Research in Central Banks

Every central bank should strive to produce high-quality research; that is, written products of general interest to the people outside of the central bank. As an institution entrusted with improving a country’s economic well being, the central bank is a natural place to produce contributions to knowledge. Government organizations are the best sponsors for public goods like research. But there are many worthy beneficiaries of public support, and so simply saying that it is good to have economic research is not enough for central banks to go out and support it. But there are good justifications for central banks to spend public resources on economic research. The best one is that it helps policymakers to do their jobs better. It does this in two ways. First, every policymaker needs good advisers to help them understand current theory and its application to policy practice. Who better to explain the state of the art in financial and economic research, than someone who produces it? And second, having research capacity improves the credibility of policymakers and the policy they produce. A high quality staff makes it easier to defend policy actions both publicly and privately. Put simply, I believe that central banks with research departments make better monetary policy.

Building and organizing a research department is a difficult and time-consuming task. There is no simple formula that works everywhere all of the time. But there are few things I believe can help guide the undertaking. Here is a short list: (1) There must be support from the head of the central bank; (2) Researchers themselves must be highly trained; (3) The people engaged in the research must be held accountable for the time and resources they are given to do the work; (4) Research topics must bubble up from the people who will do the work; (5) And there must be fertile environment for the work to be done.

Let’s start with support at the top. It is clear to me that without the explicit backing of the Governor or President of the bank, any attempt to build a research department will go nowhere. Without the support of the senior management, it is impossible to obtain either the funding or the intellectual support that is needed to succeed.

Next there is the task of assembling a staff. Recruiting the right people into the central bank’s research department is very difficult. The research economists need to be highly trained, preferably holding Ph.D.s. These sorts of people can be recruited directly from academia -- there are often disgruntled faculty members who are looking for a new research environment. When such
people are unavailable, more creative solutions need to be found. One is that the central bank itself can sponsor the education of people with the potential to become high quality researchers, contracting for them to return when their training is complete. It is important to realize that keeping a good research group requires constant work. Both the best and the worst people will leave. The departure of poor performers is always welcome. And when good researchers go it is a big loss -- but it is sign of success. When high-quality people staff research department, some of them will leave for jobs in good universities. That is not a bad thing.

The next component of a successful research department is accountability. For all of this to work, the economists themselves must be held accountable for the time they are given to work on their research. And to do this there must be agreed upon measures of research quantity and quality. When I was at the Federal Reserve Bank of New York, I instituted a procedure where publications were ranked and each one was given a numerical value. Economists were expected to average a certain number of publications “points” every year, measured over two or three years. The requirement for tangible products, and the value that each one has, make evaluation clear and management’s job easier. But it did even more that than. Quantitative metrics allow the research manager to report to top central bank management who are responsible for resource use in the entire organization. Agreed upon measures of research output provide to monitor the entire research group and hold them accountable.

How should a research department be organized? What topics should be studied, and how should they be chosen? I believe that the work of the research department should reflect the work of the central bank. This includes monetary and exchange rate policy, payments system design, financial stabilization and crisis management, and where appropriate financial supervision and regulation. The research economists should really be chosen for their interest and expertise in these topics. As for how the research projects are chosen, here, I believe, it is essential that the researchers themselves make the choices. While there can, and probably should, be a system whereby economists make proposals that require management approval, management should not assign projects. One of the most important aspects of research is that the researchers be committed to the projects and take ownership of them. This only when the researchers makes the choices. Obviously, this is a luxury, but the ability to work on one’s own project is a form of nonmonetary compensation that researchers appreciate.

Finally there is fertile research environment in the department. Researchers need more than just financial and physical resources like computer equipment, data, libraries, assistance and budgets for travel to do their work. They also have to have an atmosphere in which creativity and individuality are prized. Research is an entrepreneurial activity, and people who can do it must be independent in their thinking. It is often difficult in a bureaucratic organization to foster such an environment, but it is essential for a successful research department. And one of the best ways to do it is to create a constant flow of academic researchers coming through the central bank. These sorts of people enjoy coming to learn about the central bank, and so they are often anxious to visit. On these visits, they can advise the staff on their projects and help develop research ideas that will then help further the goals of the central bank.

