Bundesministerium
für Umwelt, Naturschutz
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Climate Change and Financial Service Providers

Tapping Markets of the Future – Avoiding Business Risks

Conference findings

Contribution to the 3rd Ministerial Meeting of the Gleneagles Dialogue on Climate Change, Clean Energy and Sustainable Development, Berlin, 9-11 September 2007

G8 2007
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Bildnachweis: Titel: BMU, MODIS Rapid Response Project at NASA/GSFC, sushi100, PHOTOCASE

S. 1: C-Promo.de; S. 2: checka; S. 3, 5, 7: BMU; S. 4: julchen; S. 7: sushi100

Background

The G8 summit 2007 in Heiligendamm achieved a breakthrough in international climate protection. The G8 committed themselves to working towards a follow-up agreement to the Kyoto Protocol within the UN framework by the end of 2009. This is further evidence of the G8's strong commitment to climate protection.

In order to fulfil that commitment the skills and resources of the private sector and especially of the financial services industry are necessary. A recent UNFCCC report “Investment and financial flows relevant to the development of an effective and appropriate international response to Climate Change” assessed the need for investment, both for mitigating climate change and adapting to it. According to the report, an estimated USD 200 to 210 billion of additional global investment and financial flows will be necessary in 2030 to return global greenhouse gas (GHG) emissions to their current levels. Such amounts can be raised only by private sector investments and require strong involvement of the financial services sector.

The conference "Climate Change and Financial Service Providers: Tapping Markets of the Future – Avoiding Business Risks", organised by the German Ministry for Environment and the German Federal Environment Agency, has build bridges between environmental and energy policy on the one hand and the financial sector on the other hand. Apart from providing input to the 2007 Gleneagles Meeting of the Energy and Environment Ministers the conference also constitutes, notably in Germany, the start of a broader debate on climate change and financial services.

Overall findings of the Conference

- Most **financial services providers** now **acknowledge that climate change is a fact**. The Stern Report indicates that the cost of inaction by far exceeds the cost of action: while no further action will cause damage as high as 5-20 percent of global GDP in 2050, the cost of mitigation to avoid the worst impacts of climate change will be around 1 percent of annual global GDP.
- **Climate change represents both risks and opportunities for the financial sector.** There are risks for reinsurers, in particular, but also significant business opportunities i.a. in the area of corporate financing, carbon finance, asset finance, and asset management.
- **The financial industry is already seizing the opportunities represented by climate change by adapting its range of financial products and developing new tools.** New products include catastrophe schemes for the countries most affected, micro-insurance schemes in developing economies, insurance cover for renewable energies, and products such as Kyoto Multi Risk Cover (relating to the delivery of carbon credits as planned), Green Building Coverage and Eco-Bonus motor insurances. Tools include e.g. prospective risk management and climate asset analysis tools, which help to provide the necessary economic signals to markets.
- **The financial services industry has set up a number of joint initiatives in response to climate change.** These have a variety of aims: enhancing the exchange with industry, stimulating knowledge-sharing between different financial service providers, promoting dialogue between financial service providers and public institutions, optimising investment processes, strengthening research into climate change and financial services, and so on. Key initiatives here include i.a. the Carbon Disclosure Project, the IIGCC, and the UNEP FI Climate Change Working Group. Many other initiatives also relate partially to climate change, including UN PRI, Eurosif, and the Enhanced Analytics Initiative.

- While much has been achieved, significant potential for further action remains. **Financial companies should aim to be "first movers", not followers.** The financial industry should seize the opportunities represented by climate protection – the focus should shift from problems to opportunities.

Carbon markets

In 2006, the **international carbon market grew** in value to an estimated US$ 30 billion (€23 billion). This is three times greater than the previous year, with the EU Emissions Trading Scheme as leading component both in volumes and values. Project-based activities primarily through the Clean Development Mechanism (CDM) and Joint Implementation (JI) as well as the voluntary market for reductions by corporations and individuals also grew strongly.

