dynamics and Growth Sustainability

This healthcare issuer had historically grown revenues through significant price increases. We assessed the likelihood that past aggressive pricing activities might negatively impact the future financial outlook through reduced volume growth, heightened regulatory scrutiny or over-reliance on pricing to grow cash flows. Our engagement aimed to determine if the issuer had plans to normalize its pricing practices in the future and if business planning took into account the impact of large price increases on society. Discussions with senior executives, the financial sponsors purchasing the company and regulatory experts helped identify that there was no plan in place to normalize aggressive pricing activities. It seems patients, even those with insurance coverage, were often left with large payment obligations that did not take into account their ability to pay. We concluded that the historical rate of pricing growth was not sustainable going forward due to its negative impact on patients and the cost to insurance providers.

### Outcome: Credit Protection Through Avoidance

We avoided investing in the issuer's Senior Unsecured Notes and exited the Senior Secured Term Loan near par due to the concerns that we identified surrounding aggressive pricing activities. The issuer has subsequently experienced credit deterioration driven by several factors, one of which we believe is negative volume trends, potentially driven by above-market pricing, and increased media and regulatory scrutiny on their sector.

#### ISSUE

Excessive Pricing in Healthcare Services

#### CATEGORY

Social

#### ASSET CLASS

Fixed Income

#### STRATEGY

Non-Investment Grade Credit

#### SECTOR

Healthcare Services



#### ANALYSTS

Brian C. Bunker, CFA  
Henry Reukauf  
Senior Research Analysts

### BOND AND LOAN PRICE OVER TIME



Source: BlackRock Aladdin. Data as of December 31, 2018.

## ENGAGEMENT CASE STUDY

# Addressing Farm Animal Welfare Risks

### Background: U.S. Grocery Giant Embraces Organic and Fresh Foods

A technologically savvy grocery retailer in the U.S. uses industry-leading data analytics and advanced supply chain systems to bring fresh, natural and organic foods to the masses at affordable prices. In 2018, its organic produce business exceeded \$1 billion in sales, making it a key player in the organic food market, which in the U.S. in 2017 reached \$45.2 billion in sales, equivalent to 5.5% of food sold in retail channels.<sup>15</sup> One of the company's brands, which represents products that are free from 101 artificial ingredients, generates over \$2 billion in annual revenues. The company has also become an emerging leader in the transition toward online ordering and grocery delivery, positioning it for potential share gains in a highly fragmented industry.

As the largest grocer in the U.S., the company has exposure to livestock factory farming, which is prone to adverse environmental outcomes tied to climate change, water scarcity and water pollution. In fact, the livestock sector contributes to 14% of global greenhouse gas emissions—more than the transport sector.<sup>16</sup> Related social impacts include the health implications of antibiotic overuse, pandemic contagion risk and reputational damage tied to changing consumer attitudes around animal welfare.

### Scope and Process: Focus on Environmental and Animal Welfare Risks at Factory Farms

We seek to invest in and engage with companies that are proactively addressing supply chain risks and opportunities, as illustrated by our Interaction with Kroger touching on factory farming and animal welfare within the grocery supply chain. Since 2017, we have regularly communicated with the company by email, conference call and in person.

In 2018, Neuberger Berman participated in a collaborative letter-writing campaign through the Farm Animal Investment Risk and Return (FAIRR) initiative. This campaign targeted public disclosure of efforts related to alternative protein offerings, two-degree climate scenario analysis and overall sustainability strategy. Our due diligence included meetings with grocery competitors, suppliers and non-governmental organizations (NGOs).

### Outcome: Enhanced Disclosure and a More Sustainable Supply Chain

FAIRR now recognizes the company for its proactive approach to sustainability. The company identified objectives to address the risks and opportunities in its agricultural supply chain. For example, it put in place a goal to source 100% cage-free eggs by 2025, up from 21% today as suppliers make them available. The company is also engaging its suppliers on reducing antibiotics across all proteins (poultry, beef and pork) and eventually transitioning to low or no antibiotic proteins while also offering alternative plant-based proteins in their stores.

<sup>15</sup>Organic Trade Association (OTA), 2018 Organic Industry Survey conducted 1/25/2018 – 3/26/2018.

<sup>16</sup>Food and Agriculture Organization (FAO), 2016 Global Livestock Environmental Assessment Model (GLEAM).



