

MSCI

A Clear View of
Risk and Return



New Measures of Risk and Return:

Why Investors Are Integrating Environmental,
Social and Governance (ESG) Factors Into the
Investment Process

February 2011

New Measures of Risk and Return

- Traditional tools do not always capture critical drivers of change
- Environmental and Social Factors have been dismissed as merely ethically driven choices.
- E&S factors are actually driving the next wave of critical change

Why Integrate ESG Factors?

Client Expectations

Asset owners becoming PRI signatories

Pressure on asset managers to integrate ESG into the investment process

Asset owners hiring consultants or developing in-house expertise to evaluate level of ESG integration of their asset managers

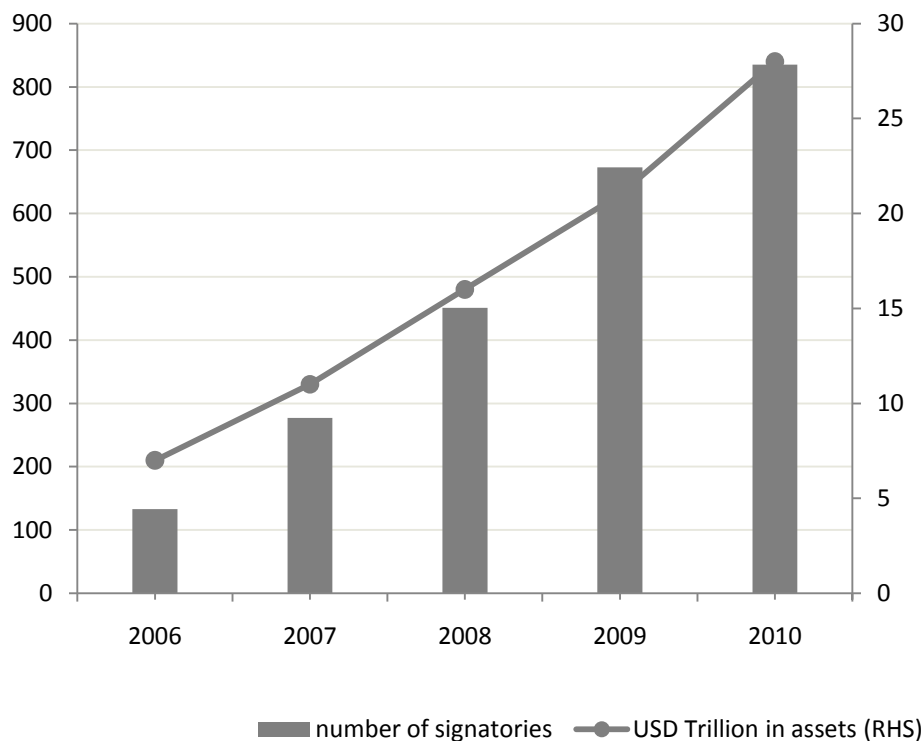
Requirements ESG reporting of asset managers

Asset Owners creating ESG-specific mandates

ESG criteria increasingly included in Asset Owner RFPs

Why Integrate ESG Factors?

- UNPRI now has over 800 signatories representing over \$25 trillion in AUM



Note: UNPRI Signatories as of May 2010

ESG Integration driven by three core catalysts

1. Major asset owners are increasingly scrutinizing the ESG performance of external managers.
2. With growing regularity ESG factors represent mispriced risks and opportunities.
3. In response, many of the largest asset managers are integrating ESG factors into the investment process

Why Integrate ESG Factors?

Competitive Pressure

395 Asset Managers are now PRI signatories

Asset managers providing ESG risk assessment tools to all analysts and portfolio managers

Asset managers using ESG to differentiate themselves and win mandates

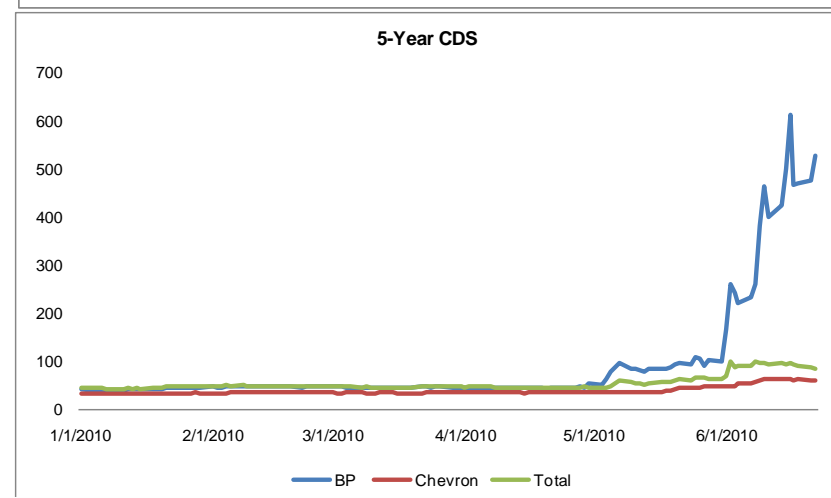
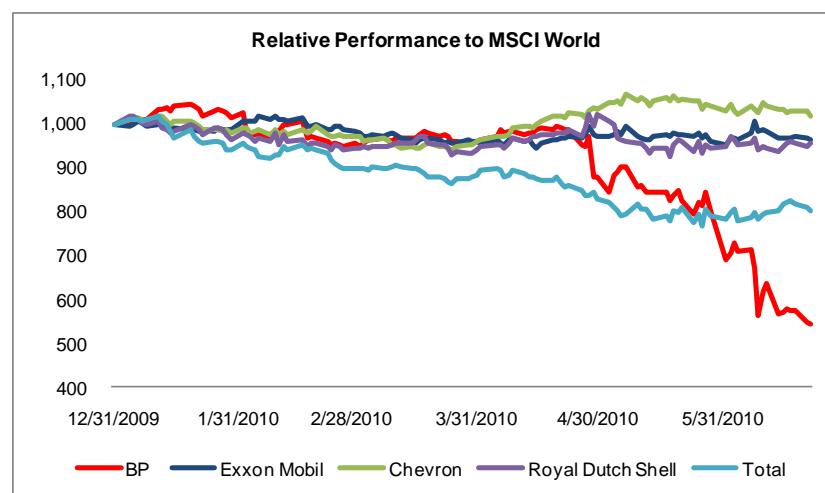
Why Integrate ESG Factors?

Why Integrate ESG signals?

Example of Mispriced ESG Risk – the BP Oil Spill

Impact of BP oil spill is internalized in a global diversified portfolio

- MSCI ESG Research ranked BP in the bottom quartile of the Oil & Gas sector for Health and Safety in 2009
- BP was removed from MSCI ESG Indices in 2008-2009 because of its poor safety practices
- Since the oil spill in the Gulf of Mexico, which is one of the largest oil spills in history, shares of BP have dropped 51% and its CDS increased by eleven times. The oil spill also impacted the performance of other oil companies.
- The BP incident could trigger further regulation changes that could permanently alter the landscape for the oil industry.



Why Integrate ESG signals?

Mispriced Risk and Opportunity

ESG risks are often quiet storms that reconfigure the financial landscape when they make landfall.

