

# Cambridge-INET Institute

Annual Report 2015-2016



Institute for  
**New Economic Thinking**



UNIVERSITY OF  
CAMBRIDGE





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## FROM THE DIRECTOR

I have great pleasure in presenting the new annual report for the Cambridge-INET Institute. The past year has once again been very successful and productive. In 2015–2016 we expanded our post-doc programme and promoted structured collaborations and joint ventures with academic and policy institutions within and beyond Cambridge. We hosted over 40 leading international scholars as visitors and organised over 100 events. We also engaged in high-impact outreach activities and introduced new initiatives in teaching and doctoral training.

To offer an insight into our activities, this year's report opens with some highlights from our research, drawing on a sample of Cambridge-INET working papers recently published in leading economic journals.

These highlights include an article by Pontus Rendahl which re-casts the theory of fiscal multipliers in a modern framework. Next is work by myself, co-authored with Luca Dedola, which characterises monetary policy strategies to prevent self-validating sovereign debt crises. Sriya Iyer outlines a broad research agenda on economics and religion, which, in turn, informs the world-class international conference on the theme to be held in Cambridge in July 2017. Kaivan Munshi and Mark Rosenzweig present compelling evidence that, by providing insurance against income risks where market and institutions fail to do so, local informal networks reduce the economic incentive to migrate, thereby limiting labour mobility.

Issues in financial market anomalies, regulation and stability are at the core of Cambridge-INET research and our final highlight in the report is in keeping with this: a cutting-edge international conference on the *Microstructure of Foreign Exchange Markets* organised by Oliver Linton and Soheil Mahmoodzadeh.

The academic year 2015–16 has been rich with new initiatives. We hosted the launch of the Horizon 2020 programme, A Dynamic European Monetary Union (ADEMU) in October 2015, creating a unique forum for fostering dialogue between cutting-edge economic research and policymaking in the euro area. Within this framework, we



organised a large, high-profile conference in September 2016 on *Sovereign Debt Sustainability and Lending Institutions*, which began a fruitful collaboration with the European Stability Mechanism (ESM).

We have also introduced a new, flexible format for meetings, concentrating on rigorous open discussion on methodologies and topics at the frontier of macroeconomic research. These took the form of mini-conferences on *Macroeconomics of Financial Frictions; Growth; Heterogeneous Agents in Macro* and *Networks in Trade and Macroeconomics*.

In parallel with their respective research activities, the four Themes of the Institute continued to organise conferences and workshops exploring cross-disciplinary topics. The Institute engaged in a conference bringing together leading scholars from various disciplines to reflect on “smart cities” and urbanisation called the *International Conference on Smart Infrastructure and Construction*. The Institute also sponsored international meetings on *Networks and Search, Behavioural Economics and Networks* as well as a *Big Data Big Methods* conference.

Following the tradition of previous years, our post-docs and Faculty members presented their findings at the *Keynes Fund and Cambridge-INET Research Days* (14-15th June 2016), which acted as a forum for discussing ideas and projects with researchers from different disciplines in Cambridge.

During the year, Cambridge-INET hosted 12 post-docs. In addition, a number of post-doctoral researchers in Cambridge joined our programmes. We worked in strict collaboration with the Centre for Macroeconomics and two Horizon 2020 programmes based in the Faculty of Economics in Cambridge: the already mentioned ADEMU and IBSEN (Bridging the gap: from Individual Behaviour to the Socio-tEchnical MaN).

In the academic year 2015–2016, two Cambridge-INET post-docs came to the end of their contracts and secured first-rate jobs in leading academic centres. This year we have seven post-docs on the job market.

In last year’s report, we announced that Cambridge-INET had received two transformational gifts. INET New York has renewed and extended its initial grant until 2020. Most crucially though, a generous donation from Bill and Weslie Janeway to the Faculty of Economics created an endowment that will secure

Cambridge-INET in perpetuity from 2020 onwards. I would like to take this opportunity to once again express the gratitude of Cambridge researchers to our donors, the Institute for New Economic Thinking, the Keynes Fund for Applied Economics, Dr Mohamed El-Erian, the Cambridge Endowment for Research in Finance, the Isaac Newton Trust and the Faculty of Economics, and in particular to Bill and Weslie Janeway, for supporting our developments and shared goals so generously and so effectively.

These new developments are a great opportunity for Cambridge-INET to rethink its strategy and structure, in line with the growing scale, quality and outreach of our activities.

When the Institute was set up, we knew that pursuing the ambitious goal of excellence in new economic thinking would take time, dedication and commitment. None of the achievements to date would have been possible without the intellectual leadership and passionate work of the people most involved in managing the Institute: Professor Coen Teulings, Professor Sanjeev Goyal, Professor Kaivan Munshi, Dr Vasco Carvalho, Professor Hamish Low, Professor Chris Harris, Professor Hamid Sabourian, Professor Oliver Linton, Professor Alexei Onatski, Marion Reusch, Anna Hitchin and Craig Langton. Thanks to all.

**Giancarlo Corsetti**

Director, Cambridge-INET Institute



# RESEARCH HIGHLIGHTS

## UNDERSTANDING THE FISCAL MULTIPLIER

**Pontus Rendahl**

### **Fiscal Policy in an Unemployment Crisis**

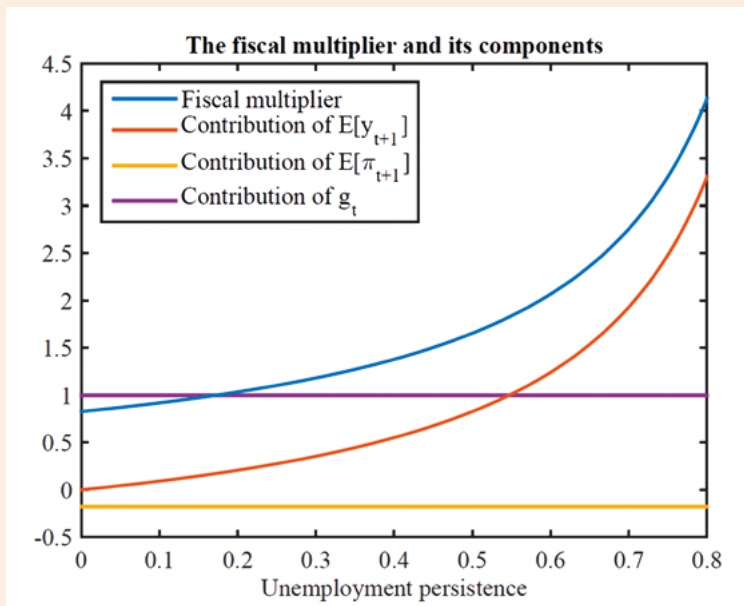
*Review of Economic Studies*, vol 83 (3), 2016

In the standard macro model that is widely employed by policy institutions around the world, government spending affects aggregate demand through its effects on long-term interest rates. A well-known property and limit of this model is that, in a liquidity trap with policy rates at zero, only expected inflation matters: if spending does not raise inflationary expectations, it cannot lower real interest rates and raise demand and employment. Also, any policy reform that raises productivity in the future may be counterproductive in the short run, to the extent that it foreshadows lower costs, lower prices, and hence prevents higher inflation in the future.

On logical and empirical grounds, however, one can expect demand and saving to respond to unemployment and insecurity about job prospects independently of inflation expectations. Pontus' paper redefines the classical economic model of multiplier along a new direction. The main insight is as follows: as a deep economic downturn generates a high rate of unemployment, it takes an unemployed worker much longer to find a new job. Workers who have not lost their jobs know that, in case they become unemployed, they will face a tight market. Unless unemployment insurance is counterfactually high, these considerations motivate all workers to cut demand and save more. As a result, with a small degree of nominal wage rigidities, a large negative shock creating unemployment can ignite a vicious circle, by which an exogenous drop in demand becomes much more consequential via further endogenous contraction in demand. According to Pontus' model, fiscal policy can be effective without necessarily raising inflation expectations. Current spending preventing firms closure and job separation is more effective than prospective spending, sustaining demand and inflation in the future.

Academics and policy institutions are increasingly paying attention to the development, initiated by Rendahl's work at Cambridge. The view of economic depressions exclusively based on the adverse consequences of inflation expectation on the long-term real interest rate, transmitted by well-functioning financial markets to the real economy, is met with increasing scepticism. The importance of Pontus' paper lies in the fact that it replaces this view with one where depression is caused by endogenous contraction of demand and incomes following high unemployment and unemployment risk. De facto, the paper brings back the fundamental insight of the Keynesian multiplier into new-Keynesian theory and policy models.

