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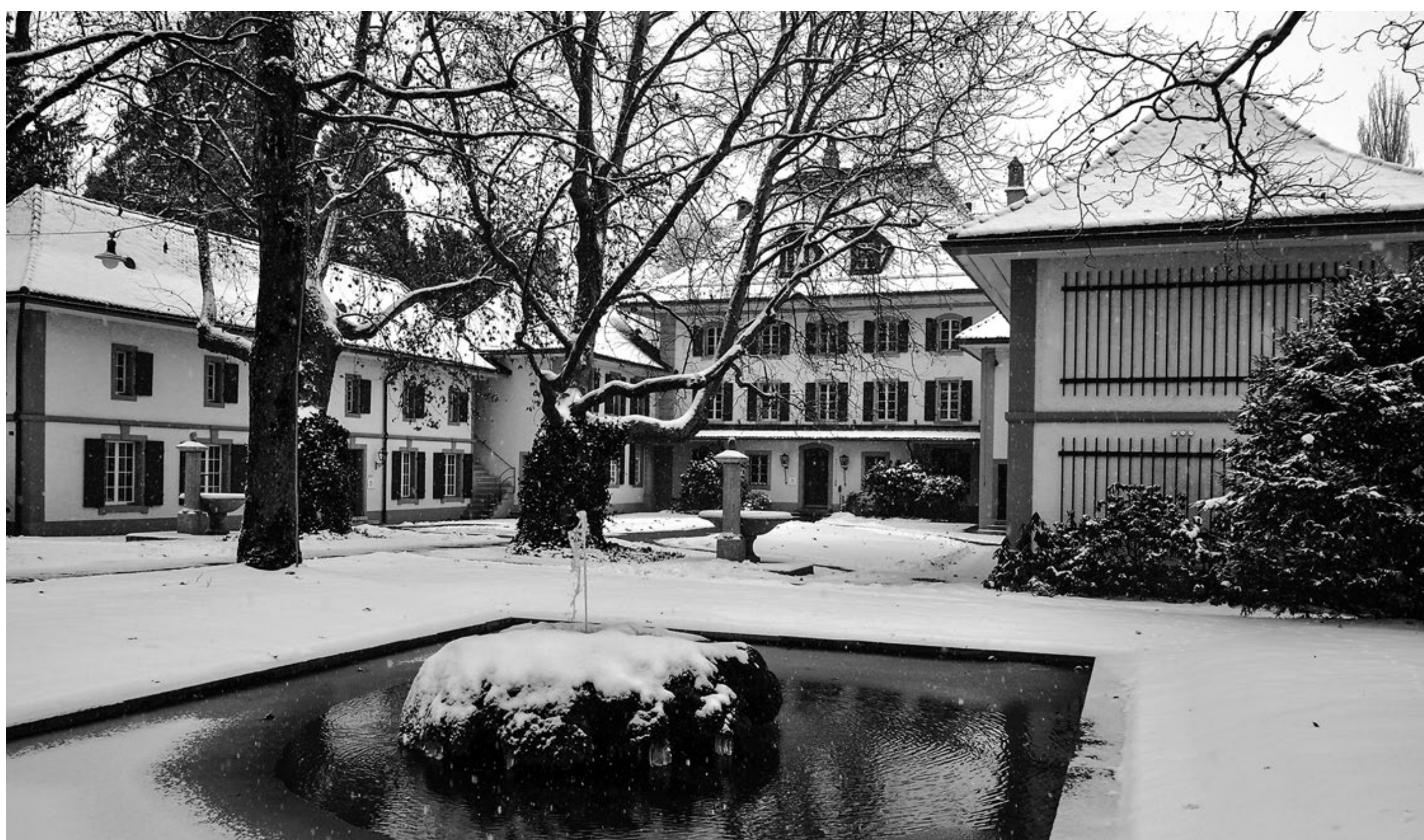
Foundation of the Swiss National Bank

NEWSLETTER

2017



EDITORIAL

This Newsletter briefly reports about the Study Center's academic activities in the recent past and our plans for the months ahead. It also contains an interview with Itay Goldstein of the University of Pennsylvania, Wharton School, who taught an advanced doctoral course on "Financial Fragility", and informs about other developments.

