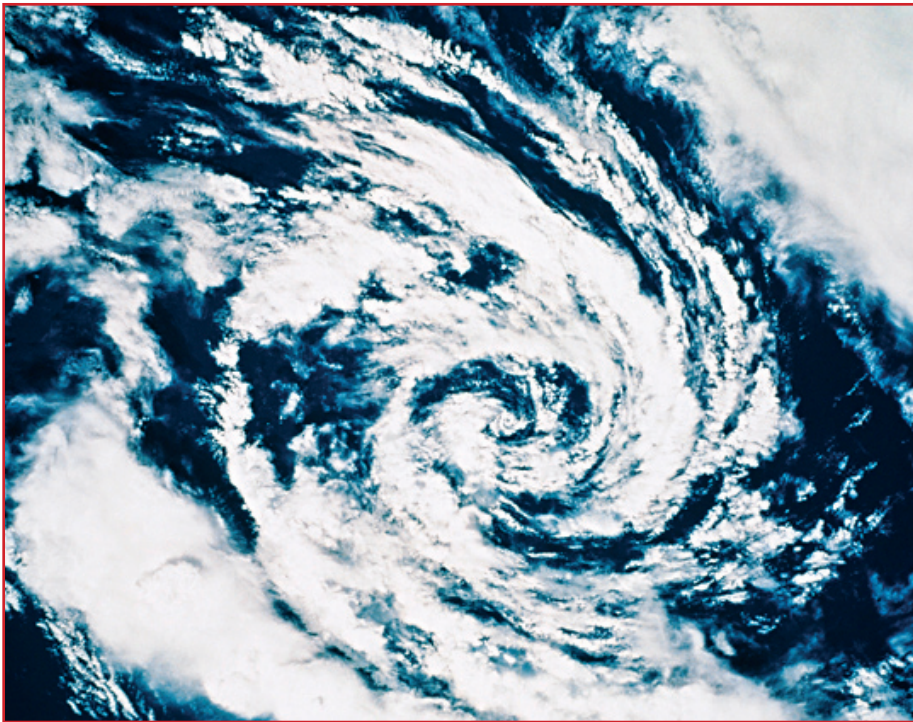


Mainstreaming of climate risks and opportunities in the financial sector

Financial market – ready for climate change?

Executive Summary

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Executive Summary

The subject of climate change becomes increasingly important. Even the financial market cannot defy its influence. On this account a survey on the European financial sector has been conducted in the first half of 2007. Crucial questions of the survey had been:

- 1. How does the financial market perceive climate change?**
- 2. Are chances and risks of climate change taken into consideration adequately?**
- 3. Are trends concerning new methods (or proceedings) for dealing with these risks / chances noticeable?**

The following statements outline the main findings of the paper published in September 2007 “Is the financial market prepared for climate change? – Results of a survey among financial market experts” (in German). This paper and further information are available at:

www.climate-mainstreaming.net

1. How does the financial market perceive climate change?

Highlights of the survey

- Although the majority of the respondent experts are aware of possible effects of climate change, most actors are inadequately informed about the significance of climate change for the financial sector.
- There is a direct cause-effect-relationship between climate change and value drivers for the performance of companies. But so far this connection has only been considered in particular cases (especially emission trading) and some areas (especially Socially Responsible Investments).

Results and conclusions

- The financial market lacks information on climate change. Especially specific consequences for the financial market apparently are not addressed appropriately. Thus, both substantial and popular scientific publications and information on climate change will not only have to be edited for the financial sector, but will also have to be spread via the sector's corresponding media and channels of information.

2. Are chances and risks of climate change taken into consideration adequately?

Highlights from the survey

- Even though figure 1 shows that most experts state that chances and risks of climate change are mostly considered, the results of the survey showed that these risks and chances do not have systematic influence on risk management, financial analysis or investment decisions.

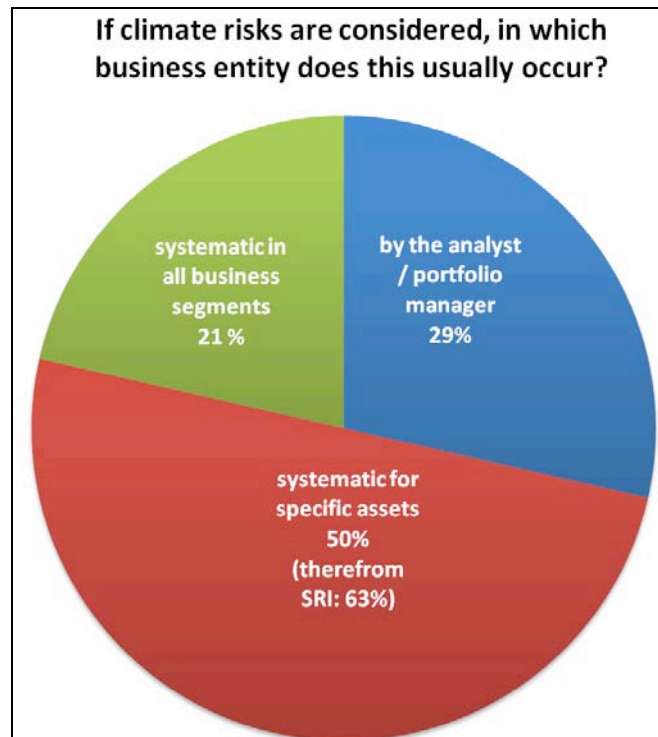


Figure 1: Consideration of climate opportunities and risks

- Most players in the financial market are applying individual heuristics instead of systematic quantitative methods to risk management and investment decisions.