Yes, it is difficult to establish and maintain a central bank research department, but I believe that the benefits clearly outweigh the costs. The country will be well served by the better policy that comes out of a central bank that is friendly to researchers.
European Summer Symposium in Financial Markets (ESSFM)

The Study Center hosted the 13th edition of this symposium organized jointly with CEPR and sponsored in part by the New York Stock Exchange from July 16 - 27. The excellent program was organized by Mike Burkart (SITE, Stockholm School of Economics) and Pierre Hillion (INSEAD). The first week dealt mainly with "Asset Pricing" and the second week concentrated on "Corporate Finance". The program consisted of carefully selected papers for the morning presentations while the evening sessions were more informal. Four mornings were dedicated to focus sessions covering these specific topics:

- Markets with Imperfections (organized by Suleyman Basak, London Business School)
- Ambiguity and Learning (Raman Uppal, London Business School)
- Risk Sharing, Networks, and Corporate Finance (Robert Townsend, University of Chicago)
- Managerial Compensation (George Baker, Harvard Business School)

The full program is available on our homepage at www.szgerzensee.ch/conferences.

European Summer Symposium in Economic Theory (ESSET)

We hosted the 7th edition of this symposium organized jointly with CEPR and sponsored in part by the Review of Economic Studies from July 15 - 26. The program organizers were Patrick Legros (ECARE, Brussels) and Mark Armstrong (Nuffield College, University of Oxford and CEPR). The focus sessions for this symposium were:

- Empirical IO (organized by Robert Porter, Northwestern University)
- Dynamics of Collusion (Kyle Bagwell, Columbia University)
- Dynamics of Social Optima (Harald Uhlig, Humboldt University)
- Entrepreneurship and Innovation (Bengt Holmström, MIT)

The Monetary Economics Group of the German Economic Association held its annual meeting at the Study Center from February 21 – 23. This conference brought together leading German-speaking monetary economists from Austria, Germany, and Switzerland. Manfred Neumann (University of Bonn) successfully organized this seminar.

Program

D ieter Nautz,

U niversität Frankfurt
"Inflation und Relative Preisvariabilität in Deutschland"

V olker Wieland,

U niversität Frankfurt
"Data Uncertainty and the Role of Money as an Information Variable for Monetary Policy"

A nsgar Belke,

U niversität Hohenheim
"A uswirkungen der Wechselkursvariabilität auf Arbeitsmärkte"

J ean-Pierre Roth,

S wiss National Bank
"M onetary Policy in Switzerland"

A ndreas Worms,

U niversität Frankfurt
"Die Reaktion der Bankkreditvergabe auf geldpolitische Maßnahmen – Evidenz für Deutschland"
A new type of conference for central bankers was inaugurated at Gerzensee on June 24–28, 2002. The meeting was modeled after the acclaimed academic summer symposia in financial markets and economic theory, organized jointly with CEPR at Gerzensee. It was established under the guidance of co-organizers Professors Philippe Bacchetta (Study Center Gerzensee and University of Lausanne), Stephan G. Cecchetti (The Ohio State University), and Georg Rich (University of Berne), and became an intensive forum in which central bank researchers interacted with highly reputed academic professors.

What made this conference unique was that the academic researchers who presented their work in morning sessions focused on practical themes highly relevant to central bankers. The issues focused on currency crises and exchange rate regimes (please see program). For example, Professor Sergio Rebelo (Northwestern University), presented his work on the puzzle that during large devaluations the CPI does not react much as one might expect. Not only was it an entertaining talk but the extent of the research effort was also impressive. A nother example was the presentation of Yu-chin Chen (Harvard University), of her joint work with Professor Kenneth Rogoff (IMF) on commodity currencies. During afternoons and evenings, central bank researchers presented their work. One seminar was by Dr. Christian Upper (Deutsche Bundesbank) who empirically traced the relationship between derivatives prices and the price of the underlying asset. Also the talks surveying monetary conditions in their home nations added to the experience for the participants coming from nearly forty nations.

Informally the participants formed study groups in the castle rooms to review technical aspects of the presentations. As in the CEPR symposia, some talked about joint research projects. There was even some time for relaxing, for example soccer games (this was world cup soccer week, after all), and an excursion to the Bernese Alps. Yet even the time in the mountains was not spent in idle reflection, since these dedicated research economists discussed structural models, identifying restrictions and characteristics of price determination.