Looking back to 2016, the Study Center organized numerous courses and conferences and hosted many central bank practitioners, academics and Ph.D. students from around the world. Conference highlights included the event with the *Journal of Monetary Economics* and the Swiss National Bank in honor of Robert G. King, the Center's long-term supporter and lecturer; as well as the traditional meetings co-organized with the Swiss Finance Institute and the Centre for Economic Policy Research. Six central bankers' courses, six advanced doctoral courses, two law and economics courses, and "one and a half" Swiss Programs for Beginning Doctoral Students (one starting in January and the other in summer, marking a shift in timing to better align with the academic calendar) completed the program.

In 2017, we plan the second conference with the Federal Reserve Bank of St. Louis, the *Journal of Economic Dynamics and Control*, the Swiss National Bank, and the University of Bern; a conference on unconventional monetary policies with the Council on Economic Policies and the Swiss National Bank; as well as meetings co-organized with the Swiss Finance Institute and the Centre for Economic Policy Research. In addition, the Study Center organizes six central bankers' courses, the Swiss Program for Beginning Doctoral Students, and eight advanced as well as law and economics doctoral courses. Once more we have been able to recruit distinguished researchers to teach in these courses.

I would like to thank the many individuals and institutions that support the Foundation's activities and contribute to their success. At the Study Center, we are looking forward to welcoming some of this Newsletter's readers as well as many "newcomers" in the near future.

With best wishes,
Dirk Niepelt, Director

INTERVIEW WITH ITAY GOLDSTEIN

Let me start this interview by asking you if secondary markets are useful?

I have been thinking about this quite a bit. Primary markets are clearly useful because this is where firms raise capital or equity and where capital flows from investors to firms. But the vast majority of action in financial markets is taking place in secondary markets after capital has been raised. I think secondary markets have real effects through the information they convey and this is what I have been looking at in my work, both empirically and theoretically. The idea is that you have many people out there who trade on information and prices are aggregating a lot of different pieces of information, which is very useful for managers, creditors, customers but also the government. In fact a lot of people are watching stock prices as they are potentially affected by their changes. It is also a useful way to motivate and compensate managers. Tying their compensation to the stock price gives them the incentive to do the right thing. So I believe secondary financial markets have a huge impact either through compensation or learning.

This is certainly going to be true when prices are informative but is it possible to encounter situations where this is not the case?

It is a bit of a double-edged sword because you get information from stock prices when prices are informative, but there might be distortions when stock prices are no longer reflecting fundamentals. Then the effect of stock prices on the real economy ends up being based on something that is non-fundamental. In an empirical paper[1] we looked at stock prices that are potentially away from fundamentals because of sales by mutual funds. We showed that firms that have been subject to pressure due to these fire sales are much more likely to become a takeover target. So the distortion of stock prices does have real consequences and more work needs to be done on the question whether financial markets are promoting or distorting efficiency.

What are the conditions for stock prices to be informative?

The whole profession is still struggling with the notion of price informativeness and there are many different ways to measure it. There are circumstances under which prices move away from fundamentals. It will happen for example when there is a sizeable need by some large investor to suddenly change its position and capital is not moving very quickly to provide the liquidity needed. So on one hand it has to do with fire sales and liquidation needs, on the other hand there is a big camp in the profession that thinks that prices might not be informative about fundamentals because of behavioral issues. These issues are still being explored.

What do you think about this behavioral approach?

Tenants of this approach provide interesting arguments and convincing pieces of evidence but I am more in the rational camp. I would see price movements away from fundamentals as a coordination failure. These are situations in which individuals are completely rational but the social outcome is "irrational", in the sense that people coordinate on the bad equilibrium. But it's not because they are irrational or behavioral but rather because they are playing their best response to the equilibrium action of others and this in turn leads to an inefficient aggregate outcome.

Prices are least informative when markets are illiquid, but these are exactly situations where governments or regulators use policies that are to a large extent price based. So thinking about your paper "Market based corrective action", should government's interventions be price or market based?

