

Editorial

The Study Center Gerzensee has become 15 years of age. Despite its youth, the Center has already reached a high level of maturity and its main activities are well known worldwide. In this issue, Dr. Georg Rich, chief economist at the Swiss National Bank and member of the Foundation Council from its inception, reviews some of the main developments of the Center. This newsletter also gives an overview of our recent activities. It describes two exciting new courses that have been presented to central bankers this spring: a course on new methods in empirical finance and another on financial crises. The great interest generated by these advanced courses illustrates the worldwide trend towards deeper economic analysis at central banks. One of our aims is to continue to provide a small contribution towards this trend.

We also hosted several international conferences. The Summer Symposia in Economic Theory and in Financial Markets, organized jointly with the Center of Economic Policy Research (CEPR), has attracted more than 150 academic economists this year. The small village of Gerzensee has thus become a major focal point in Europe for academic economists. The records show that these meetings have been quite productive and have a significant impact on research activities in Europe.

*Prof. Philippe Bacchetta,
Director*

Fifteen years at Gerzensee

by **Georg Rich**,
Chief Economist, Swiss National Bank



Early in the 1980s, the Swiss National Bank (SNB) purchased the Chateau of Gerzensee and began to renovate and extend the newly acquired facility. Although it intended to establish a Study Center, it had only the vaguest of ideas about the role the Gerzensee facility might play. Various proposals about possible functions of the future Study Center were being floated at that time. Key SNB officials toyed with the idea of setting up a training program for central bankers around the world, especially from the less developed and emerging market countries. However, the SNB lacked the requisite experience with such programs. There was also talk about providing a service to the domestic economy by offering courses on various aspects of Swiss economic policy that would appeal to practitioners in banking and industry. Finally, Jürg Niehans, a well-known Swiss economics professor, tried to convince the SNB that the Study Center should be turned into an economics graduate school to supplement the PhD-programs at the various Swiss universities.

In 1985, about a year prior to the opening of the new facility, I was appointed to the Foundation Board of the Study Center and asked to chair the Board's Educational Committee, charged with developing the courses to be offered at Gerzensee. The Committee worked hard to transform the vague ideas about the Study Center's potential activities into a concrete program of course offerings. Since the Study Center was scheduled to open in the spring of 1986, we had little time to complete our work.

Our priority was to develop a course for central bankers from other countries. In this endeavour, we relied extensively on the experience of the IMF and the Federal Reserve Bank of New York, which had offered similar courses for a long time. The first central bankers' course was launched immediately after the inauguration of the Study Center. I must confess that we awaited the end of the course with considerable trepidation as a failure would have boded ill for the future of our new venture. Fortunately, and to our great relief, the first central bankers' course

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turned out to be a success and served as a crucial stepping stone for building up a reputation in the field of training central bankers. In the meantime, the central bankers' courses have become the central pillar of the Study Center's educational efforts, with central bankers from virtually every corner of the world coming to Gerzensee.

We were less successful in our efforts to develop courses for domestic practitioners as demand for such instruction proved to be negligible. The courses in finance that the Study Center offered for several years were the exception. They appealed to practitioners working in the banking sector. Thanks to Professor Walter Wasserfallen, the late second director of the Study Center and a highly competent expert in the area of finance, we were well equipped to offer such courses. However, in the meantime, plenty of other institutions have started to supply instruction in finance. Therefore, we no longer see any need to remain active in the finance area.

Another important decision was to get involved in graduate education for economics students. In collaboration with all the Swiss universities featuring PhD programs in economics, the Study Center offers a twelve-week course, covering microeconomics, macroeconomics and econometrics at a level typical for the first year in a US graduate school. In addition, the Study Center organizes one-week courses on specialized subjects. The students taking these courses are enrolled in local PhD programs and designated by their respective universities. Normally, they get credit from their universities for taking courses at Gerzensee. Swiss universities greatly appreciate the Study Center's contribution to graduate education in economics. We believe that we can render a useful service to Swiss universities, even though we only implemented a small part of the proposal originally developed by Jürg Niehans.