The model presented in the RESTUD paper is now translating into an articulated research agenda. In 2013, Pontus joined forces with Wouter den Haan and Markus Riegler, to produce a new generation of monetary models with heterogeneous agents in incomplete markets, explicitly modelling the portfolio choice. The paper 'Unemployment (fears) and Deflationary Spirals' has the potential of redefining the field of applied monetary economics on two accounts. Firstly, it features an innovative way to compute asset pricing and portfolio allocation (including money) with incomplete markets and heterogeneous agents. This is important because liquidity traps with underinvestment emerge as a general equilibrium implication of agents' optimal allocation of wealth across productive assets and money. Secondly, it fully embeds Pontus' insight in the New-Keynesian model, addressing a key problem in this literature. In this literature, any adverse supply shock (a decrease in productivity, current or anticipated, or a loss of capital) is invariably inflationary. So, to explain the deflationary effects of the 2008 crisis, New-Keynesian models typically rely on assuming a shock to desired saving (time preferences). Following Pontus' insight, the model becomes less inflexible and closer to received wisdom, i.e. gloomy expectations about future profitability of firms depress demand to such an extent that deflation follows in equilibrium. This paper is now a revise-and-resubmit to the *Journal of the European Economic Association*.





# MONETARY POLICY and SELF-FULFILLING SOVEREIGN DEBT CRISES

Giancarlo Corsetti and Luca Dedola

## The Mystery of the Printing Press

*Journal of the European Economic Association, December 2016*

How can monetary policy prevent self-fulfilling sovereign debt crises?

The sovereign debt crisis in the euro area has revived the academic and policy debate on the role of monetary policy in shielding a country from belief-driven speculation in the sovereign debt market. As the President of the European Central Bank (ECB) put it in his Luncheon Address, Unemployment in the Euro Area, at the Jackson Hole Symposium, on August 22, 2014: “Public debt is in aggregate not higher in the euro area than in the US or Japan. [T]he central bank in those countries could act and has acted as a backstop for government funding. This is an important reason why markets spared their fiscal authorities the loss of confidence that constrained many euro area governments’ market access.” The debate revolves around two crucial questions, namely: What are the mechanisms that allow a central bank to provide a monetary backstop to government debt? Under what conditions can a backstop be effective without compromising the central bank’s ability to pursue its primary objectives?

In the 2015 Schumpeter Lecture at the European Economic Association,<sup>1</sup> Corsetti addresses these questions by drawing on a joint project with Luca Dedola at the ECB.<sup>2</sup>

The lecture uses a theoretical framework to discuss whether and how, via conventional or unconventional policy, the central bank can credibly (hence effectively) rule out sovereign default driven by self-fulfilling market beliefs. In the model, discretionary fiscal and monetary authorities set their policies independently of each other, using instruments (taxes inflation and default) which are distortionary and affect output. Ex post, the fiscal authorities set taxes and may choose outright repudiation by imposing losses (haircuts) on bond holders. Monetary authorities set inflation—this generates seigniorage revenue and reduces the real value of debt. Most importantly, monetary authorities can engage in (unconventional) balance sheet policy.

There are three fundamental lessons from theory. Firstly, a successful monetary backstop to government debt rests on the ability of the central bank to issue liabilities (bank reserves) that are free of outright default risk. Hence, interventions in the debt market translate into a swap of (default-) risky government debt with nominal liabilities which can always be redeemed against currency. Secondly, monetary policymakers should be sufficiently averse to inflation, so that monetary policy is not itself a source of multiple equilibria in inflation and interest rates. Namely, conditional on a realised haircut, inflation rates should be uniquely determined, ruling out the possibility that market expectations drive interest rates and taxation

to unsustainable levels in the presence of sound fiscal fundamentals and no default. Lastly, when the central bank buys debt, prospective balance sheet losses in case of fundamental default raise the risk that monetary authorities are forced to run inefficient inflation. To rule out this problem, either the fiscal authorities must stand ready to provide “backing” to the monetary authorities---preventing these losses---or the fiscal authorities must be themselves sufficiently averse to inflation. In this case, even if the central bank cannot rely on fiscal backing, fiscal authorities internalise the inflationary costs of default in their decision-making: the adverse inflationary consequences of prospective losses on the central bank holdings of sovereign bonds would discourage outright default altogether.

These results are at odds with views often voiced in the public debate, arguing that the central bank may not have the ability to expand its balance sheet on a sufficient scale to effectively backstop government debt, or claiming that the central bank can freely play the role of lender of last resort to the government because, alternatively, a central bank can always consolidate its liabilities to private banks (i.e. force banks to roll over reserves indefinitely), or debase them by a bout of unexpected inflation. In light of our analysis, these views have fundamental shortcomings.

The view stressing the option for a central bank to impose financial repression over private banks, de facto introduces the possibility of a form of default on monetary liabilities, without however thinking through the consequences. If the central bank is expected to tamper with its liabilities, monetary liabilities would no longer be risk-free. The logic of self-fulfilling beliefs of default would then apply to a discretionary central bank as well as to the government. Rather, the central bank can expand its balance sheet by remunerating reserves at the equilibrium risk-free nominal rate. The model results suggest that an effective backstop does not have to match the full scale of the government financing.

The alternative, inflationary-debasement view downplays the social costs of running high inflation, historically conducive to financial and macro instability. If anything, the theory suggests that downplaying the costs of inflation may actually raise the prospects of self-fulfilling sovereign debt crises driven by expectations of debt debasement, rather than outright default. On the contrary, it is exactly because inflation costs are (perceived to be) socially costly, that a monetary backstop can be credible even when the central bank is responsible for its losses. Indeed, a non-trivial result from our analysis is that inflation rates are higher in an equilibrium with belief-driven outright default: an effective monetary backstop prevents rather than creates inflation instability.

<sup>1</sup> Manheim, August 24 2016, [www.youtube.com/watch?v=NEDF\\_w\\_LWPg](http://www.youtube.com/watch?v=NEDF_w_LWPg)

<sup>2</sup> Giancarlo Corsetti and Luca Dedola *The Mystery of the Printing Press: Monetary Policy and Self-fulfilling Debt Crises*, Journal of the European Economic Association, December 2016

# ECONOMICS and RELIGION

Sriya Iyer

## The New Economics of Religion

*Journal of Economic Literature*, June 2016

Religion is the spiritual expression of a race and a record of its social evolution. Understanding its ultimate meaning and consequence for economic development is of interest to scholars and policymakers. Scholars have grappled for centuries with its complexity and persistence: religion has been a tremendous force throughout human history, in all corners of the globe, and continues to exercise influence over individuals and their minds. Over 84% of the world's population currently report a religious affiliation, and the median age of the world's religious population at 28 years is very young. To an economist, it seems obvious that religion must have consequences. And yet, compared to other disciplines, economists have had relatively little to say about religion in society.

Adam Smith first made reference to religious competition in *The Wealth of Nations*, yet the discipline as a whole was relatively silent about religion for about 200 years. This has now changed and dramatically. Today, the economic approach to the study of religion highlights religious markets, how religious norms increase trust, incentives or impose social sanctions, and how religion affects public goods provision such as education and healthcare, particularly as income inequality and religious competition has intensified both within and across societies.

In a new paper on 'The New Economics of Religion' which was published in the *Journal of Economic Literature* in June 2016, Sriya Iyer presents her central thesis that there is much to be gained from economists engaging more with the study of contemporary religion. By combining economic theory, statistical techniques, history and qualitative methods, economics can bring insight, to complement that offered by other disciplines. Sriya's paper traces the historical and sociological origins of the economics of religion as a field of research, and the research themes that are offered by economists to investigate religion globally in the modern world. These include new developments in theoretical models including spatial models of religious markets and evolutionary models of religious traits; empirical work which addresses innovatively econometric identification in examining causal influences on religious behaviour; new research in the economic history of religion that considers religion as an explanatory variable rather than as an outcome; and more studies of religion outside the Western world. Based on these developments, Sriya's paper discusses four themes – first, secularisation, pluralism, regulation and economic growth; second, religious markets, club goods, differentiated products and networks; third, identification including secular competition and charitable giving; and fourth, conflict and cooperation in developing societies.

There are many unanswered questions for economists to explore in years to come – the data demonstrate clearly that as rich countries are becoming more secular, the world overall is becoming more religious. This is linked to the relationship between religious pluralism and participation, religious freedom and persecution, and the growth of religious fundamentalism. Economists need to further their understanding of the economics of Islam, Hinduism, Buddhism, Jainism, Sikhism, and tribal religions, especially in Africa, the Middle East and South Asia. Moreover, how religion and religiosity evolves in the future has enormous contemporary significance for policy-makers in all nations.

To that end, Cambridge-INET and the International Economic Association (IEA) will organise an IEA Roundtable on The Economics of Religion in July 2017 in St. Catharine's College, Cambridge. Following the Roundtable, the IEA will publish an edited volume of papers entitled *Advances in the Economics of Religion*. The Roundtable will bring together a number of economists of religion from around the globe to discuss and debate key concepts and concerns in the economics of religion. By doing so, we expect to raise awareness of how economists can contribute to debates about the consequences of religion for society in developed and developing countries. Religion today is too important a subject for economists to be left out of global debates about it.