Yes, we want to condition on market prices, because they contain important information. But we also need to be careful in fully understanding equilibrium effects. If markets expect the government to act, then equilibrium prices will take into account the corrective action and may no longer reflect the true fundamentals. So you have to be very careful in interpreting price information. In our paper we introduce a prediction market in which people just trade on whether they think there will be an intervention. The combination of the security's price and the price on the prediction market may give a better picture of what the true fundamental is. In that sense additional markets could ease the problem but it always comes back to liquidity. Liquidity is fairly high in stock markets, less so in bond markets. Once you go into more exotic markets liquidity becomes an issue. We need to think about how to complete markets in this direction. Maybe financial innovation in this direction could help but there is still a long way to go.

Could you describe these prediction markets a little more?

Take an example in which a corrective action is taken as soon as a given price falls below a threshold value, indicating that fundamentals are bad. If traders expect the government will intervene then the price will not drop in anticipation of the intervention. You will have two securities, one with a high and one with a low fundamental that will have the same price, because the market anticipates that for the low fundamental there will be a corrective action. Just looking at the stock market in this case to make inference about the true fundamental is very difficult given this feedback loop between prices and actions. But if there was a prediction market in which people were trading whether they think that there will be the corrective action, then the prediction price is going to be different for the two fundamentals. The combination of the two prices can give additional guidance and shed additional light on what the true fundamental really is.

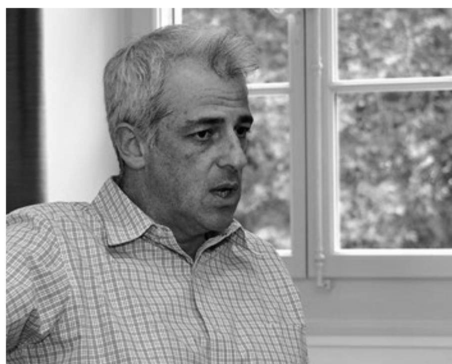
Should interventions and prediction markets be industry based or firm specific?

Many interventions are firm based, which would mean that it would help to have a security for the intervention in every firm but I think that is practically impossible. We need to find some compromise. It could help to have a security on industry-based intervention but it might not go all the way. This might also trigger additional problems such as manipulation. When people realize that there is a security out there trying to predict whether the government is going to intervene and the market is not very liquid, then the price of this security might be manipulated by people with an interest in government intervention who might take positions that distort the information. There are also issues of commitment that become very critical. In many cases you want to convince the markets that you are not going to intervene although ex post it turns out to be the optimal thing to do.

Did banks take too much or the wrong risk in the run up of the crisis?

Figuring out the optimal risk taking is obviously very difficult and more work needs to be done on this issue. I think that the amount and the type of risk banks take responds to regulation. If the government regulates one aspect of the financial industry and manages to reduce risk taking there, then the risk is shifting elsewhere. There is a lot of evidence

1 Edmans, Alex, Itay Goldstein, and Wei Jiang, (2012) "The real effects of financial markets: The impact of prices on takeovers", Journal of Finance, vol. LXVII, No. 3, pp. 933-971.



Itay Goldstein is the Joel S. Ehrenkranz Family Professor in the Finance Department at the Wharton School of the University of Pennsylvania. Professor Goldstein earned his Ph.D. in Economics in 2001 from Tel Aviv University. He is an expert in the areas of corporate finance, financial institutions, and financial markets, focusing on financial fragility and crises and on the feedback effects between firms and financial markets. His research has been published in top academic journals, including the American Economic Review, the Journal of Finance, the Journal of Financial Economics, the Review of Economic Studies, and the Review of Financial Studies. His research has also been featured in the popular press in the Economist, Financial Times, Bloomberg, Forbes, National Public Radio, and others. He has served as an academic advisor at the Federal Reserve Banks of New York, Philadelphia, and Richmond, the Bank of Canada, and the Committee for Capital Markets Regulation.

showing that before the financial crisis a lot of liquidity transformation was no longer done in the traditional banking sector but more with the so called shadow banks. It is hard to say whether overall there was too much risk in the financial system. We need to think more about the financial system as a whole and instead of just regulating the risk taking in parts of the financial system we should think about the overall amount of risky activities we want to have and how we can control the overall risk.

