



Importance of Carbon Emissions Disclosure for Investors

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What's in the news...

“Australian Producers Raise Carbon Concerns”, Petroleum Argus, Sep 29, 2008

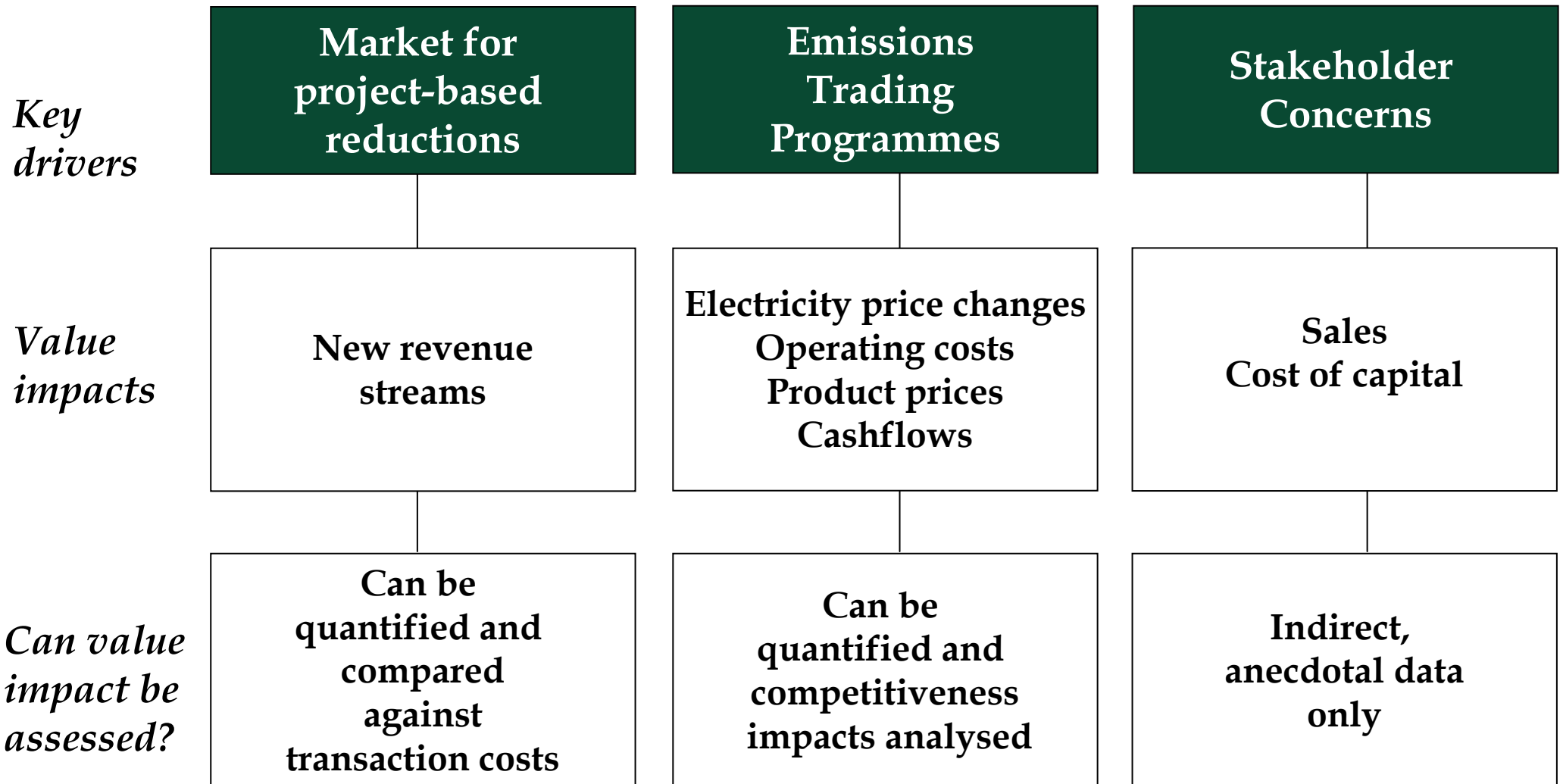
...Australia's LNG producers warn that government's planned Emission Trading Scheme (ETS) may make many of the A\$200bn LNG projects under construction or in the planning stage unprofitable...will leave Australian producers at a cost disadvantage to its competitors in Asia-Pacific and the Middle East..