Finally, I should not forget to mention the Study Center's achievements in the research area. Walter Wasserfallen realized that research was important if the Study Center's educational efforts were to rest on a solid footing. Professor Philippe Bacchetta, his successor as director of the Study Center, relentlessly continues to enhance the quality of its research activities. Since the Study Center has acquired a good reputation in the research area, it has also turned into a popular place for academic conferences, which it organizes either on its own or in collaboration with other research institutions. In this way, the Study Center has become well known not only among central banks but also among academics around the world.



Central Bankers' Courses

Understanding Financial Crises

The recent waves of financial crises in emerging markets have made them the focus of attention at most central banks. What are the causes of these crises? How could they be avoided or predicted? What is the optimal monetary policy response in the context of crises? What is the best strategy in the aftermath of a crisis? These are some of the questions that are of great concern to policy makers.

In our continuing effort to provide the most relevant and useful courses to central bankers, we developed a course examining these questions. The course, addressed to research economists and entitled "Understanding Financial Crises", was presented for the second time last June. It was particularly successful since it enlisted a wide array of well-prepared researchers who had a strong interest in the issue. Several central bankers came from crisis nations such as Korea, Thailand, Indonesia, and Turkey, as well as Scandina-



vian countries that had experienced crises earlier in the nineties. Other participants had done extensive research on the subject. The experience and the interac-

tion among participants were a welcome and invaluable input in the course.

Moreover, since all participants had a good knowledge of the general topic, the course could delve deeper into the important details of crises. We divided the course into two main parts, one theoretical and the other empirical.

In the theoretical part we reviewed the main models (or arguments) proposed in the literature. Although several theories are rather sophisticated and technically demanding, we presented the main insights and opened the class to interesting discussions. Professor Philippe Bacchetta started with a brief review of the early models of currency crises and examined how strategic interactions among investors could lead to multiple equilibria. Then he turned to more recent developments that give financial factors a central role and often predict "twin" crises, which involve both the banking sector and the foreign exchange market. We also addressed the impact of government bailouts and moral hazard from lenders. The next part of the course focused on the "third generation" of crisis models. Professor Jeffrey Nilsen explained the mechanics of banking panics and showed how they could be correlated with speculative attacks on the national currency. Professor Jean-Charles Rochet (Université des Sciences Sociales, Toulouse) presented recent work that studied the role of imperfect informa-

tion in the banking-currency panics context. Finally, Philippe Bacchetta reviewed the literature focusing on financial imbalances in the corporate sector and concluded the theoretical part.

In particular, Philippe Bacchetta presented his recent work (with co-authors Professors Philippe Aghion, Harvard University and University College London



Professor Philippe Bacchetta

as well as Abhijit Banerjee, Massachusetts Institute of Technology) on credit-constrained firms stressing the role of foreign currency debt. He also showed how crises can be linked to the level of financial development and to the liberalization of capital flows. Policy implications were considered and discussed throughout these presentations.

Professor Andrew Rose (University of California at Berkeley) directed the empirical section of the course. He reviewed the various methods used to analyze crises. These methods typically have three objectives: i) to uncover ex-post the factors explaining crises; ii) to determine which countries are more sensitive to crises and contagion; iii) to construct indicators that

could predict crises. Since Andrew Rose has himself developed some of these methods and has used them in a large number of projects, he could go far beyond a simple description of methods and reveal many of the secrets to good empirical work. He also discussed several shortcomings of the data and in the application of these methods. Professor Beatrice Weder (Universities of Basel and Mainz) complemented these lectures by presenting her recent work on contagion across banking sectors.

