New Measures of Risk and Return:

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

September 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

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

Note: UNPRI Signatories as of May 2010
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
Understand Your Client’s Values

Financial Dimension
- Mainstream investor / Universal Owner
- Integrate key ESG issues and risk factors
- Integrated ESG rating

Values Dimension
- Value investor
- Reflect values “Bill of Health”
- Values score

Portfolio Construction

Materiality Assessment | Reputational Risk Assessment | Negative Business Screening
Macro-Trends are Dominated by ESG...
Where ESG Resides

- Carbon Prices
- Water Risk Exposure
- Environmental R&D
- Key Employee Satisfaction at a Software Company

Data that can be entered into a Discounted Cash Flow Model
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 supply chain 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

Energy Prices

Regulation

Carbon Price

Impact Costs
Capturing Critical Change: Banks equity performance

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

% of TCE

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

Total Return

Difference  Env Rating BBB and above  Env Rating below BBB
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

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

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
Key Employee Satisfaction at a Software Company

Water Risk Exposure

Env. R&D

Carbon Prices

Data that can be entered into a Discounted Cash Flow Model

Uncertainty

Certainty
MSCI ESG Core Business Research

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

MSCI ESG 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
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 issue.
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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 filed 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

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