Is the regulator doing too much too fast?
They certainly did a lot of things that are useful but I do have questions and doubts regarding what they did. I think we want to have a good sense for how much risk we want to be taken, before coming up with all these tools and measures to reduce risk taking. After each crisis we come up with a new set of rules or with a new regulatory authority, which makes regulation more and more complicated. But there is a vicious circle whereby the financial industry is responding to new regulatory rules by acting in a more sophisticated way, getting into new activities and new innovations. As an example, capital requirements started out very simple, and then risk weighted capital requirements were added to which financial institutions reacted by finding ways to reduce the risk weights and essentially holding less capital than they were supposed to. As a response the regulator made capital requirements even more complex. I would wish that financial regulation was more forward looking. One should of course look at individual events to draw some general conclusions and shape the thinking about other institutions.

A simple way would be to reduce government guarantees and ask financial institutions to pledge more capital, what's your view about that?
There is certainly room for additional capital, but I don't know what the optimal amount of capital is and I don't think that we have a model that can tell us the answer right now. We can benefit from having more capital in the sense that it will reduce the moral hazard problem and at the same time it can help in reducing panics. At this point we have a lot of qualitative models that can help us in getting the general effects but there is still a long way to go in coming up with a quantitative model able to pin down the optimal capital requirements.

In your paper "Self-fulfilling credit market freezes" you study a lot of solutions for the lending freeze, one of which is the direct lending of governments to firms. This really looks like what the ECB is doing at the moment with its policy of buying corporate bonds directly from banks if they lend to firms. What do you think of that policy?
I think this is an interesting policy and it is indeed something that we considered. The typical way we think about taking the economy out of a credit freeze is that the government gives money to banks so that banks lend this money. As we saw in the US and also in Europe, this is not always working; banks just continued to sit on their cash and did not lend to firms. One way to overcome this coordination failure is that instead of injecting capital in banks the government could start to inject capital directly into firms for example by buying corporate bonds and put the capital to work immediately in the real economy. The disadvantage that we pointed out in our paper is that sometimes the government might not be as well informed about non-financial firms as banks are which in turn could lead to bad decisions. So to the extent that the ECB can alleviate these issues by gaining more information and trying to be as well informed as possible about the bonds that it is buying, this measure is certainly one that I would recommend.

Once the central bank purchased corporate debt, should it hold it to maturity or should it try to sell it after a while?
This really depends on market conditions. It is not that the central bank should be in the business of holding corporate bonds to maturity, but it does this for a particular purpose, namely to revive the economy. Selling the bonds once things have improved might turn out to be very useful. Clearly the problem with quantitative easing is, what signal does the central bank release to the market once it starts selling bonds. This issue will play a major role in the timing of such actions.

Stress tests for banks have become very popular. Do you think that stress tests are a better way for the government to get information?
Stress tests have clear advantages and are an important step in monitoring the financial system. Unlike bank supervision in the past, which was looking at current accounting data to gauge the financial health of a bank, stress tests are more forward looking. The idea is to predict the health of a bank under different scenarios. There is a lot of information flowing into a stress test and recent empirical evidence shows that they seem to be useful. However, only a limited number of scenarios can be considered so the resulting information from stress tests only gives a partial view. So relying only on stress tests and not on market prices might be too much of a sacrifice, it would be better to consider both.

Should regulators make stress test results public?
In general we always want to provide as much information as possible but there might be situations where more information becomes problematic, like in risk sharing arrangements. The same thing could happen in the financial system as well. Banks that performed poorly in a stress test could be shut out of capital markets if these results are made public, which might in turn be reducing the overall efficiency of the financial sector.

Professor Goldstein, thank you very much for this interview.