Results and conclusions

- Although the financial market has recognized the relevance of climate change, consequences have not yet been drawn for day-to-day business leading to a gap between awareness and realisation. Obviously, for reducing this gap and coping with the challenge of climate change in the financial market, new or further developed procedures / methods are needed. This can be shown by the great demand for new solutions (ref. figure 2).

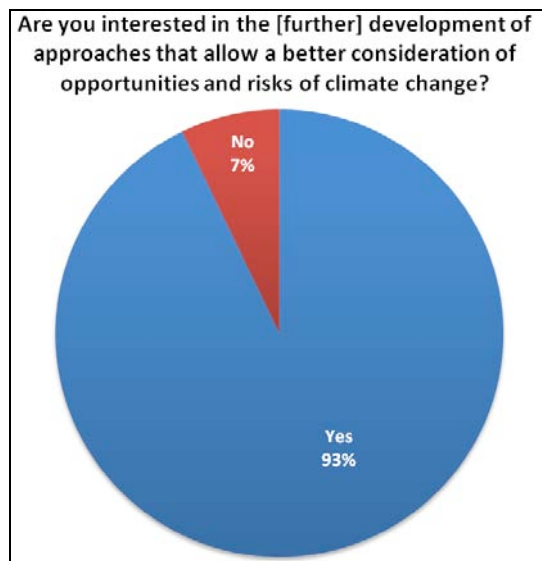


Figure 2: Interest for the development of approaches

- Mostly individual heuristics are being applied to both, portfolio management and financial analysis. Attempts of evaluations and decisions based on scientific methods are exceptions. Financial analysis is rather seen as „art“ than as science. It does not seem as if „gut decisions“ based on experiences are problematic for the parties involved or if objectifying is aspired. As a consequence aspects of climate change may be integrated into the (individual) decision process in terms of an additional component. In order to avoid resistance of the parties involved the input resulting from these additional components (whether general information or specific risk measures) should only supplement the individual decision.

3. Are trends concerning new methods (or proceedings) for dealing with these risks/ chances noticeable?

Highlights from the survey

- There is a great demand in the financial market for the development of methods, which allow a – preferably modular and feasible – systematic consideration of climate risk in risk management. Existing methods should be refined for this issue.

