ARE BANKS PREPARED FOR CLIMATE CHANGE?

Impact Report 2015
Introduction

Concerns about climate change are rapidly altering the way companies and investors consider risk and opportunity. Investors have thus far limited their analysis of climate-related issues to sectors with a direct connection to fossil fuels and carbon emissions, such as Energy and Utilities. At Boston Common, our investment assessments delve further, recognizing the climate-related risk exposures, and potentially transformational opportunities within all sectors, including Financials.

Banks are tied to every market sector through their lending practices, making them uniquely vulnerable to climate-related risk. Investors should be deeply concerned that climate events, from drought to increased weather variability to a warmer climate overall, will adversely impact banks’ business models. This has the potential to harm not only the future share value of major banks, but also that of several other interconnected sectors of the market. On the positive side, as the global economy’s largest sector by market capitalization, the financial services sector, and banks in particular, have great potential to support society's transition to a low carbon economy.

In our 2014 report, “Financing Climate Change: Carbon Risk in the Banking Sector,” we observed that many banks had not incorporated climate-specific considerations into their risk management practices, nor had they developed long-term climate strategies. We called upon banks to accurately analyze risk levels in their lending models and develop strategic management plans that consider the implications of climate change in credit and risk assessments. And we urged them to drive financial innovation and seek positive, climate-related opportunities.

Since the publication of that report in 2014, we have undertaken a year-long research project and investor engagement initiative, in which we assessed 61 global banks’ current practices and long-term approaches to climate-related risk. The project was supported by 80 institutional investors with almost $500 billion in assets. An important objective of our investor initiative was to advance the dialogue with banks regarding gaps in meaningful information about climate-related risk management, and opportunities for new products in support of sustainable growth.

This report aims to:

- Summarize our survey findings and engagement results
- Highlight leading company practices
- Identify areas for further investor engagement

A bank’s greenhouse gas footprint is significantly larger than that of its operational activities alone. Many banks have long-established environmental policies in place to address their internal operations. Such efforts are beyond the scope of this report. Rather, we focus on the vastly more significant climate risks embedded in their lending, underwriting and general finance activities. To be relevant societal institutions in the future, banks must recalibrate risk management to reflect climate considerations, and integrate climate change risk into their long-term strategic thinking. Banks also have the opportunity to launch innovative leasing and lending products to accelerate the widespread adoption of energy efficiency and renewable power initiatives, ushering in a global transition to a low-carbon economy.

Investors’ collective influence is a powerful tool. As long-term investors we urge banks and the financial industry as a whole to implement strategic climate-risk management plans, seize new market opportunities, and bring board-level oversight to this urgent, game-changing reality.

“The challenges currently posed by climate change pale in significance compared with what might come...In other words, once climate change becomes a defining issue for financial stability, it may already be too late.”

Mark Carney, Governor, Bank of England

1 We analyzed the 50 largest underwriters of carbon-intensive industries (i.e. oil, gas, pipeline, electric power, and coal mining) in tandem with companies held in Boston Common’s portfolios.

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Summary in Numbers

**Top Performing Banks**

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<thead>
<tr>
<th>Rank</th>
<th>Bank</th>
<th>Country</th>
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<tbody>
<tr>
<td>1</td>
<td>Westpac Banking Corporation</td>
<td>Australia</td>
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<tr>
<td>2</td>
<td>National Australia Bank Limited</td>
<td>Australia</td>
</tr>
<tr>
<td>3</td>
<td>Toronto-Dominion (TD) Bank</td>
<td>Canada</td>
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<tr>
<td>4</td>
<td>Banco Bilbao Vizcaya Argentaria (BBVA) SA</td>
<td>Spain</td>
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<tr>
<td>5</td>
<td>Citigroup Inc</td>
<td>U.S.</td>
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<td>6</td>
<td>Bank of China</td>
<td>China</td>
</tr>
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<td>7</td>
<td>UBS AG</td>
<td>Switzerland</td>
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<td>8</td>
<td>PNC Financial</td>
<td>U.S.</td>
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<td>9</td>
<td>DNB ASA</td>
<td>Norway</td>
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<td>10</td>
<td>Itaú Unibanco</td>
<td>Brazil</td>
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80 institutions with a combined $500 billion in assets under management joined our investor coalition

$4.8 trillion estimated funding required for the transition to a low-carbon economy*

61 Global banks engaged

45 Banks responded to our investor questions

“We called upon banks to accurately analyze climate change risk and urged them to drive financial innovation to seek positive, climate-related opportunities.”