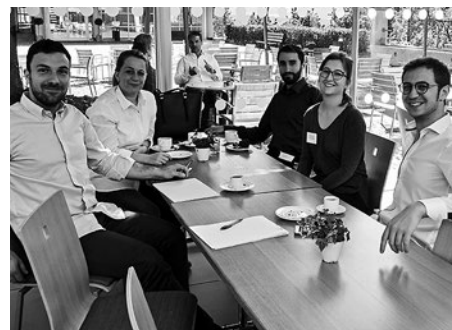
Cyril Monnet conducted this interview.

ACADEMIC CONFERENCES

RESEARCH DAYS AND SWISS DOCTORAL WORKSHOP IN FINANCE

June 6 – 7, 2016, jointly with Swiss Finance Institute

Plenary Session:
Dynamic Corporate Liquidity
Academic Sessions
Ph. D. Parallel Sessions



EUROPEAN SUMMER SYMPOSIUM IN ECONOMIC THEORY

July 4 – 15, 2016, jointly with CEPR

Focus Sessions:
Developments in Mechanism Design
Games and Contracts: A Dynamic Perspective

EUROPEAN SUMMER SYMPOSIUM IN FINANCIAL MARKETS

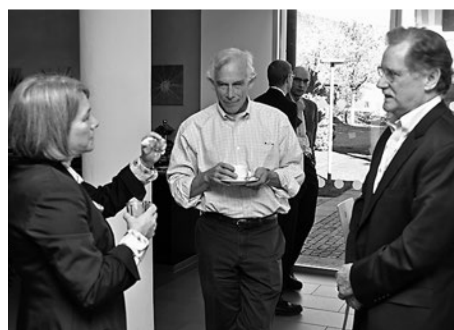
July 18 – 29, 2016, jointly with CEPR

Focus Sessions:
Asset Pricing under Collateral and Margin Constraints
Frictions, Government Policies and Financial Markets
Theoretical Issues in Financial Regulation
Empirical Issues in Financial Regulation

OTHER EVENTS

Graduation Ceremony for the participants of the Swiss Program for Beginning Doctoral Students in Economics 2015 on May 12, 2016

Alumni Conference on November 17 – 18, 2016



CONFERENCE WITH THE JOURNAL OF MONETARY ECONOMICS IN HONOR OF ROBERT G. KING

October 28 – 29, 2016, jointly with the Journal of Monetary Economics and the Swiss National Bank

Capital Accumulation and International Trade
Authors: Fernando Alvarez and Robert E. Lucas Jr., University of Chicago
Discussants: Jonathan Eaton, Brown University, and Jaume Ventura, CREI, UPF and Barcelona GSE

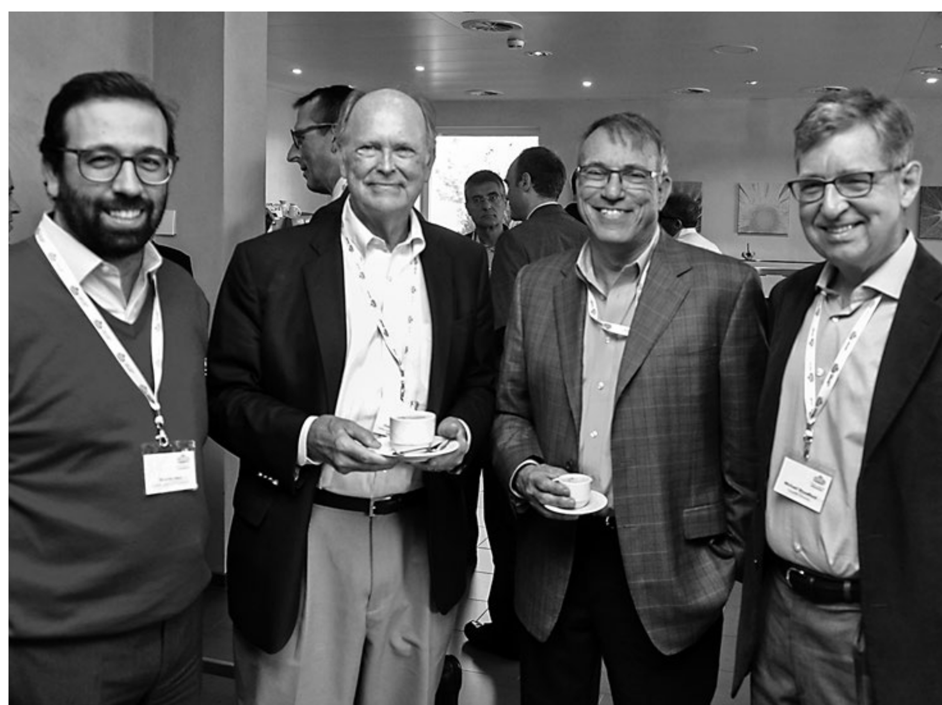
Inflation at the Household Level
Authors: Greg Kaplan, University of Chicago, and Sam Schulhofer-Wohl, Federal Reserve Bank of Minneapolis
Discussants: Yuriy Gorodnichenko, University of California at Berkeley, and Sarah Lein, University of Basel

