



The CDM is a Radical Experiment

Nothing like this has ever been attempted before

A market mechanism to link industrial and developing countries for capital, technology, and deployment

- Essentially, the past is subsidizing the future
 - But, only insofar as the Market efficiently allows transfers and prices them competitively against other options
- The CDM is supposed to support both emission reductions and sustainable development
- Five years in and signs are mixed...



The CDM is created from whole cloth

- Possibly the first regulatory system that creates value, rather than intermediating value that already exists
- An enormous task—potentially unlimited number of project types, locations, counterparty types, emission reduction methodologies
- System bridges multiple countries and the UN
- Enforcement largely managed by private sector, media, civil society
- Imperative need for independent, third party accountability

Creating CERs is *not* a zero-sum transaction

 The concept of "additionality" is plausible on the surface, but ranges in qualitative interpretation among different observers



The Positive and the Negative

- Complex system up and running
- >1000 projects UN registered
- >3000 more in the pipeline
- Gross current projection: from 2008-2012 these projects will reduce 2.7 billion tonnes of developing country emissions

- Successful early projects are extraordinarily concentrated
- 16 of 950 projects are generating 75% of total credits to date (95M out of 130M tonnes)
- System is overly complicated and is becoming almost impossible for small projects to gain access
- Net projection from most analysts continues sliding downward



- The hardest part is over
- "Learning by doing" has created significant CDM expertise base
- Many failures can be attributed to "over-success"
- Solid proof that markets can indeed achieve social objectives

- High value, immediate return projects are done
- Dwindling Kyoto timeframe = little incentive to invest in next set of projects
- Great uncertainty today about what happens after 2012
- Current additionality construct makes many CER projects highly unpredictable
- All this constrains investment flows dramatically



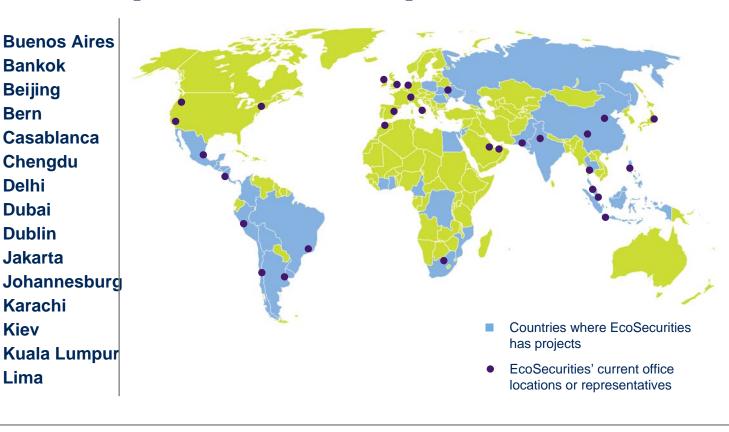
Example: The Dispersion Effect

Buenos Aires Bankok Beijing Bern Casablanca Chengdu Delhi Dubai **Dublin Jakarta Johannesburg**

Karachi

Kiev

Lima



Los Angeles Madrid Manila Manama **Mexico City New York** Oxford **Portland** Rio de Janeiro Rome San Jose Santiago **Singapore** The Hague Tokyo



We are an Industry Based on Policy

- Today, policies are extremely unpredictable/disappointing
 - The ongoing delays in linking the EU to the CDM via the International Transaction Log has real impacts on cash flows
 - No certainty of post-2012 in the UNFCCC
 - EU's proposed severe limitations on the CDM post-2012 are already negatively impacting the industry
 - "Fortress California" is a surprising vanguard of climate protectionism
 - Most US legislation only recently beginning to include international linkages
- WHY THIS WITHERING CRITICISM FROM MEDIA, NGO AND POLITICAL COMMUNITIES?



Fool Me Once, Shame on You...

- To those in the industry, policy shifts are bewildering and disturbing
- Capital markets have provided billions to funds, companies and technologies based on the assumption of stable policy
- Won't easily get another bite at the financial apple if capital markets believe that climate policies are too malleable and unpredictable
 - Many of us remember when the i-banks were not at the table, not competing with us and not providing capital to the market and ideas to the dialogue

Capital markets are not "optional" in a global transition that will require the mobilization of **\(\overline{4}\)**rillions



Why the Shift?

Some negative interpretations:

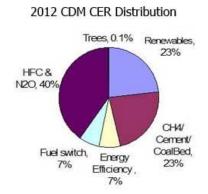


1. CDM is nothing more than a subsidy for China

- China is 40%+ of the developing world's emissions and growing at an astonishing rate
- It makes sense that many CDM projects were sourced there
- China has also created a stable CDM regulatory environment
 - Not the case in many other countries (Brazil, Thailand, etc.)