Finally, hands-on projects represented a major element of the course. In the first week, participants worked on methodological data issues, such as the construction of "exchange market pressure indices" or the use of probit analysis in panel data. They also recreated crisis situations with the simulation game developed at the Study Center. Much of the second week was



Professor Andrew Rose

devoted to work on a more substantial project. Each group of three participants defined a project and had it approved by Andrew Rose before developing and executing it. Finally, the groups presented their results to the class. Projects included

a cross-country analysis of the impact of financial factors and country studies such as one on the Turkish crisis. Throughout the week, Andrew Rose interacted intensively with the groups



The computer room during our speculative attack game

to guide them in the elaboration of their project. The Study Center's assistants also provided active support. Participants invested a great deal of energy and long working hours in these projects. Since they learned a lot from them, they felt that this investment was fully worthwhile.

Empirical Methods in Finance: New Tasks for Central Bankers

The rapid development of financial markets in many countries has important implications for central bank policies. Importantly, it imposes new constraints on monetary policy and makes necessary closer monitoring of the performance and efficiency of financial markets. As a consequence, central bankers devote increasing attention to analyzing these markets. This more intense interest can be witnessed in several of our courses, where many participants ask for a deeper understanding of empirical methods in finance. In order to meet this demand, we composed a survey of these methods in a course held for the first time in March 2001. Professors Michael Rockinger (HEC School of Management in Paris) and



Professor Michael Rockinger

Professor Jeffrey H. Nilsen made the advance organization. Michael Rockinger was also the lead teacher in a team including Professors

Thierry Foucault (HEC) and Caspar de Vries (University of Rotterdam). The participants were a group of 25 highly motivated research economists from various central banks around the world.

The course was organized around four topics useful to central bank researchers: the information content of derivatives; the analysis of extreme events; institutional and regulatory aspects of financial markets; and an examination of insider trading. The first topic began with an examination of why derivative prices give a forward-looking measure of potential market evolution. During the first course sessions, participants familiarized themselves with the institutional and practical aspects of futures and options markets. After developing the traditional pricing relations (in the spirit of Black-Scholes and Merton), participants inspected actual options data to discover that the standard option-pricing model fails. A likely reason is that the behavior of the asset underlying the option does not behave as traditionally assumed (that returns follow a normal distribution). For instance, the price process may have jumps, its volatility may be stochastically changing, or its process may even change in nature. This uncertainty in the price process means that options cannot be perfectly hedged, and in turn that options are risky, introducing a role for market participants' preferences in options pricing. In recent years many central banks have come to use this



feature to invert option prices. Thus transformed, they reveal the shape of the density that indicates expectations of the value of the future price processes.

These densities may be viewed as an early warning signal. For instance, we discussed the fact that a few days prior to President Chirac's announcement of a surprise election in 1997, financial markets already knew about the election. Clearly, if such an information leak occurs, financial series such as the term structure of interest rates can also provide an indication. The probability density uncovered by options offers an improvement though, for it allows a more detailed assessment of future rates. This density will portray the likelihood that the rate is within certain limits, giving it an advantage over a single measure. We discussed other applications, for instance how investors anticipate the magnitude of an exchange rate devaluation. This makes it possible to verify whether a policy is deemed credible or not.

In the second part of the course, participants considered the frequency of extreme events in historical

data. For central banks, an understanding of the frequency of stock market crashes or extreme realizations in other financial markets is crucial to gauge how often they will be called upon to intervene in the markets. Interestingly, the measure of past crashes may also yield results about the occurrence and magnitude of future extreme realizations. Caspar de Vries discussed these techniques. According to simple statistical theory, financial returns are distributed normally. Looking at the distribution of extreme realizations arising from a series of normal distributions, however, an observer would discover they follow a so-called Gumbel distribution. In this case, extreme realizations die out quickly and moments such as skewness and kurtosis also exist. In financial data, however, there are too many extreme realizations to be compatible with a normal distribution. This well-known feature of the data would not justify using extreme value theory, except that it gives highly accurate measurement of the probability of very extreme realizations. For instance, a threshold value we compute will not be exceeded with a probability of 0.9999. Such a measure has clear importance for regulatory purposes and for understanding risk management. Financial practitioners call such a measure the "Value at Risk".

