



# NEWSLETTER

JANUARY 2015



## EDITORIAL

This Newsletter briefly reports about the Center's activities in the recent past and plans for the months ahead. It also contains an interview with Matthew Jackson of Stanford University, who taught an advanced doctoral course on "Networks" in the past summer, and informs about other developments at the Center.

Looking back to 2014, the Study Center organized numerous academic activities and welcomed many central bank practitioners, academics and PhD students from around the world. Conference highlights included the event with the Journal of Monetary Economics – featuring papers on the topic of "Asset Price Fluctuations and Economic

Policy" – as well as the traditional meetings co-organized with the Swiss Finance Institute and the Centre for Economic Policy Research. Seven central bankers' courses, the Swiss Program for Beginning Doctoral Students, five advanced doctoral courses and two law and economics courses completed the academic program.

In 2015, we plan a new 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 as well as six central bankers' courses, including a new one entitled "Monetary Theory and Policy". The Center also organizes the traditional Swiss Program for Begin-

ning Doctoral Students and seven advanced as well as law and economics doctoral courses. We are extremely happy that Jean Tirole, recent Nobel laureate, has agreed to teach one of the advanced courses.

I would like to cordially thank everybody who contributes to the Center's activities for their appreciated support! And I'm looking forward to welcoming many of this Newsletter's readers as well as "newcomers" to the Study Center in the near future.

With best wishes,

Dirk Niepelt  
Director

## INTERVIEW WITH MATTHEW O. JACKSON

### NETWORK ECONOMICS

*Professor Jackson, thank you for agreeing to this interview. You are one of the figureheads of network economics and I was wondering how you came to study networks?*

In the early nineties, I had a lunch conversation with Asher Wolinsky where we were talking about the best way to capture the notion of “power” in a model. It became pretty clear that it was a network-based concept. We looked at the sociology literature, but while there were some models trying to integrate people’s decisions, it was missing a game-theoretic framework. So that was part of the initial interest, just trying to model power explicitly. And then that led us to think about network formation in a game-theoretic or strategic sense. That was my first foray into networks.

*And what is the notion of power in networks?*

Well, there are different ways of measuring it. We were interested in just understanding what people’s incentives were to form different relationships. If having relationships gives you advantages, then there are externalities that are going to play themselves out. So people are trying to become central and that can have important consequences for what happens in the society. For instance in a business setting, you may have businesses that are trying to monopolize the relationships with important consequences for the market.

*So are there different notions for being central? How many friends you have, but also how powerful your friends are?*

That is where it ends up very context specific. Some notions are useful in some settings and other ones in others.

*Networks have become very important in economics. Could you give us some situation that network economics can help explain?*

One observation is homophily, which is this tendency of people to associate with individuals sharing the same traits. That is something that you observe across all kinds of different networks. For example, homophily is helpful in understanding people’s decisions to participate in the labor market, to attend university, or to move to a different city. Peers and acquaintances heavily influence these decisions. So, if you have lots of segregation in the society then people can be making decisions that are very different across different groups.

*A higher lifetime income strikes me as being the determining factor for the decision to*

*attend University. But you seem to say otherwise...*

There are two things. One is that those lifetime income streams can depend on what my friends are doing. If my friends are all becoming educated and are going into the financial sector that gives me a better chance to get a good job in the financial sector which increases my lifetime earnings. If my friends are all working in the illegal drug industry then that gives me better options in that type of business. So you can get subgroups of individuals who are heavily influenced by their peers and this distorts the market’s outcome, as these individuals get jobs that are unrelated to their inherent talent and abilities, but depend on the circumstances they are in. The problem is that those circumstances self-perpetuate and we have really talented individuals who can never realize those talents because they never get into the right situations.

*So what can we do about this?*

Looking at the network structure gives you different policy implications from a world where you think about everybody as making their own individual choices. In the latter case, you may end up subsidizing the individual’s choice. But if you realize that people make choices within their environment, then you have to change this environment, or change groups of people at a time. For example, instead of giving one scholarship to each high school in a neighborhood, the optimal policy may end up giving many scholarships to one school. In this way, instead of picking one student out of each school, you try to pick a group of students within a school and see whether you can change the culture within that school. That is the kind of thing that you learn from a network perspective that you would not get from just looking at a basic human capital perspective.