The scope for extending private sector emissions trading markets is high, and can generate large investment flows globally. The growth of carbon markets associated with emissions certificates offers revenue opportunities for developing countries and more efficient companies, and will need a range of services from the financial sector. International emissions trading could be worth between 50 and 800 billion euros in 2025.

The **Clean Development Mechanism** (CDM) market is expanding, it has shifted from mainly government programmes more towards private investment. However, these investments mainly take the form of purchases of rights – i.e. Certified Emission Reductions – in which the investor is not closely involved. **The need now is to move towards more direct investment, with the financial sector contributing more expertise to projects.** Assuming further control over projects can also yield sustainability benefits thanks to the establishment of long-term relationships.

The climate protection market is still difficult to invest in, especially for small and medium-sized enterprises (SMEs). Particular problems are the short time horizon, limited access to the market, and unclear specification of rights. **Financial service providers have a role to play in alleviating these problems for SMEs**, as promoters and intermediaries of investment projects.

Uncertainty in the post-2012 period is not viewed as a major barrier to investment in carbon markets, particularly as the EU and other actors are already offering concrete commitments and perspectives on the long-term direction of international climate protection efforts are becoming clearer.

Asset management

Climate change has a material impact on companies. As such, it should be taken into account in asset management. Yet in practice, **asset managers lack access to sufficient information on carbon liabilities.** The problems affect a number of areas. Often the quality of the data is insufficient, e.g. where do the figures come from? Evaluative information can also be lacking, e.g. what shape should long-term strategies take, and what are the long-term liabilities?

These are **problems that the financial services sector is targeting** with a number of specific initiatives. For example, the Institutional Investors Group on Climate Change (IIGCC) has set up a disclosure framework for electricity utility companies.

There are also initiatives to include carbon information in asset management, with some funds carrying out "carbon proofing" of their portfolios. Initial research indicates that taking carbon intensity into account in asset management does not result in performance losses, but new opportunities. In other words, **there is no conflict between fiduciary duty and an active asset management approach addressing climate change**.

One consequence of companies' lack of information on the impact of climate change is that **mainstream investors continue to neglect climate change**. The result is the so-called **carbon paradox**: great support for climate initiatives is accompanied by sharply increasing levels of investment in fossil fuel companies.

Another problem lies with disclosure. Current accounting practices allow companies to state their carbon reserves as assets, even if their releases would push atmospheric CO_2 above threshold levels. From a climate change perspective, these so-called assets in fact represent liabilities. Thus **current accounting practices do not allow for a proper assessment** of external costs. Indeed, **estimates suggest that proven, but unburnable assets could be equivalent to over half the total market capitalisation of any oil and gas company.**

Evidently, **improvements are needed in the area of disclosure**. One approach would be to introduce stock exchange listing rules requiring the "proven and probable reserves" of energy companies to be converted into their CO_2 equivalent. Moreover, there are strong arguments for extending rules on carbon risk disclosure to investors, as well as companies.

Venture capital and private equity investment in clean technology

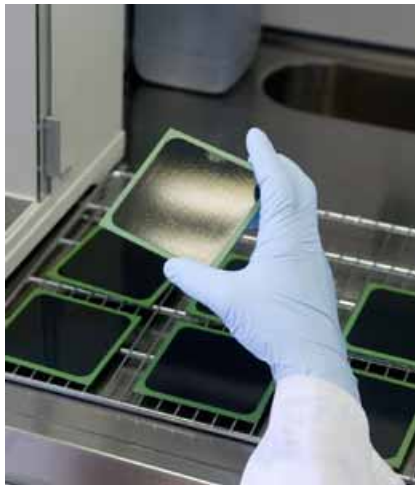
Investments in clean technology are set to grow sharply over the next years. Growth prospects are excellent for all the key areas of renewable energy technology – wind power, solar power, bio-fuels, wave and tidal power – as well as for energy efficiency, carbon capture and storage, , fuel cells and power electronic technology.