*Based on country pledges to the UN as part of COP21 estimate and involves both public and private sectors. [https://www.research.hsbc.com/R/20/ScaK2ccn90Ow](https://www.research.hsbc.com/R/20/ScaK2ccn90Ow)

**The information in this document should not be considered a recommendation to buy or sell any security. It should not be assumed that any securities transactions we discuss were or will prove to be profitable. Past performance does not guarantee future results. All investments involve risk, including the risk of losing principal.”
Overall Bank Performance

1 Australia National Bank, Barclays, Commonwealth Bank of Australia, Credit Suisse, Fifth Third, HSBC, JPMorgan Chase, National Bank of Australia, PNC Financial, SEB, Standard Chartered, and Westpac.
We scored each company on a global, relative (peer-to-peer) basis, asking ten questions under three categories:1

- **Risk Management**

  Climate risk is one of many risks that banks face, and it, like the others, should be integrated into risk management committee deliberations and compliance practices. Investors expect banks to apply stress tests to their portfolios in terms of credit risk and revenue streams. Banks must also be prepared to respond to shifts in consumer behavior caused by changes in local weather or the global climate. This requires reassessment of the pricing of loans that are vulnerable to the vicissitudes of climate change, whether from increased property risk, vulnerability of the business model, or increased incidences of negative regional weather events. Even insured banking products may become vulnerable as that insurance may undervalue potential climate events.

- **Climate Change Strategy**

  Investors need to understand a bank’s overall environmental vision and the strategy for its implementation. Banks must move beyond anecdotes about individual projects and instead provide company-wide assessments of their exposure to and management of climate change risks. Banks need to measure, disclose, and manage the climate change risk profile of their assets, including the carbon footprint of their lending operations. They should establish policy implementation mechanisms, monitoring systems, appropriate leadership structures, and employee education and training programs. To more effectively respond to long-term risks, banker compensation needs to be aligned with long-term goals, not just with short-term benefits. Finally, corporate boards should be mandated to oversee the integration of climate change considerations.

- **Opportunities**

  While climate change creates risk, it also creates opportunity. Banks should seek opportunities to finance, underwrite, and invest in new products and services. Providing investment capital, new services, and expertise are all areas in which new business opportunities abound; there are additional opportunities in the area of climate change mitigation and adaptation. Climate change also presents opportunities to build client loyalty and demonstrate bank leadership.

We scored companies on a scale from 0 to 2 on each question, for a maximum total score of 20 points. We considered companies’ direct written responses, insights gleaned through investor engagement, and additional public disclosures. We assessed information sourced primarily from the period of October 1, 2014 through August 31, 2015.

We encouraged thoughtful responses to our questions by customizing letters that acknowledged each bank’s current practices. We noted companies’ participation in CDP (formerly the Carbon Disclosure Project) and industry initiatives such as the Carbon Principles, Climate Change Declaration, Equator Bank Principles, and the Greenhouse Gas Protocol/United Nations Environment Programme Finance Initiative (UNEP FI) Financial Sector Guidance. We also reflected banks’ existing climate-related policies and programs.

During our active engagement phase, a group of lead institutional investors from around the globe—Australian Ethical Investment, Bâtirènte, Church of Sweden, Cometa, and Ethos—joined Boston Common to engage dozens of banks. SynTao, a Chinese-based corporate social responsibility consultant, supported the investor group’s outreach in China.

**General scoring methodology:**4

- **2**—disclosure indicates leading practice
- **1**—disclosure indicates limited practice
- **0**—disclosed no data/no data relevant to the question

We did not normalize scoring; rather, we awarded companies with the leading practice for each question a score of 2. Our overall, relative bank ranking defines the leaders more clearly by weighting each category based on its relative importance and respective levels of disclosure, as follows:

- **50%**—Risk Management
- **30%**—Climate Change Strategy
- **20%**—Opportunities

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1 See Investor Questions (pg. 8) for details.
2 See Appendix: Scoring Methodology (pg. 17) for details.
### Leading Practices

#### RISK MANAGEMENT

**BBVA** developed an eco-rating tool to evaluate the environmental risk of companies. It assigns each customer a credit risk rating according to factors such as location, emissions, consumption of resources, potential to affect the environment, and applicable legislation.