On the Role of Public Debt in Economies with Heterogeneous Agents
Authors: Anmol Bhandari, University of Minnesota, David Evans, University of Oregon, Mikhail Golosov, Yale University, and Thomas Sargent, New York University
Discussants: Dirk Niepelt, Study Center Gerzensee, and Marco Bassetto, Federal Reserve Bank of Chicago

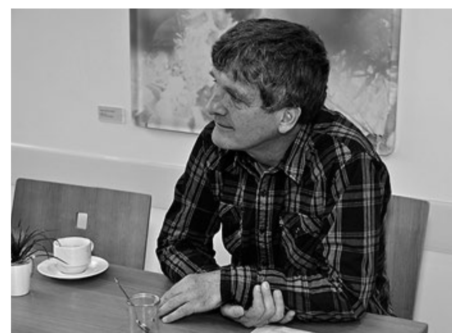
Level and Volatility Factors in Macroeconomic Data
Authors: Yuriy Gorodnichenko, University of California at Berkeley, and Serena Ng, Columbia University
Discussants: Chris Sims and Mark Watson, Princeton University

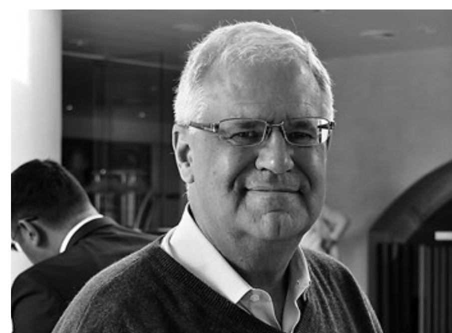
Disappearing Routine Jobs: Who, How, and Why
Authors: Matías Cortes, University of Manchester, Nir Jaimovich, University of Southern California, and Henry Siu, University of British Columbia
Discussants: David Dorn, University of Zurich, and Richard Rogerson, Princeton University

Discrete Adjustment to a Changing Environment: Experimental Evidence
Authors: Mel Win Khaw, Columbia University, Luminita Stevens, University of Maryland, and Michael Woodford, Columbia University
Discussants: Alex Wolman, Federal Reserve Bank of Richmond, and Filip Matejka, CERGE-EI



COURSES





CENTRAL BANKERS COURSES 2016

Inflation Forecasting and Monetary Policy, jointly with the Swiss National Bank
External lecturers: Gianluca Benigno, Carlo Favero, SNB-staff
Monetary Policy, Exchange Rates and Capital Flows
External lecturers: Philippe Bacchetta, Giancarlo Corsetti, Philipp Harms
Financial Stability, jointly with the Swiss National Bank
External lecturers: Philippe Bacchetta, Martín Gonzalez-Eiras, Michael Rockinger, Ernst-Ludwig von Thadden, SNB-staff
Monetary Policy in Developing Countries, jointly with Norges Bank
External lecturers: Philippe Bacchetta, Lukas Bretschger, Roberto Chang, Philipp Harms, NB-staff
Advanced Topics in Monetary Economics
External lecturers: Lawrence Christiano, Carl Walsh
Instruments of Financial Markets, jointly with Swiss Finance Institute
External lecturers: Philippe Bacchetta, Amit Goyal, Michel Habib, Erwan Morellec, Michael Rockinger