*Are these policies already implemented in the US?*

I think that there are areas in which people are increasingly aware of peer effects: in particular, in educational choices. And, more generally, people are also using broader network structures to understand these kinds of effects in other settings, like financial markets. There are lots of other kinds of applications, where an analysis based on network structure gives different policy implications from what you would have without it.

*You have a recent paper on financial contagion in the American Economic Review (Finan-*

*cial Networks and Contagion, with M. Elliott and B. Golub). What is the network there and what drives financial contagion in the network?*

I think the basic part of networks really mattering always involves some sort of externality. And here I think a fundamental aspect of networks, in say financial contagion, is that individual firms are taking risks that have consequences beyond themselves. They don’t necessarily take those external risks into account when they are making their decisions. Part of the analysis is trying to understand how these risks interact when agents are interconnected. For example, we have all these interactions between say banks or many firms with exposures to each other because they have contracts with each other. A shock to one of them can hurt the contracts of another and then have implications through a whole stream of interactions. How do we know where the weak points are and what kinds of interventions might be needed? At the moment, the basic theory growing out of network research is a really simple way of trying to make sense of this, to understand what the potential problems are, to give us tools for measuring weaknesses and ultimately to speak to policy makers about how they may think about dealing with these issues.

*What would you recommend to policy makers?*

At this point, I think it is not obvious what all of the implications are. However, one thing that we pointed out in that paper is that there is an intermediate range of connections between financial organizations for which the danger of contagion is maximized: i.e., where there is sufficient interconnection so that shocks can propagate, but where firms are reliant on just a few partners each so that they have substantial exposure to each other’s downturns. In this intermediate range there is the possibility of having real contagions, where a few players could be critical and could initiate a severe cascade.

If there is not much interaction in an economy, there is not much contagion problem, as shocks never amplify. Also if there is a very high level of diversification, then shocks don’t necessarily matter so much because a shock to one particular firm or country doesn’t necessarily propagate. It is only in the intermediate range I mentioned that contagion could strike.

*Here you take the level of diversification as given. But one principle in finance is that you should hold a diversified portfolio. Why would*



*Matthew O. Jackson is the Eberle Professor of Economics at Stanford University and an external faculty member of the Santa Fe Institute and a fellow of CIFAR. Jackson's research interests include game theory, microeconomic theory, and the study of social and economic networks, including diffusion, learning, and network formation. He is the author of many articles and books, including the book *Social and Economic Networks*. He was at Northwestern and Caltech before joining Stanford, and has a PhD from Stanford and BA from Princeton. Jackson is a Fellow of the Econometric Society and the American Academy of Arts and Sciences, an Economic Theory Fellow, and a former Guggenheim Fellow.*

*people in your model hold undiversified portfolios?*

There are two things going against diversification. One aspect is that there is some cost to actually dealing with more trading partners. For instance, think about making primary investments. Diversification does not mean just buying more assets, it also means interacting with a lot of counterparties, establishing relationships with them, and doing due diligence on each of them. So there can be substantial costs involved that prevent you from dealing with lots of other entities. The second element going against diversification is my own choice, what is optimal for me. If I face some failure risk, I may not take into account the fact that when I go down, there is going to be a lot of other costs. In the cost-benefit analysis I am doing, I am underestimating the benefits of diversification, as I am just taking into account my personal benefits and not those of others.

*Within the ongoing banking regulation overhaul, policy makers have discussed increasing capital requirements. Would this work in your environment?*

Yes that would help, but that is a crude tool. It may be better to find out a way to adjust capital requirements for each bank. Increasing capital requirements is costly because it lowers the amount that is lent out. You would like to have those be as low as possible while still having a safe banking system. Hopefully, by looking at some of the network structure, we can get a better idea of who ought to have higher or lower capital requirements. Also, how do you structure those requirements so as to give individuals the incentives to make the right investment decisions, or to become more diversified? That may be through lower requirements. In fact, there's an interesting set of interactions that still needs to be studied.