“French Firm Cashes In Under U.N. Warming Program “ , Wall Street Journal, By Charles Forelle, July 23, 2008

... [Rhodia](#) SA, at its factory here in Onshan, Korea....The payday, which could amount to more than \$1 billion over seven years, comes from destroying nitrous oxide, or laughing gas, an unwanted byproduct and potent greenhouse gas. It's Rhodia's single most profitable business world-wide. Last year, destroying nitrous oxide here and at a similar plant in Brazil generated €189 million (\$300.5 million) in sales of pollution "credits."..



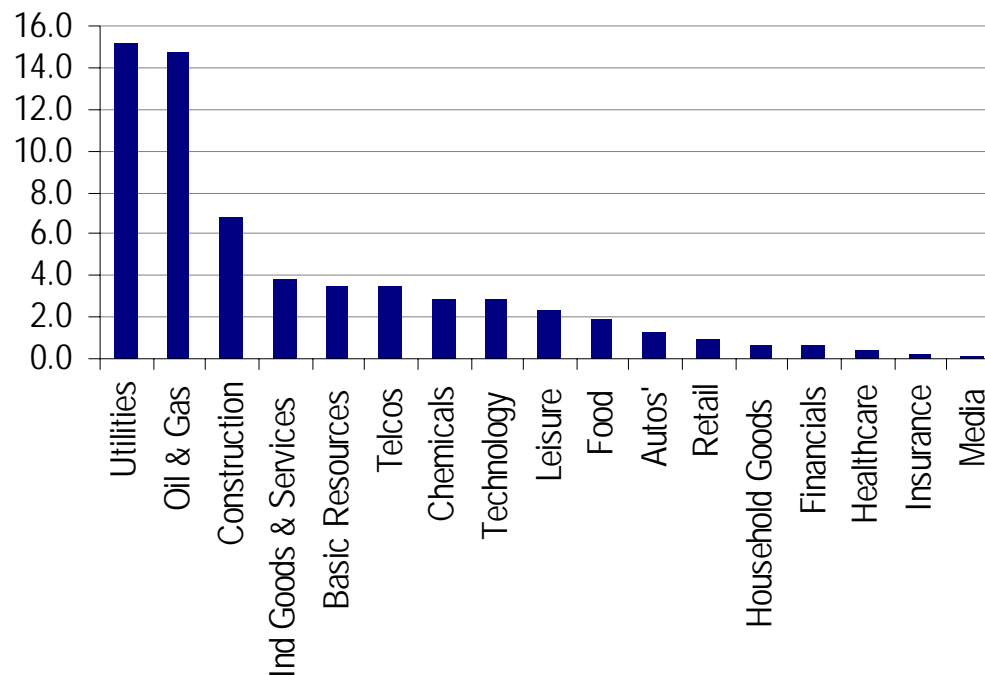
What to expect: carbon-related impacts on valuation



Carbon exposure as a liability

- Carbon emissions represent an off balance sheet financial liability to companies
- Investors are increasingly viewing this as a higher risk, and starting to value it

Sector cost to offset total emissions (€bn)