#### CLIMATE STRATEGY

**DNB’s** Megatrends Initiative aims to model climate risk scenarios, such as sea level increases and extreme weather situations, for the coming 10-20 years.

#### OPPORTUNITIES

**Australia and New Zealand Bank** claims to be Australia’s largest financier of renewable energy, supporting wind, solar, and geothermal. The bank set a target to increase the proportion of lending to gas and renewable power generation in its financing business by 15-20% by 2020, compared to 2011.

#### RISK MANAGEMENT

Several Chinese banks signed the Common Commitment of Chinese Banking on Green Credit (2013), promising to intensify credit management and practice green credit.

#### CLIMATE STRATEGY

Since 2010, **Itaú** has developed and been applying its own methodology for identifying value drivers and ESG externalities that could affect companies’ market value. The bank is also assessing the long-term effects of climate change on high-risk sectors, such as water, power, and forestry.

#### OPPORTUNITIES

**Bank of America** committed in 2007 to dedicate $20 billion globally over 10 years to finance new climate mitigation and adaptation technologies and energy efficiency. The bank met this goal in 2012 and has since committed to increasing its initiative to $125 billion by 2025.

#### RISK MANAGEMENT

**TD Bank** reviews its lending portfolio every year. The bank’s risk review process includes reviews of the borrowers’ policies, processes, and performance. Over 87% of the bank’s lending is currently to low carbon-emitting sectors.

#### CLIMATE STRATEGY

At **UBS**, Chairman Axel Weber heads the board’s Corporate Responsibility Committee, which is responsible for setting and implementing annual objectives regarding the bank’s climate change strategy.

#### OPPORTUNITIES

**Citigroup** has exceeded its $50 billion climate finance target, having directed $54 billion toward the opportunity space. The bank continues to finance energy efficiency and distributed generation projects.

#### CLIMATE STRATEGY

**Westpac** has set a target to increase lending to low-carbon sectors and reports current and historical levels of lending to coal mining and oil and gas. The bank also reports the emissions intensity of its infrastructure and utilities portfolio.

#### OPPORTUNITIES

**SEB** has helped develop the green bonds market. Active in the space since 2008, the bank claims to be the largest underwriter in the market. In 2015, SEB launched a green bonds fund open to both institutional and retail clients.
Regional Profile

**Canada**
Engaged 6 Banks
While Canadian banks disclosed some of the best practices, overall performance varied widely. For example, while TD Bank displays leading management of climate change risks, Royal Bank of Canada and Canadian Imperial Bank of Commerce offer limited disclosure.

**United States**
Engaged 8 Banks
U.S. banks generally scored toward the median. We identified Citigroup as one of the top overall performers, and Goldman Sachs and JPMorgan Chase as above-average performers.

**Brazil**
Engaged 1 Bank
Itaú Unibanco demonstrates leading climate strategy practices.
China
Engaged 8 Banks
Chinese banks appear to be managing climate-related risks relatively well, in large part due to national regulatory requirements.

Japan
Engaged 3 Banks
Banks in Japan lagged in comparison to other peers in the region, despite strong emphasis on operational efficiency and strong environmental management systems.

Europe
Engaged 11 Banks
Of the responding European banks scattered throughout France, Germany, Italy, Norway, Spain, Sweden, Switzerland, and The Netherlands, we did not find strong evidence that banks in the region are comprehensively embedding climate risk at the group level. BBVA, UBS AG, and DNB were among the Top 10 performers.

Australia
Engaged 4 Banks
Banks from extractive-intensive regions, such as Australia, emerged as some of the best-practice leaders, despite facing some of the largest sustainability risks in their lending operations. Westpac was an overall leading performer, and National Australia Bank displayed outstanding practices.

United Kingdom
Engaged 4 Banks
Responding U.K. Banks scored toward the median. HSBC Holdings and Standard Chartered stood out as above-average performers.
Of the three climate-related areas we assessed, namely risk management, business strategy, and capitalizing on opportunity, banks performed best on the last category. A majority of global banks in our survey reported progress in identifying and offering products and services associated with climate change, ranging across areas such as renewable energy, energy efficiency, mitigation, and adaptive response.