*You wrote a lot of papers on networks, which one you consider the most important?*

Well I guess it is not easy to judge your own work. Certainly the work I did with Asher Wolinsky early on was important just because it got me interested in the subject. It gave me some awareness of all the interesting issues that were to be explored. I think what I probably put the most effort into, and was

hopefully useful, was writing a book on the subject. Network research is coming from lots of different disciplines. Sociologists, physicists, mathematicians, computer scientists, anthropologists, political scientists, and economists are working on it. In writing that book, I tried to synthesize a lot of those different literatures and pull out the pieces and tools that would be useful for economists. I put a lot of effort in pulling these pieces together and making it accessible.

*And you succeeded!*  
Thank you!

*A converse question of sort: which paper of yours would you revisit?*

Let me think about this for a moment... Early on in my career I worked on mechanism design theory and implementation theory where you design some institutions to get people to reach efficient outcomes. In this area, the gap between theory and practice is still substantial, and I think I would like to spend more time trying to build a bridge between the theory and the actual implementation. There have been real success stories in market design and in auctions. But the general abstract theory is still far from practice and it is important to eventually show that what we have learned from the theory has consequences. Whereas, in working with networks, the theory, the empirics and the policy questions are all intermingled. So, you never feel that big a divide from reality.

*But there are still open questions in networks, right?*

Oh yes! I think networks is such an exciting field because it has so many potential applications, it's growing, but there is a lot of work still to be done. It is really encouraging to see the recent enormous growth in development economics using network research and I would expect that to continue. What network research brings to the table is that you've got all these interactions that are structured and people are interacting with each other and that makes differences in how they behave. Without taking into account the network we really don't have a handle on that. So it has become increasingly apparent to economists that you need to have some understanding of

how the structure maps into behavior. Development economics is a natural place because it is so clear networks matter. Also, I think you see an increasing attention to the networks in financial settings, especially after the financial crisis, and that's beginning to grow. Trade is also a big avenue for applying network research. International trade is a naturally networked structure and yet a lot of trade models are bilateral models, partly for tractability reasons. But I think now the toolkit is getting advanced enough that it can begin to tackle that problem, and I am guessing that you will see a big growth of network research in international trade. Another area is conflict. Recently I have gotten very interested in understanding international political alliances, potential wars, and the link with trade. We have large data sets to analyze, but there are many questions yet unanswered: How to make sense out of networks there? How to work with them empirically? What is the right modeling approach? It is a huge open playing field with lots of open problems. It's a little bit daunting too because you never quite know what will come next.

*It seems network economics is really picking up then?*

I think it's actually like one of these S-curves that we saw in class. Network research started in the late 90s in economics and then, through the early 2000s, picked up speed and it's accelerating now. Often when you see new areas come in, such as behavioral economics or some of the network research, graduate students are key for growth. They are the ones looking for new tools, they are the most open to new methods, and they don't already have an established research agenda. It is very much network based: You see some people who are already established pulling things in where they see a need; but their graduate students are growing up, they have more exposure to networks and that helps accelerate things. They pass things to a second generation of researchers, and so forth...

*Professor Jackson, thank you very much for this interview.*

Cyril Monnet conducted this interview.

---

## ACADEMIC CONFERENCES

---

### RESEARCH DAY AND SWISS DOCTORAL WORKSHOP IN FINANCE

June 2 – 3, 2014, jointly with Swiss Finance Institute

Selected Sessions:

Financial Regulation and Bank Behavior

Securities Markets Design and Characteristics

The Role of Preferences and Behavioral Biases in Markets

Banking

Option Pricing

Corporate Finance



---

### EUROPEAN SUMMER SYMPOSIUM IN ECONOMIC THEORY

June 30 – July 11, 2014, jointly with CEPR

Focus Sessions:

Contracting for Innovation

Regulatory Dualism

Bank Resolution

Attention



---

### EUROPEAN SUMMER SYMPOSIUM IN FINANCIAL MARKETS

July 14 – 25, 2014, jointly with CEPR

Focus Sessions:

Active Asset Management

New Models of Risk

Finance and Development

Aggregate Implications of Micro-Level Frictions



---

### OTHER EVENT

Graduation Ceremony for the participants of the Swiss Program for Beginning Doctoral Students in Economics 2013 on April 25, 2014





## CONFERENCE WITH THE JOURNAL OF MONETARY ECONOMICS

November 7 – 8, 2014, jointly with the Journal of Monetary Economics and the Swiss National Bank