We were pleased to welcome back "alumni" John Rolle (Central Bank of the Bahamas), Dr. Peter Vlaar (De Nederlandsche Bank N.V.), Máir Gudmundsson (Central Bank of Iceland) and Dr. José A. Insfran Pelozo (Central Bank of Paraguay) since we relaxed for this conference our policy restricting central bankers to one visit. We plan to organize new symposia in the future since these participants wholeheartedly indicated that this recent Gerzensee experience was worth repeating.

www.szgerzensee.ch
Program

- June 24
  Chair: Philippe Bacchetta, Study Center Gerzensee and University of Lausanne
  Stijn Claessens*, University of Amsterdam and World Bank
  
  Vincent Brousseau and Carsten Detken*, European Central Bank
  “Monetary Policy and Fears of Financial Instability”

- June 25
  Chair: Philippe Bacchetta*, University of Virginia
  “A Theory of the Currency Denomination of International Trade”
  A riel B urstein, Martin Eichenbaum, and Sergio R ebelo*, Northwestern University
  “Why Is Inflation so Low after Large Deregulation?”
  Marcelo Kfoury Muiños* and Eui J ung Chang, Central Bank of Brazil
  and Joa nillo Rodolpho Tel eixeira, University of Brasilia
  “Macroeconomic Coordination and Inflation Targeting in a Two-Country Model”

- June 26
  Chair: Harris Dellas, University of Berne
  Kenneth Rogoff, The International Monetary Fund
  “Optimal Currency Areas”
  Andrew Rose*, University of California at Berkeley

- June 27
  Chair: Ernst Baltensperger, University of Berne
  Giancarlo Corsetti*, Yale University and University of Rome
  and Paolo Pesenti, Federal Reserve Bank of New York
  “Self-Validating Optimal Currency Areas”
  Claudio Borio* and Philip Lowe, Bank for International Settlements
  “Asset Prices, Financial and Monetary Stability: Exploiting the Nexus”
  Christian Upper* and Thomas Werner, Deutsche Bundesbank
  “Tail Wags Dog? Time-Varying Information Shares in the Bund Market”

- June 28
  Chair: Stephen Cecchetti, The Ohio State University
  Peter Benczur*, Peter Benczur*, Andras Simon and Viktor Varpalotai, National Bank of Hungary
  “The Behavior of the Nominal Exchange Rate at the Beginning of Disinflations”
  Andrew Rose*, University of California at Berkeley

Short Presentations

- Chair: Georg Rich, University of Berne
  Weathering Financial Crises
  Regina Tabayoyong Yu, Central Bank of the Philippines
  “The Philippine Peso in the Context of the 1997 Asian Financial Crises”
  Charan Singh, Reserve Bank of India
  “Fiscal Crises and India”
  The Choice of Exchange Rate Regime
  Mar Gudmundsson*, Thórarinn G. Pétursson and Arnórr Sighvatsson, Central Bank of Iceland
  “Optimal Exchange Rate Policy: The Case of Iceland”
  Damir Cosic, Central Bank of Bosnia & Herzegovina
  “A Narrow Currency for Bosnia-Herzegovina: Experiences and Prospects”
  Oleg Smolyakov, National Bank of Kazakhstan
  “Fear of Floating: Is it Justified in the Case of Primary Commodities?”

* presenter
Interview

What do you teach in the Macroeconomics part of the Ph.D. program at Study Center?

Let me describe how the entire macroeconomics course is designed: it begins by providing a toolkit for dynamic modeling and then applies these methods to economic growth and business cycles. Particular attention is given to analysis of alternative fiscal and monetary policy rules, including the design of optimal rules. The course thus fulfills many of the central challenges that many economists saw in the late 1970s, when I entered the economics profession. It is really a pleasure to teach in a course that reviews what we have accomplished in macroeconomics.

Have all the problems been solved?

There is now a systematic pattern of inquiry being pursued by macroeconomists around the world at universities and central banks. It involves the design of macroeconomic policies that are consistent with microeconomic behavior - optimal choice on the part of individuals - and a more concrete modeling of the economy. These were the central challenges laid down for macroeconomics in the 1970s.

You said it is based on microeconomic behavior. Are there no problems in aggregation?