## NETWORKS and MARKETS

**Kaivan Munshi and Mark Rosenzweig**

**Networks and Misallocation: Insurance, Migration and the Rural-Urban Wage Gap**  
*American Economic Review* 2016

Rural-urban migration is exceptionally low in India. This is also reflected in India's urbanisation rates, which are substantially lower than in other large developing countries. The simplest explanation for India's low mobility is that rural and urban wages are relatively close, reducing the incentive for workers to migrate. However, the real wage gap in India is at least 16 percentage points larger than it is in China and Indonesia. There is evidently some friction that prevents rural Indian workers from taking advantage of more remunerative urban labor market opportunities.

The explanation Munshi and Rosenzweig propose for India's low mobility is based on a combination of well-functioning rural insurance networks and the absence of formal insurance, which includes government safety nets and private credit. In rural India, informal insurance networks are organised along caste lines. Frequent social interactions and close ties within the caste, which consists of thousands

of households clustered in widely dispersed villages, support very connected and exceptionally extensive insurance networks. Households with migrant members will have reduced access to rural caste networks for two reasons. First, migrants cannot be as easily punished by the network, and their family back home in the village now has superior outside options (in the event that the household is excluded from the network). It follows that households with migrants cannot credibly commit to honoring their future obligations at the same level as households without migrants. Second, an information problem arises if the migrant's income cannot be observed. If the household is treated as a collective unit by the network, it always has an incentive to misreport its urban income so that transfers flow in its direction.

If the resulting loss in network insurance from migration exceeds the income gain, then large wage gaps could persist without generating a flow of workers to higher-wage areas. This distortion is paradoxically amplified when the informal insurance networks work exceptionally well because rural households then have more to lose by sending their members to the city. Munshi and Rosenzweig provide support for this hypothesis by looking within the caste and theoretically identifying which households benefit less (more) from caste-based insurance. Munshi and Rosenzweig then proceed to test whether it is precisely those households that are more (less) likely to have migrant members.

One way to characterise mutual insurance is that the income generated by the network in each period is pooled and then distributed on the basis of a pre-specified sharing rule. In our framework, households can either remain in the village and participate in the insurance network or send one or more of their members permanently to the city, increasing their income but losing the services of the network. The sharing rule that is chosen in equilibrium determines which households choose to stay. Munshi and Rosenzweig are able to show, under reasonable conditions, that the income sharing rule will be set so that there is some amount of redistribution in equilibrium; i.e. relatively poor (rich) households in the network consume more (less) than they earn. This implies that relatively wealthy households within their caste benefit less from the network and so will be more likely to have migrant members.

Migration by a male household member diversifies the household's income and so is typically assumed to lower the income-risk that the household faces. The implicit assumption in our framework is that in the Indian context, the loss in network insurance when an adult male from the household migrates dominates this gain from income diversification. It follows that households who face higher rural income-risk and who, therefore, benefit more from the network, everything else equal, will be less likely to have male migrant members. This second prediction is especially useful in distinguishing our theory from alternative explanations for large rural-urban wage gaps and low migration in India. Indeed, if insurance networks were absent, we would expect the opposite pattern to be obtained.

We begin the assessment of the theory by showing that there is substantial redistribution of income within castes. Following up on this new result, we provide support for both predictions of the theory with data covering all the major Indian states. Additional results directly support the key assumption of our model, which is that migration should be associated with a loss in network services. Having found evidence consistent with the theory, we proceed to estimate the structural parameters of the model. Counter-factual simulations that quantify the effect of formal insurance on migration, leaving the rural insurance network in place, indicate that a 50 percent improvement in risk-sharing for households with migrant members (which is still some way from full risk-sharing) would more than double the migration rate, from 4 to 9 percent. In contrast, doubling the rural-urban wage gap, from 18 percent to 40 percent, without any change in formal insurance, would increase migration by less than two percentage points.

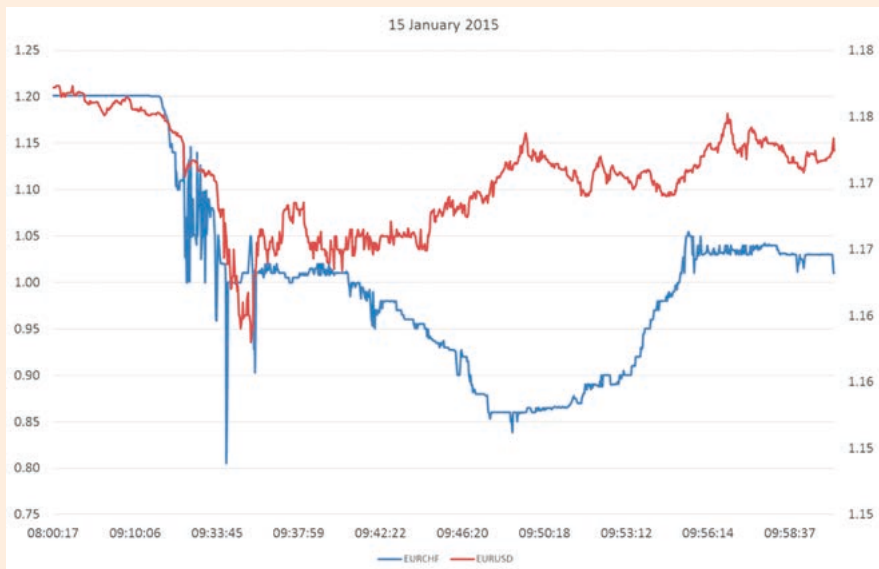
## **The MICROSTRUCTURE of FOREIGN EXCHANGE MARKETS**

*Cambridge, 19-21 May, 2016*

The conference on the microstructure of foreign exchange (FX) markets was held from May 19 to 21 2016 at Trinity College. This event brought together practitioners as well as academic researchers in the field of market microstructure to address issues of contemporary importance related to foreign exchange markets. The list of invited speakers was: Alain Chaboud, Mark Bruce, Arnaud Mehl, Dagfinn Rime, Francis Breedon, Thierry Foucault, Michael Tseng, Michalis Vasios, Martin Evans, Roel Oomen, Richard Olsen, Michael Moore, Tobias Stoehr and Angelo Ranaldo.

Alain Chaboud gave an overview about many issues in the microstructure of FX markets and how the microstructure and trading arrangements differ from equity markets, while also covering changes in the regulatory framework. First, there was considerable discussion over the Swiss Franc de-pegging, i.e. the sudden decision of the Swiss National Bank (SNB) on January 15, 2015, to no longer hold the Swiss Franc at a fixed exchange rate with the Euro. The latter was a major event in the markets and, as shown below, resulted in a 35 percent price change in 20 minutes with a great deal of price discontinuity and other stability issues.





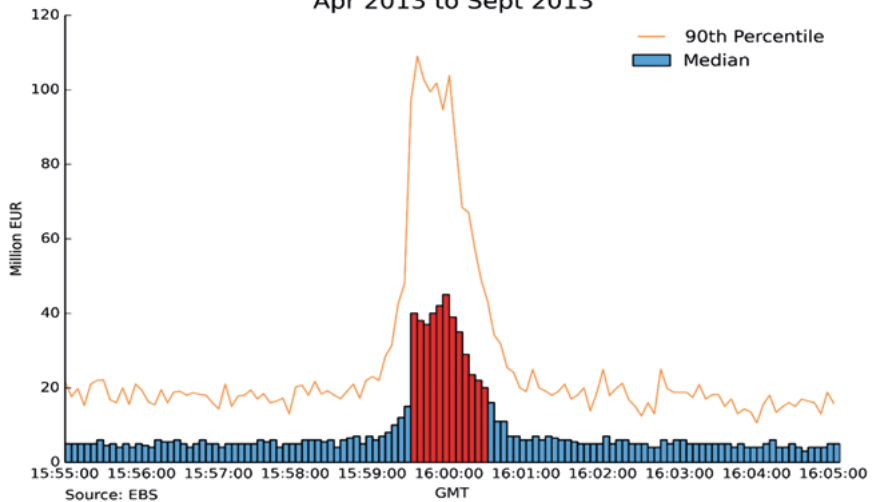
The second major topic was the introduction of the Minimum Quote Life (MQL) on the Electronic Broking Services (EBS) FX trading platform in June 2009. This measure implied a minimum resting time of 250 msec on limit orders in major currency pairs and was supposed to prevent so-called “flashing”. Extant research focusing on equity markets has predicted adverse effects of such a measure in the form of wider bid-ask spreads and lower trading volume, particularly during volatile times. Recent theoretical work, however, has much more positive predictions regarding the possible impact of a MQL.

The third fundamental issue was the introduction of the “latency floor” by the EBS between 2013 and 2014, meaning a random delay of 1 to 3 msec that creates a batch of trading instructions. Subsequently, the trading instructions in each batch are randomised before being released to the central limit order book, thereby “scrambling” the original order of execution. By this measure, EBS aimed to ensure that ultra high speed as a standalone strategy does not deliver an advantage, reducing the efforts and resources engaged in microsecond latency investigations. This issue relates to the current debate over the Investor’s Exchange (IEX) for equities that was at the centre of Michael Lewis’ popular book *Flash Boys*.