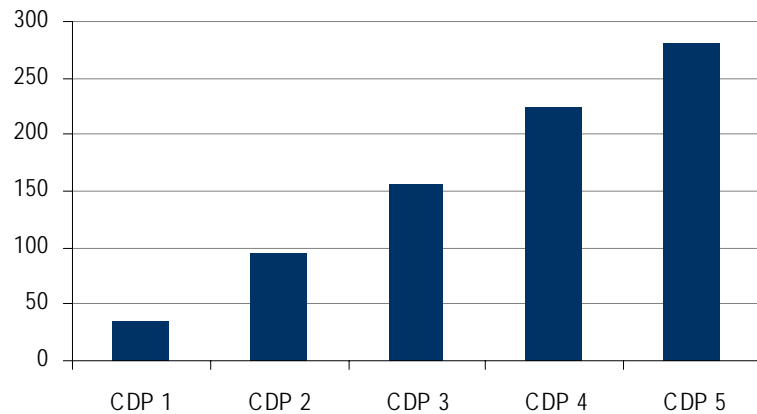
Source: ML SRI Research, Trucost



Carbon exposure as an opportunity

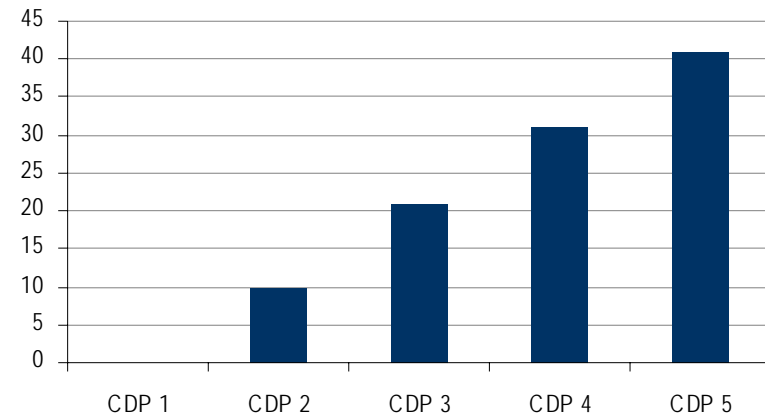
- Carbon footprint provides proxy for environmental credentials going forward
- Carbon costs set to be internalised, the leaders will have lower costs and thus limited negative earnings drivers
- Investors already requesting carbon data

Number of Institutional Investor Signatories



Source: Carbon Disclosure Project

Assets under management \$ trillion



Source: Carbon Disclosure Project



Analytical complexities

CDP has recognised formidable challenges in deriving financial implications from GHG emissions data

- Uncertain emission projections
- Incomplete disclosure on regional distribution of emissions
- Critical insights from factors such as price elasticity of demand and company-specific marginal abatement costs

For companies already under carbon caps, commercial impacts strongly linked to distribution method of allowances

CDP emissions data reported hitherto has focused more on Scope 1 and 2; this over-emphasises operations-level instead of product-related financial impacts



Carbon as a top-tier management issue

Carbon reports include findings suggesting management engagement is increasing but has a long way to go

- Finding in FT500 that of the 40% of companies classified as carbon-intensive, “only 64% have assigned issue to board or upper management”
- Finding in S&P500 that “only 8% factor in a price of carbon into investment processes”

Insight for investors is the variation in how timing and magnitude of financial impacts are perceived



Evolution of replies on Scope 3 emissions

Scope 3 emissions reporting has increased

- Increase to 52% in overall FT500 reported emissions and to 27% in S&P500 highlights new areas of potential supply-side risks and opportunities for companies
- Hedging of raw materials and energy inputs
- New supply chain initiatives being launched

New insights for investors as to how companies are managing the carbon in their supply chain and potential financial exposure along their value chain