Across all regions, banks failed to adequately assess the carbon risk of their lending and underwriting portfolios and to reflect such risk in executive compensation and board oversight procedures. We did not find much evidence that the banks we surveyed conducted comprehensive, climate-related stress tests or adjusted loan pricing in view of climate risk.

Nevertheless, banks worldwide are clearly making efforts to rebalance their portfolios to reduce exposure to energy-intensive sectors, such as coal, in favor of energy efficiency or renewable energy.

We saw some encouraging trends:

- While no surveyed bank disclosed a comprehensive carbon footprint analysis, nearly all communicated support for the development of a framework for such an analysis and acknowledged its validity.

- Several banks that do not currently conduct stress tests to model climate-related events communicated plans to do so in the future.

Overall, however, banks provided limited quantitative disclosure regarding their risk analysis, financing of energy-intensive sectors, and performance aspirations. This makes it difficult for investors to assess the real significance of banks’ “green” financing programs in proportion to their overall financing activities.

The Top 20 performers were:

1. Westpac Banking Corporation  Australia
2. National Australia Bank  Australia
3. Toronto-Dominion (TD) Bank  Canada
4. Banco Bilbao Vizcaya Argentaria (BBVA) SA  Spain
5. Citigroup  U.S.
6. Bank of China  China
7. UBS AG  Switzerland
8. PNC Financial5  U.S.
9. DNB ASA  Norway
10. Itaú Unibanco  Brazil
11. China Merchants Bank  China
12. China Industrial Bank  China
13. Skandinaviska Enskilda Banken  Sweden
14. JPMorgan Chase  U.S.
15. Agricultural Bank of China  China
16. Bank of Communications  China
17. China Construction Bank  China
18. Australia and New Zealand Banking Group  Australia
19. ING Groep NV  Netherlands
20. China CITIC Bank  China

5 Featured case study on PNC Financial [pg. 10]
Investor Questions
We asked each bank to disclose its policies and programs in the following areas:

Risk Management
Integration of climate considerations into risk management procedures. Specifically, does the bank...

(1) Conduct regular stress tests that model the effects of adverse climate events?
(2) Rebalance portfolios in view of potential climate-related risks?
(3) Consider the climate-related legal and reputational risks of investments?
(4) Reassess loan pricing with an eye to climate-related changes in borrower behavior, including potential shifts in demand for high-carbon fuels?

Climate Strategy
Implementation of long-term climate change strategy. Specifically, does the bank...

(1) Measure and disclose its total carbon footprint including that associated with its lending and underwriting portfolio?
(2) Align banker compensation with long-term climate goals?
(3) Incorporate climate considerations into board oversight mandates?

Opportunities
Identification of opportunities associated with climate change. Specifically, does the bank offer, or is it considering introducing, products and/or services that...

(1) Increase energy efficiency?
(2) Produce renewable energy?
(3) Promote climate change adaptation or mitigation?
We saw the most robust policies and practices under the Risk Management category. For example, Citigroup periodically conducts stress tests related to climate risk, including in its loans to the power sector. There is a lack of disclosure, however, around the implementation of stress test results into banks’ operations. Twenty banks disclosed evidence of strategically rebalancing their portfolios in view of climate-related risks and opportunities. Regulatory mandates have encouraged reporting from the Chinese banks, which we explore later in this report.

Several companies explicitly stated that they consider environment-related legal and/or reputational risks of their investments. Deutsche Bank, for example, evaluates all investment transactions against its Reputational Risk Analysis Desk Guide. Other banks stated more generally that they consider environmental and climate-related risks, particularly as they relate to high-risk sectors of investment, such as coal, but do not have reputational risk strategies or committees. Barclays released a public position on mountain top removal (MTR) in 2015, announcing it will impose a policy on lending financial support “by exception only” to companies that are significant producers of MTR-sourced coal. Only one bank—Bank of Nova Scotia—clearly disclosed that it integrates climate-related risks into loan pricing, while Intesa Sanpaolo and PNC Financial offer favorable pricing for products linked with environmental opportunities. Several other banks integrate environmental considerations into overall credit risk assessment, and therefore may indirectly adjust pricing based on environmental risk. No bank, however, referenced adjusting pricing based on shifting borrower behavior.