SWISS PROGRAM FOR BEGINNING DOCTORAL STUDENTS IN ECONOMICS 2016, 2016/17

Microeconomics
Lecturers: Piero Gottardi, John Moore, Klaus Schmidt, Jörgen Weibull
Macroeconomics
Lecturers: Fernando Alvarez, Jordi Galí, Sérgio Rebelo, Ricardo Reis
Econometrics
Lecturers: Bo Honoré, Mark Watson

ADVANCED COURSES IN ECONOMICS FOR DOCTORAL STUDENTS AND FACULTY MEMBERS 2016

Computational Economics
Lecturer: Felix Kübler
Financial Fragility, jointly with Swiss Finance Institute
Lecturer: Itay Goldstein
Financial Frictions
Lecturer: Andrew Atkeson
Predictive Modeling and Forecasting for Financial Markets and Macro Fundamentals
Lecturer: Francis Diebold
Trade, Migration and the Geography of Development
Lecturer: Esteban Rossi-Hansberg
Liquidity
Lecturer: Randall Wright

LAW AND ECONOMICS COURSES FOR DOCTORAL STUDENTS AND FACULTY MEMBERS 2016

Governance, Risk and Compliance
Lecturer: Geoffrey Miller
Law and Economics of Contracts: Neoclassical and Behavioral Perspectives
Lecturer: Oren Bar-Gill

AGENDA

CONFERENCES 2017

Research Day and Swiss Doctoral Workshop in Finance, jointly with Swiss Finance Institute
European Summer Symposium in Economic Theory, ESSET, jointly with CEPR
European Summer Symposium in Financial Markets, ESSFM, jointly with CEPR
Conference with the Journal of Economic Dynamics and Control, jointly with the Federal Reserve Bank of St. Louis, the Swiss National Bank and the University of Bern
Conference with the Council on Economic Policies, jointly with the Swiss National Bank

CENTRAL BANKERS COURSES 2017

Advanced Topics in Empirical Finance, jointly with Swiss Finance Institute
External lecturers: Casper de Vries, Thierry Foucault, Michael Rockinger
Monetary Policy, Exchange Rates and Capital Flows
External lecturers: Philippe Bacchetta, Giancarlo Corsetti, Philipp Harms
Banking Regulation and Supervision
External lecturers: Philippe Bacchetta, Martín Gonzalez-Eiras, Jean-Charles Rochet, Anthony Saunders, Heinz Zimmermann
Macroeconomic Forecasting, jointly with the Swedish Riksbank
External lecturers: Daniel Kaufmann, Massimiliano Marcellino, Barbara Rossi, SNB- and SR-staff
Advanced Topics in Monetary Economics
External lecturers: Lawrence Christiano, Stephanie Schmitt-Grohé
Instruments of Financial Markets, jointly with Swiss Finance Institute
External lecturers: Philippe Bacchetta, Amit Goyal, Michel Habib, Erwan Morellec, Michael Rockinger

SWISS PROGRAM FOR BEGINNING DOCTORAL STUDENTS IN ECONOMICS 2016 / 17 AND 2017 / 18

Microeconomics
Lecturers: Piero Gottardi, John Moore, Klaus Schmidt, Jörgen Weibull
Macroeconomics
Lecturers: Fernando Alvarez, Jordi Galí, Sérgio Rebelo, Ricardo Reis
Econometrics
Lecturers: Bo Honoré, Mark Watson

ADVANCED COURSES IN ECONOMICS FOR DOCTORAL STUDENTS AND FACULTY MEMBERS 2017

Sovereign Debt and Current Account Dynamics
Lecturer: Mark Aguiar
Machine Learning for Treatment Effects and Structural Equation Models
Lecturer: Victor Chernozhukov
Equilibrium Search Models – Theory and Estimation
Lecturer: Jean-Marc Robin
Using the Belief Function to Resolve Indeterminacy in Macroeconomics
Lecturer: Roger Farmer
Banking and Financial Institutions: Theory and Evidence, jointly with Swiss Finance Institute
Lecturer: Zhiguo He
Computational Economics
Lecturer: Felix Kübler