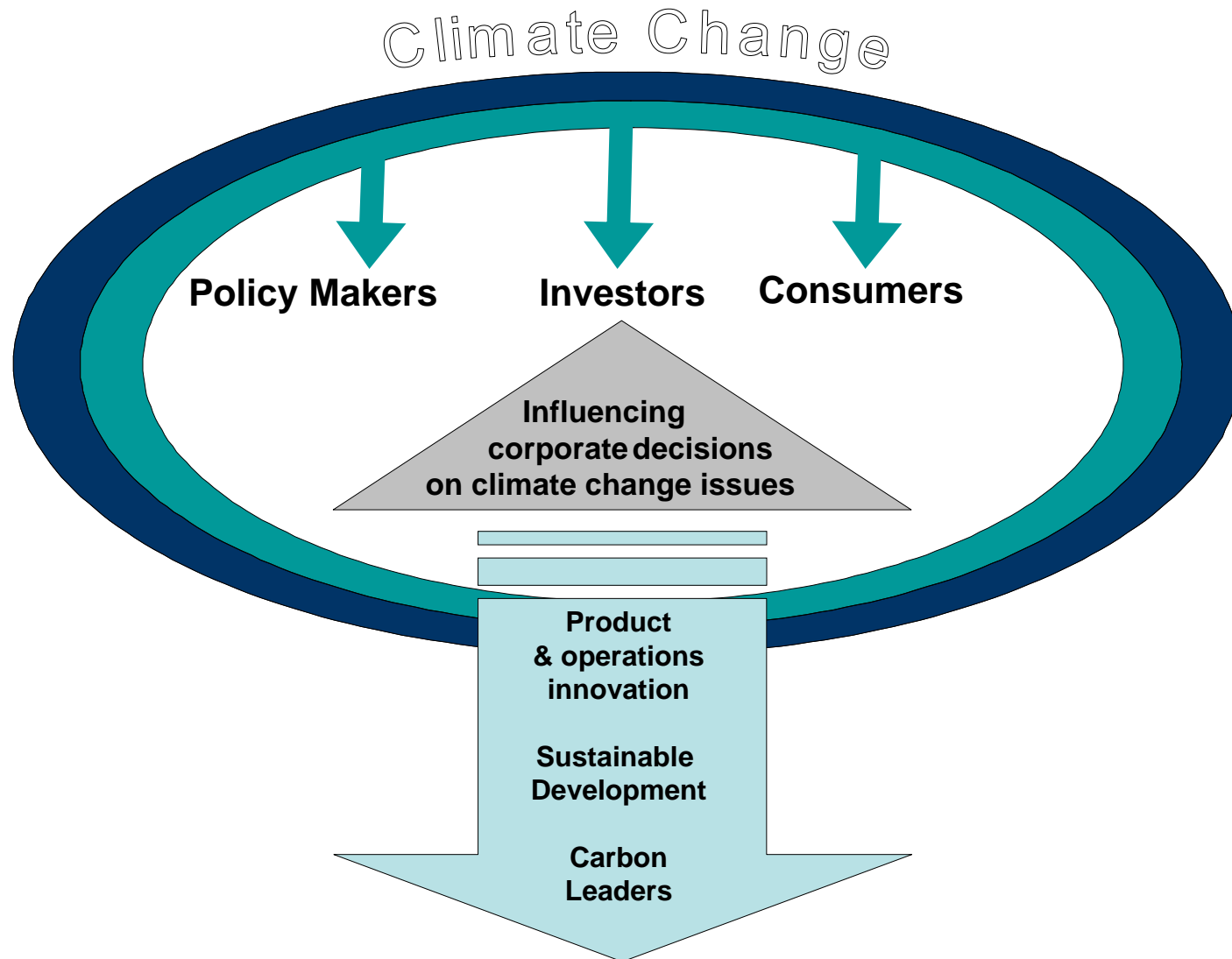
Disclosure on physical risks of climate change

Disclosure of physical risks and potential financial impacts has improved

- Findings that 70% of this year's Asian respondents cite weather-related risks as having the potential to disrupt production, interrupt services and ... impact assets
- In some sectors, physical impacts are likely to be the least quantifiable but most material
- Given high uncertainties and high potential level of impacts, there is a need for common framework to guide disclosure of physical risks



Variety of Forces Drive Corporate Approaches



Corporate Experience - the challenges

- Regulatory Framework
 - *International agreement vs local regulation*
 - *near-term vs long-term*
- Carbon Initiative:
 - *Quantifiable , measurable, and verifiable*
- Capital transfer / technology transfer
- Supply-chain pressure is growing
- Consumer pressure on climate change is intensifying