Leaders/Above Average = 26%
Average/Below Average = 74%
Impact Case Study

PNC Financial

**Shareholder Resolutions**
Filed first of two shareholder resolutions with PNC Financial on climate-risk disclosure.

**2011**

**Direct Dialogue**
As the result of our second-year shareholder resolution filing, PNC invited Boston Common and others to meet with CEO Bill Demchek and senior executives. The objective: to advise the company on strategies to embed environmental and social risk across the business model. PNC committed to: board level oversight, enhanced high-risk sector policies, client due diligence, and improved disclosure.

**2014**

**Investor Coalition**

**Climate-specific Risk Management**
PNC conducted its first environmental stress test; the company tested its coal and utility portfolios in relation to climate-related regulatory risk.

**2015**

**Influencing Change**
PNC released its 2015 Corporate Responsibility Report, which commits to eliminating the extension of credit to coal producers greater than 25% production from mountaintop removal (MTR) mining. PNC’s MTR financing is now less than one-quarter of 1% of PNC’s financing and continues to decline. The company’s systematic changes included enhanced environmental due diligence to carbon-intensive sectors, hiring a Social and Environmental Risk Officer, and integrating environmental risk analysis.

**2016**

**Future Collaboration**
Boston Common and the investor team will continue to advance the dialogue to support PNC’s climate-related efforts.
Key Findings

Climate Strategy

Several banks are considering carbon footprint analysis in some way. Many participate in industry initiatives such as The Portfolio Carbon Initiative (formerly the UNEP-FI and World Resource Institute Greenhouse Gas Protocols), and JPMorgan Chase has taken a leadership role. However, no bank has yet to complete and disclose a comprehensive carbon footprint analysis. Several banks have established board-level oversight of environmental policies and performance, but only a handful specify climate as a board-level responsibility. Leaders, such as HSBC and UBS, have developed robust oversight programs. HSBC’s chairman is ultimately responsible for the bank’s climate strategy, and the bank has established a board sub-committee, the Conduct and Values Committee, responsible for regularly reviewing climate matters.

Few banks integrate performance with regard to their climate strategies as a component of executive compensation. However, several others consider some aspect of environmental performance, without specific attention to climate, in their executive evaluation and compensation processes. Only one company, Australia and New Zealand Bank, specifically highlighted direct consideration of climate goals in the compensation process.

Opportunities

Almost half of banks surveyed disclosed their financing of and lending to energy efficiency and renewable energy projects, including some strategic involvement. However, most banks did not disclose how they define “clean tech” or “clean energy,” nor do they set quantitative targets for increased investment or financing of energy efficiency or renewable energy projects. ING Group and DNB are notable exceptions, which reported that they direct 39% and 36% of their energy portfolios, respectively, toward renewable energy. Wells Fargo disclosed that renewable energy projects owned in whole or in part by the bank produced 11% of U.S. solar photovoltaic and wind energy generation in 2013.

Given limited corporate disclosure, investors are unable to determine to what degree a bank is investing in energy solutions compared to energy-intensive industries. Few banks we assessed had robust programs to promote climate change mitigation and adaptation, though several disclosed some evidence of products and/or services targeting climate change adaptation.

Leaders/Above Average = 9%
Average/Below Average = 91%

Leaders/Above Average = 69%
Average/Below Average = 31%
Amidst volatile Australian climate policy and debate, a diverse range of investors and civil society groups have been paying close attention to the actions of Australia and New Zealand Banking Group, Commonwealth Bank, National Australia Bank (NAB), and Westpac, the four major Australian banks with big retail brands to match their big fossil fuel lending exposures.

Environmental groups have been pressuring the banks to specifically rule out funding of development of the massive Galilee coal basin, located inland from the Great Barrier Reef, because of reef and climate impacts. Shareholder activist and climate action groups collaborated to secure support to lodge shareholder resolutions with three of the four banks seeking disclosure of their financed emissions. Key institutional investors met with bank representatives to discuss disclosure practices and standards, leading to a joint request from the Investor Group on Climate Change, Responsible Investment Association of Australasia and others for the four banks to say more about their management of climate risks and opportunities, including relevant quantitative disclosure.

Boston Common’s Financing Climate Change Bank Initiative was an important addition to all this local activity, signaling to the banks the strong international interest in their governance of climate risk and opportunity.

The Australian banks responded to this diverse activity with significant new disclosure, including more detailed reporting of levels of lending to specific fossil fuel sectors and the beginning of some financed emissions disclosure for electricity generation and utilities lending. Some banks also committed to additional disclosure in the future, and all provided more information (still at a relatively high level) about the climate risk management policies and processes used in their lending decisions.