LAW AND ECONOMICS COURSES FOR DOCTORAL STUDENTS AND FACULTY MEMBERS 2016

The Law and Economics of Law and Corporate Finance
Lecturer: Eric Talley
Economic Analysis of Corporate Law
Lecturer: Robert Daines

WORKING PAPERS

2016

16.01
Alin Marius Andrieş, Andreas M. Fischer and Pinar Yeşin
"The Impact of International Swap Lines on Stock Returns of Banks in Emerging Markets"

16.02
Gregor Bäurle, Daniel Kaufmann, Sylvia Kaufmann and Rodney W. Strachan
"Changing Dynamics at the Zero Lower Bound"

16.03
Pinar Yeşin
"Exchange Rate Predictability and State-of-the-Art Models"

16.04
Pinar Yeşin
"Capital Flows and the Swiss Franc"

16.05
Martín Gonzalez-Eiras and Dirk Niepelt
"Fiscal Federalism, Taxation and Grants"

16.06
Sylvia Kaufmann
"Hidden Markov Models in Time Series, with Applications in Economics"

16.07
Adrien Alvero and Andreas M. Fischer
"Exchange Rate Floor and Central Bank Balance Sheets: Simple Spillover Tests of the Swiss Franc"

16.08
Simon Beyeler and Sylvia Kaufmann
"Factor Augmented VAR Revisited –
A Sparse Dynamic Factor Model Approach"

VISITORS' PROGRAM

George-Marios Angeletos, MIT, visited in May. Martín Gonzalez-Eiras, University of Copenhagen, visited the Study Center in April, July and October to collaborate with Dirk Niepelt.

Christian Schumacher, Deutsche Bundesbank, visited in March and September to collaborate with Sylvia Kaufmann.

Shengxing Zhang, London School of Economics, visited in March, June and December; Fabrizio Mattesini, University of Rome Tor Vergata, in March; and Vincent Maurin, European University Institute Florence, in April to collaborate with Cyril Monnet.

FOUNDATION COUNCIL

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Alexandre Zeller
Chairman, Credit Suisse Switzerland

STAFF NEWS

Among the teaching assistants, Claudio Margarita left the Study Center in May for the Banca d'Italia. Lea Wirth started to work as teaching assistant with the objective to write her doctoral thesis.
Clemens Stampfli, long-term representative of SV (Schweiz) AG which operates the Study Center's hotel, left Gerzensee. Fabienne and Beat von Allmen took over as managers of the newly named "Hotel Schloss Gerzensee".

PUBLICATIONS

Articles
Nils Herger
"Panel Data Models and the Uncovered Interest Parity Condition: The Role of Two-Way Unobserved Components", International Journal of Finance and Economics 21, 294-310

Nils Herger and Steve McCorriston
"Horizontal, Vertical, and Conglomerate Cross-Border Acquisitions", IMF Economic Review 64, 319-353

Nils Herger, Christos Kotsogiannis and Steve McCorriston
"Multiple Taxes and Alternative Forms of FDI: Evidence from Cross-Border Acquisitions", International Tax and Public Finance 23, 82-113

Nils Herger
"Wie funktionieren Zentralbanken? – Geld- und Währungspolitik verstehen", Springer-Gabler

Sylvia Kaufmann
"Hidden Markov Models in Time Series, with Applications in Economics, 2017, in Handbook of Mixture Analysis", Eds. Gilles Celeux, Sylvia Frühwirth-Schnatter and Christian Robert, CRC Press, forthcoming

Cyril Monnet and Erwan Quintin
"A Theory of Blind Trading", Journal of Financial Economics, forthcoming

Harris Dellas and Dirk Niepelt
"Sovereign Debt with Heterogeneous Creditors", Journal of International Economics

CALL FOR PAPERS

Aggregate and Distributive Effects of Unconventional Monetary Policies, conference with the Council on Economic Policies and the Swiss National Bank, November 9–10, 2017
(see website)

ABOUT

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Foundation of the Swiss National Bank

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