BP; Massey Energy; FoxConn; Countrywide

- Shocks preceded by soft signals.
- ESG has image problem - - where things are material we need have a good financial measure
- Our approach – try to separate noise from a clear signal - Examples:
 - Water stress vs. Water use -- improper measurement
 - REACH – how and why it matters
 - Operational H&S in mining and O&G

Themes and Key Issues

■ Energy Prices

- Manufacturing costs
- Energy management
- Supply chain / distribution costs

■ Environmental Regulation

■ Labour Issues

- Rising EM wages
- Decreasing benefits from low EM wages due to supplychain costs (energy)

■ Climate Change

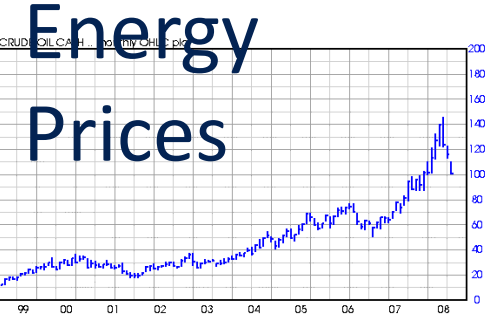
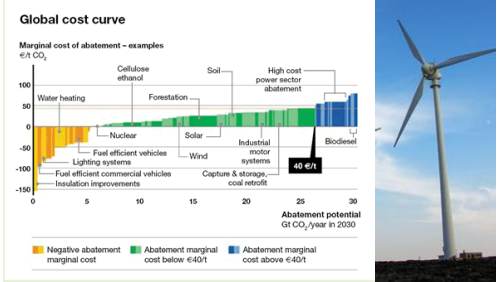
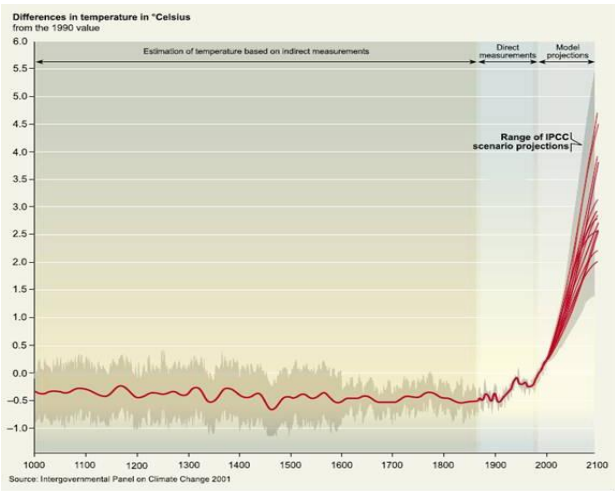
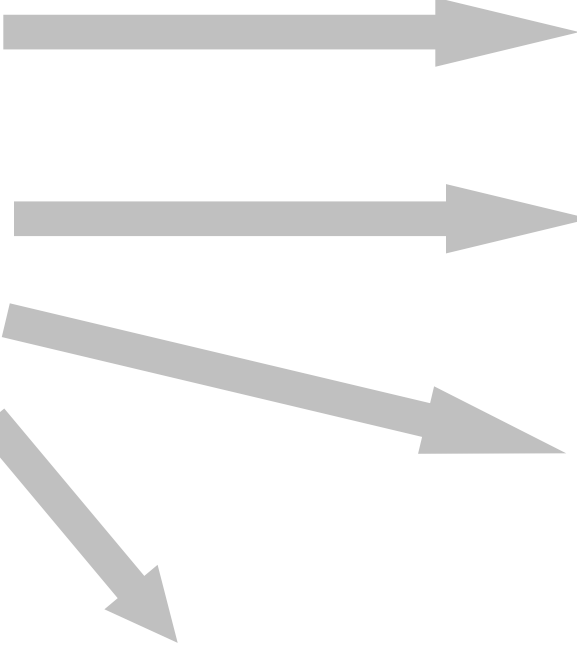
- Chaotic Weather
- Carbon Price

■ Contribution to Systemic Risk (Finance)

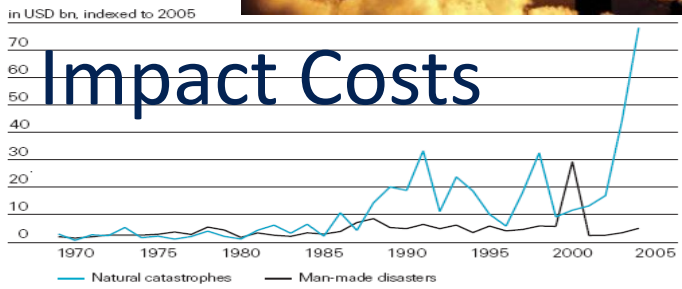
"The oil price will not go back to \$60 [a barrel]," as it did in 2008, said. "As a normal perspective, you have to accept the oil price will be near to \$90 a barrel or some more." – European Union Energy Minister, Guenther Oettinger