Corporate Experience - and the opportunities

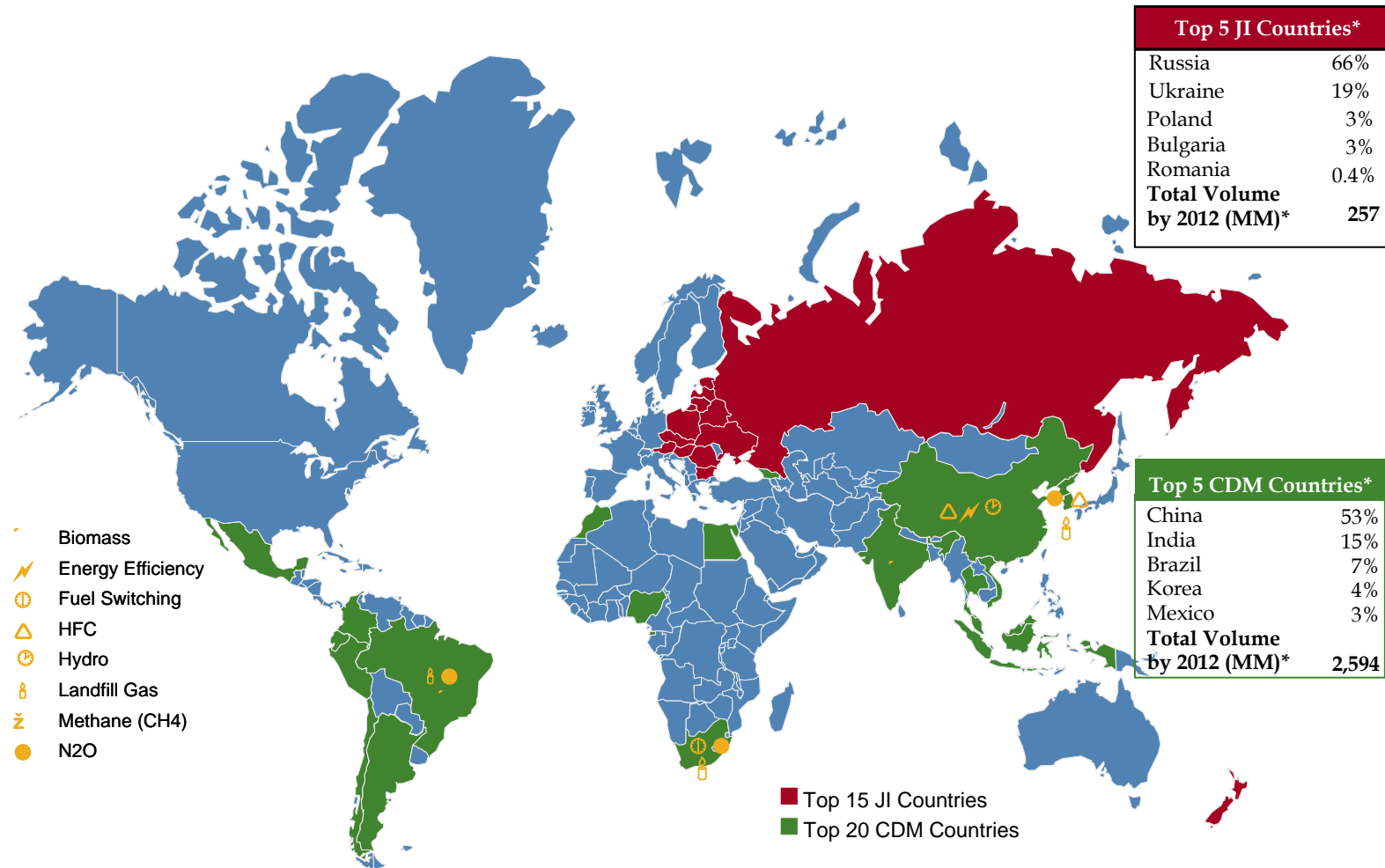
Opportunity to demonstrate leadership in sector AND create environmental value through product innovation around carbon

- *Launch of carbon-friendly products*
- *Carbon neutral companies and products*
- *Green offerings for consumers willing to pay a sustainability*