#### ISSUE

Animal Welfare

#### CATEGORY

Environmental

#### ASSET CLASS

Equity

#### STRATEGY

Sustainable Equity

#### SECTOR

Consumer Staples



#### ANALYSTS

Dina I. Ciarmatori  
Research Analyst

Robert T. Moffat  
Senior Research Analyst



## ENGAGEMENT CASE STUDY

# Aircraft Leaser Improves Board Independence

### Background: Fundamentally Sound; Concerns About Indebtedness of Key Equity Owner

A diversified financial issuer with a focus on global aircraft leasing became a first-time issuer in the high yield and leveraged loan markets during 2017. The issuer benefits from economies of scale, moderate debt levels and positive industry growth trends. Despite these fundamental strengths, media attention surrounding the leveraged balance sheet of a key equity owner heightened investor concerns that value would be extracted to the detriment of creditors due to the company's governance and ownership structure.

### Scope and Process: Focus on Transparency and Covenant Protections

From the time of the company's issuance, our interactions with the issuer were frequent: 15+ points of contact with various members of its leadership team (CEO, CFO, investor relations). We zeroed in on ways to strengthen the existing separation framework from the key equity owner and reinforce the company's independent governance structure. We encouraged management to commit to and maintain a transparent capital allocation policy, reinforced by the addition of structural covenant protections for creditors.

### Outcome: Credit-enhancing Covenant Protections

The issuer voluntarily instituted credit-enhancing covenant protections during February 2018 that included the addition of restricted payment protections. Our engagement with the issuer continued as we believed the company's ownership and governance structure still hindered its ability to achieve its credit rating goals. The issuer subsequently diversified its equity owner base in a credit-enhancing manner and enhanced its board structure so that no material shareholder undertaking could be implemented without the approval of a second large equity owner. The market and rating agencies viewed these actions favorably, which drove spread tightening across the structure. These governance enhancements may ultimately drive a move from high yield ratings to investment grade.

#### ISSUE

Fighting for the Bondholder

#### CATEGORY

Governance

#### ASSET CLASS

Fixed Income

#### STRATEGY

Non-Investment Grade Credit

#### SECTOR

Financials



#### ANALYST

Rachel Young  
Senior Research Analyst and  
Consumer Team Leader

### ISSUER SPREAD TO WORST OVER TIME



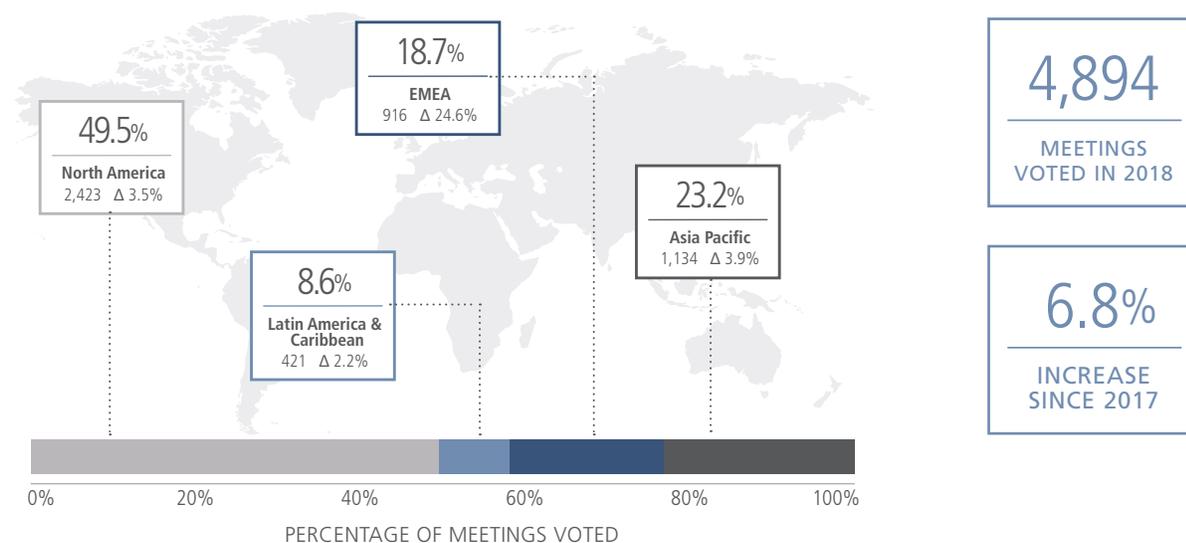
Source: BlackRock Aladdin. Data as of December 31, 2018.