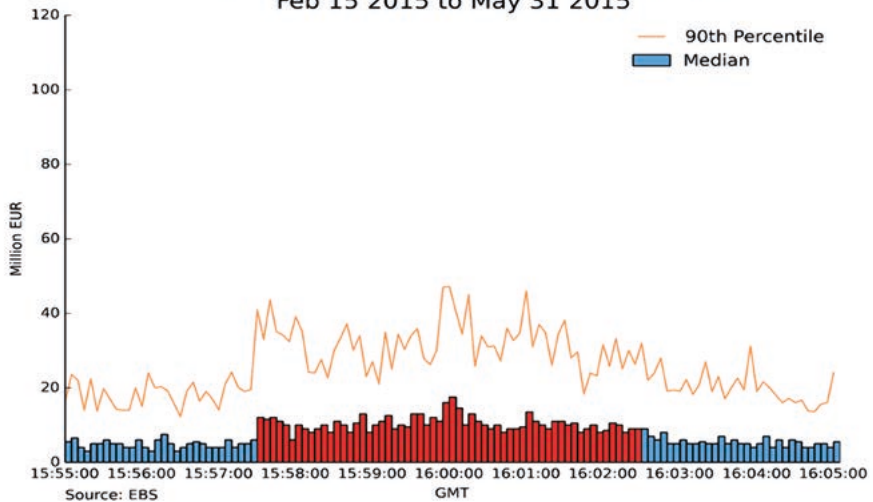
A further topic was the reduction of tick sizes, i.e. minimum price increments, in 2011 when EBS added an additional decimal to its quotes, such that, for example, a EUR-USD FX rate of 1.2345 could now be 1.23451 or 1.23452. Motivated by the question of whether this change mainly benefited high-frequency traders, several major banks complained and threatened to leave the EBS. Ultimately, the major consequence was a reduction in trading volume. After a management change inside EBS, the tick size was widened somewhat, moving it to so-called “half-pips”. Accordingly, the EUR-USD FX rate can now be 1.23450, 1.23455 or 1.23460. These tick size changes have also provided useful natural experiments that can give information about the effects on market quality.

The final major topic was the change in the FX “fix” procedure in 2015. The latter relates to the determination of the WM/Reuters benchmark FX rates that are used as standard rates for portfolio valuation and performance measurement during a period around the time of the fix, which is usually 4 pm in London. The above changes were motivated by reports in 2013, stating that traders were rigging FX rates to profit from their clients, leading to investigations, legal actions and considerable fines. The most significant measure undertaken was the lengthening of the so-called fixing window from 1 to 5 minutes in 2015. This is depicted in the plots below with a focus on the resulting (more evenly spread) trading volume patterns. An important implication of the above action was the effect that the fix is no longer dominated by manual traders. Rather, trading algorithms used by banks are now far more active during the fix. The likeliest explanation is that banks automated their fixing trades to avoid accusations of manipulation. For this purpose, many of the banks employ a simple time-weighted average price (TWAP) execution algorithm.

EUR-USD: Median 5-Second Trading Volume  
Apr 2013 to Sept 2013



EUR-USD: Median 5-Second Trading Volume  
Feb 15 2015 to May 31 2015



# POSTDOCTORAL RESEARCH FELLOWS

## NEW FELLOW



### **LEONIE BAUMANN**

My research interests are microeconomic theory, social and economic networks, and game theory.

*Leonie Baumann has joined us from University of Hamburg*



### **MAREN FROEMEL**

My research interests are macroeconomics, fiscal policy / macro public finance, international finance and economic history, and quantitative macroeconomics.

*Maren joins us from European University Institute, Italy*

## CONTINUING FELLOWS



### **JUAN BLOCK**

My research interests lie mainly in microeconomic theory, in particular, repeated games and reputations, learning in games and evolutionary game theory.

*Juan joins us from Washington University in St. Louis*



### **ABHIMANYU KHAN**

My research interests are applied evolutionary game theory, networks, industrial organisation.

*Abhimanyu joins us from Maastricht University, The Netherlands*



### **CHEN WANG**

Research interests: random matrix theory, large dimensional statistical inference.

*Chen joins us from National University of Singapore*



### **SOHEIL MAHMOODZADEH**

Research interests: market microstructure, high frequency trading, financial economics, applied econometrics.

*Soheil joins us from Simon Fraser University, Canada*



### **PETER MALEC**

My research interests are high-frequency econometrics, (co-)volatility modeling and forecasting, applied nonparametric methods.

*Peter joins us from Humboldt-University, Berlin*



### **MIGUEL MORIN**

My research interests are macroeconomics and economic history. I work on the effects of technology adoption on the labour market, for example computers or electricity, both

from a theoretical and macroeconomic perspective as well as from an empirical and historical perspective.

*Miguel joins us from Columbia University, New York*



### **CHRISTOPHER RAUH**

In my research I study how inequalities emerge and persist. I am currently working on three papers. In the first paper, focusing on the job market, I investigate

how the political economy of early and college education can explain cross-country differences in inequality and intergenerational mobility. The second focuses on how discriminatory equilibria can be driven by coordination failures based on beliefs. For the third paper I am working on detecting bilateral movements in UN votes and explaining these through (im)balances of power, conflicts, and economic interests among countries.

*Christopher joins us from University Autònoma de Barcelona*



### **MIKHAIL SAFRONOV**

Research interests: microeconomic theory.

*Mikhail joins us from Northwestern University, US*



### **SCOTT SWISHER**

My primary research interests are macroeconomics, networks, and economic history. My research involves applications of the theory of strategic network formation, specifically to real-

world transportation and communication networks. In previous work, I have estimated the macroeconomic effect of

transportation networks and financial exchanges using historical data. I have also examined the role of product reviews and information aggregation in the entertainment industry.

*Scott joins us from University of Wisconsin–Madison*

## PAST FELLOWS



### VESSELA DASKALOVA

My interests are in the areas of microeconomic and game theory. I apply both theoretical and experimental methods in my research. My PhD thesis was motivated by questions related

to discrimination. In it I explored the role of social identity for the decisions that people make, as well as the usage of mental categories to make optimal decisions. A recurring theme in my projects has been how the attempt to coordinate with others affects individual behaviour.

*Vessela will join the Institute for Advanced Study in Toulouse in September 2016.*



### ANJA PRUMMER

In my research I focus on social networks with potential applications for labour, and cultural leadership. Social network theory can add to the understanding of economic questions

as an individual's decision might be partially influenced by his reference group. Taking this into account may offer new explanations for empirically observed facts and patterns. I build theoretical models that incorporate social network components and have testable empirical implications.

*Anja will join Queen Mary, University of London in September 2016.*



### ROHIT LAMBA

My research interests are in mechanism design, economic theory, public finance, bubbles and market microstructure, and economic policy. I spent one year (2014-15) at the Cambridge-INET

Institute at the University of Cambridge. It is a fantastically run research institution – housed in an intellectually stimulating environment at the Faculty of Economics. The regular seminars, interaction with visitors and generous research grants made for a invigorating research experience.

*Now Assistant Professor at Pennsylvania State University.*



# VISITORS PROGRAMME

We have had a lively programme of visitors to the Institute: this includes a mix of world leading senior economists and young researchers working at the forefront of their fields. Our visitors normally come for a period of one to three weeks, sometimes longer. During their stay they deliver research talks and seminars, and they interact with our Faculty and students.

