Emission trading
the role in climate policy

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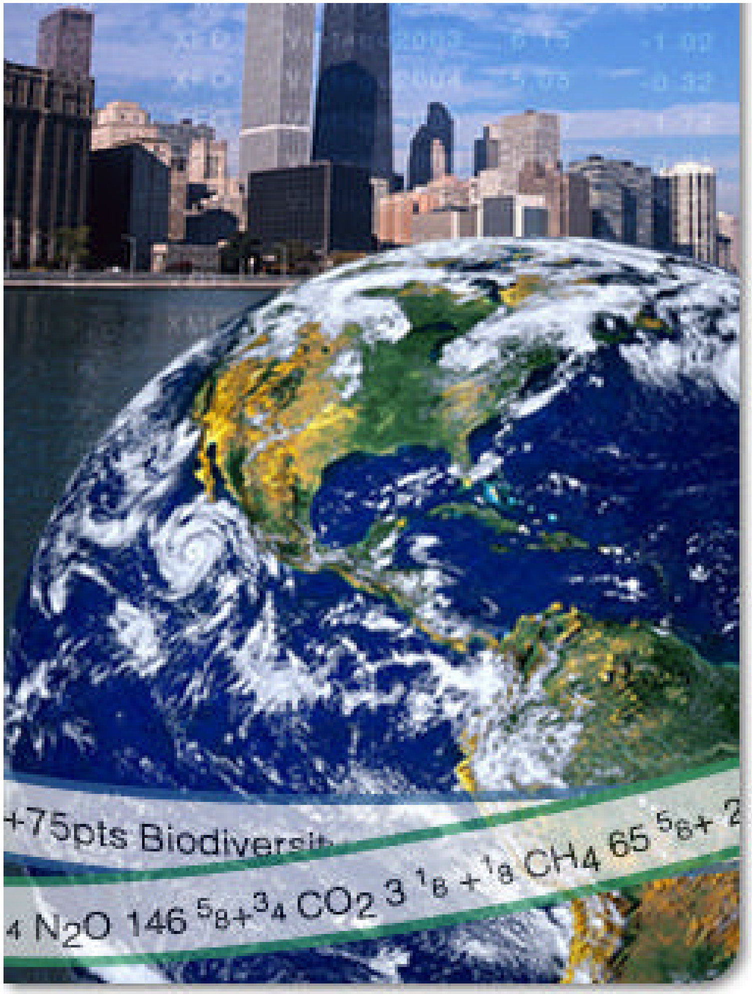
Greenhouse Gas Risk Solutions



“What goes up must come down”

Exception - greenhouse gases

Solution - don’t let them up in the first place

Problem - this costs money

Solution - print more money

Result - create a new currency, an emission reduction unit

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The new currency effect

- By giving the issue a value i.e. creating this new currency, we change the nature of the underlying from being only a liability to also potentially being an asset. This simple dynamic changes the way companies view the subject since it now resembles other asset and liability issues.
- The underlying theme of all market based solutions is to provide entities with the flexibility to determine the most economic means to tackle the problem.
- The ability to make a profit out of the problem automatically changes the way companies view the issue.

What should a model programme look like?

- The emission trading system capitalises on the power of the market place to reduce emissions in the most cost effective manner possible.
- The permitting programme allows for flexibility to tailor and update compliance strategy based upon individual circumstances.
- The monitoring and reporting provides for accurate accounting.
- The excess penalties provide strong incentives for self-enforcement.

What does the model programme aim to achieve?

- Aims to achieve significant environmental and public health benefits at the lowest cost to society.
- Additionally the programme encourages energy efficiency and pollution prevention.

Types of trading schemes

The main schemes used for environmental trading products

- Bubbles
- Offset or Credit based
- Cap & Trade

Some concepts combined with the above

- Baseline
- Rate based

Bubbles

Bubbles allow an entity with multiple emissions sources to combine their total emissions targets from these multiple sources under one accounting entity. This creates flexibility to apply pollution control technologies to whichever source under the bubble has the most cost effective pollution control options, while ensuring the total amount of emissions under the bubble meets the overall environmental restrictions.