## ENGAGEMENT PROXY VOTING STATISTICS

### MEETINGS VOTED

As in prior years, a steady growth in the number of meetings voted on behalf of our clients has continued. Further diversified developed markets and new strategies in the international space contributed to this growth, which was distributed across all regions. The year 2018 marks the first time that a majority of the meetings voted were not North American.

#### 2018 Meetings Voted by Region and Percentage Increase Since 2017



	2016	2017	2018	$\Delta$ Since 2016
<b>MEETINGS VOTED</b>	<b>4,407</b>	<b>4,583</b>	<b>4,894</b>	<b>11.1%</b>
<b>North America</b>	2,246	2,340	2,423	7.9%
United States	2,045	2,101	2,043	-0.1%
<b>Latin America &amp; Caribbean</b>	385	412	421	9.4%
Brazil	147	163	136	-7.5%
<b>Asia Pacific</b>	1,006	1,091	1,134	12.7%
Japan	176	193	226	28.4%
South Korea	102	140	220	115.7%
<b>EMEA</b>	762	735	916	20.2%
United Kingdom	181	162	173	-4.4%
South Africa	64	70	65	1.6%

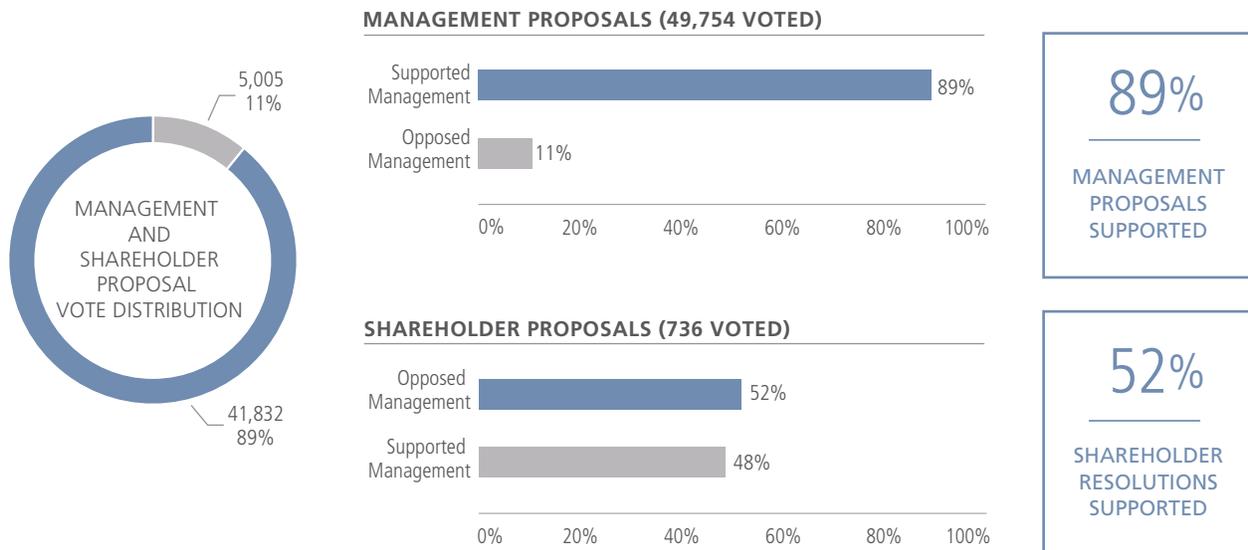
## ENGAGEMENT PROXY VOTING STATISTICS

### VOTING STATISTICS

When considering proxy votes, we acknowledge the information asymmetry between shareholders and insiders, and begin with the assumption that management and the board are carrying out their duties faithfully. That does not mean, however, that we are shy about voicing our concerns through engagement and voting. We find ourselves opposing many proposals that are either unclear in their alignment with shareholder interests or at odds with our judgment of the best course for the company. This is reflected in both the 89% of management proposals that we supported in the last year and the 11% we opposed.<sup>17</sup> Some of the main areas of opposition involved management compensation and share issuance.

In 2018, we significantly increased our support for shareholder resolutions, of which we voted for a majority (52%) for the first time. Our support reflects increasingly narrow and carefully worded proposals that make reasonable requests on issues material to shareholders. In the past, more resolutions tended to represent special interests or social activism. We think the improved quality of shareholder resolutions is being shaped by the SEC submission process and by greater collaboration with investors.

#### Management and Shareholder Proposal Vote Distribution for 2018



Source: Neuberger Berman. Data for the calendar year 2018.

<sup>17</sup>Data for the calendar year 2018.