Example: Economic Feedbacks of Climate Change

Innovation Opportunities

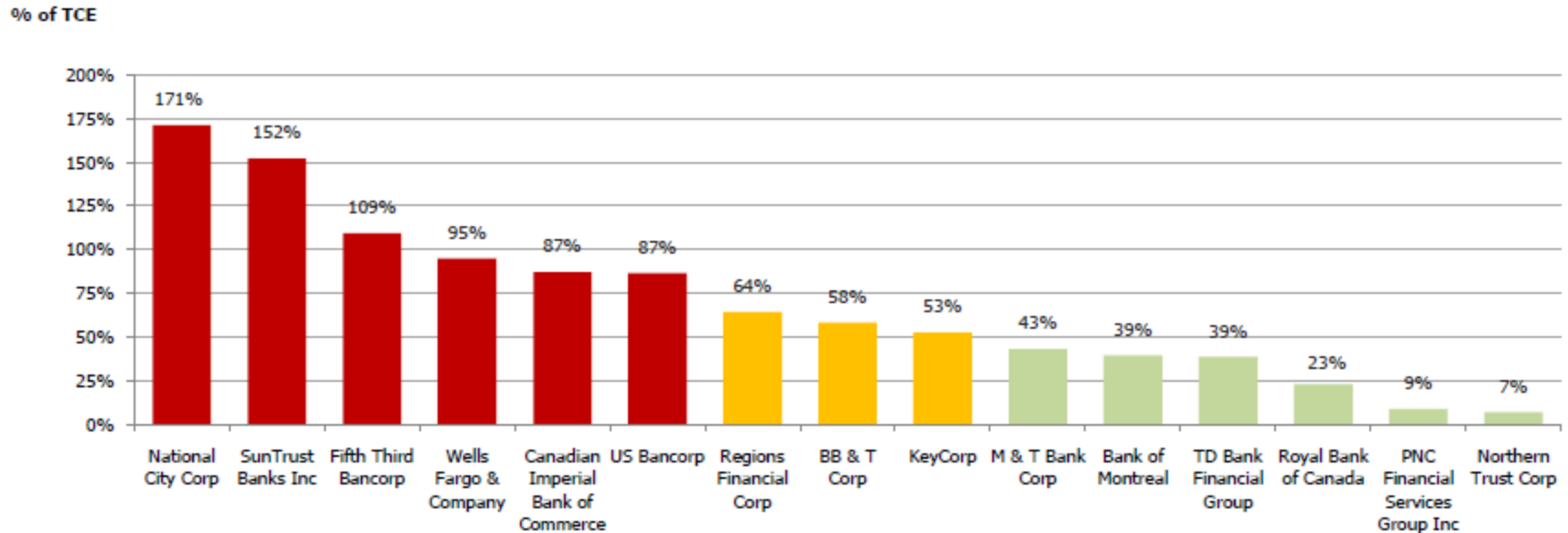


Regulation



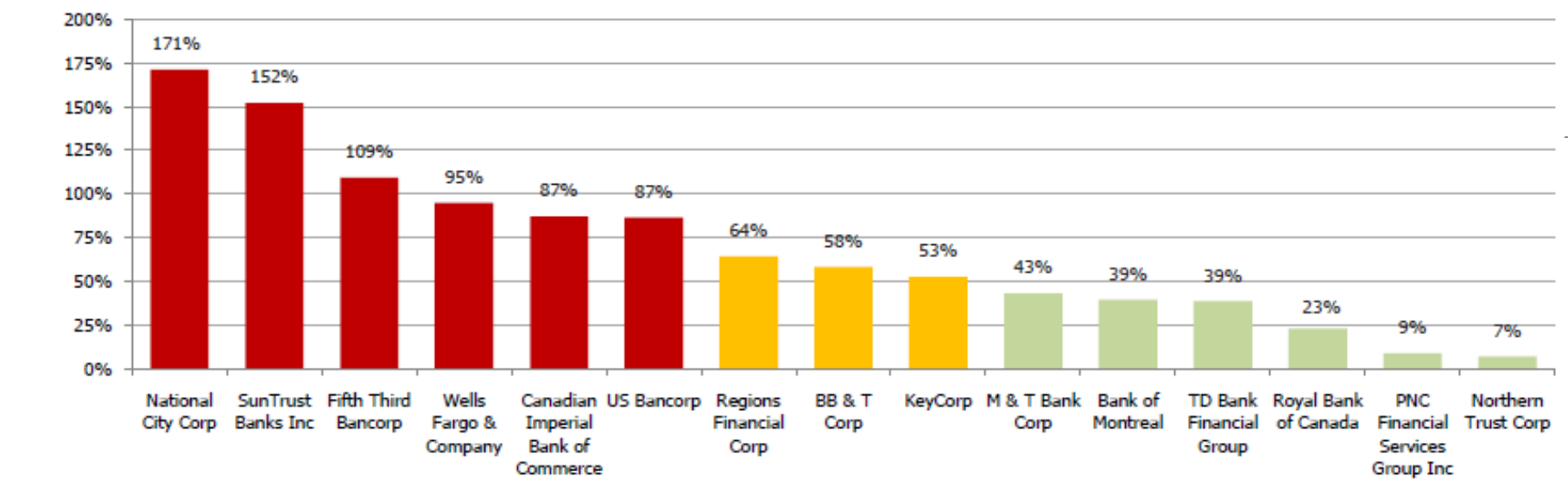
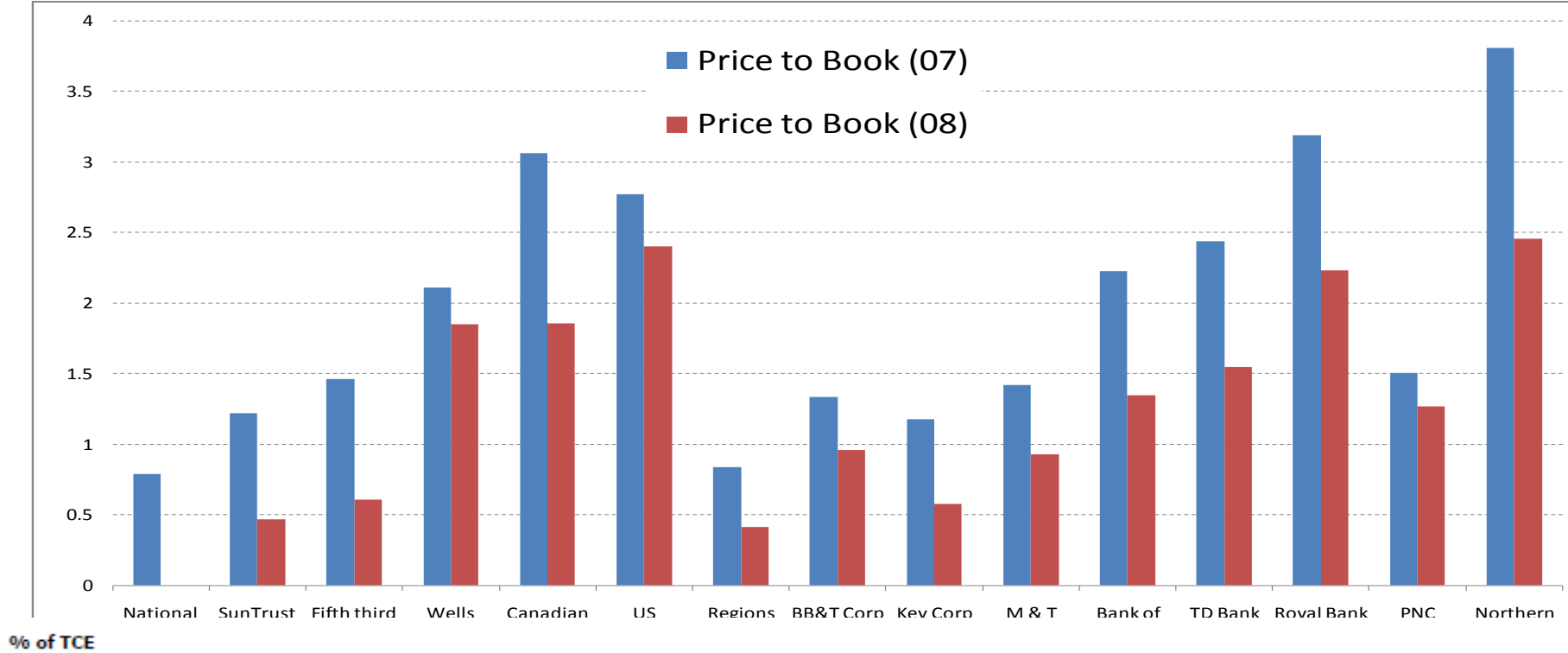
Capturing Critical Change: Banks equity performance

FIGURE 4 LEGACY SCORE: High-Risk Consumer Loans as Percent of Tangible Common Equity as of Dec 2008

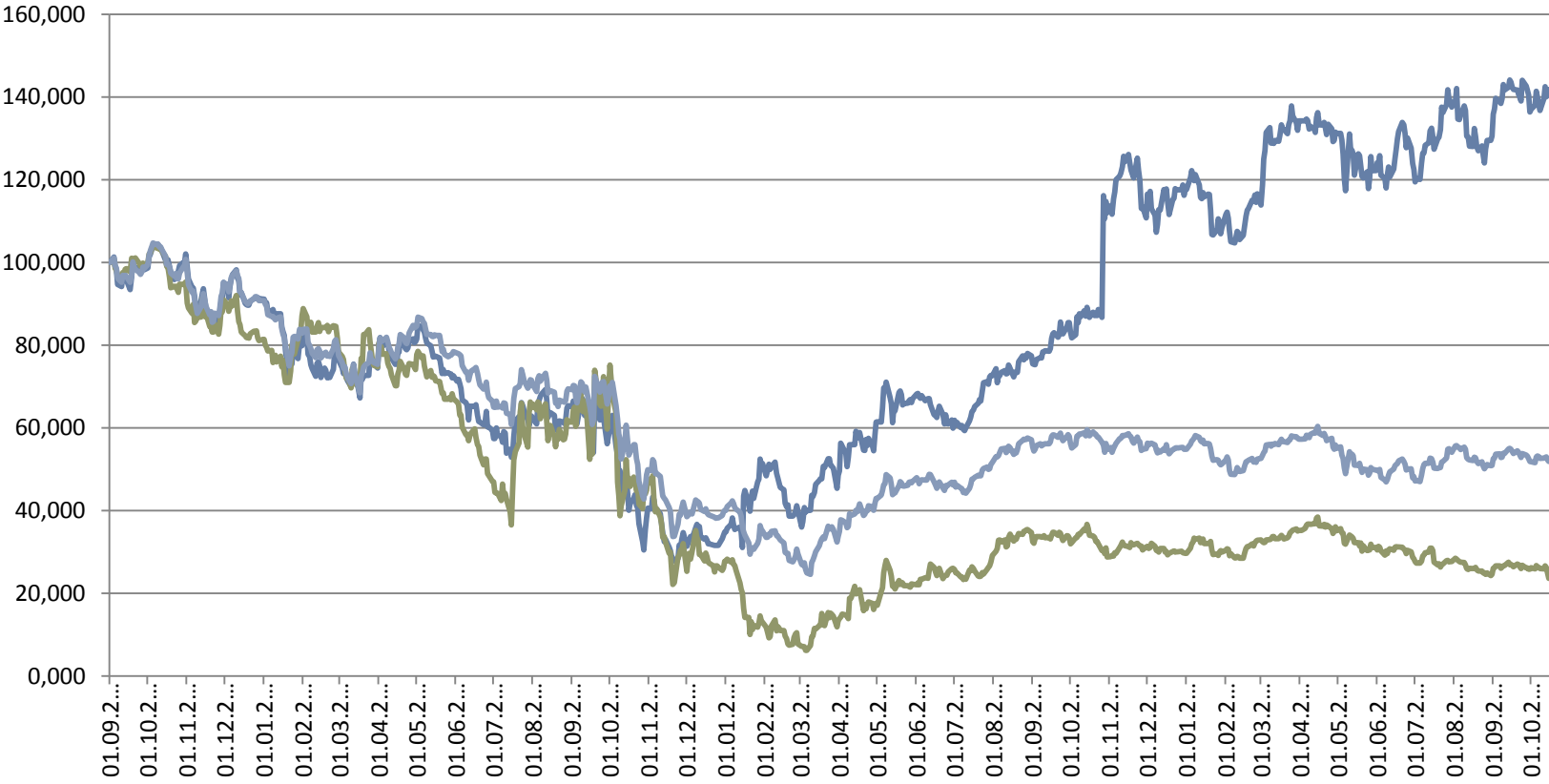


Note: This metric measured total exposure to subprime mortgages with exotic terms or conditions, mortgages with a high loan-to-value (greater than 80% and uninsured, or greater than 90% regardless of insurance), discontinued broker- or correspondent-originated home equity business lines experiencing above-average delinquencies, interest-only and payment-holiday loans, and residual exposures to securities backed by these assets.