In the second week, participants learned about institutional and regulatory aspects of financial markets. Central bank researchers

must assess the quality of information distributed by firms and measure the efficiency of their markets. Thierry Foucault gave lectures on market microstructure, a theory that focuses on individual strategic behavior and the processes by which market prices eventually emerge. Market-makers typically quote an ask (the price at which a market maker is willing to sell an asset) and a bid price (the price at which he is willing to purchase). The difference between the ask



Professor Thierry Foucault

and the bid prices is called the spread. Participants learned how to use the evolution of the spread through time to infer the impact of news on the market. It was shown that the spread is composed of an inventory, a transaction-cost, and an asymmetric-information component. These components can be identified using existing models and available data (e.g. the transaction price, whether a trade occurred at the bid or ask, and the volume). These estimates of the evolution of the components may be

used in different ways. For instance, the asymmetric-information component yields an alternative measure of investors' perception of the riskiness of the foreign exchange market.

After the participants had learned about the actual operations of various markets, they devoted the final two days to studying how insider trading could be detected. Since the detection of insider trading involves the implementation of event studies, participants were given data from various French companies. They found that there is abnormal volatility lasting two days around earnings announcements. This finding was obviously not interpreted to mean that insider trading occurs in France, but was used in illustrating how event studies are to be performed. The importance of regulation for the future development of financial markets was also discussed.

Each day included a theoretical session in the morning that familiarized the participants with the concepts. In the afternoons, these concepts were applied to actual data in exercises or case studies. Participants could solve exercises individually, in groups or in the computer lab. Professor Monique Ebell helped direct various exercise sessions while the Study Center's doctoral students also assisted with exercises. Finally, a few participants presented research in their area of specialization.



Academic Conferences

European Summer Symposium in Economic Theory (ESSET)

The month of July at Gerzensee is often considered a summer camp for economists. Even though the Study Center still hosts external customers, its main activity is hosting the European Summer Symposia in Economic Theory and in Financial Markets. During four weeks, some of the most reputed economists interact with a large number of promising younger, mostly European, economists. For example, Nobel Prize winner Sir James Mirrlees stayed for two weeks at Gerzensee and was one of the 150 economists who attended these meetings. The full programs and the lists of participants are available on our homepage at www.szgerzensee.ch/conferences.



Elhanan Helpman and Gene Grossman

From July 2 - 13, the Study Center hosted the 6th edition of this symposium organized jointly with CEPR, and sponsored in part by the Review of Economic Studies. The program organizers were Philippe Jéhiel (CERAS, Paris) and Patrick Legros (ECARE, Brussels), while the other members of the organizing committee were Philippe Bacchetta, Margaret Meyer (Nuffield College, University of

Oxford), Georg Nöldeke (Universität Bonn), Klaus Schmidt (Universität München), and Xavier Vives (Institut d'Anàlisi Econòmica, Barcelona). More than eighty participants attended part or the whole two weeks of ESSET. As in previous years, the



Benny Moldovanu and Xavier Vives

symposium was composed of three types of presentations: i) focus sessions, where a full morning is dedicated to a specific topic, usually with three or four presentations; ii) formal paper presentations, typically one paper per morning; iii) more informal evening presentations having parallel sessions. Afternoons were left free for individual or joint work. This format does not allow all participants to present their work, but many take the opportunity to be at Gerzensee to work with their co-authors or to start new collaborations.