## ENGAGEMENT PROXY VOTING STATISTICS

### MANAGEMENT PROPOSALS

MANAGEMENT PROPOSALS	SUPPORTED MANAGEMENT		OPOSED MANAGEMENT	
<b>AUDIT-RELATED</b>	6,249	96%	278	4%
Appointment of Auditor	715	97%	24	3%
<b>BOARD-RELATED</b>	24,737	89%	3,202	11%
Election of Directors	21,850	89%	2,593	11%
Ratification of Board Actions	533	86%	86	14%
Related Party Transactions	235	87%	36	13%
<b>CAPITAL MANAGEMENT</b>	2,649	86%	428	14%
Authority to Issue Shares	764	80%	187	20%
Increase in Authorized Common Stock	59	87%	9	13%
<b>CHANGES TO COMPANY STATUTES</b>	1,394	91%	144	9%
Adoption of Majority Voting for the Election of Directors	7	100%	0	0%
Amend Articles, Constitution, Bylaws	342	87%	53	13%
Elimination of Supermajority Requirement	51	100%	0	0%
<b>COMPENSATION</b>	4,590	85%	802	15%
Advisory Vote on Executive Compensation	1,318	86%	221	14%
Stock Option Plan	174	78%	50	22%
<b>MERGERS AND ACQUISITIONS</b>	601	98%	13	2%
Divestiture/Spin-off	72	97%	2	3%
Merger/Acquisition	276	97%	8	3%

Source: Neuberger Berman. Data for the calendar year 2018.

The above table profiles broad categories and select examples of our voting activity on management proposals in 2018. Each case is unique, but the high-level picture reflects our views on issues such as director elections, share issuances and executive remuneration, and how often those proposals met our expectations. The particular positions that led to our opposition on these issues are articulated in our Proxy Voting Guidelines, but are most commonly a reflection of concerns on the clarity of disclosure about an issue (like the structure of an executive compensation plan) or an opinion about the best composition of the board of directors of a company.

## ENGAGEMENT PROXY VOTING STATISTICS

### SHAREHOLDER PROPOSALS

SHAREHOLDER PROPOSALS	SUPPORTED MANAGEMENT		OPPOSED MANAGEMENT	
<b>ENVIRONMENTAL</b>	40	59%	28	41%
Climate Change	0	0%	9	100%
Sustainability Report	15	48%	16	52%
<b>SOCIAL</b>	41	47%	46	53%
Race and/or Gender Pay Equity Report	0	0%	4	100%
Reviewing Political Spending or Lobbying	7	16%	36	84%
<b>GOVERNANCE</b>	140	44%	178	56%
Eliminating Supermajority Provisions	1	11%	8	89%
Improving in Disclosure	1	8%	12	92%
Separation of Chair and CEO	25	74%	9	26%
Right to Act by Written Consent	2	6%	34	94%
Declassification of the Board	0	0%	4	100%
Majority Vote for Election of Directors	0	0%	3	100%

Source: Neuberger Berman. Data for the calendar year 2018.

During 2018, Neuberger Berman supported 287 shareholder proposals. We continued to see a full spectrum of topics and proposals of varying materiality and quality. While our broader positions on shareholder proposals are articulated in our Proxy Voting Guidelines, we find the evaluation requires, among other things, an understanding of the proposal history, materiality, proponent and context within any broader social changes or campaigns. We ultimately support or oppose these proposals based on the merit of their contribution to desired outcomes at the company. Given the precatory nature of these proposals, we expect companies to appropriately craft responses to the shareholder votes. We encourage companies to be aware of shareholder campaigns, appropriately make judgments on the level of engagement that best serves shareholders, and be transparent about the evaluation of the costs of implementation. Though we always cast our votes in ways that we believe best represents our exercise of fiduciary responsibility, we do not think of these situations as companies “winning” or “losing” votes, but rather view them as opportunities for discussions about specific ESG risks and to maintain and improve shareholder engagement programs. As we stated we would in our 2018 Proxy Voting Guidelines, we used the materiality assessment of the SASB in reaching our voting decision in several cases.

## FIRM STAKEHOLDER METRICS

As stewards of our clients' capital, we advocate for the highest standards of conduct and disclosure from our investment companies. As a firm, we continually challenge ourselves to raise our own standards, as well. We are committed to the communities in which we work and live and we value the diversity of cultures, backgrounds and experiences of our employees. In an effort to demonstrate our progress as a responsible corporate citizen across all facets of our work and operations, we will continue to measure and begin to report a variety of relevant metrics associated with our employees, client portfolios, environmental impact and community engagement.