## ***OCT 2015***



**Sander Heinsalu**  
(University of Queensland)



**Aldo Rustichini**  
(University of Minnesota)



**Andrew Odlyzko**  
(University of Minnesota)



**Francis Bloch**  
(Paris School of Economics)



**Lillia Cavallari**  
(University of Rome III)



**Giovanni Gallipoli**  
(University of British Columbia)



**Jeff Ely**  
(Northwestern University)



**Offer Lieberman**  
(Bar-Ilan)



**Luis Corchon Diaz**  
(University of Carlos III  
in Madrid)

## **NOV 2015**



**Qingmin Liu**  
(Columbia University)



**Antonio Penta**  
(University of Wisconsin)



**Roger Koenker**  
(University of Illinois)



**Aitor Erce**  
(European Stability  
Mechanism)

## **JAN 2016**



**Matt Leduc**  
(International Institute for  
Applied Systems Analysis)



**Yoon Jae Whang**  
(Seoul National University)



**Ricardo Reis**  
(Columbia University)

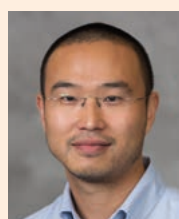
## **FEB 2016**



**Gordon Anderson**  
(University of Toronto)



**Basile Grassi**  
(University of Oxford)



**Jihong Lee**  
(Seoul National University)

## **MAR 2016**



**Ludovic Renou**  
(University of Essex)



**Whitney Newey**  
(MIT)



**Eric Leeper**  
(Indiana University)



**Haim Levy**  
(Hebrew University of  
Jerusalem)



**Makoto Nirei**  
(Ministry of Finance, Tokyo)



**Guillermo Ordonez**  
(University of Pennsylvania)



**Joao Bernardo Duarte**  
(University of Illinois)



**Luca Dedola**  
(European Central Bank)

**APR 2016**



**Simon Gilchrist**  
(Boston University)



**Christian Dippel**  
(UCLA Anderson)

## MAY 2016



**Mark Huggett**  
(Georgetown)



**Dan Friedman**  
(University of California,  
Santa Cruz)



**Swati Dhingra**  
(LSE)



**Stephen Redding**  
(Princeton)



**Pascaline Dupas**  
(Stanford University)



**Dilip Mookherjee**  
(Boston Univeristy)



**Michael Kearns**  
(University of Pennsylvania)



**Maarten Janssen**  
(Vienna Graduate School of  
Economics)

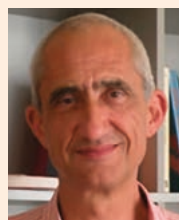
## JUN 2016



**Nicholas Bloom**  
(Stanford University)



**Botond Koszegi**  
(CEU)



**Fernando Vega Redondo**  
(EUI)



**Martina Mincheva**  
(Fox School of Business,  
Temple University)



**Marcin Dziubinski**  
(Warsaw University)



**Xiaobo Zhang**  
(Peking University)

***JUL 2016***



**Mariann Ollar**  
(University of Pennsylvania)



**Luis Carvalho**  
(ISCTE Lisbon)



**Wei-Torng Juang**  
(Institute of Economics,  
Academia Sinica)

***SEP 2016***



**Vladimir Mikhailov**  
(Central European University)

# STUDENT SUPPORT PROGRAMME

## STUDENTSHIPS

In the past the Faculty has had difficulties with the retention of high quality doctoral candidates. The Institute's studentship programme aims to support the Faculty in securing top PhD applicants working in relevant research fields. Whilst the Faculty waits for decisions from both University and external funding bodies, overseas institutions, particularly in the United States, are able to make candidates offers complete with full funding. As a result many high quality candidates take up offers with studentships at other schools. Studentships in 2014-2015 were awarded to Rafe Martyn, David Minarsch and Ekaterina Smetanina. A new studentship was awarded to Jin Deng Keith Chan. He is starting his three year position in September 2016.

## SCHOLARSHIPS

In the interests of supporting current doctoral students at the Faculty of Economics, the Cambridge-INET Institute has committed to providing £15,000 in additional funds to the existing Faculty scholarships scheme. Students will apply as normal to the Faculty scholarships scheme. Decisions regarding the allocation of Institute funds will be made by an Institute representative at the Faculty scholarship meeting to be held in June. The allocation of Institute funds will give preference to students whose work falls within its four main research themes. Scholarships in 2014-2015 were awarded to Anil Ari, Teodora Boneva, Frederico Lima, Jasmine Xiao.

## VISITING STUDENT SUPPORT

The Institute has supported Joao Duarte (University of Illinois) this year.

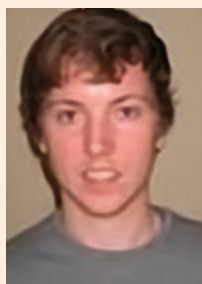


## PhD STUDENTS



### **JIN DENG KEITH CHAN**

My research interest lies in mechanism design and redistribution. I am interested in analysing the incentive issues that arise in different redistribution mechanisms using the game-theoretic approach.



### **RAFE MARTYN**

My research is focused on furthering our theoretical understanding of the macroeconomics of financial crisis. I have worked on understanding why a period of low interest rates ensues and what policies can best assist an economy in this state. My recent work has investigated the effectiveness of policies to mitigate the persistent and high unemployment that came about as a result of the Global Financial Crisis.



### **DAVID MINARSCH**

My research focuses on investigating traditional microeconomic topics in the context of social and economic networks. My models make the relationship structure between economic agents explicit and analyse its impact on economic outcomes. Currently, I am concentrating on the issues of decentralised trade in networks when agents only hold local information on the network structure.



### **EKATERINA SMETANINA**

My research interests are time series, forecasting and financial econometrics. I am also interested in applying nonparametric methods to different econometric problems.

## STUDENT SCHOLARSHIPS

### ANIL ARI

*Research:*

*Sovereign Risk, Macro Finance, Open Economy Macroeconomics*

#### **Job market paper: Sovereign risk and bank risk-taking**

I propose a general equilibrium macroeconomic model in which strategic interactions between banks and depositors may lead to endogenous bank fragility and default, associated with a persistent drop in investment and output. With some opacity in bank balance sheets, depositors form expectations about bank risk-taking and demand a return on bank deposits according to their risk. This creates strategic complementarities and possibly multiple equilibria: in response to an increase in funding costs, banks may optimally choose to pursue risky portfolios that undermine their solvency prospects. I bring the model to bear on the European sovereign debt crisis, in the course of which under-capitalised banks in default-risky countries experienced an increase in funding costs and raised their holdings of domestic government debt. The model is quantified using Portuguese data and accounts for macroeconomic dynamics in Portugal in 2010-2016. Policy interventions face a trade-off between alleviating banks' funding conditions and strengthening risk-taking incentives. Liquidity provision to banks may eliminate the good equilibrium when not targeted. Targeted interventions have the capacity to eliminate adverse equilibria.



### TEODORA BONEVA

*Research:*

*Public Economics, Behavioural and Experimental Economics, Applied Microeconomics*

Teodora Boneva is a British Academy Post-doctoral fellow at the University College London (Department of Economics). Her general research interests include human capital formation, labour, consumption and socio-economic inequality. Her current research focuses on the evolution of preferences and skills, the role of feedback in the skill accumulation process and the role of beliefs in educational investment decisions. She is particularly interested in how interventions, be it in the school, home or work environment, can promote skill development and improve life outcomes.



## FREDERICO LIMA

*Research: Macroeconomics and Public Economics*

Since Sept 2016 I am in the Economist Program, at the International Monetary Fund (IMF).

In my research project supported by the Keynes Fund, I examine how school infrastructure projects affect local economies. I start by constructing a unique dataset of thousands of US school bond referenda from newspaper articles reporting on the referenda. Using difference-in-difference and regression discontinuity approaches, I find that bond approval has large, positive effects on per capita income and employment, and that it leads to persistent increases in local population, house prices, residential construction, and refinancing activity. These results in turn suggest an important complementarity between fiscal multipliers and the marginal utility of government spending.



## JASMINE XIAO

*Research: Macro Finance*

### **Job market paper: Balance sheet restructuring, financial frictions, and investment dynamics**

Micro-level evidence indicates that firms which substituted bank loans with bond issues during the Great Recession did not experience a large contraction in their total borrowing, but they have hoarded more cash and experienced a slower recovery in investment than firms that did not substitute. This suggests that firms' balance sheet adjustment played a key role in the transmission of aggregate shocks. To evaluate the importance of this mechanism in the propagation of the Great Recession, I build a quantitative general equilibrium model of firm dynamics that jointly endogenises the composition of borrowing on the liability-side, and the portfolio allocation between savings and investment on the asset-side. Bond issuances have lower intermediation costs than bank debt, but the latter can be restructured when firms are in financial distress. In response to a contraction in bank credit supply, firms substitute bank loans with bond issues and thus become more exposed to the risk of financial distress. This strengthens firms' precautionary incentive to increase cash holdings at the expense of investment, as they optimally trade-off growth against self-insurance via cash holdings. Model simulations suggest that this "precautionary savings" channel can account for 40 percent of the decline in aggregate investment in the first two years of the Great Recession, and more than one-half of the decline in the following five years.



# EVENTS

The event programme aims to facilitate the meeting of academics on the frontiers of research under our research themes. The conferences attract leading figures but also provide the opportunity for new researchers and PhDs to join the conversation.

## SEPT 2015

### PERSISTENT OUTPUT GAPS: CAUSES AND POLICY REMEDIES WORKSHOP

#### Organisers:

**Klaus Adam** (University of Mannheim and CEPR), **Giancarlo Corsetti** (University of Cambridge and CEPR), **Elisa Faraglia** (University of Cambridge and CEPR), **Gabriel Perez Quiros** (Banco de Espana), **Ricardo Reis** (Columbia University and CEPR)

### SEARCH AND MATCHING CONFERENCE

#### Organisers:

**Coen Teulings** (University of Cambridge), **Jake Bradley** (University of Cambridge)



Search and Matching Conference (September 2015)

### MASTERCLASS: LARGE PORTFOLIO RISKS AND CHOICES, JIANQING FAN (Princeton)

**Organisers:** Cambridge-INET and cemmap

### BIG DATA BIG METHODS

**Organisers:** Cambridge-INET and cemmap

## **OCT 2015**

**PUBLIC TALK: THE USES, ABUSES, AND NON-USES OF QUANTITATIVE MODELS IN THE BRITISH RAILWAY MANIA, ANDREW ODLYZKO** (University of Minnesota)

**MASTERCLASS CEMMAP AND C-INET: EMPIRICAL PROCESS THEORY TOOLS FOR STATISTICS, JON WELLNER** (University of Washington)

**ADEMU CONFERENCE: REASSESSING THE EU MONETARY AND FISCAL FRAMEWORK**

**Organisers:** Giancarlo Corsetti (University of Cambridge), Charles Brendon (University of Cambridge)

**COLLOQUIA ON THE EUROPEAN CRISES: PUBLIC TALK: BANKS' STRESS TEST IN THE US: LESSONS FOR EUROPE, TIL SCHUERMANN** (Partner at Oliver Wyman and former Senior Vice President, Federal Reserve Bank of New York)

## **DEC 2015**

**CONFERENCE: NEW DIRECTIONS IN QUANTILE REGRESSION**

**Organisers:** Oliver Linton (University of Cambridge), Roger Koenker (University of Illinois)

## **FEB 2016**

**SEARCH AND NETWORKS WORKSHOP**

**Organisers:** Sanjeev Goyal (University of Cambridge), Matthew Elliott (University of Cambridge)

The workshop sought to start a conversation between two research communities in economics that to date have largely operated in isolation from one another with the objective of facilitating future collaborations across field. The macroeconomic search literature has been very successful at incorporating labour market frictions into standard macroeconomic models, and using these frictions to explain a variety of phenomena. However, with only the odd exception, the search literature has not incorporated social networks into their modelling approach and in practice many jobs are filled via social networks. Estimates vary across regions and markets, but most fall in range of 30-60 percent of vacancies being filled through referrals, or social and professional networks more generally. The workshop explored ways in which network economists' modeling approaches and graph theory tools might be fused with search models to yield a richer understanding of labour markets.