**PNC Financial is pre-National City acquisition, Wells Fargo is pre-Wachovia acquisition.*



Capturing Critical Change: AAA v CCC v industry average banking stocks: through crisis (actual equal weighted returns)

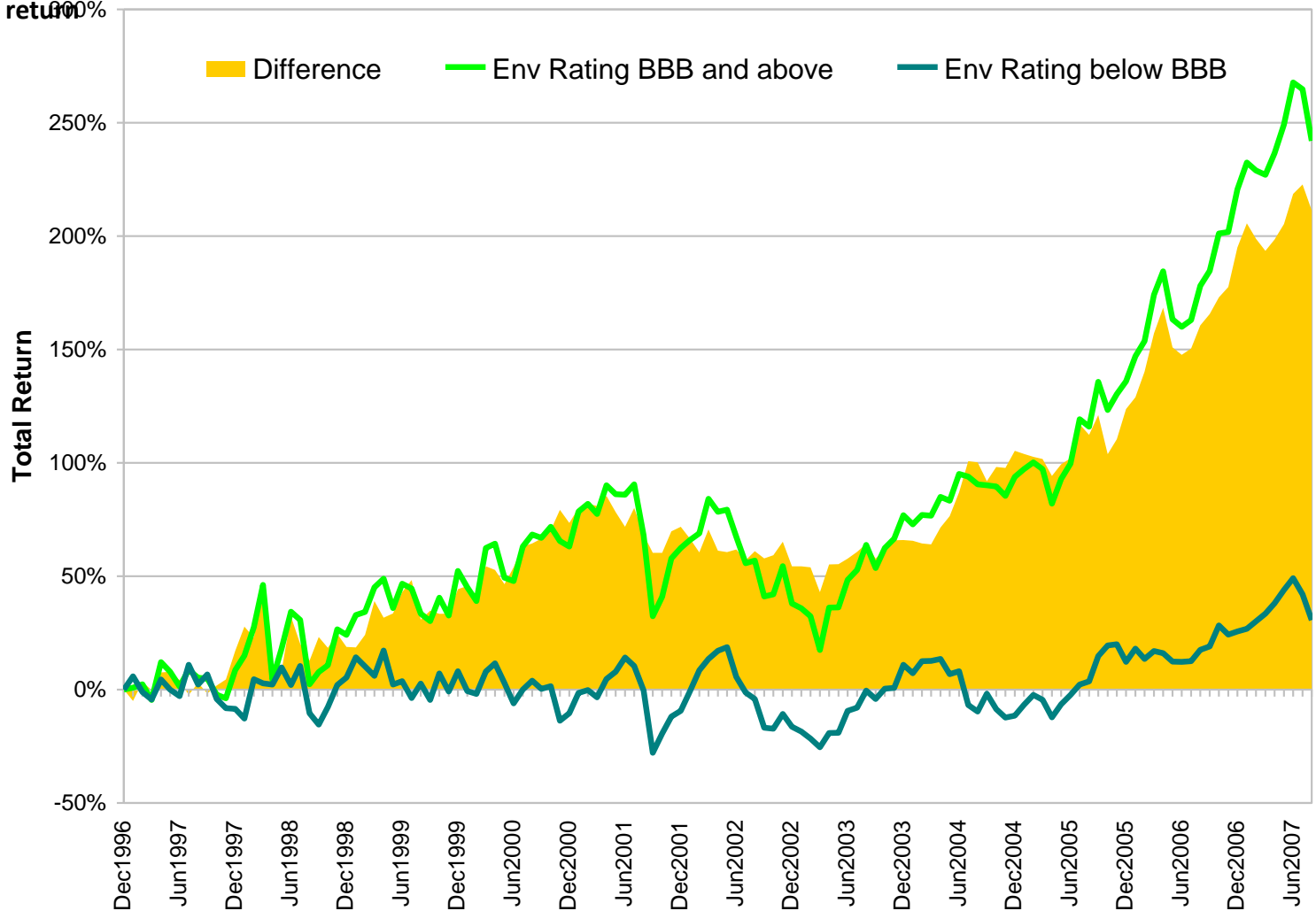


Based on strategic governance sub-pillar

Capturing Critical Change: Industrials: Auto Industry – Fuel Efficiency Example

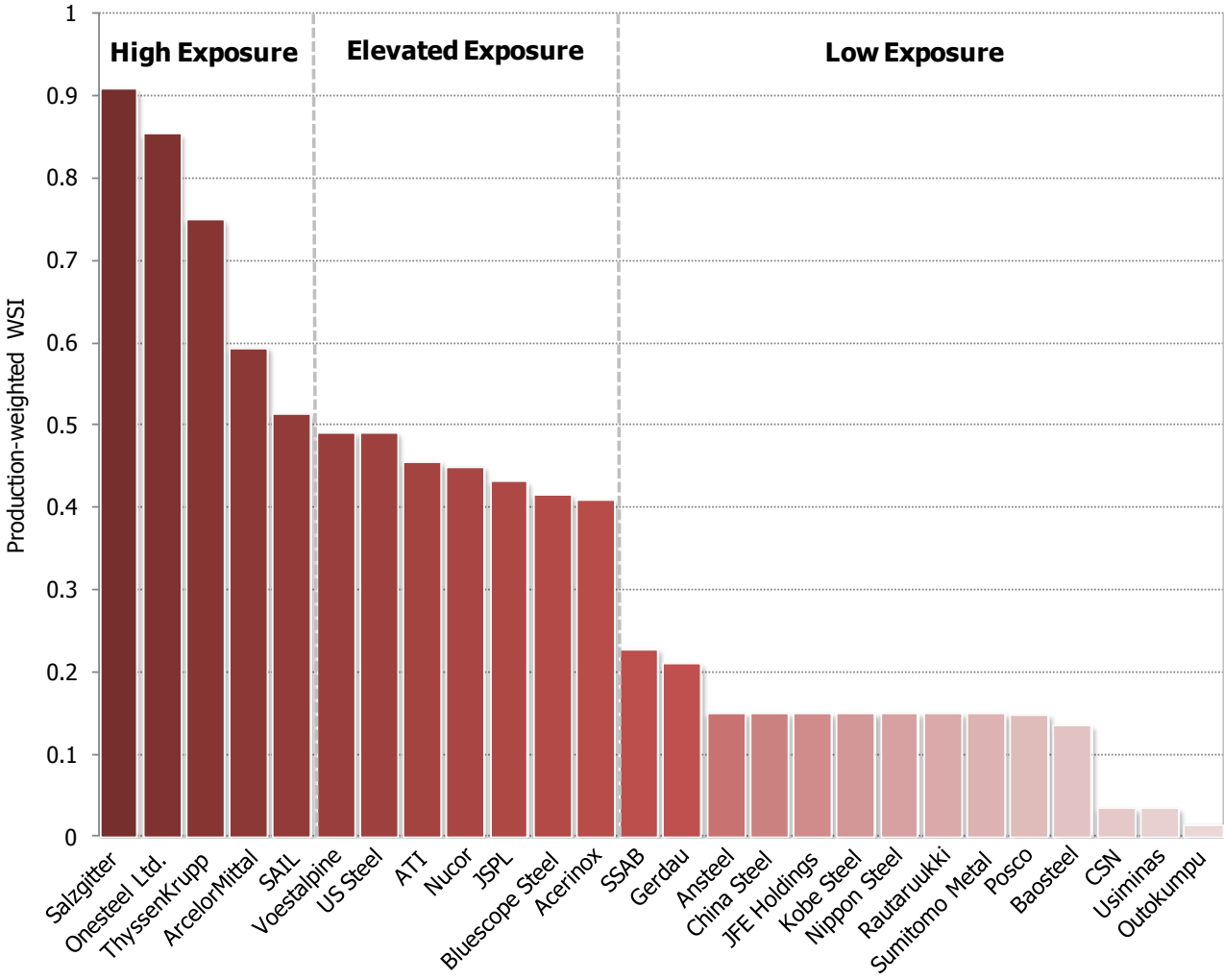
BBB and above – 242.0% total return
Below BBB – 30.6% total return
Difference – 211.3%