Offset or Credit based

Offsets or Credit-based Emission Reduction trading represent the next iteration of emissions trading. These systems are project-based, often incorporating non-capped industries and entities. This system allows entities that wish to increase their emissions to obtain offsetting reductions from entities that are not required to reduce their emissions. Offsets are created when an emitting company makes voluntary, permanent emission reductions that are legally recognized by a regulator as Emission Reduction Credits or Offsets. Those Offsets are sold to new, or expanding emission sources to 'offset' the new emissions. Regulators approve each trade; however, regulators usually require a percentage of the Offsets be retired as a dividend to the environment.

Cap & Trade

Cap and Trade Programs are more evolved forms of emissions trading. A regulatory authority establishes an aggregate cap on the emissions of a pollutant that is a firm and permanent limit for a group of emitters. The allowed cap has historically been a fraction of the historic emissions from those sources. Emission Allowances are units of trade created to account for the total emissions in the system Trading occurs when an entity with excess allowances, liberated through actions or improvements made, sells them to an entity requiring allowances.

Baseline

Baseline Emission Reduction trading systems are project-based, often incorporating non-capped industries and entities. This type of system allows an entity to voluntarily reduce emissions below an agreed baseline under business as usual. The accreditation system is based upon the delta between two emission forecasts: with and without the proposed project.

Rate-based

Rate-based (or relative) emissions trading focuses on the emission per unit of output rather than absolute emissions. This system is intended to promote increased efficiency without limiting growth of the underlying business. Within such a system entities that improve their efficiency beyond the target levels can trade the excess improvement with other companies.

Do emission trading schemes work?

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The best example of a working scheme is the US Acid Rain programme

- All the environmental targets have been achieved and faster than expected

- Allows utilities to combine their options in order to tailor their compliance programmes to individual units thereby reducing customer cost transfer and maintaining competition

- The US General Accounting office confirms that the system saves over 50% (circa $3 billion p.a.) of the cost that would be associated with the command and control approach of previous environmental programmes

And what doesn't work?

The US EPA estimates that the "superfund" scheme established to cover environmental clean up resulted in 70% of the fund actually being paid to cover the administration and legal costs of the fund rather than being used for cost of actual clean up.

Business is more efficient than bureaucracy!

List of specific greenhouse gas trading schemes in use or planned

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Australia (national) - cap & trade

Australia New South Wales – offset

Canada – offset

Denmark – cap & trade

European Union – cap & trade

Korea – cap & trade

Netherlands – cap & trade

Norway – cap & trade

UK – cap & trade

List of specific greenhouse gas trading schemes in use or planned

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USA Chicago Climate Exchange – voluntary

USA New England States – bubbles

USA California – voluntary registry

USA New Jersey – cap & trade

USA Oregon - offset

Emission trading
a tool against climate change

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Emissions trading is an individual tool against climate change. It is however the most important tool to engage business and industrial polluters in the long term process of reducing emissions and pollutants.

Emission trading is not "the" solution

- Improving management systems does not automatically improve the environment. It is widely assumed that management systems alone address environmental and social problems and can drive the move towards sustainability.
- In this regard, industry must take a more proactive role in ensuring that development proceeds in a more environmentally and socially responsible manner and be engaged in the ongoing processes to implement.
- Emission trading schemes will help industry to overcome the barriers to action but action is required by all other stakeholders.

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The other tools are still developing

The less reduction, the more mitigation and at what cost?

Emission trading is the most advanced tool at this stage to engage the industrial emitters, the largest part of the problem

Swiss Re's business activities supporting emission reduction

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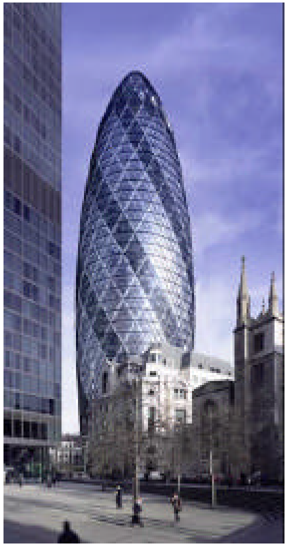

Asset Management

- **ECO Portfolio**
- **Carbon Disclosure Project**
- **3rd Party Asset Management - consumer products**
- **Renewable Energy Fund**

Re/insurance

- **Risk Management - D&O and PD/BI**
- **Delivery Guarantees**
- **Professional Indemnity**
- **Credit Guarantees**
- **Special Covers**

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