Philippe Bacchetta and Philippe Aghion

This year, the focus sessions were on the following topics:

- **Efficiency in Auctions and Market Structure** (Eric Maskin, Institute for Advanced Study, Princeton and Benny Moldovanu, Universität Mannheim)
- **Competition in Network Industries** (Mark Armstrong and Patrick Rey, Université des Sciences Sociales, Toulouse)
- **Market Determinants of Organization** (Gene Grossman, Princeton University and Elhanan Helpman, Universities of Tel-Aviv and Harvard, as well as Andrew Newman University College London)
- **Behavioral Contract Theory** (Ernst Fehr, Universität Zürich and Klaus Schmidt Universität München)



James Mirrlees, Meg Meyer, and other participants

European Summer Symposium in Financial Markets (ESSFM)

From July 16 - 27, the Study Center hosted the 12th edition of this symposium organized jointly with CEPR, and sponsored in part by the New York Stock Exchange. The organizers were Pierre Hillion (INSEAD), Ernst-Ludwig von Thadden (Université de Lausanne), and Philippe Bacchetta. The call for papers that was issued last fall for this conference received more than 200 applications. Given that the Study Center can host only about 50 participants at a given time, the selection was particularly difficult and a number of excellent applicants could not be invited.

In order to allow as many researchers to participate as possible, the conference was essentially split into two parts. During the first week, the focus was on Asset Pricing, while the second week concentrated on Corporate Finance. Most participants attended only the week corresponding to their broad field of research. This made for very lively and well-focused discussions.

The format of ESSFM is similar to ESSET, except that there are two formal paper presentations per morning and that a discussant is assigned to each of these papers. The focus sessions were the following:

- **Experimental Financial Markets** (Peter Bossaerts, California Institute of Technology)

- **Behavioral Finance** (Nicholas Barberis, University of Chicago)

- **International Corporate Finance** (Raghuram Rajan, University of Chicago)

Theoretischer Ausschuss des Vereins für Socialpolitik

The Economic Theory Group of the German Economic Association (*Theoretischer Ausschuss des Vereins für Socialpolitik*) held its annual meeting at the Study Center Gerzensee from April 26 - 28, 2001. This conference brought together leading German-speaking economic theorists from Austria, Germany, and Switzerland.

The principal goal of these meetings is to foster and disseminate research in the fundamentals of economic theory and mathematical economics. One of its major objectives has always been to present, discuss, and develop the theoretical tools and models for the analysis of important current economic issues. For example, this year's program included presentations on the causes of international credit crises and on macroeconomic issues related to growth with externalities.

During the past few years, the primary research focus of some of its members has been the theory of contracts, auctions, and mechanism design. The papers presented this year covered a broad spectrum in these fields, ranging from the theory of constitutional design to questions of fairness, reciprocity, and incentives in

the design of contracts. One of its highlights was a critical analysis in retrospect (a tentative ex post evaluation) of the sequence of European UMTS/ITM-2000 License Auctions held over the past few years.

Program

Gerhard Orosel,
Universität Wien
"Credits, Crises and Capital Controls: A Microeconomic Analysis"

Hans Gersbach,
Universität Heidelberg
"Double Majority Rules and Flexible Costs"

Georg Kirchsteiger,
Universität Wien
"A Theory of Sequential Reciprocity"

Benny Moldovanu,
Universität Mannheim
"The European UMTS/IMT- 2000 Licence Auctions"

Klaus Neusser,
Universität Bern
"A Multisectoral Log-Linear Model of Economic Growth with Marshallian Externalities"

Klaus. M. Schmidt,
Universität München
"Fairness, Incentives, and Contractual Incompleteness"

Intrinsic Motivation in Law and Business

From June 18 - 22, the Study Center Gerzensee invited ten American and European scholars in economics, law, psychology and sociology, as well as political sciences to debate issues on the theory and application of internal motivation.

Intrinsically motivated people bring creativity to production and governance without extensive supervision, whereas externally motivated people require intensive monitoring and extensive rewards. It is obvious that purely intrinsic and extrinsic motivations are extremes on a spectrum.

Participants met each morning to present their respective papers with the afternoons dedicated to general discussion.