December 1996 to August 2007



Industrial Sector: Water Management in the Steel Sector

Proportion of Operations in High Water Stress Regions

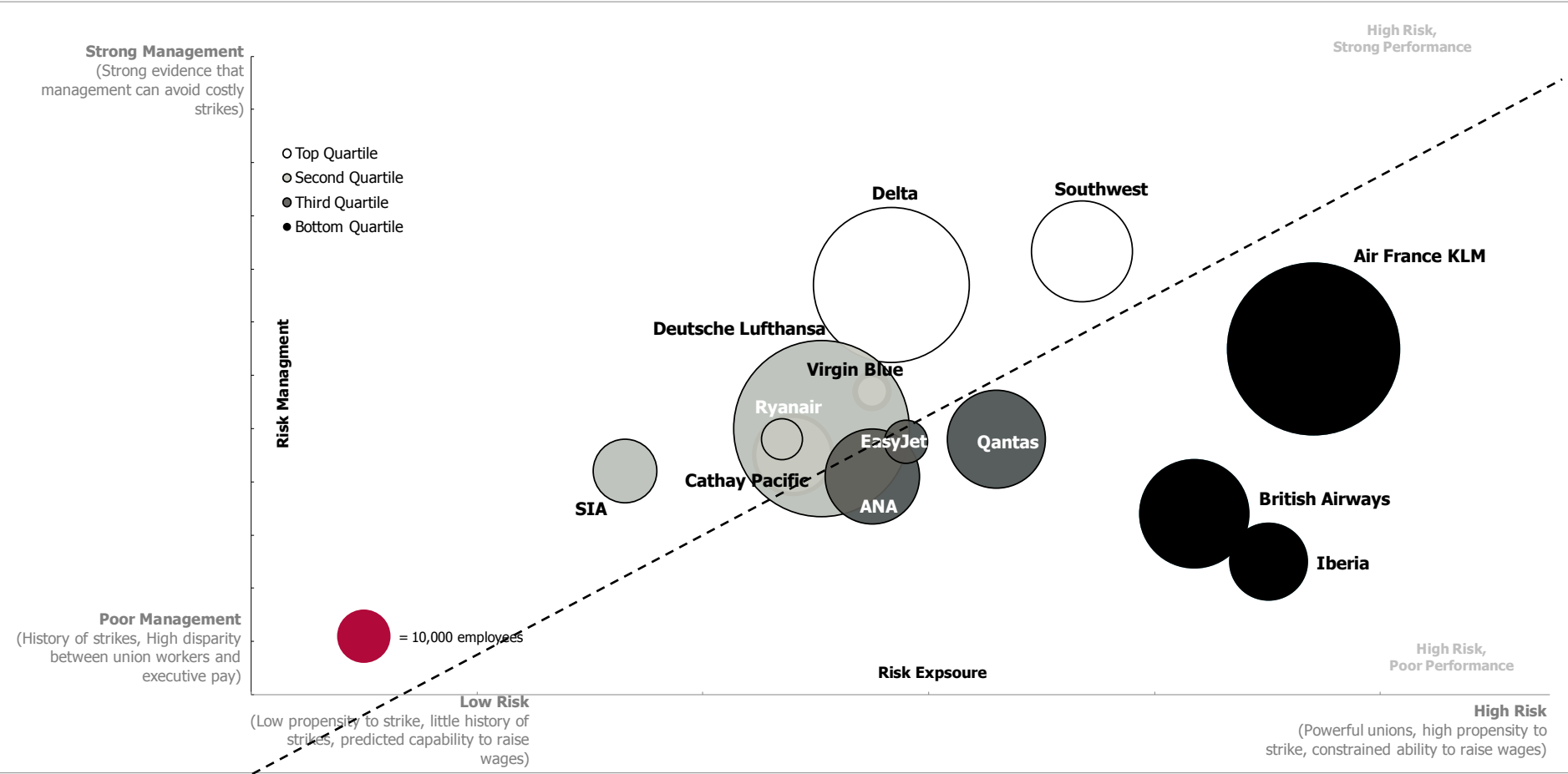


- › Mapped facilities to water basins
- › Compared Water Stress Index of each basin
- › Final analysis evaluates 3 factors:
 1. Exposure to water-stressed basins
 2. Water intensity of operations
 3. Resource management

WSI values courtesy of International Water Management Institute (IWMI)

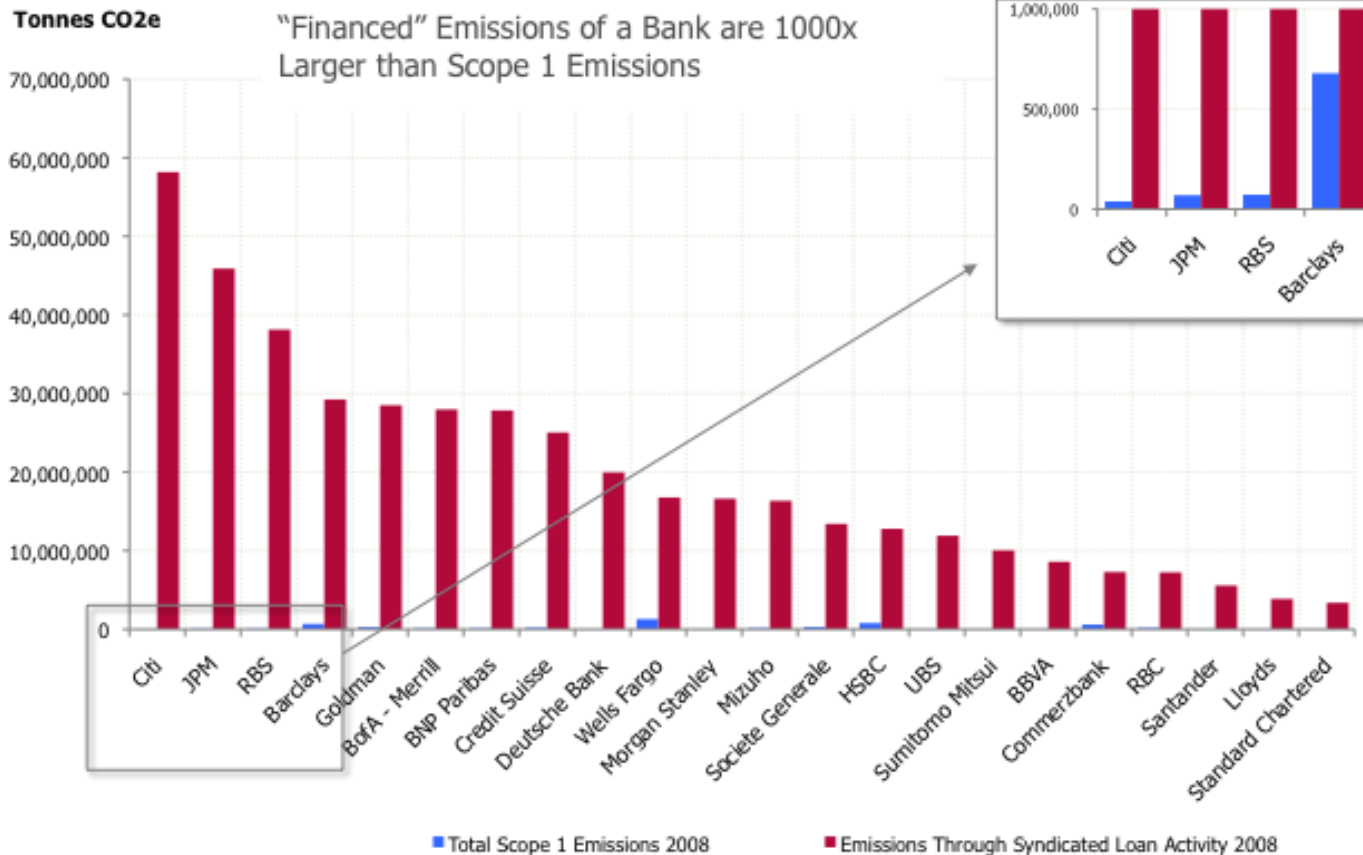
Airline Industry:

Sensitivity to labor conflict



Financial Sector:

Comparing CO2 Emissions Through Financing vs. Operations

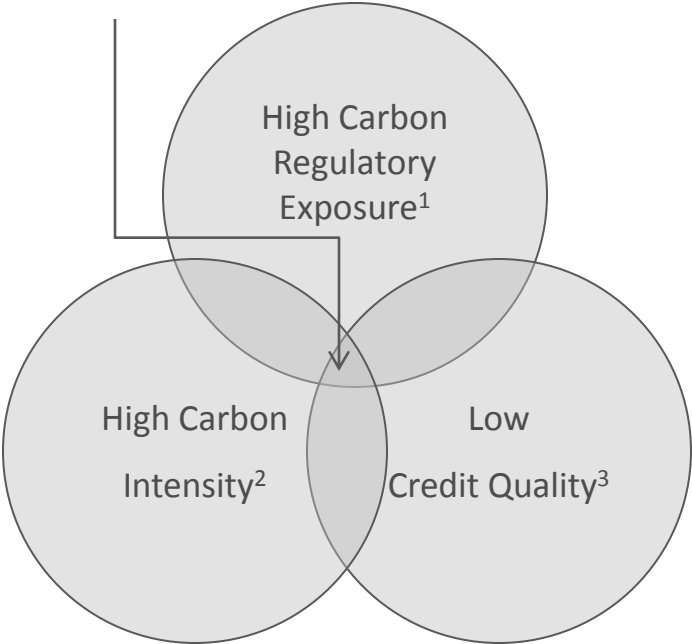


KEY TAKEAWAYS:

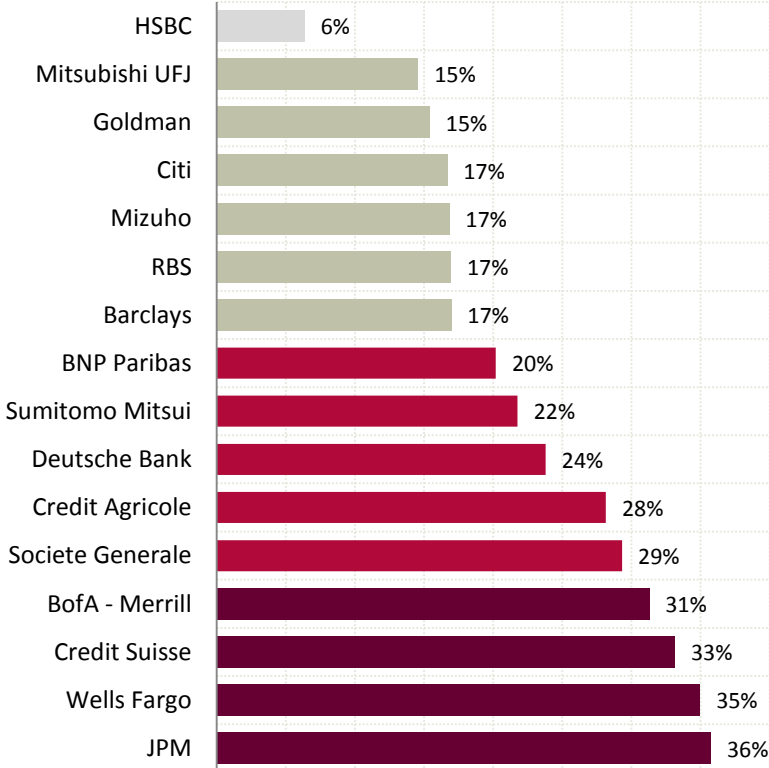
- A bank's core E&S impact is not through operations but rather through financing
- Analysis that rewards banks for low direct impact leads to unreliable conclusions
- Credible analysis must focus on impacts and risks of core business

Financial Sector: Climate Change and Credit Risk Overlay

Companies facing high carbon risk and low credit quality will have more difficulty adapting to regulatory changes and pose a significantly higher credit risk to lenders.



Loans with High Carbon Risk and Low Credit Quality as % of Tangible Book Value



% of Tangible Book Value

¹ Defined as potential weighted average country carbon reduction target of >20%, or significant expected change in regulatory target

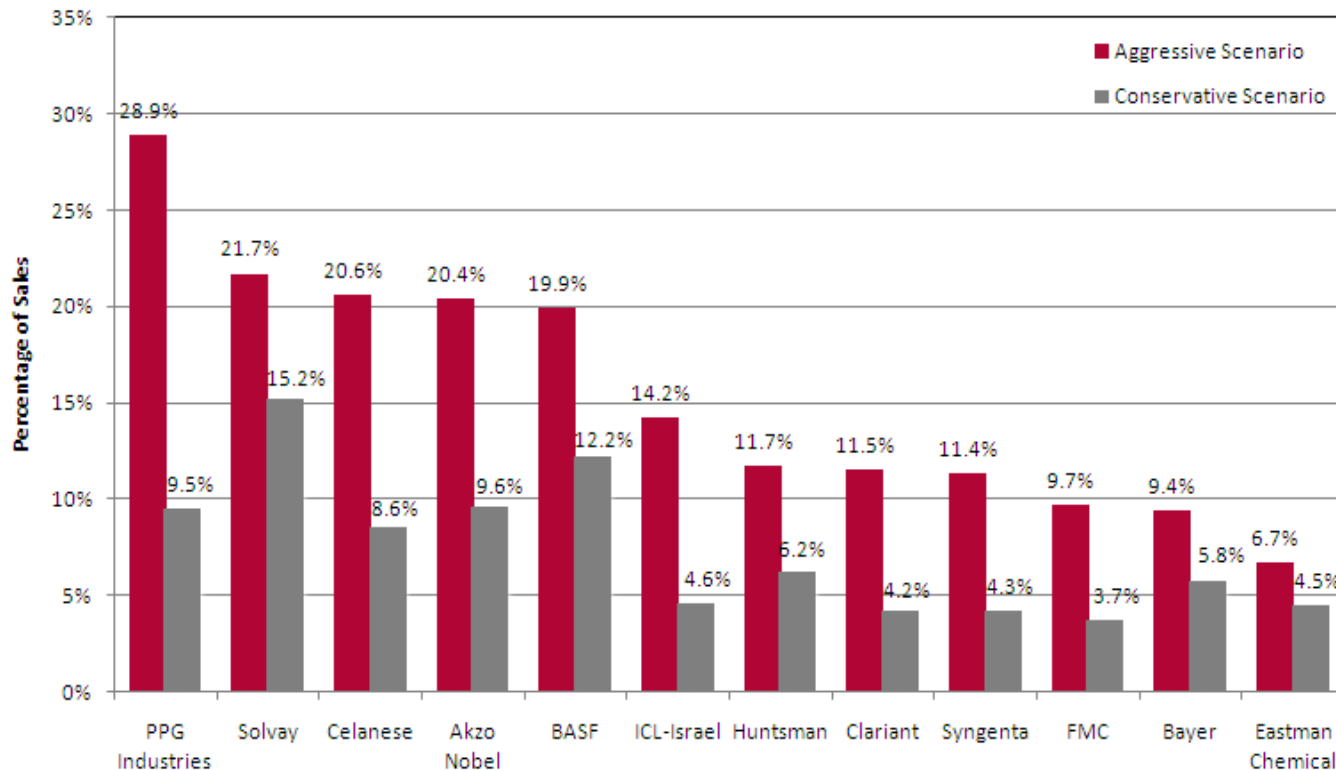
² Based on our internal Combined Carbon Intensity score, 2.5 (on a scale of 0 to 5) is considered "high"

³ Defined as a "leveraged loan," based on spread over LIBOR (150 b.p. or more)

Industrial Sector:

Can Substances of High Concern Disrupt Top-Line Growth?