2. CDM has proven a boon to one class of assets (chemical plants)



- Only partially true, plus, markets by nature first seek out highest return assets
- There may have been more effective/ efficient means of reducing emissions from these highly concentrated sources
- In the absence of such means, the markets proved able to provide effective incentives and find least cost reductions



3. The voluntary carbon market is rife with charlatans

- Important differences between voluntary and compliance markets
- Not entirely untrue (or true), but saying so would be like condemning the Internet in 1998 because of **Pets.com**
- As voluntary market has grown in in importance, industry has addressed quality issue by embracing the WWF Gold Standard, VCS and the like





4. Phase 1 of EU ETS was a fiasco

- It is not the fault of the CDM that the EU ETS was over-allocated
- Most studies do show that real emission reductions were achieved in Europe during the period of Phase 1 when prices were higher
- Project based mechanisms and allocations are of course related, but different issues entirely
- Phase 2 is allocated properly and the pricing mechanisms are engendering reductions again



5. Many non-chemical projects (EE/RE) are not additional (the Victor-Wara hypothesis)

- May be some truth depending how you view additionality
 - As such, credits from: some projects may have allowed some marginally greater emissions in EU/Japan possibly without crystal clear 1:1 reductions in developing countries
- Bottom-up additionally is a challenge and may be impossible to implement effectively and consistently in these asset classes
- Challenge is a function of the ratio of conventional (generally electricity) to carbon value, which ranges from 4:1 to 15:1 and moves constantly with market forces
- However, we also need to appreciate the overall benefits of scaling up RE technology into new markets (e.g. wind turbine production in China)
- As RE/EE is a core value of a global decarbonization strategy, the CDM must re-address how to provide incentives to this asset class effectively



Long Term Goals of Climate Policy?

How about...

- "Developing an effective, global, low-carbon infrastructure across all economic sectors & stages of country development, driven by scientifically established emission reduction targets"
- Accelerating development and diffusion of technologies that can achieve this goal should be paramount
- Emission reduction tonnes provides a good but imperfect indicator that helps focus developers by providing direct financial incentives
- Ultimately, we need to influence broad trends, not haggle over a few tonnes—but every game needs a scorekeeper



Maximizing the potential to achieve these goals

Project Based mechanisms potential to promote innovation, finance and execution requires:

- 1. Long-term (20++ years) commitments to policy that reward/penalize relative GHG performance via a market
 - Kyoto period of five (5) years is way too short
- 2. Predictability and Transparency of decision making
 - Both outcome and timing of outcome on too many projects is unsure, which impacts returns and willingness to invest
- 3. Simplification of process—conservative can be a substitute for exactness
 - We will NEVER account for every hypothetical ER tonne;
 - We CAN create a positive atmosphere to accelerating the trend to a low-carbon economy



Maximizing the potential to achieve these goals

- We need to move to at least some "top down" determination of additionality
 - Bottom up additionality is no less controversial, but draws many times more resources
 - The regulator i.e. the political process needs to take more direct responsibility and accountability
 - Would free up enormous resources that are current tied down in minutiae
- 5. We should consider whether validation and verification should be contracted by the regulator
 - There are antecedents both ways
 - Current system creates complications when there are controversies

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Not sure what this means and also not sure whether this is the right point to end on when you have so many other strong and a1 important points to make abarnes, 3/25/2008



Fool Me Twice, Shame on Me

- Innovation and determination must be rewarded
- Important that early adopters and risk takers not have the rug pulled out from under them by arbitrary policy shifts
- Risk pulling a "bait and switch" on a key climate change/sustainable development tool that has engaged the developing world with profound effect
- This could have profoundly negative impacts on future negotiations between the OECD and G-77 on these issues



- MARKETS WORK but designing them to fit the specific policy goal is critical
 - Markets are not the only solution, but an important arrow in the policy quiver
- Out of nowhere, CDM has created a global class of "carbon entrepreneurs" seeking to participate in this market
 - Give people a transparent incentive to achieve an environmental objective and the uptake is both broad and deep
- 3. Capital and Technology Markets are ready to help
 - However, uncertainty around the future regime is already closing the capital tap, which is crucial
- 4. Most additionality is not only a pure technical assessment, it also must involve political/policy decisions around incenting (or not) certain behavior
 - A top-down approach for certain segments would be an appropriate shift

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We only achieve "learning by doing" if we keep doing!!

Not sure what this means and also not sure whether this is the right point to end on when you have so many other strong and а3 important points to make abarnes, 3/25/2008



Thank You

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