The authors greatly benefited from trans-disciplinary comments. Yet the afternoon colloquia made it clear that intrinsic motivation research is still in its early stages. There is agreement on the importance of the subject, but the lack of reliable surveys, the debatable external validity of experiments and the difficulties inherent in event studies cause wide divergence of opinion among experts and ample room for development of the topic through future papers and conferences.

Program

- **Reciprocity and the Welfare State** (Herbert Gintis, University of Massachusetts)

- **Intrinsic Motivation in a New Light** (Siegwart Lindenberg, University of Groningen)

- **Policies that Crowd Out Reciprocity and Collective Action** (Elinor Ostrom, Indiana University)

- **Motivation Transfer Effects** (Bruno Frey, Universität Zürich)

- **Intrinsic Motivation and the Law** (Michael Baumann, Heinrich Heine Universität Düsseldorf)

- **Do Good Laws Make Good Citizens?** (Robert Cooter, University of California)

- **Cognitive Psychology and Optimal Government Design** (Jeffrey Rachlinsky, Cornell University)

- **Legal Risk Management** (Gérard Hertig, Swiss Federal Institute of Technology Zurich)

- **Motivation in a Knowledge-Based Theory of the Firm** (Margit Osterloh, Universität Zürich).

01.04

Don Morgan, Bertrand Rime and Philip Strahan:
"Bank Integration and Business Volatility in the U.S."

01.03

Bertrand Rime and Kevin J. Stiroh:
"The Performance of Universal Banks: Evidence from Switzerland"

01.02

Michael Dueker and Andreas M. Fischer:
"The Mechanics of a Successful Exchange-Rate Peg: Lessons for Emerging Markets"

01.01

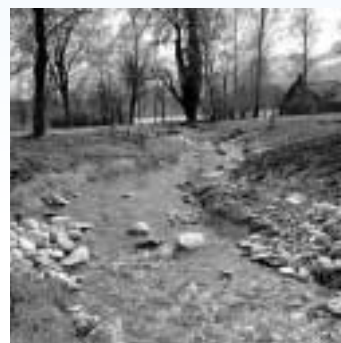
Monique C. Ebell:
"Why are Asset Returns More Volatile during Recessions? A Theoretical Explanation"

Open House

The Study Center Gerzensee celebrates its 15th anniversary this year. The "Mühlebach", the stream leading from the Chateau to the lake, has been tastefully restored to its natural stone and grass setting after decades as an uninspiring concrete channel. These were sufficient reasons to open the Study Center on Saturday, June 16, to introduce our facilities for the inhabitants of Gerzensee and surrounding communities. Many visitors took the opportunity to view the interior rooms of the New Castle. The visitors were impressed with the modern educational facilities. Yet next to the modern computers, library, and elevator, they found original maps in the

"Gartensaal", genuine ceramic ovens, and beautiful original oil paintings. The visitors strolled along the well-tended garden grounds, discovered the duck pond, the wine groves, inspected the restaurant facilities, and were surprised at the modern art tucked into corners of each building. Those who walked to the lake admired the newly natural "Mühlebach". The planting of appropriate vegetation along the "Mühlebach" allows it to offer a habitat to a variety of insects and animals and greatly improves the natural reserve quality of the lake.

[See our website for a wide range of pictures for this event](#)



Margrit and Anton Ryser

As of the end of March 2001, Margrit and Anton Ryser retired from the SV-Service. Since the opening of the Study Center Gerzensee, they have been responsible for the hotel management and restaurant, and have played an important role for the emotional needs of participants. Margrit Ryser executed her management function with devotion and seemingly effortless expertise. She impressed our participants with Swiss efficiency in a friendly way. Anton Ryser, the chief cook, was responsible for the Study Center's

culinary delights that left a lasting impression on the participants. We thank Margrit and Anton Ryser once again for their worthy service and heartfully wish them all the best in their next phase of life. We are ensured that the tradition of excellence will continue as we cordially welcome Hans-Ulrich Känel as head of the SV-Service team, and Hansruedi Schiffmann as chief cook.



Mr. and Ms. Ryser

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