**Speakers:**

**Sanjeev Goyal** (Cambridge), **Matt Elliott** (Cambridge), **Jan Eeckhaut** (UCL, UPF), **Manolis Galenianos** (Royal Holloway), **Pieter Gautier** (Vrije), **Maarten Jaanssen** (Vienna), **Andrea Galeotti** (Essex and EUI)

## **MAR 2016**

**GAME THEORY AND TRANSPLANTATION WORKSHOP**

**Organiser:** Hamid Sabourian (University of Cambridge)

**ADEMU LECTURE BY ERIC LEEPER**

**Organiser:** Giancarlo Corsetti (University of Cambridge)

**APR 2016**

**MINI CONFERENCE: MACROECONOMICS OF FINANCIAL FRICTIONS**

**Organisers:** **Giancarlo Corsetti** (University of Cambridge), **Vasco Carvalho** (University of Cambridge)

This joint Cambridge INET-ADEMU workshop featured three presentations of cutting-edge work on the link between financial frictions and the macroeconomy. **Simon Gilchrist** (Boston University) argued that financial impediments may have prompted firms in crisis-affected Eurozone states to raise their relative prices during the downturn, contrary to conventional understanding. **Nicolas Crouzet** (Kellogg School of Management) provided a new model of corporate debt choice that could explain reduced aggregate investment in the face of banking-sector shocks, even when firms had access to bond finance. Finally **Nobu Kiyotaki** (Princeton University) analysed emerging market crises under the hypothesis that a strong disruptive channel links exchange-rate devaluation to a reduction in bank lending capacity.

**PROGRAMME MEETING: CEPR ANNUAL INTERNATIONAL MACROECONOMICS AND FINANCE (IMF)**



*CEPR Annual International Macroeconomics and Finance (IMF) Programme Meeting (21-22 April)*

**CONFERENCE: INFORMATION-THEORETIC METHODS OF INFERENCE**

**Conference Co-Chairs:**

**Alastair Hall** (University of Manchester), **Richard Smith** (University of Cambridge)

**MAY 2016**

**MINI CONFERENCE: HETEROGENEOUS AGENT MODEL**

**Organisers:** **Giancarlo Corsetti** (University of Cambridge), **Vasco Carvalho** (University of Cambridge)

This joint Cambridge INET-ADEMU workshop brought together three leading speakers dealing with the consequences of heterogeneity and aggregation under incomplete markets. **Mark Huggett** (Georgetown) presented a theoretical piece which shows that, for a large number of heterogeneous agents models, the effects of a tax reform are well summarised by a few key statistics of the (heterogeneous) population. **Gianluca Violante** (NYU) presented an heterogeneous agents model





*Mini Conference: Heterogeneous Agent Model (10 May)*

under incomplete markets and sticky prices and used to analyse how heterogeneity changes the transmission mechanism of monetary policy. **Nezih Guner** (UAB) presented a detailed accounting of winners and losers under various welfare state reforms based on a rich heterogeneous agents setup featuring education, marriage and fertility choices.

## **MICROSTRUCTURE OF FOREIGN EXCHANGE MARKETS**

**Organisers:** **Oliver Linton** (University of Cambridge), **Soheil Mahmoodzadeh** (University of Cambridge)

The impact of market microstructure on market quality has attracted increasing scrutiny, with particular impetus stemming from events such as the May 6, 2010 Flash Crash and the Oct 15, 2014 bond market flash crash. In the former event, nearly a trillion US dollars disappeared from the global economy in a matter of minutes. In the latter event, the market for US Treasury had its fourth-largest trading day in history with most volatility concentrated in a half-hour period, with no macroeconomic catalyst. Despite the urgent need for regulators, market participants, and economists alike to come to grips with this fundamentally new market phenomenon, there is a dearth of systematic knowledge on the market impact of new market microstructure designs. In this regard, the Cambridge-INET Institute organised the Microstructure of Foreign Exchange Markets conference on 19-21 May 2016. The objective was to investigate to determine how FX market could evolve to identify potential risks and opportunities that it could present in terms of financial stability and other market outcomes such as volatility, liquidity, price efficiency and price discovery.

**The invited speakers were:**

**Alain Chaboud, Arnaud Mehl, Dagfinn Rime, Francis Breedon, Thierry Foucault, Michael Tseng, Michalis Vasios, Martin Evans, Roel Oomen, Richard Olsen, Michael Moore, Tobias Stöhr, Angelo Rinaldo, Ramazan Gencay, and Erik Hjalmarsson.** The speakers were selected from academia, industry and regulation agencies. The main topics were the new development in FX market microstructure, triangular arbitrage, FX intervention, liquidity and carry trades.

## **MINI CONFERENCE: GROWTH**

**Organisers:** **Giancarlo Corsetti** (University of Cambridge), **Vasco Carvalho** (University of Cambridge)

This joint Cambridge INET – CFM workshop brought together three speakers at the intersection of growth, development, networks and macroeconomics. **Ferdinand Rauch** (Oxford) revisited the case for the effects of centrality in a network of cities, based on early evidence from Mediterranean



*Mini Conference: Growth (3 May)*

trading cities. **Christian Ghiglino** (Essex) presented a new theory of how differences in input-output linkages across countries are associated to different levels of development. Finally, **Tiago Cavalcanti** (Cambridge, substituting for P. Aghion) presented a paper on the local effects of oil discoveries in Brazil, where empirical results go against the conventional Dutch disease argument.

### **CAMBRIDGE-INET EVENT: THE UK AND THE EU**

In view of the EU referendum in the UK, Cambridge-INET promoted an inter-disciplinary panel on the issue, bringing together a group of academics from Law, Politics, History and Economics to share their expertise with the public on the referendum for Britain to leave the EU. **Professor Needham** from History made parallels with the 1975 referendum, which like this one, he said, amounted to little more than a political deal to address a split political party. **Dr Bickerton** from Politics, the panellist who was more openly in favour of Leave, warned that the unprecedented politicisation of HM Treasury and the Bank of England in the campaign would do long term damage to the public's already fragile trust in the establishment. **Professor Runciman**, head of Politics, downplayed fears

*The UK and the EU Event (May 2016)*



that Scottish independence could follow a Leave vote, warning rather that it was the economic consequences for the Republic of Ireland that should be heeded. Financial issues were prominent in the interventions by **Professor Ferran**, from the Faculty of Law. She described how Europe would suffer if the UK left, as it would no longer benefit from the UK's financial services expertise which could be so useful in the formation of the Capital Markets Union. **Lord Eatwell**, economist, made the positive case for the EU, which has the trading clout to set the world standard on financial and environmental regulation, and strengthens democracy through its strong competition policy and spread of human rights to the former Communist bloc. Economist **Dr Dhingra** made clear that the economic cost-benefit analysis points unambiguously in favour of Remain. **Professor Corsetti** pointed out that the UK has done remarkably well in decoupling itself from the high risk-environment that has beset the Eurozone and asked why it would endanger this? Ominously, all agreed that the most significant consequences of Brexit would be unforeseen.

### **MINI CONFERENCE: MACRO/TRADE**

**Organisers:** **Giancarlo Corsetti** (University of Cambridge), **Vasco Carvalho** (University of Cambridge) This joint Cambridge INET and CFM mini conference focused on the issues of trade and its macro implications. **Robert Johnson** (Dartmouth) revisited the implications of tariffs (and more generally trade policy) in a world characterised by global supply chains. **Swati Dhingra** (LSE) presented new evidence regarding the rate and direction of product adoption by firms in India and how this related to the products they purchase upstream in the supply chain. Finally, **Steve Redding** (Princeton) developed a new theoretical model that allows a better understanding – and measurement – of the gains from trade openness.