### CLIENT PORTFOLIO METRICS

Teams with access to environmental, social and governance (ESG) research	100%
Assets managed with consistent and demonstrable ESG integration	60%
Shareholder meetings voted <sup>1</sup> (#/%)	4,894/99%
Total number of engagement meetings with corporate management teams	
Number of equity engagements held	1,324
Number of credit engagements held	1,728
Percentage of UCITS and mutual funds with 3+ Globes on Morningstar Sustainability Ratings <sup>2</sup>	50%
Median stock turnover ratio for equity mutual funds <sup>3</sup>	39%
Instances in which our marketing communications were materially noncompliant with applicable regulations or our policies	0

Data as of December 31, 2018 unless otherwise noted.

<sup>1</sup>In limited circumstances we do not submit a vote if trading restrictions or administrative costs outweigh the benefit to the client.

<sup>2</sup>Excludes funds not rated by Morningstar for sustainability.

<sup>3</sup>Excludes funds with fewer than five years of history, closed end funds, fixed income, alternative and specialty funds (12 months through 11/30/2018).

### EMPLOYEE METRICS

#### Global

Total employees, full-time	2,036
Total employees, part-time	44
Senior investment professional retention rate	95%
Employees with access to benefits (full-time)	100%
Percentage of firm owned by employees	100%
Employees with firm ownership <sup>4</sup> (#/%)	~500/~25%
Portfolio Managers whose compensation is tied to multi-year performance	100%
Employees with access to skills-based training	100%
Employees with access to promotion opportunities	100%
Employees with access to educational assistance	100%
Staff diversity (women %)	
Total staff	35%
Senior staff <sup>5</sup>	26%
New hires (% women, three-year average)	39%

#### U.S.

Total U.S. employees	1,578
Employees with 15% 401K firm contribution (no required match or vesting)	99%
Staff diversity (ethnic minority %)	
Total staff	29%
Senior staff <sup>5</sup>	20%
Ethnic minority hiring (% of new hires, 3 year average)	35%

Data as of December 31, 2018 unless otherwise noted.

<sup>4</sup>Our equity ownership program is voluntary and all employees at the SVP level and higher are eligible to participate and acquire equity at their discretion. Currently, women and minority representation among U.S. equity owners is generally consistent with women and minority representation among employees eligible to purchase equity.

<sup>5</sup>VP level and above.

## ENVIRONMENTAL METRICS

### Global

Employees using public transportation	88%
GHG emissions from business travel (Metric tons CO <sub>2e</sub> )	5,500
GHG emissions offset from estimated global travel	100%

### NY Headquarters

Square footage as percentage of total global office space	64%
LEED certification <sup>6</sup>	Silver
Total energy used (gigajoules)	40,430
Electricity used (gigajoules)	13,440
Steam used (gigajoules)	26,991
GHG emissions from energy used (Metric tons CO <sub>2e</sub> )	431
Total water used (million gallons)	8.6
Waste recycled (diversion rate)	47%

<sup>6</sup>LEED (Leadership in Energy and Environmental Design) is an internationally recognized green building certification system, providing third-party verification that a building or community was designed and built using strategies aimed at improving performance across all the metrics that matter most: energy savings, water efficiency, CO<sub>2</sub> emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.



“We seek to foster an environment in which diversity of all types can flourish—a culture that is inclusive, transparent and authentic. This purpose is reflected in how we solicit and act on employee feedback, drive consensus-based decision-making and provide opportunities to our people. Gathering and reporting on our employee and diversity metrics is one step in maintaining accountability and we are excited to build on these each year going forward.”

– **HEATHER P. ZUCKERMAN**  
Chief of Staff

## COMMUNITY METRICS

Corporate charitable giving (foundation, gift matching, disaster relief) \$2,553,479

### Firm-Sponsored Volunteerism

Employee volunteer hours	5,738
Employee volunteer participation (#) (not unique)	1,861
Unique volunteer participation	64%
Firm and regional headquarter locations participating in volunteerism	100%
Number of projects	166

### Beneficiaries

Organizations reached through giving	752
Organizations reached through volunteerism	111
Number of children/youth/students impacted through giving and volunteerism	496,557
Number of employees sitting on charitable boards	407
U.S. Minority Women-owned Business Enterprise (MWBE) suppliers	5%

Source: Neuberger Berman. Data as of December 31, 2018 unless otherwise noted. Please Note: Employees are not legally required to self-identify their race/ethnicity or gender and race/ethnicity data is not tracked in the U.S. Accordingly, the information contained in this chart is provided only as an overview of the estimated race/ethnicity and gender makeup of our current employees.