Asset Price Fluctuations and Economic Policy

Leveraged Bubbles

Authors: Òscar Jordà, UC Davis, Moritz Schularick, University of Bonn, and Alan Taylor, UC Davis

Discussant: José-Luis Peydró, ICREA, Universitat Pompeu Fabra



Long-Run Bulls and Bears

Authors: Martin Eichenbaum, Dimitris Papanikolaou and Sergio Rebelo, Northwestern University, and Rui Pinto de Albuquerque, Boston University

Discussant: Bernard Dumas, INSEAD

On the Optimal Size of Financial Bubbles

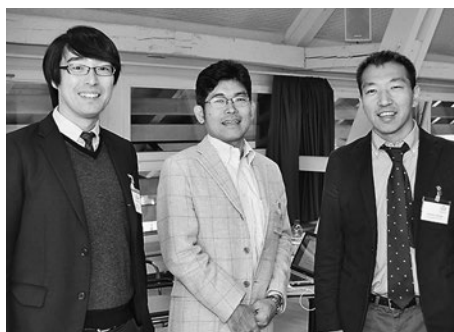
Authors: Alberto Martin and Jaume Ventura, CREI, Universitat Pompeu Fabra

Discussant: Pietro Reichlin, LUISS G. Carli

Housing Bubbles and Policy Analysis

Authors: Jianjun Miao, Boston University, Pengfei Wang and Jing Zhou, Hong Kong University of Science and Technology

Discussant: Alex Michaelides, Imperial College Business School



Asset Bubbles and Bailouts

Authors: Tomohiro Hirano and Noriyuki Yanagawa, University of Tokyo, Masaru Inaba, Kansai University

Discussant: Kalin Nikolov, European Central Bank

Can a Financial Transaction Tax Prevent Stock Price Booms?

Authors: Klaus Adam, Johannes Beutel, Sebastian Merkel, University of Mannheim, and Albert Marcet, IAE and Barcelona GSE

Discussant: Mirko Wiederholt, Goethe University Frankfurt



---

## COURSES

---

### CENTRAL BANKERS COURSES 2014

Inflation Forecasting and Monetary Policy, jointly with the Swiss National Bank

External lecturers: Pierpaolo Benigno, Angelo Rinaldo, SNB-staff

Monetary Policy, Exchange Rates and Capital Flows

External lecturers: Philippe Bacchetta, Giancarlo Corsetti, Philipp Harms

Advanced Topics in Macroeconometrics

External lecturers: David DeJong, Harald Uhlig

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 and Commodity Prices, jointly with the Central Bank of Norway

External lecturers: Lucas Bretschger, Jeffrey Frankel, Philipp Harms, Michael Rockinger, CBN-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 2014

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 2014

International Finance

Lecturer: Pierre-Olivier Gourinchas

Panel Data Econometrics

Lecturer: Badi H. Baltagi

Networks

Lecturer: Matthew Jackson

Financial Stability

Lecturer: Xavier Vives

Financial Fragility, jointly with Swiss Finance Institute

Lecturer: Enrico Perotti



---

### LAW AND ECONOMICS COURSES FOR DOCTORAL STUDENTS AND FACULTY MEMBERS 2014

Introduction to Empirical Legal Studies

Lecturer: Jonathan Klick

Corporate Crime, Liability & Financial Misdealings

Lecturer: Jennifer Arlen



---

# AGENDA

---

## CONFERENCES 2015

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  
European Seminar on Bayesian Econometrics

---

## CENTRAL BANKERS COURSES 2015

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  
Monetary Theory and Policy  
External lecturers: Marvin Goodfriend, Peter Kugler  
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 2015

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 2015

The Empirical Analysis of Consumer and Labour Supply Behaviour  
Lecturer: Richard Blundell  
Institutions, Culture and Prosperity: Theory and History  
Lecturer: Avner Greif  
Recent Advances in Theoretical Industrial Organization  
Lecturer: Jean Tirole  
Bayesian Dynamic Modelling & Forecasting  
Lecturer: Mike West  
Over-the-Counter Financial Markets, jointly with Swiss Finance Institute  
Lecturer: Darrell Duffie

