

European Research and Development Project

Implementing the Kyoto Mechanisms

Contributions by Financial Institutions

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IMKYM-COFIN

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www.iwoe.unisg.ch/IMKYM-COFIN

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Executive Publishable Summary related to the overall project duration

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EXECUTIVE PUBLISHABLE SUMMARY

OBJECTIVES:

Our research and development project “Implementing the Kyoto Mechanisms - Contributions by Financial Institutions (IMKYM-COFIN)” aimed at exploring the role of the financial sector in climate change mitigation and developing innovative financial products for participants in the emerging greenhouse gas emission markets. By enhancing the understanding of financial, technical and methodological aspects of GHG emissions trading and the Kyoto mechanisms, our project could facilitate international negotiations about rules, modalities, and procedures, and promote implementation at the European and international level.

Main components of the project are:

- **Price scenarios** for GHG emission permits for the period 2000-2008;
 - A quantitative assessment of the risks associated with investments in climate change mitigation and the risk reduction potential of **portfolio diversification**;
 - An analysis of the scope for private-sector **insurance** against risks related to the use of the Kyoto mechanisms;
 - An systematic examination of how emissions trading can be integrated into **project finance** analysis;
 - Conceptual analysis of the potential of investment vehicles like **carbon funds** to facilitate GHG abatement projects.
- The results of the project have been applied to case studies located in Euro-Mediterranean countries.

SCIENTIFIC ACHIEVEMENTS:

In the course of the project, the following results have been achieved:

- Formulation of greenhouse gas price scenarios for three time segments: 2000-2004 (pre-EU trading system), 2005-2007 (EU trading system), and 2008-2012 (First Kyoto compliance period).
- Assessment of industry demand for insurance coverage related to greenhouse gas emissions trading.
- Design of a credit risk insurance for greenhouse gas emission trading.
- Methodologies for quantitative analysis of the risks of greenhouse gas abatement projects and their diversification.
- Financial model for sensitivity analysis of project cash flow deriving from greenhouse gas emissions trading and related impact on debt service cover ratios.

SOCIO-ECONOMIC RELEVANCE AND POLICY IMPLICATIONS:

The financial sector has an important role to play in managing and facilitating investment in climate change mitigation. The fact that activity levels are still rather low suggests that further efforts to clarify the **regulatory environment** and provide certainty about rules for emissions trading are necessary. However, from a risk management perspective, there is no need that these rules be harmonised.

The fact that the risks of investments in international GHG mitigation activities are large implies that green-house gas abatement measures abroad are unlikely to be considered equivalent to domestic measures. This represents another

reason to expect that Joint Implementation and Clean Development Mechanism projects will not replace domestic measures completely, but instead be **supplemental** to domestic action, as required by the Kyoto Protocol.

Including **project-based** emissions trading in the European emissions trading scheme could not only offer further low-cost mitigation options, but also more opportunities for diversifying investments. From the perspective of project finance, it would be desirable to know an installation's definitive **allocation** of allowances for the entire loan lifetime ex-ante, i.e. at the time of project structuring.

CONCLUSIONS:

1. The financial sector has an **important role** to play in international emissions trading. The daily business of banks and insurance companies will be affected by climate change and climate policy. The **knowledge** regarding risk management and financing that exists in the financial sector can and should be used to deal with the risks and uncertainties of climate change.

2. The financial sector is **preparing** itself for becoming active in the emerging market for greenhouse gas emissions trading. However, the uncertainty surrounding emissions trading both on the national and international level as well as the fact that binding emission restrictions are unlikely to be in place before the year 2005 imply that the activity level is still rather low.

3. Our work has shown that CHG emission permit prices are likely to be lower than predicted.

Hence, **resource and technology transfers** to developing countries will not achieve the levels many people expected. If developing countries are to benefit significantly from climate policy and emissions trading under the Kyoto Protocol, concepts and tools that facilitate the engagement of private investors and help mitigate investment risks are crucial.

4. Climate policy and emissions trading do not require fundamentally different **methods and concepts** than those currently applied in the financial industry. However, some of these methodologies should be altered to take the implications of climate change and/or emissions trading into account. New innovative solutions may emerge, and combinations of existing products with new or altered products may prove to be useful.

KEYWORDS:

Climate policy, financial institutions, greenhouse gas emissions, insurance, investment funds, portfolio diversification, price scenarios, project finance, tradable permits, sustainable development, risk management.