Estimated Impact of REACH Authorization on Annual Sales



➤ Identified Substances of High Concern and mapped to product lines

➤ Mapped at-risk products to companies

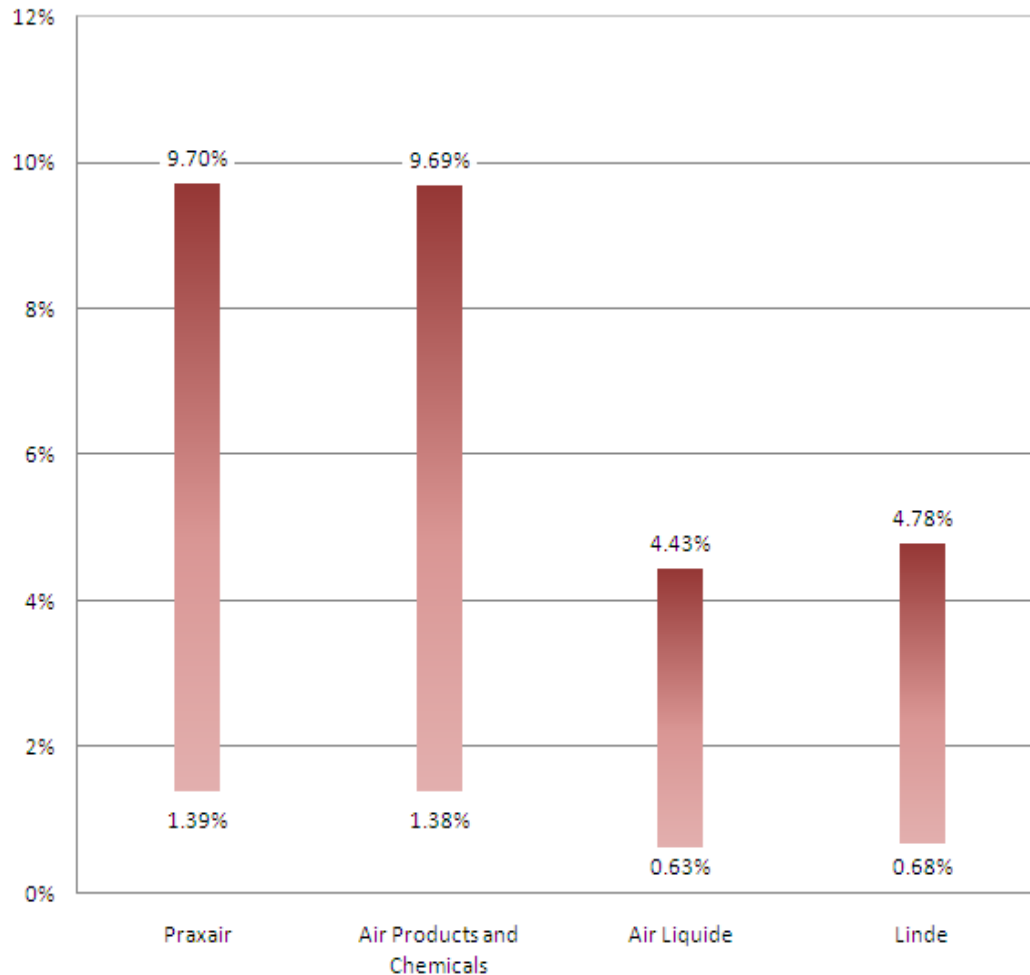
➤ Final analysis evaluates 4 factors:

1. REACH exposure of product portfolio
2. Production of substitutes (opportunity)
3. Management of past chemical phase-outs
4. Exposure to European market

Industrial Sector:

Industrial Gas Manufacturers and Electricity Cost Increases

Ranges of Cost Increases, as a Percentage of Net Income, under Conservative to Aggressive Scenarios



- Analyzed projected carbon compliance costs under Waxman Markey
- Identified carbon intensive companies with low rebate eligibility
- Final analysis evaluates 3 factors:

1. Eligibility for carbon rebates
2. Cost of carbon compliance for companies with low rebate eligibility
3. Cost of compliance as a percent of net income

Best Practices in ESG Integration

Best Practices in ESG Integration

- **Phase 1:** Monitor ESG risk by flagging low rated companies for analysts and portfolio managers
- **Phase 2:** Measure and Report ESG risk
- **Phase 3:** Create internal teams for deeper ESG integration amongst analysts and portfolio managers
- **Phase 4:** Integrate ESG into the portfolio construction process
- **Phase 5:** Engage companies on ESG risks to reduce risk and enhance value

The IVA Product

Materiality Analysis

Our goal is to focus on **the intersection between ESG performance and financial performance**

IVA analysis stands out:

- We analyze businesses – not CSR reports
- We look past PR and focus on performance
- Our metrics are innovative and dig deep
- We focus on the triggers that transform ESG factors into financial game-changers

Coverage Breakdown:

- MSCI 1500
- FTSE 350 (Top 250)
- ASX 200
- MSCI EM 200 (Top 25)

Rating Breakdown:

- Companies rated AAA (best) to CCC (worst) on a sector relative basis

The IVA Methodology



Why use ESG Research?

To Calculate Unmanaged ESG Risk

Based on externalities that have been recognized and pose a business risk, determine relevant key ESG issues

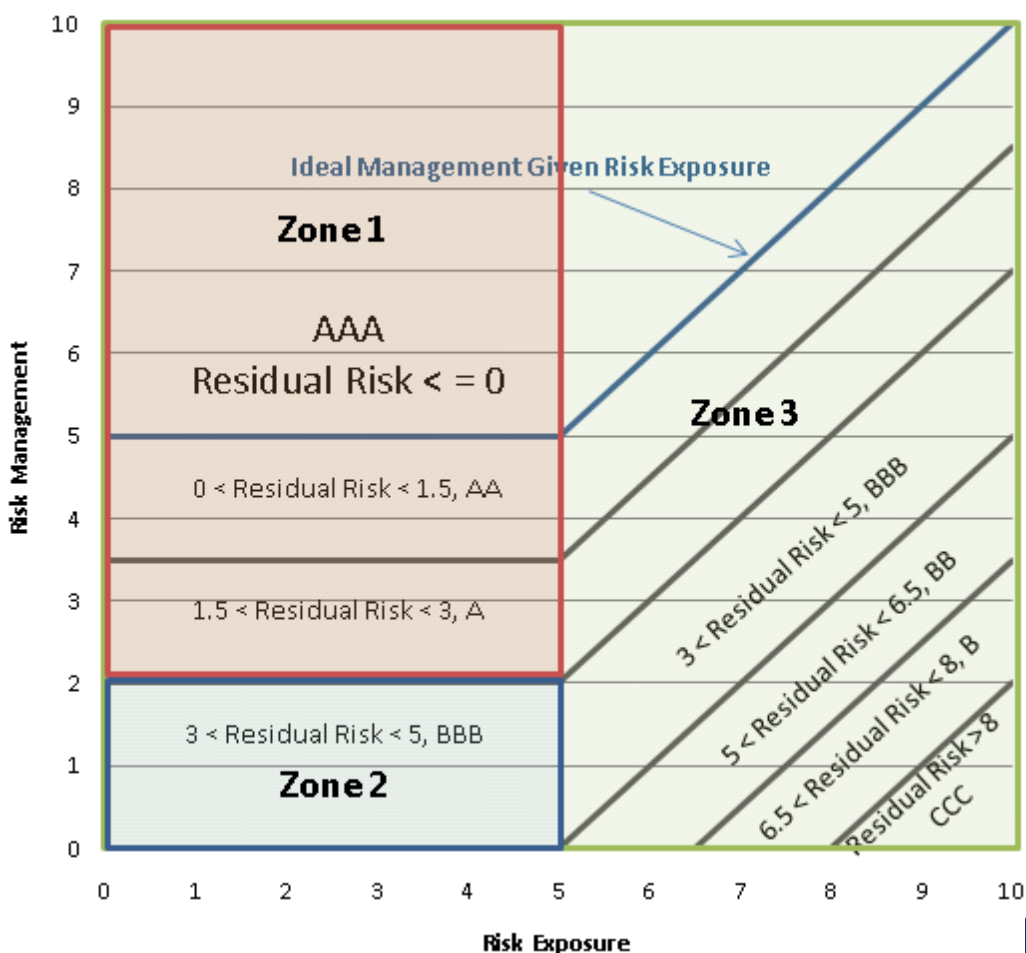
Assess risk management and risk exposure through relevant metrics

