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# Frontiers in Economics



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# Frontiers in Economics

With 19 Figures  
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Final Report of a Research Project  
for the German Federal Ministry of Finance

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## Foreword

In 1998, the German Federal Ministry of Finance gave the German Institute for Economic Research (DIW Berlin) the task of carrying out the study presented in this book. The objective was to provide a review of all the important new developments in economics. We were instructed to give special attention to questions of economic relevance and points of view which lead to conclusions on the organisation of economic policy advice. In the light of current international performance standards, we were also asked to discuss the possible consequences of reorganising the research scene as well as university education and training in Germany.

The German Wissenschaftsrat (Science Council), during its recent evaluation of economic research institutes, worked out criteria for restructuring the economic empirical research scene in Germany. University and non-university researchers were given the task of developing new concepts to improve co-operation between university and non-university research centres in order to enhance their quality and efficiency. The aim of improving this co-operation also had a major influence on the organisation of our study: A project team, consisting of representatives from non-university research institutes – the DIW Berlin and the Kiel Institute of World Economics – and university-based scientists, was established to work on this topic. This resulted in a research network which, due to its structure, fulfilled the Wissenschaftsrat's demand to provide for a more intensive exchange of views and information between both groups. It thus became possible to organise fruitful discussions in a number of workshops and colloquia, which were also attended by representatives of Federal Ministries and other university-based scientists.

The decision to split the individual topics of this study into separate project modules was based on proposals submitted by various economic research institutes in response to the Finance Ministry's call for proposals. A strong emphasis has been placed on areas identified as particularly successful fields of research, which have at the same time proven to be of great practical relevance for economic policy. The choice of fields is selective. However, it is important to remember that we could only consider topics that were part of the call for proposals.

In order to achieve a comprehensive presentation of the new developments in economics, the contract partners agreed on the following list of relevant topics:

- Monetary Theory, Monetary Policy and Financial Markets
- Public Finance
- Labour Economics
- Institutions and Transformation – Possible Policy Implications of the New Institutional Economy

- Competition Policy and Regulation – The View of the New Institutional Economy
- Network Economics
- Growth, Structural Change and Employment
- Personal Income Distribution
- Game Theory and Experimental Economics

Each module describes the current state of international research work succinctly and comprehensibly and gives special consideration to research questions that are relevant to policy. As specified in the contract, each separate module also includes an analysis of the consequences of new empirical analytical methods and describes the changed need for information in light of the fact that empirical research is based on statistics. Each module, additionally, discusses the potential role of policy in the formation of a more efficient information base and concentrates on the concrete need for information on particular subjects, which results from the successes or shortcomings of economic research.

On awarding the individual project modules, it was agreed that DIW Berlin, which coordinated the entire project, would not be held responsible for the contents of the individual modules. The authors of each separate chapter assume responsibility for their own work, with the only exception of the project summary in the chapter "Economic Research and Policy Advice – Summary and Recommendations", to which all the project members contributed, and which is the result of a constructive and intensive internal debate.

This study is a significant contribution to the ongoing debate on the future and prospects of economics in research and policy advice. I would, therefore, like to express my thanks to all the people involved in the project and their colleagues. I would particularly like to thank my predecessor Professor Dr. Lutz Hoffmann, former president of the DIW Berlin, who developed the concept behind this project. I would also like to thank Dr. Georg Erber for his invaluable work as the project coordinator and Christine Kurka and Edeltraud Martin (who are all members of the DIW Berlin) for their help in organising the project and preparing the typescript. For the proof reading and translation of parts of the manuscripts special thanks have to be given as well to Deborah Anne Bowen, Natasha Daniels, Susanna Goss, Anke Middelman-Beal, Claudia Schmiedchen, and Allison Williams.

Berlin, January 2002

Professor Dr. Klaus F. Zimmermann

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# 1 Monetary Theory, Monetary Policy, and Financial Markets

Jürgen von Hagen,<sup>1</sup> Bernd Hayo,<sup>1</sup> and Ingo Fender<sup>2</sup>

## 1.1 Introduction

Towards the mid-1970s, mainstream monetary macroeconomics was a well-established body of economic analysis. Work in this field was based on the analytical cornerstones of the IS-LM framework augmented by a supply side of sticky prices and wages and the Philipps Curve. Monetary economists used models encompassing hundreds of equations supposedly reflecting economic behavior to predict business cycle fluctuations and devise counter-cyclical policies aimed at fine-tuning the economy. Those who were critical of Keynesian activist policies emphasized the importance of asset markets and portfolio adjustment over short-run equilibria in the goods markets and pointed to the empirical stability of simple long-run relations such as the quantity equation. Nevertheless, they did not go substantially beyond the basic framework of modeling macroeconomic relations.

This mainstream came under violent attack from two sides in the late 1970s. On the theory side, the Lucas Critique (Lucas, 1976), derived from the principle of rational expectations, argued that the parameters of the conventional macroeconomic models should not be considered invariant to changes in economic policies; hence, these models could hardly be used to predict the results of such changes. On the econometric side, the Sims Critique (Sims, 1980) argued that the conventional empirical models were based on a multitude of untested (and untestable) a priori restrictions; hence these models could hardly be used to produce reliable empirical forecasts.

In the wake of these attacks, monetary macroeconomics has again become an exciting field, albeit one of much less academic consensus. On the theory side, two main research programs have emerged over the past 20 years. One is the attempt to build macro economic models with satisfactory empirical characteris-

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<sup>1</sup> ZEI Bonn (Center for European Integration Studies), see also list of authors.

<sup>2</sup> BIS (Bank for International Settlements), see also list of authors.