### **SPECIAL LUNCH TALK: CONSUMER SEARCH RECENT ADVANCES**

**MAARTEN JANSSEN** (University of Vienna)

### **SPECIAL LUNCH TALK: CONSUMER SEARCH SOME FUNDAMENTAL MODELS**

**MAARTEN JANSSEN** (University of Vienna)

*Mini Conference: Macro/Trade (31 May)*



**JUN 2016**

### **ECONOMIC THEORY WORKSHOP**

**Organisers:** **Hamid Sabourian** (University of Cambridge), **Juan Block** (University of Cambridge), **Abhimanyu Khan** (University of Cambridge), **Mikhail Safronov** (University of Cambridge)

The Workshop was devoted to contemporary and quickly developing areas of microeconomic theory: dynamic strategic interactions, experimentation, bounded rationality and mechanism design. The presentations were given by world experts, conducting cutting-edge research in their fields. The talks generated substantial new insight, especially into the modelling of dynamic interaction and processing incomplete information. The models presented at the Workshop have a wide variety of applications: finance and monetary policy, relational contracts and corruption, job search and hiring, trading and product certification.

#### **Speakers and talk titles:**

**Simon Board** (UCLA) "Managing Talent"

**Eddie Dekel** (Northwestern University) "Evidence and Commitment in Allocation Mechanisms"

**Drew Fudenberg** (Harvard University) "Stochastic Choice and Optimal Sequential Sampling"

**Marina Halac** (Columbia University and the University of Warwick) "Experimenting with Career Concerns"

**Botond Koszegi** (CEU) "Cursed Financial Innovation"

**David Miller** (University of Michigan) "Relational contracting with long-term formal contracts"

**Hamid Sabourian** (University of Cambridge) "Incomplete Information and Repeated Implementation"

**Rani Spiegler** (Tel Aviv University and UCL) "Can Agents with Causal Misperceptions be Systematically Fooled?"

**Bruno Strulovici** (Northwestern University) "A Theory of corruption, surveillance, and social collapse with selfish agents"

**Vasiliki Skreta** (UCL) "Selling with Evidence"

**Juuso Toikka** (MIT) "Value of Persistent Information"

### **BEHAVIOURAL ECONOMICS AND NETWORKS**

**Organisers:** **Sanjeev Goyal** (University of Cambridge), **Julien Gagnon** (University of Cambridge)

On the 10th of June, 2016, the Faculty of Economics and INET Cambridge hosted an afternoon workshop dedicated to research at the nexus of behavioural economics and networks. The workshop included three talks. After an introductory talk by the Chair of the Faculty, **Sanjeev Goyal**, **Frédéric Moisan** (Cambridge) spoke first with *The Law of the Few: Theory and Experiments*. He was followed by **Antonio Cabrales** (UCL), who presented recent work on *Communication Networks and Political Uprisings*. The last talk of the workshop was given by **Erik Eyster** (LSE), who presented *Rational vs Irrational Imitation in Social Networks*. More than 25 participants joined the event.

### **INTERNATIONAL CONFERENCE ON SMART INFRASTRUCTURE AND CONSTRUCTION**

**Organised by:** Cambridge Centre for Smart Infrastructure and Construction and supported by Cambridge-INET

## **SYMPOSIUM: CAMBRIDGE-INET/CEMMAP ECONOMETRIC METHODS**

**Organisers:** **Oliver Linton** (University of Cambridge), **Richard Smith** (University of Cambridge)

The objective of the Cambridge-INET/Cemmap Econometric Methods Symposium was to invite a number of leading academic experts to discuss and present research in the areas of machine learning and programme evaluation which are of central importance to much current research in empirical economics.

### **SYMPOSIUM PROGRAMME**

#### **Treatment**

**Guido Imbens** (Stanford University): Estimating average treatment effects with many intermediate variables: the role of the surrogate score

**Sokbae Lee** (Seoul National University): Identifying effects of multivalued treatments

#### **Machine Learning**

**Susan Athey** (Stanford University): Machine learning methods for estimating heterogeneous treatment effects

**Quentin Berthet** (University of Cambridge): Trade-offs in statistical learning

#### **Irregular Problems**

**Andres Santos** (U.C. San Diego): Inference on directionally differentiable functions

## **TALKS: KEYNES FUND AND CAMBRIDGE-INET RESEARCH DAYS**

### **NETWORKS IN TRADE AND MACROECONOMICS**

**Organisers:** **Matt Elliott** (University of Cambridge), **Ben Golub** (Harvard University)

The workshop brought together applied and theoretical researchers from across macroeconomics, microeconomics and international trade with an interest in studying how trade networks and supply chain networks affect the macro economy, through their microeconomic properties. There is a recent but very active research programme studying how interconnections between firms and industries can amplify and propagate industry specific shocks, and how the network of interconnections impacts upon other important macroeconomic questions. Arguably, the next frontier in this literature is to endogenise the connections in question, but this presents considerable challenges. The workshop facilitated a conversation about how progress with this, and related problems, might be made.

#### **Speakers:**

**David Baqaee** (LSE), **Vasco Carvalho** (Cambridge), **Thomas Chaney** (Toulouse), **Matt Elliott** (Cambridge), **Christian Ghiglino** (Essex), **Ben Golub** (Harvard), **Kevin Lim** (Princeton), **Alireza Tahbaz-Salehi** (Columbia).

**TALK: FIRING UP INEQUALITY, NICHOLAS BLOOM** (Stanford University)

## **AUG 2016**

### **FIRMS IN MACROECONOMICS CONFERENCE**

**Organisers:** **Ufuk Akcigit** (University of Chicago), **Nicholas Bloom** (Stanford University), **Vasco Carvalho** (University of Cambridge), **Giammario Impullitti** (University of Nottingham)



SEP 2016

## WORKSHOP AND MASTERCLASS: STOCHASTIC DOMINANCE THEORY AND APPLICATIONS

**Organisers:** **Oliver Linton** (University of Cambridge), **Haim Levy** (The Hebrew University of Jerusalem), **Thierry Post** (KOC University)

Ranking uncertain prospects is a central occupation in finance as it guides decision making and portfolio choice in particular. Recognising the diversity of preferences that individuals might have with regard to risk, skewness, and other characteristics of asset payoffs leads one to the consideration of stochastic dominance rules that go beyond the mean variance trade-off of classical Markowitz theory. In poverty analysis, where one is trying to rank income distributions before or after some intervention or across time and space, stochastic dominance also plays a role. Cambridge-INET, in combination with CEMMAP, is hosting a master class on Stochastic Dominance Theory and Applications conducted by **Haim Levy** and **Thierry Post** on September 14th. Haim Levy is a pioneer in the field and has written several books and many seminal articles on this topic. Along with Thierry Post he has written a successful undergraduate text on Investments. Subsequent to that, Cambridge-INET is organising a conference on the same theme where top researchers will present their latest research on this topic. The invited speakers include Gordon Anderson who is an expert on the application of stochastic dominance to the comparison of income and wellbeing distributions, and Moshe Leshno, who is a world leading health economist and has applied stochastic dominance tools in the evaluation of healthcare policy. A fuller list is given below.

### Speakers:

**Juan Antonio Cuesta Albertos** (Universidad de Cantabria), **Gordon Anderson** (University of Toronto), **Haim Levy** (The Hebrew University of Jerusalem), **Moshe Leshno** (Tel Aviv University), **Esfandiar Maasoumi** (Emory University), **Thierry Post** (KOC University), **Yoon-Jae Whang** (Seoul National University), **Wing-Keung Wong** (Hong Kong Baptist University)

*Debt Sustainability and Lending Institutions (September 2016)*



## DEBT SUSTAINABILITY AND LENDING INSTITUTIONS

### Organisers/Scientific Committee:

**Giancarlo Corsetti** (University of Cambridge), **Aitor Erce** (ESM), **Timothy Kehoe** (University of Minnesota), **Juan Rojas** (ESM), **Timothy Uy** (University of Cambridge)

### Participants:

**Mark Aguiar** (Princeton), **Luigi Bocola** (Northwestern), **Fernando Broner** (CREI), **Satyajit Chatterjee** (Philadelphia Fed), **Juan Carlos Conesa** (Stony Brook), **Hal Cole** (Penn), **Juan Carlos Hatchondo** (Indiana), **Jonathan Eaton** (Penn State), **Juan Flores** (Geneva), **Wouter Den Haan** (LSE), **Igor Livshits** (Western), **Ramon Marimon** (EUI), **Leonardo Martinez** (IMF), **Juan Pablo Nicolini** (Minneapolis Fed), **Morten Ravn** (UCL), **Pietro Reichlin** (LUISS G. Carli), **Kjetil Storesletten** (Oslo), **Rolf Strauch** (ESM), **Christoph Trebesch** (Munich), **Jaume Ventura** (CREI), **Martin Weale** (Queen Mary/Bank of England), **Tim Worrall** (The University of Edinburgh), **Jeromin Zettelmeyer** (BMW), **Jing Zhang** (Chicago Fed)

## RULES VERSUS DISCRETION: MACRO AND FINANCIAL ECONOMICS INET NY AND C-INET EVENT

### A Roundtable Dialogue on the Macro and Financial Economics of the Eurozone

The conference reflected on the foundations of the models of economic policy that coexist in Europe, discussing their historical, political, and cultural/intellectual roots. The dialogue on these foundations contributed to define more common grounds in the current debate on how to strengthen and complete the construction of a European economic and monetary union.