No, I think aggregation can be quite important. Certainly, macroeconomic models pay increasing attention to aggregation. For example, the models used for thinking about monetary policy questions assume that not all firms charge the same prices even though the firms may have similar production technologies. We find we have to be very careful in appropriately aggregating the actions of these different firms. It also implies that in designing monetary policy rules, a central bank must be cautious about distorting relative prices while managing money supply and the price level.

What should the students learn from the Gerzensee course?

The students become aware of a class of problems and methods used to attack them. They should also learn the state of scientific inquiry in these areas and implications for public policy. Finally, they prepare to do independent research themselves.

Sergio Rebelo, Jordi Galí and I teach the course that takes the students from the early macro challenges to the modern design of monetary policy rules. It is similar to one given at U.S. universities. Each macro course contains a discussion of business cycle facts, methods of intertemporal optimization, applications to consumption and investment and rational expectations models (half of the first semester). Then a course covers economic growth models, models of the effects of productivity shocks and models of imperfect competition. This finishes the first term in the U.S. while the Gerzensee students have only spent their first two weeks in class. Therefore, Gerzensee students work hard between the weeks. In the second U.S. semester, we study the effects of fiscal policy on the economy, asset pricing, the design of optimal policy. Finally, we talk about models with nominal and real interactions addressing money demand, price-stickiness and the design of monetary policy rules. That is exactly the course we teach in Gerzensee.

Twenty years ago when I first became a professional economist there were radical differences across economics departments in what one learned and the approach taken. There has really been a remarkable convergence. Students at Harvard or MIT send me papers that look as if my students had written them. Comparing first year course experiences, they are very similar across all universities.

Many students will carry away from this course the idea that the traditional models - the IS-LM model for example - are very incomplete due to the absence of dynamic analysis. Having seen a wide variety of real general equilibrium models and models of asset pricing, the students grow to appreciate that the dynamic elements are perhaps in the center of macroeconomics rather than an omitted aspect. Many students will remember it as a course emphasizing dynamic elements more than any previous course they have taken.

The dynamics are tough to specify?

It is a problem for economics generally. Think about an airline firm making investment decisions and choosing pricing actions. They make these decisions given the behavior of competitors and the state of demand in its markets: these are dynamic problems. The airlines and economists struggle with them but it is part of economic life.

You are the editor of the Journal of Monetary Economics. How many articles do you read for this task? Is it a rewarding experience?

I try to read one paper per week and write an editorial report. This is of course only a fraction of the editorial flow at JME. The other senior editor is Charles Plosser. A few economists on our editorial board handle the rest of the manuscripts. This is a broadly rewarding experience: it is a way to keep in touch with the intellectual development of the profession. I allocate my resources in thinking and reading about papers written by relatively junior economists. I think the marginal product of my observations is more positive applied to them. Karl Brunner, a senior colleague at the University of Rochester, always argued that an important component of a journal was to be educational. We try to do that!

Charles Plosser and I alternate in managing the journal.
assignment process. We have a good group of associate editors with various areas of specialization and so frankly with a quick read of an abstract I can send it to the right person most of the time.

The Carnegie Rochester Series has an excellent reputation, why did they merge with the JME?

The Carnegie Rochester Series was originally a supplement to the JME when Karl Brunner set them up while he was at Rochester. Then the institutions separated. Karl wanted to continue to manage Carnegie Rochester and asked Charles Plosser and me to take over the journal. Recently, Elsevier Science Publications raised the possibility of reuniting the two organizations because of economies of scale in terms of advertising. They also thought benefits would accrue to the Carnegie Rochester conference participants by making their articles available to the larger JME readership. The boards of both journals supported the merger.

You have moved from Rochester to Virginia and recently to Boston University. Did it give you a better idea of what makes a good economics department?

For any young economist, the important experience is inevitably at the first university. Rochester was a very good place for me. My interests were two-fold: the modeling of the macroeconomy in a structural manner and the monetary policy issues. My colleague Robert Barro was focused on structural modeling while my other colleague Karl Brunner was interested in monetary policy. Both senior colleagues were extremely valuable to me.