Project Based Mechanisms (CDM & JI)

Top 5 CDM and JI Countries (by PDD Volume)



* PDD Volume
Source: Point Carbon database, April 2008



Backing low carbon footprint companies; *win- win idea*

- Companies with a carbon strategy, and low carbon footprint within their sector, are more likely to have a higher quality overall strategy for the business
- Quality (defensive) idea
- Investors lower carbon footprint



Global carbon markets continue to evolve the next generation financial products but need reliable data

<i>Carbon Markets</i>	Structured emission products, carbon funds, emission price indexes, EUA/CER swaps, voluntary credits, avoided deforestation/REDD
<i>Equities</i>	Portfolio screening, SRI funds, Low-carbon technology stocks, index products
<i>Bonds</i>	Portfolio screening, forestry bonds
<i>Private Equity/ Venture Capital</i>	Carbon venture capital, carbon-driven principal investing
<i>Real Estate</i>	Energy efficiency/green building real estate investment trusts
<i>Hedging Instruments</i>	Weather derivative products, catastrophe bonds, insurance products



Merrill Lynch offers investors a suite of carbon finance solutions

<i>Commodities and Fixed Income</i>	<i>Investment Banking</i>	<i>Global Wealth Management</i>	<i>External Engagement</i>
<p>Activities</p> <ul style="list-style-type: none"> ■ Emissions desk provides trading, brokerage, and intermediation services for EUA and CER market ■ Carbon credit origination (CER, ERUs, VERs) to assist investors, compliance and voluntary buyers ■ Carbon-driven debt/equity financing for emission reduction projects ■ Green & Gold: Offering innovative full-service climate change solution with a strong focus on sustainability <p>Achievements</p> <ul style="list-style-type: none"> ■ Investors in Core Carbon Group, company undertaking projects that reduces emissions in Russia, and off-takers of carbon credits ■ Underwrote European Investment Bank's new Climate Awareness Bond in 2007 focused on renewable energy ■ New weather derivative product focused on temperature increases affecting Italian agricultural clients 	<p>Activities</p> <ul style="list-style-type: none"> ■ Financial advice and due diligence where carbon value is material in cash flow forecast ■ Raising capital including IPO companies with focus on low-carbon technology ■ Leveraged M&As, advising sales of low-carbon technology companies. <p>Achievements</p> <ul style="list-style-type: none"> ■ Global coordinator for \$8 billion Iberdrola Renovables IPO ■ \$35 million principal investment in Vulcan Power, California based geothermal power development company; more than \$400 million of financing for Asian clean technology companies including Trina Solar and China Sunenergy. ■ Private equity investment of \$55 million to acquire Vestas India, wind turbine manufacturer ■ Founding investor in NYMEX-Green Exchange 	<p>Activities</p> <ul style="list-style-type: none"> ■ Global Wealth Management business is a leader in wealth management for high and ultra high net worth individuals; offers a product distribution channel ■ Blackrock, in which ML has an almost 50% stake, has assets of over \$1 trillion <p>Achievements</p> <ul style="list-style-type: none"> ■ Blackrock manages the market-leading \$7 billion New Energy Technology Fund into which GWM clients can invest ■ In 2007, Research launched ML Energy Efficiency Index, Renewable Energy Index, and Carbon Leaders Index. ■ Launched a Carbon Emission Tracker structured emissions product ■ Launched Merrill Lynch Global CO2 Price Index for institutional, asset management and individual investors 	<p>Activities</p> <ul style="list-style-type: none"> ■ Launched a new firm-wide Environmental Sustainability Framework in September, 2007 ■ Member of International Emissions Trading Association (IETA) ■ Member of Carbon Markets Association (CMA) and Investors and Business for US Climate Action ■ Lead global sponsor of Carbon Disclosure Project 2006-10 ■ Sponsor of the London Accord ■ Sponsor of the MIT Joint Program on Science and Policy of Climate Change ■ Research teams including SRI research develop climate change-related reports of interest to investor clients



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Questions?