Assessing and comparing some of the new information disclosed is challenging because of the lack of historical context and because it was prepared using different calculation methodologies. However, there are encouraging signs that the major banks may collaborate to develop a uniform approach to disclosure of financed emissions, which might feed into the WRI and UNEP-FI Portfolio Carbon Initiative.

And the Galilee coal basin? In recent months there have been signals from some Australian banks that they will not fund development of the basin or related coal port infrastructure, most directly from NAB. There is increasing prospect that this project might not proceed in light of funding constraints, environmental challenges, and other questions about its long term viability. The decision by a number of international banks to rule out their participation, including banks targeted by the Boston Common initiative, has no doubt played a role in this.
Next Steps

Areas for Further Engagement

In “Financing Climate Change: Carbon Risk in the Banking Sector,” Boston Common called upon banks to develop strategic climate management plans, seize new market opportunities, and improve data collection and reporting. We were encouraged by the progress in banks’ practices and their willingness to hold in-depth discussions over the course of this project.

At the public policy level, Bank of America, Citigroup, Goldman Sachs, JPMorgan, Morgan Stanley, and Wells Fargo issued a public statement calling for a “strong global climate agreement” in Paris. The statement advocates that government action is essential to help facilitate the estimated $90 trillion necessary in new infrastructure investments over the next 15 years to reduce carbon emissions. At the sector level, the Portfolio Carbon Initiative is set to release a comparative analysis of climate performance metrics for the banking sector. In the U.S., Bank of America and Goldman Sachs joined 13 of the largest companies to sign the White House American Business Act on Climate pledge. The Act voices public support for a strong outcome in the U.N. Paris climate negotiations and puts substantial investments—$140 billion pledged to-date—into new, low-carbon investments.

Despite such progress, there remains a huge divide between banks’ current practices and the financial sector’s potential to support the transition to a low-carbon future.

We therefore, urge investors to further engage banks to:

- Establish long-term, comprehensive climate strategies with board-level oversight and explicit links to executive compensation.

- Measure and disclose the total carbon footprint of financing activities, with a special focus on carbon-intensive sectors and targets to reduce overall exposure.

- Disclose quantitative figures and targets supporting energy efficiency and renewable energy financing as a proportion of overall lending and investments.

- Conduct regular environmental stress tests and disclose the integration of findings into decision-making.

These recommendations will form the basis for further engagement with banks in the coming year by Boston Common Asset Management and the investor coalition.
China

Chinese banks demonstrate significant efforts to address environmental risks in lending; however, few Chinese banks have adopted environmental and social standards on a voluntary basis. In 2007, the Chinese government launched its first “real green” finance policy. The Green Credit Policy, enacted by the Ministry of Environmental Protection (MEP) and by financial regulatory departments, calls on the financial sector to provide incentives and/or restrictions to borrowers regarding pollution and energy use.

According to the Policy, Chinese banks must consider the state government’s industry policies and borrowers’ environmental practices when granting a loan. Banks should avoid lending money to projects “that cause heavy pollution,” and conversely, should direct lending to projects featuring energy conservation and emissions reductions. In 2012, the MEP and financial regulatory departments issued the Green Credit Guideline to clarify and broaden the application of the Policy and to provide implementation guidance. The Guideline requires banks’ boards of directors to consider green credit principles in their decision-making and requires banks to have specific persons or departments in charge of green credit issues.  

Since 2008, Chinese environmental organizations have been monitoring banks’ implementation of the Green Credit Policy. They annually assess banks’ green credit performance and disclose any violations of the Policy.  

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Europe

At the end of 2014, the Bank of England announced that it will start including climate change in its regular assessments to identify and reduce systemic financial risks. The Swedish government presented a similar move six months later. The Institutional Investor Group on Climate Change (IIGCC), providing recommendations on climate policy and informing investment practices, noticed a clear shift in questions coming from the investor community during the past year; it is no longer about if but rather about how to design a climate strategy for the future. We recognized this shift in the series of discussions with European banks (Barclays, DNB, Nordea, SEB, and Standard Chartered).

- Banks are currently adopting or revising policies to better manage climate risks and opportunities. They are rolling out expanded training efforts to credit and asset management teams. The scope of this work varies, and we have recommended banks to look broadly at sectors (not only energy) and at both mitigation and adaptation.