## NEUBERGER BERMAN'S PRI ASSESSMENT SCORES



Neuberger Berman has been awarded top scores in the most recent UN-backed Principles for Responsible Investment (PRI) assessment report of Environmental, Social and Governance (ESG) integration efforts. In 2018, of the 69 investment managers with \$250 billion or more in assets, only eight received three or more A+ grades that included one for overall strategy and governance and at least one for an equity and one for a fixed income category. In addition, we rated above the peer median on every category, and have made significant improvements in our scores over the past few years. See below for a summary scorecard by asset class and by year.

	2018		2017	
	Neuberger Berman	Peer Median	Neuberger Berman	Peer Median
01. Strategy & Governance	A+	A	A	A
<b>Indirect – Manager Sel., App &amp; Mon</b>				
07. Private Equity	A+	C	B	B
<b>Direct &amp; Active Ownership Modules</b>				
10. Listed Equity – Incorporation	A+	B	A	A
11. Listed Equity – Active Ownership	A	B	B	B
12. Fixed Income – SSA	A+	B	A	B
14. Fixed Income – Corporate Non-Financial	A+	B	B	B

For illustrative and discussion purposes only. PRI grades are based on information reported directly by PRI signatories, of which investment managers totaled 1,120 for 2018. All signatories are eligible to participate and must complete a questionnaire to be included. The underlying information submitted by signatories is not audited by the PRI or any other party acting on its behalf. Signatories report on their responsible investment activities by responding to asset-specific modules in the Reporting Framework. Each module houses a variety of indicators that address specific topics of responsible investment. Signatories' answers are then assessed and results are compiled into an Assessment Report. The Assessment Report includes indicator scores, summarizing the individual scores achieved and comparing them to the median; section scores, grouping similar indicator scores together into categories (e.g. policy, assurance, governance) and comparing them to the median; module scores, aggregating all the indicator scores within a module to assign one of six performance bands (from E to A+). Awards and ratings referenced do not reflect the experiences of any Neuberger Berman client and readers should not view such information as representative of any particular client's experience or assume that they will have a similar investment experience as any previous or existing client. Awards and ratings are not indicative of the past or future performance of any Neuberger Berman product or service. Moreover, the underlying information has not been audited by the PRI or any other party acting on its behalf. While every effort has been made to produce a fair representation of performance, no representations or warranties are made as to the accuracy of the information presented, and no responsibility or liability can be accepted for damage caused by use of or reliance on the information contained within this report. Information about PRI grades is sourced entirely from PRI and Neuberger Berman makes no representations, warranties or opinions based on that information.

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Factors in the Neuberger Berman Municipal Impact Framework are analyzed based on the team's views on whether a particular investment meets the criteria. This material is intended as a broad overview of the portfolio managers' style, philosophy and investment process, and is subject to change without notice. This material is intended as a broad overview of the portfolio manager's current style, philosophy and process. We have provided the above example of the team's investment process for illustrative purposes only. Please note, we have chosen to provide narrative on these particular securities mainly on the basis that they offer a solid framework within which to describe the team's research process. The securities have not been chosen based on performance and do not represent the securities most recently added to the team's portfolios.

A socially conscious fund is defined by Morningstar as one that "selectively invests based on non-economic principles. Such funds may make investments based on such issues as environmental responsibility, human rights, or religious views. A socially conscious fund may take a pro-active stance by selectively investing in, for example, environmentally friendly companies, or firms with good employee relations. This group also includes funds that avoid investing in companies involved in promoting alcohol, tobacco, or gambling, or in the defense industry. (Note that this grouping reflects Morningstar's definition of socially conscious funds, and the extent to which these funds engage in true ESG integration likely varies.)

The **S&P 500 Index** is a float-adjusted market capitalization-weighted index that focuses on the large-cap segment of the U.S. equity market, and includes a significant portion of the total value of the market.

The **Russell 1000 Index** is a float-adjusted market capitalization-weighted index that measures the performance of the large-cap segment of the U.S. equity market. It includes approximately 1,000 of the largest securities in the Russell 3000 Index (which measures the performance of the 3,000 largest U.S. public companies based on total market capitalization). The index is rebalanced annually in June.

The **CPA-Zicklin Index** benchmarks the political disclosure and accountability policies and practices for election-related spending of leading U.S. public companies.

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