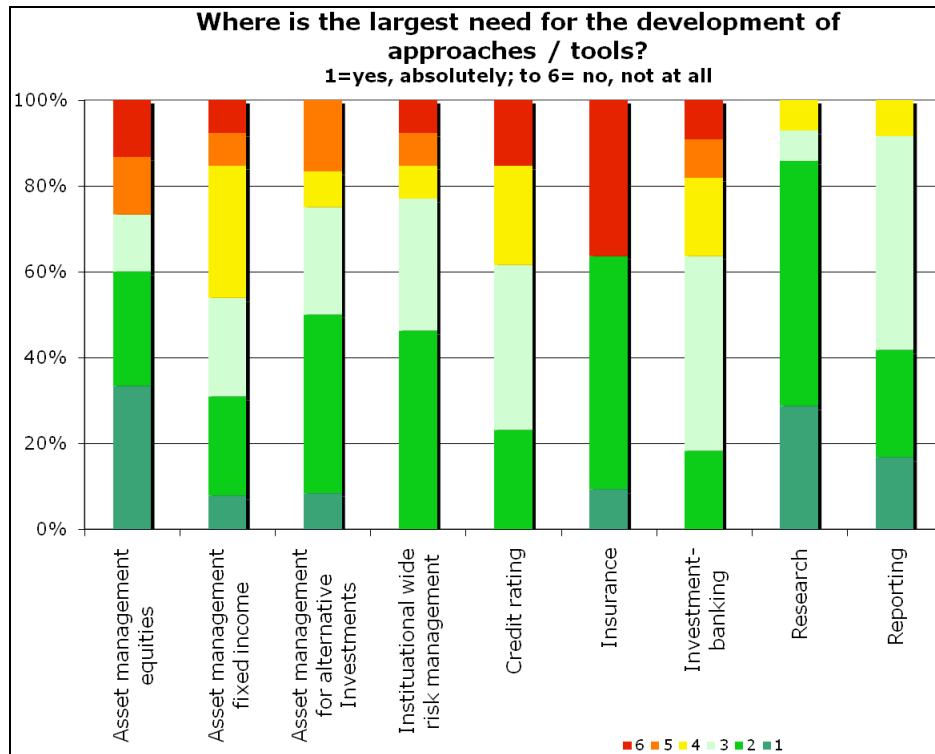


Figure 3: Need for the development of approaches / tools

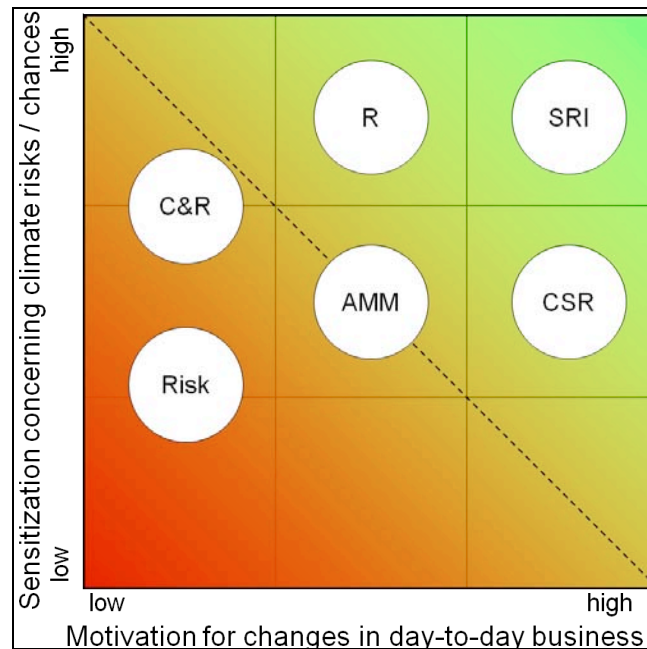
- Integrating climate opportunities and risks is most significant for evaluating enterprises in equity research as equity research provides the greatest know-how on this issue. This conclusion is substantiated by the demand for new methods in different financial business segments.
- Integrating climate risks and opportunities in financial business (,mainstreaming’) can be supported by adequate and feasible methods. There is a great demand for such methods in the financial sector.

Results and conclusions

- The readiness for changes concerning the players’ own field of action differs depending on the individual business segment but also on the tie to corporate identity (ref. figure 4). Groups with an unreadiness towards changes can be convinced especially by best-practice examples. They

can hardly be won over by being first-movers regarding new applications or methods. Therefore, it is reasonable to start with open-minded business segments (i.e. equity research). Step-by-step field-tested approaches can be transferred to a larger group. Furthermore, it should be regarded that the approaches / tools can be used flexibly in terms of accessibility to different methods.

Figure 4: Business segments and its suitability for mainstreaming



AMM: Asset management / fund management, SRI: Socially Responsible Investments, C&R: Credit & Risk, CSR: CSR & Corporate strategy, R: Research / Financial analysis, Risk: Risik controlling

- The financial sector has signaled a great demand for further development of methods / instruments in order to manage climate opportunities and risks. This means in reverse that the current systems and procedures are apparently not or only inadequately appropriate for the management of climate opportunities and risks. As there is no appropriate intrasectoral development apparent at the moment, science can play an important role in (further) developing, testing and transferring appropriate methods and instruments. The use of scientific know-how will accelerate the mainstreaming significantly.

Background information on this project:

Mainstreaming of climate risks and opportunities in the financial sector

Climate-related opportunities and risks in insurance, asset management and lending (with a focus on asset management)

Germanwatch ; University of Potsdam/ PIK Potsdam Institute for Climate Impact Research ; DIW German Institute for Economic Research ; Wuppertal Institute for Climate, Environment and Energy

Starting from precise requirements stated by German financial service providers, the project elaborates proposals on how to adequately incorporate climate-related risks and opportunities in company ratings (analysis), risk quantification and control, as well as investment decisions/asset management.

The project aims at developing instruments, processes and methods which enable financial analysts, asset managers, underwriters and investors to integrate considerations on climate change and protection (adaptation and mitigation) in their decisions. Such an implementation-oriented, expert-based classification system will be designed along the lines of tools and methods used by sell-side analysts, portfolio managers and underwriters, and/or in such way that it can be integrated into these.

One of the main issues consists in the development of new approaches to risk management. General climatic and political frameworks are modified by climate change in such a way that statistical methods and a simple extrapolation of previous trends are no longer suitable for drawing reliable conclusions with regard to future developments. Thus, an increasing number of decisions is taken on an uncertain basis. A promising approach lies in methods of Bayesian risk management which facilitate improved assessment of the impact of climate change, as well as climate policy and its financial implications. Hence, they mark a core element of the project. The results shall be achieved in cooperation with selected financial service providers, and shall be made available to financial market actors using them to set the course for improved adaptation and climate protection measures in economy.

CLIMATE MAINSTREAMING

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