Economics departments are like other teams or communities: matters of culture are pivotal and economists don’t always think about them. Working in different departments has shown me the importance of those cultural elements. If you are a member of a faculty, the way your colleagues educate and interact with students has an impact on you. The principal value of being a member of a department is the pattern of social interaction. You set up circumstances where those patterns work well. At each university, I try to think about which cultural elements should be set up.

What you said was culture but you were talking about general equilibrium?

What we mean by culture is a pattern of social interactions that evolves across time and countries. Of course, individuals contribute too. But it is more than the sum of the contributions that individuals make. It is a general equilibrium of a particular sort with important public good elements. Maybe that is the reason that I called it culture.

What projects are you working on?

I work on several projects related to the courses I teach in Gerzensee. I have written an applied paper on the term structure of interest rates with André Kurmann, a young Swiss economist who graduated from the University of Lausanne and the University of Virginia. We look at the statistical relationship between long term and short term interest rates and try to understand the extent that the long run conveys information about the expectations important to policy makers. We use modern time series econometric methods and rational expectations models to reduce to a small number the rules of thumb to be used by economists in the policy discussion. This paper will appear in the Economic Quarterly of the Federal Reserve Bank of Richmond. It was motivated by lunch table conversations at the Richmond Fed. I wanted to know if we could quantify the extent that a higher long rate reflects a rising permanent component of short rates. I am also involved in other projects on the design of monetary policy rules in situations where the monetary authority can commit and other situations when they cannot. This yields a discretionary equilibrium. Furthermore, I continue to work on estimating small structural models.

What is your contribution as advisor at the Federal Reserve Bank of Richmond?

The person with whom I have had the longest-standing close interaction is Marvin Goodfriend, the senior vice-president and policy advisor. Marvin and I were in graduate school together, studied for exams, read each other’s papers and have worked on a number of projects over time. Marvin contacted Ben McCallum and me when the Richmond Fed first brought in academic consultants. That was the beginning of my advising relationship almost twenty years ago. It has been a valuable experience that has given me an opportunity to talk to policy makers interested in current monetary policy developments and yet who think seriously about the predictions of economic models. Al Broaddus, the president, has wide-ranging interests and stimulates the research group to think deeply about problems. He listens, discusses issues in the context of models, and asks astute questions. Ultimately, he reduces the models’ answers into a format that can be presented to the Federal Open Market Committee. My role is simply to learn and discuss. I also write articles for the Economic Quarterly on a wide range of monetary economic topics. And finally I advise people on their current policy questions and research projects. Much of that is quite informal.

Thank you for the interview Bob!

This is an edited interview conducted by Proff. Jeffrey H. Nilsen with the help of Patrick Winiström.
Change of Central Heating System

No, we are not drilling for oil at the Study Center Gerzensee!

Our buildings are partly heated by heat pumps and partly by oil. Since the opening of the institute, the eight heat pump modules have extracted energy from the ambient air. However after fifteen years, they required replacement since they contained environmentally unfriendly chemicals (CFC / FCKW) and the maintenance costs continued to increase. After a thorough evaluation, we decided to change to state of the art heat pumps that take energy from the ground. In order to get sufficient energy for these two new heat pump units, our contractors needed to drill 32 holes, each of them reaching a depth of 150 meters (giving a total of 4'800 meters). The initial run of this new system is scheduled for the end of August. Thanks to this high-tech installation, we expect to use about 20% less electricity and oil than previously. The pictures give you some impression of the construction site and the new heat pump system.

Frozen Lake

About once every ten years the lake of Gerzensee gets frozen and becomes a natural “skating rink”. This phenomenon happened during the winter 2001/02. For more than one week it was possible to walk and skate on the lake and also enjoy spectacular views of the beautiful nature as the pictures show.

Staff News

Several changes have occurred since the beginning of the year. Three teaching assistants have left the Study Center after finishing the doctoral program: Pierre-Alain Bruchez, Giovanni Leonardo and Vangheli Lakiotis. They have taken interesting jobs at the Federal Finance Administration, at UBS, and at the University of Geneva. Increasing their commitment, Marco Cavaliere and Tim Frech have recently started to work full-time. Furthermore, Patrick Winistorfer joined the Study Center in August and will participate in the next year’s doctoral program. As from September 2002, Philipp Harms - who is an assistant professor at University of Constance - will take up a joint position with the Study Center. His main research interests are dynamic and international macroeconomics, development economics and economics of transition.

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