Calculate the unmanaged risk (i.e. residual risk) for each key issue

Derive company ratings based on residual risk and key issue weights

Trying to answer the following question: *Is risk management commensurate with risk exposure?*

Residual risk is assessed by calculating the distance between the ideal management scores and the company's performance on each key ESG issues



Notice and Disclaimer

This document and all of the information contained in it, including without limitation all text, data, graphs, charts (collectively, the “Information”) is the property of MSCI Inc. or its affiliates (“MSCI”), or their licensors or direct or indirect suppliers or any third party involved in the making or compiling of the Information (collectively (including MSCI), the “MSCI Parties” or individually, an “MSCI Party”), and is provided for informational purposes only. The Information may not be reproduced or re-disseminated in whole or in part without prior written permission from MSCI.

The Information may not be used to verify or correct other data, to create indices, risk models or analytics, or in connection with issuing, offering, sponsoring, managing or marketing any securities, portfolios, financial products or other investment vehicles based on, linked to, tracking or otherwise derived from any MSCI products or data.

Historical data and analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction.

None of the Information constitutes an offer, solicitation or advice to buy or sell securities, or a promotion or recommendation of, any security, financial product or other investment vehicle or any trading strategy, and none of the MSCI Parties endorses, approves or otherwise expresses any opinion regarding any issuer, securities, financial products or instruments or trading strategies. None of the Information is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such.

The user of the Information assumes the entire risk of any use it may make or permit to be made of the Information.

NONE OF THE MSCI PARTIES MAKES ANY EXPRESS OR IMPLIED WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION (OR THE RESULTS TO BE OBTAINED BY THE USE THEREOF), AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, MSCI, ON ITS BEHALF AND ON THE BEHALF OF EACH MSCI PARTY, HEREBY EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES (INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF ORIGINALITY, ACCURACY, TIMELINESS, NON-INFRINGEMENT, COMPLETENESS, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) WITH RESPECT TO ANY OF THE INFORMATION.

Without limiting any of the foregoing and to the maximum extent permitted by law, in no event shall any of the MSCI Parties have any liability regarding any of the Information for any direct, indirect, special, punitive, consequential (including lost profits) or any other damages even if notified of the possibility of such damages. The foregoing shall not exclude or limit any liability that may not by applicable law be excluded or limited, including without limitation (as applicable), any liability for death or personal injury to the extent that such injury results from the negligence or willful default of itself, its servants, agents or sub-contractors.

Certain MSCI indices and other products may include or utilize data, ratings, analysis, reports, analytics or other information or materials (collectively, “ESG Research Materials”) from MSCI’s ESG Research Group within Institutional Shareholder Services Inc. (“ISS”) and/or KLD Research & Analytics, Inc. (“KLD”), which are both indirect wholly-owned subsidiaries of MSCI. Issuers mentioned or included in any ESG Research Materials may be a client of MSCI, ISS, KLD or another MSCI subsidiary, or the parent of, or affiliated with, a client of MSCI, ISS, KLD or another MSCI subsidiary, including ISS Corporate Services, Inc (“ICS”) which provides tools and services to issuers.

ESG Research Materials utilized in any MSCI indices or other products have not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body. MSCI makes no warranty, express or implied, regarding the accuracy, completeness or usefulness of any ESG Research Materials and assumes no liability with respect to the consequences of relying on any ESG Research Materials for investment or other purposes. In particular, any ESG Research Materials are not intended to constitute an offer, solicitation or advice to buy or sell securities.

Any use of or access to products, services or information of MSCI requires a license from MSCI. MSCI, Barra, RiskMetrics, ISS, CFRA, FEA, EAFE, Aegis, Cosmos, BarraOne, and all other MSCI product names are the trademarks, registered trademarks, or service marks of MSCI in the United States and other jurisdictions. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and Standard & Poor’s. “Global Industry Classification Standard (GICS)” is a service mark of MSCI and Standard & Poor’s.

MSCI ESG Research - Corp. History

Through acquisitions of KLD and Innovest we have been instrumental in the start-up, incubation and growth of ESG integration.

- 1988 KLD established
- 1990 KLD created first ESG Index
- 1995 KLD created the first ESG research database application
- 1998 Innovest established.
- 1999 Major Swiss Asset Manager integrates Innovest signal onto its research platform.
- 2000 Major California Pension Fund Integrates Innovest signal onto its internal manager platform.
- 2004 Innovest Awarded the Globe Foundation for innovation and excellence
- Winner of the Thomson Extel survey 2006, 2007,
- 2007 UNEP FI Award for innovation and contribution in the field of carbon finance

63 Asset Owners controlling 2.3 trillion depend on MSCI ESG Research and Indexes

- We have helped launch, grow and fully integrate ESG analysis for many of the largest asset owners
- Our signal is increasingly used to evaluate external managers
- Widely accepted as “the standard” by asset owners
- An important tool for reporting ESG performance to Asset Owners

MSCI ESG Research

- 107 people including 62 analysts
- Head of ESG Research, Remy Briand, is also head of Index research and reports directly to CEO
- Since acquisition of RiskMetrics, MSCI has launched 23 ESG indices.

MSCI 24 Hour Global Client Service

- David Mark – Global Asset Owners & Consultants - index
- Jillis Herpers – Head of ESG Research EMEA Sales

Americas

Americas	1.888.588.4567 (toll free)
Atlanta	+1.404.551.3212
Boston	+1.617.532.0920
Chicago	+1.312.706.4999
Monterrey	+52.81.1253.4020
Montreal	+1.514.847.7506
New York	+1.212.804.3901
San Francisco	+1.415.836.8800
São Paulo	+55.11.3706.1360
Stamford	+1.203.325.5630
Toronto	+1.416.628.1007

Europe, Middle East & Africa

Amsterdam	+31.20.462.1382
Cape Town	+27.21.673.0100
Frankfurt	+49.69.133.859.00
Geneva	+41.22.817.9777
London	+44.20.7618.2222
Madrid	+34.91.700.7275
Milan	+39.02.5849.0415
Paris	0800.91.59.17 (toll free)
Zurich	+41.44.220.9300

Asia Pacific

China North	10800.852.1032 (toll free)
China South	10800.152.1032 (toll free)
Hong Kong	+852.2844.9333
Seoul	+827.07688.8984
Singapore	800.852.3749 (toll free)
Sydney	+61.2.9033.9333
Tokyo	+81.3.5226.8222

clientservice@msci.com

www.msci.com | www.riskmetrics.com

MSCI