- Some banks describe how they do scenario analyses on certain projects before approving credit, but we have not yet found examples of banks stress-testing total portfolios and acting on the results. However, the Norwegian bank DNB has initiated a cross-functional project, led by the Chief Risk Officer and the Head of Sustainability, to find ways to address megatrends such as climate change. In 2015, they will look into different scenarios to design strategies for both lending and asset management.

- Emission targets still focus on scope 1 and 2 emissions. Several banks are awaiting the measuring and reporting standard for financed emissions from UNEP-FI, expected to be made public in early 2016.

- Banks are exploring opportunities to launch new products to meet an increased demand for climate-friendly investments. One example is Swedish SEB, which pioneered green bonds back in 2008. The company decided to launch a green bonds fund in 2015, open to both institutional and retail clients.

- Some companies have started disclosing the percentage of the energy credit portfolio that is directed towards clean tech/renewables; some are looking into active strategies to increase investments and lending to these types of companies.

The challenge remains that we need to move from looking at climate change for only some high-risk clients/projects (or only some sustainability funds) to design more complete, group-wide climate strategies. This will require cross-functional activity and new methods. We also recommended in our discussions that companies include parameters related to climate change into remuneration and other incentive systems to spur activity and change.

10 http://www.ft.com/cms/s/0/189f21d8-7737-11e4-a082-00144feabdc0.html#axzz33cTqPfoBF
Appendix
## Scoring Methodology

| RISK MANAGEMENT | | | | |
|-----------------|-----------------|-----------------|-----------------|
| **Conduct regular stress tests that model the effects of adverse climate events** | **Rebalance portfolios in view of potential risks from climate change** | **Consider the legal and reputational risks of investments from climate change** | **Reassess loan pricing with an eye to changes in borrower behavior, including potential shifts in demand for high-carbon fuels** |
| 0 = No data / no relevant data | 0 = No data / no relevant data | 0 = No data / no relevant data | 0 = No data / no relevant data |
| 1 = Model adverse events broadly, without specific reference to climate, or communicate commitment to conducting climate-specific, portfolio-level stress tests in the future | 1 = Make some indication of incorporating environmental risks into lending/assets/underwriting portfolios | 1 = Disclose some evidence of considering environmental risks in risk management procedures | 1 = Disclose some evidence of differentiated pricing or credit limit monitoring in relation to climate |
| 2 = Conduct climate-specific, portfolio-level stress tests, at least for select portfolios | 2 = Disclose evidence of robust, widely applicable policies to rebalance portfolios | 2 = Explicitly reference embedding climate-related legal and reputational risks into risk management procedures | 2 = Disclose evidence of strategically integrating climate-related risks into loan pricing |

| CLIMATE STRATEGY | | | |
|------------------|-----------------|-----------------|
| **Measure and disclose total carbon footprint of lending and underwriting activities** | **Align banker compensation with long-term climate goals** | **Incorporate climate considerations into board oversight mandates** |
| 0 = No data / no relevant data | 0 = No data / no relevant data | 0 = No data / no relevant data |
| 1 = Measure carbon emissions associated with portion of lending or underwriting portfolio, or participate in industry initiatives related to the development of Scope 3 emissions measurement | 1 = Integrate sustainability and/or environmental considerations in review and/or compensation processes | 1 = Have in place a board-level sustainability policy, although that policy makes no specific reference to climate |
| 2 = Comprehensively measure and disclose financed emissions, and participate in related industry initiatives | 2 = Include performance with regard to climate goals as a component of compensation | 2 = Explicitly mention board responsibility for climate-related issues |

| OPPORTUNITIES | | | |
|-----------------|-----------------|-----------------|
| **Finance energy efficiency** | **Finance renewable energy production** | **Facilitate financing of adaptive responses to climate change** |
| 0 = No data / no relevant data | 0 = No data / no relevant data | 0 = No data / no relevant data |
| 1 = Disclose some evidence of product link to energy efficiency gains | 1 = Disclose some evidence of product link to renewable energy | 1 = Disclose some evidence of offering financial products or services that support climate change mitigation and adaptation |
| 2 = Display strategic focus on developing products specifically tailored to improve energy efficiency, often demonstrated through quantitative disclosure | 2 = Display strategic focus on developing products linked to renewable energy production, often demonstrated through quantitative disclosure | 2 = Display strategic involvement in the development of innovative financial products and/or services to support climate change mitigation and adaptation, often demonstrated through quantitative targets |
Investor Signatories