---

## LAW AND ECONOMICS COURSES FOR DOCTORAL STUDENTS AND FACULTY MEMBERS 2015

Law and Economics of Regulation  
Lecturer: Richard L. Revesz  
Deals: The Legal and Economic Structure of Business Transactions  
Lecturer: Michael Klausner

---

---

## FOUNDATION COUNCIL

---

### Chairman

Prof. Dr. Jean-Pierre Danthine  
Vice-Chairman of the Governing Board  
of the Swiss National Bank

### Members

Prof. Dr. Stefan Bechtold  
ETH Zurich

Corina Casanova  
Federal Chancellor

Prof. Dr. Harris Deltas  
University of Bern

Dr. Werner Hermann  
Director of the Swiss National Bank  
Central Bank Cooperation

Stefan Lehmann  
President of the Community of Gerzensee

Prof. Dr. Yvan Lengwiler  
University of Basel

Dr. Carlos Lenz  
Director of the Swiss National Bank  
Inflation Forecasting

Prof. Dr. Thomas Wiedmer  
CFO and alternate Member of the  
Governing Board of the Swiss National Bank

Alexandre Zeller  
Chairman, Board of Directors of SIX

---

## WORKING PAPERS

---

### 2014

#### 14.01

Philipp Harms, Jaewon Jung, and Oliver Lorz  
"Offshoring and Sequential Production  
Chains: A General-Equilibrium Analysis"

#### 14.02

Nils Herger and Steve McCorriston  
"Horizontal, Vertical, and Conglomerate  
FDI: Evidence from Cross Border  
Acquisitions"

#### 14.03

Paul Gaggl and Sylvia Kaufmann  
"The Cyclical Component of Labor Market  
Polarization and Jobless Recoveries in  
the US"

#### 14.04

Sylvia Kaufmann  
"K-state Switching Models with Time-  
Varying Transition Distributions –  
Does Credit Growth Signal Stronger Effects  
of Variables on Inflation?"

#### 14.05

Raphael A. Auer and Aaron Mehrotra  
"Trade Linkages and the Globalisation of  
Inflation in Asia and the Pacific"

#### 14.06

Romain Baeriswyl  
"Intertemporal Discoordination in the  
100 Percent Reserve Banking System"

#### 14.07

Harris Deltas and Dirk Niepelt  
"Austerity"

---

## STAFF NEWS

---

Dirk Niepelt celebrated his 10 year-jubilee in October. Filippo Brutti accepted a full time position in the private sector. Among the teaching assistants, Maria Bolboaca passed the BDP exams and increased her load to 100%.

---

## VISITORS' PROGRAM

---

Martín Gonzalez-Eiras, University of Copenhagen, visited the Study Center in August to collaborate with Dirk Niepelt.

Vincent Maurin, European University Institute Florence, visited in April and Francesca Carapella, Federal Reserve Board of Governors, in October to collaborate with Cyril Monnet.

Markus Pape, Ruhr-University Bochum, visited in August and Christian Schumacher, Deutsche Bundesbank, in October to collaborate with Sylvia Kaufmann.

---

## PUBLICATION

---

Journal of Monetary Economics, Volume 68, Supplement, Pages S1–S80 (December 2014). Supplement issue: October 19–20, 2012 Research Conference on "Financial Markets, Financial Policy, and Macroeconomic Activity" Sponsored by the Study Center Gerzensee and the Swiss National Bank.

---

## ABOUT

---

[www.szgerzensee.ch](http://www.szgerzensee.ch)

Foundation of the Swiss National Bank

### EDITING CONTRIBUTORS PHOTOS

### DESIGN

Corinne Conti Ambühl, Nils Herger, Sylvia Kaufmann, Dirk Niepelt  
Corinne Conti Ambühl, Cyril Monnet, Dirk Niepelt  
Nicole Aregger, Corinne Conti Ambühl, David Niedenthal,  
Law Office of Communications (Prof. Arlen), Teo Ruiz (Graduation Ceremony)  
Gerber Druck AG, Steffisburg, [www.gerberdruck.ch](http://www.gerberdruck.ch)

Dorfstrasse 2, CH-3115 Gerzensee, Switzerland  
Phone +41 31 780 31 31, Fax +41 31 780 31 00  
[studienzentrum@szgerzensee.ch](mailto:studienzentrum@szgerzensee.ch)



**STUDY CENTER  
GERZENSEE**