But, **while growth rates are high, investment does not take place fast enough**. There are a **number of barriers to investment**. These include a lack of information on climate-friendly investments, unfavourable investment frameworks, insufficient number and quality of deals, technical risks, short-term thinking, and a shortage of suitable expertise on the investor side.

A noticeable **gap exists between Europe and the US** with most venture capital coming from the US. The flow of venture capital is restricted in much of Europe by barriers such as a lack of business angels, heavy bankruptcy procedures, the absence of an open market within the EU, fragmented incentive schemes for clean energy, insufficient government funding for start-up companies, and – perhaps worst of all – a general lack of entrepreneurial spirit.

The consequence of this is that the venture capital market for clean technology (including renewable energy and energy efficiency sectors) is failing to realise its true potential. In **Germany**, this gives rise to a paradox. While the **country is a frontrunner in green technologies, investors are few and far between**. As a result, Germany risks losing many of its clean technology innovation to foreign venture capital investors, who then take the developments abroad.

Government has a clear role to play in improving this situation. By offering the right tax incentives for private investors and a favourable environment for investment, governments can attract investment in environmentally friendly technologies into their countries. Yet the true burden still remains with the investors themselves. In many cases, these **investors have so far failed to realise the full potential of the market**. Here, **the barriers are often psychological rather than real** – one may hope that over the next few years some of these fears will evaporate.



Financing climate protection in emerging economies

CO_2-emissions in industrialised countries are fairly stable, though still well above global average; it is in **emerging economies** where increases mostly take place. Here greenhouse gas **emission intensity** of economic development **needs to be brought down**, instead of tripling emissions as they are about to do, in order to avoid dangerous climate change.

In line with such needs, capital is beginning to shift to **emerging economies**. **National capital markets for clean technology begin to develop**. On the Indian stock exchange, for example, the large flows of capital coming in from outside are now accompanied by strong movements of capital internally. Moreover, India has become a strong net investor in renewable energies abroad. This reflects stronger Foreign Direct Investment (FDI), as well as private capital mobilising within emerging markets. China, India and Brazil are all now major producers of and markets for sustainable energy, with China leading in solar, India in wind and Brazil in biofuels. Developing countries face the challenge of fast-growing energy demand combined with less mature capital markets.

Innovative work continues on designing financial instruments to encourage investment and manage risk in developing countries. These play a major role in facilitating the necessary changes in energy production and consumption in emerging countries. However, the **success of projects involving foreign capital depends on several conditions**. These include the necessary legal and administrative environment (security for investments, subsidies, soft loans, etc.), a regulatory regime that is acceptable to investors, the right match of partners for operation and financing, and the availability of financial and technical support. In addition, at the end of successful projects there must also be a feedback loop to the regulatory regime.

The **Clean Development Mechanism has played an important role as a catalyst** for investment in renewable energies and energy efficiency in emerging countries. The task now is to strengthen this mechanism so that it can deliver its full potential.

Conclusions

The message of the Conference was clear: **climate change is a challenge, but it is also a major business opportunity for industry – especially the financial services sector**.

The Conference investigated different aspects of the relationship between climate change and financial services. It concluded that **responsibilities lie on both sides, both with the financial service providers and the policy makers**.

Financial service providers should contribute i.a. by:

- Developing new products and services
- Encouraging industry to address issues of climate change
- Raising awareness of climate change in society
- Building alliances between SMEs and large companies to develop climate protection technology
- Putting pressure on other players in the financial services industry to act likewise

Policy makers should contribute i.a. by:

- Establishing clear and predictable emission reduction targets
- Exploiting market-driven instruments and market mechanisms (including price signals from the insurance industry)
- Setting up ambitious programmes to promote renewable energy and energy efficiency
- Devising international approaches to climate change which avoid market friction

Financial service providers must work in tandem with policy makers on climate change. The two need to collaborate over practical issues, such as public-private partnerships for climate technology projects. They must also enter into an ongoing dialogue, potentially involving both carbon-intensive and carbon-friendly players.

For further information on the conference please consult:
www.adelphi-consult.com/climateinvestment07