Boston Common Asset Management*
444S Foundation
Andover Newton Theological School
Arcus Foundation
Arjuna Capital
Arnow Family Foundation, David & Madeleine Arnow
Arnow Family Foundation, Joshua & Elyse Arnow
Australian Ethical Investment*
Bâtriente**‡
Benjamin & Leslie Arnow
Calvert Investments
Candriam Investors Group
CCLA
Central Finance Board of the Methodist Church
CHE Trinity Health Inc.
Christian Super
Christopher Reynolds Foundation
Church of Sweden*
Clean Yield Asset Management
Cometa Pension Funds*
Congregation of St. Joseph
Deaconess Community, ELCA/ELCIC
Dignity Health
Dominican Sisters of Springfield, IL
Ecumenical Council for Corporate Responsibility (ECCR)
Epworth Investment Management Ltd
Ethos Foundation*
Etica SGR Spa
Everence/Praxis Mutual Funds
Felician Sisters of North America Leadership Team
First Affirmative Financial Network*
Franciscan Friars (OFM), St John the Baptist Province, JPIC
Friends Fiduciary Corporation
Green Century Capital Management, Inc.
Interfaith Center on Corporate Responsibility (ICCR)
Joel Arnow
Local Government Super
Marianist Province of the USA, Provincial Council and JPIC
Maryknoll Fathers and Brothers
Maryknoll Sisters
Mennonite Education Agency
Merck Family Fund
Mercy Health
Mercy Investment Services
Miller/Howard Investments, Inc.
Mirova†
Missionary Oblates & OIP Trust
MN
Nattxis Asset Management†
Nordea Asset Management
North American Province of the Cenacle Sisters
Northwest Coalition for Responsible Investment*
Northwest Women Religious Investment Trust
Pax World Management LLC
Portfolio Advisory Board of the Adrian Dominican Sisters
Principled Investing LLC
Progressive Asset Management
Province of St. Joseph of the Capuchin Order (Milwaukee, WI)
Sinsinawa Dominicans
Sisters of St. Dominic of Caldwell, NJ
Sisters of St. Francis of Philadelphia*
Sisters of St. Joseph of Boston
Sisters of St. Ursula - American Region
Sisters of the Presentation of the BVM of Aberdeen SD
Solaris Investment Management Ltd
The Congregation of the Passion
The Paulist Center Endowment, Boston
The Pension Boards - UCC, Inc.
The Sierra Club Foundation
The Sisters of the Humility of Mary
Trillium Asset Management
Tri-State Coalition for Responsible Investment*
Unitarian Universalist Association
United Church Funds
Veris Wealth Partners
VIP Association of Institutional Investors
Walden Asset Management
Wisconsin/Iowa/Minnesota Coalition for Responsible Investment
Zevin Asset Management

* Lead Signatory † Not a signatory to the French bank leters ‡ Not a signatory to the TD Bank leters
## Banks Engaged

### Research
Boston Common published “Financing Climate Change: Carbon Risk in the Banking Sector.”

### Engagement
Active engagement with 22 banks by lead investors.

### Results

<table>
<thead>
<tr>
<th>Bank</th>
<th>Country</th>
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<th>Country</th>
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<tr>
<td>Agricultural Bank of China</td>
<td>China</td>
<td>Industrial and Commercial Bank of China</td>
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<td>Australia and New Zealand Banking Group</td>
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<td>ING Groep N.V</td>
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We wish to thank each of the investors and organizations who helped support this research and engagement initiative and would like to give special acknowledgement to Sara Nordbrand (Church of Sweden), Stuart Palmer (Australian Ethical Investment), Yola Biedermann and Vincent Kaufman (Ethos Foundation), Maurizio Agazzi (Cometa Pension Funds), and François Meloche (Bâtirente) who contributed significant and steadfast support throughout the project. We also wish to acknowledge the research contribution by SynTao and Vigeo, resources of CDP and Ceres, as well as Meredith Benton. Finally, we thank the Boston Common staff who contributed to this project: Lauren Compere, Corné Biemens, Kristin Jenko, and Leah Turino.