### Participants:

**Franziska Augstein** (Süddeutsche Zeitung), **Guillaume Amblard** (Fin Tech Investor and Advisor), **Markus Brunnermeier** (Princeton University), **Michael Burda** (Humboldt University Berlin), **John Chisholm** (John Chisholm Ventures), **Giancarlo Corsetti** (Cambridge-INET Institute), **Orsola Costantini** (Institute for New Economic Thinking), **Clive Cowdery** (Resolution Foundation), **Lars Feld**, **Walter** (Eucken Institute), **Thomas Ferguson** (Institute for New Economic Thinking), **Antonio Foglia** (Belgrave Capital Management), **Clemens Fuest** (IFO Institute), **Thomas Fricke** (European Climate Foundation), **Petra Geraats** (University of Cambridge), **Chryssi Giannitsarou** (University of Cambridge), **Dirk Hinrich Heilmann** (Handelsblatt Research Institute), **Michael Heise** (Allianz SE), **Michael Hesse** (Kölner Stadt-Anzeiger), **Otmar Issing** (European Central Bank), **William Janeway** (Institute for New Economic Thinking), **Anatole Kaletsky** (Institute for New Economic Thinking), **Hans Kundnani** (German Marshall Fund of the United States), **Prakash Loungani** (IMF), **Harold James** (Princeton University), **Rob Johnson** (Institute for New Economic Thinking), **Peter Jungen** (Institute for New Economic Thinking), **Rick McGahey** (Institute for New Economic Thinking), **Gernot Müller** (University of Tübingen), **Stephen Peel** (SMP Policy Innovation Limited), **Richard Portes** (London Business School), **Brendan Simms** (University of Cambridge), **Servaas Storm** (Delft University of Technology), **Matt Sware** (Institute for New Economic Thinking), **Coen Teulings** (University of Cambridge), **Adair Turner** (Institute for New Economic Thinking), **Matthew Whittaker** (Resolution Foundation), **Berthold Wigger** (Karlsruhe Institute of Technology), **Simon Wren-Lewis** (University of Oxford)

## READING GROUPS and SEMINARS

### *OCT 2015*

**Scott Swisher (Macro):** The Effect of Permanent Infrastructure Loss: Evidence from the UK Beeching Report Rail Cuts

**Hamid Sabourian (Theory):** Evolution of Learning Rules

**Marcin Dziubinski (Networks)**

**Pontus Rendahl (Macro):** Unemployment (fears) and Deflationary Spirals

**Vessela Daskalova (Theory):** Categorisation and coordination

**Pau Milan (Networks):** Network-Constrained Risk Sharing in Village Economies

**Miguel Morin (Macro):** Adapting to Workplace Technological Change over the Long Run: Evidence from US Longitudinal Data

**Aldo Rustichini (Theory):** Biological Foundation of Economic Choice

**Francis Bloch (Networks):** The Formation of Partnerships in Social Networks

**Sean Holly (Macro):** The International Transmission of Technology Shocks

**Scott Swisher (Networks):** The Effect of Permanent Infrastructure Loss: Evidence from the UK Beeching Report Rail Cuts

**Francis Bloch (Micro):** Dynamic allocation of objects to queueing agents

**Jeff Ely (Micro):** Dynamic Multi Agent Persuasion

**Offer Lieberman (Econometrics):** A Multivariate Stochastic Unit Root Model with an Application to Derivative Pricing

### *NOV 2015*

**Recruitment Seminar (Macro)**

**Julien Gagnon (Theory):** Networked Reciprocity

**Will Carpenter (Networks):** Network Control

**Meredith Crowley (Macro):** Information Spillovers and the Extensive Margin of Exporters

**Mikhail Safronov (Theory):** Efficient, Coalition-Proof, Budget-Balanced Mechanism Design

**Matt Elliott (Networks):** Firms as Sets of Capabilities: Theory and Applications

**Christopher Rauh (Macro):** Is Marriage a White Institution? Understanding the Racial Marriage Divide

**Flavio Toxvaerd (Theory):** On the Management of Population Immunity

**Kaivan Munshi (Networks):** Insiders and Outsiders: Local Ethnic Politics and Public Good Provision

**Tim Uy (Macro):** Debt Sustainability with IMF and EFSF-ESM Bailout Packages

**Luis Corchon Diaz (Theory):** Dominant Strategies in Contests

**Anja Prummer (Networks):** Spatial Advertisement in Political Campaigns

**Antonio Penta (Micro):** Full Implementation and Belief Restrictions

**Qingmin Liu (Micro):** Contests for Experimentation (joint with Marina Halac and Navin Kartik)



#### **DEC 2015**

**Sander Heinsalu (Theory):** Spence Meets Holmstrom: Luck and Repetition in Signalling

#### **FEB 2016**

**Nizar Allouch (Networks):** Aggregation in Networks

**Alex Harris (Networks):** Ideological Games

**Matt Elliott (Theory):** Commitment and (In)Efficiency: a Bargaining Experiment

**Bartosz Redlicki (Theory):** Rumours and Cheap Talk

**Charles Brendon (Macro):** Self-fulfilling recessions at the zero lower bound

#### **MAR 2016**

**Saleem Bahaj (Macro):** The Residential Collateral Channel

**Scott Swisher (Networks):** An Empirical Framework for Internet Policy: Quantifying the Effect of Net Neutrality Regulation

**Pawel Gola (Theory):** Supply and Demand in a Two-Sector Matching Model

**David Minarsch (Theory):** Spying and Conflict Resolution

**Eric Leeper (Special Macro):** Clearing Up the Fiscal Multiplier Morass

**Ludovic Renou (Micro):** The Value of Commitment in Repeated Games

**Joao Duarte (Macro):** Housing and Monetary Policy in the Business Cycle: What do Housing Rents Have to Say?

#### **APR 2016**

**Alfred Duncan (Macro):** Financial Macroeconomics with Business Cycle Risk Markets

**Ina Taneva (Theory):** Information Design: The Random Posterior Approach

**Giancarlo Corsetti (Macro):** The Consumption Effects of Liquidity-Enhancing Transfers: Evidence from Italian Earthquakes

**Mikhail Safronov (Theory):** Search and Learning-by-Doing

**Christian Dippel (Micro):** Elite Competition, Co-option and the Iron Law of Oligarchy: Theory and a Tale of 14 Islands

#### **MAY 2016**

**Dilip Mookerjee (Theory):** Ex Ante Collusion and Organisational Design

**Filip Rozsypal (Macro):** Income Expectations and Household Consumption Choices

**Sanjeev Goyal (Theory):** Geography, Resources and Conflict

**Chryssi Giannitsarou (Macro):** Informative Social Interactions

**Bartosz Redlicki (Theory):** Persuasion by Manufacturing Doubt

**Alexis Anagnostopoulos (Macro):** Technology Capital and the Taxation of Multinational Corporations

**Michael Kearns (Networks):** Private Search in Social Networks

**Chris Rauh (Macro):** Reading Between the Lines: Prediction of Political Violence Using Newspaper Text

**Pascaline Dupas (Micro):** Targeting Technology Adoption Subsidies: Methods and Mechanism

**Dan Friedman (Micro):** Emergence of Networks and Market Institutions in a Large Virtual Economy

#### **JUN 2016**

**Coen Teulings (Macro):** Regional Wages, Knowledge Spillovers and Housing Prices

**Tim Uy (Macro):** Lorenzoni-Werning Debt Restructuring

**Edoardo Gallo (Networks):** Financial Contagion in Networks: An Experiment

**Miguel Morin (Macro):** The Effect of Infrastructure Investment in a Low-Growth Environment

**Farzad Saidi (Macro):** Life Below Zero: Negative Policy Rates and Bank Risk Taking

## **SEED FUNDING INITIATIVE**

The Cambridge-INET Institute Seed Fund accepts applications throughout the year and seeks to provide a swift response to support pilot and exploratory work. The initiative awards up to £3,000 per project on the basis that the work has a clear path to generating larger grant applications to external sponsors and fits within the remit of the Institute.

**Dr Solomos Solomou** (Faculty of Economics) 2016  
The Economic Effects of Global Weather Shocks

**Dr Christopher Rauh and Teodora Boneva** (Faculty of Economics) 2016  
School Success and the Importance of Parental Beliefs in Parental Investment Decisions

**Alexander Kentikelenis** (Department of Sociology) 2015  
Activities of the International Monetary Fund

## FACULTY SUPPORT

To ensure Cambridge supports the top people in the Institute's research fields, funds have been made available to the Faculty of Economics for salary supplements. These supplements have ensured that our researchers are fairly rewarded and that the Institute remains a top centre for economics research.

**Dr Elisa Faraglia** (Faculty of Economics)

The support was awarded for three years (2013-2016).

## DISSEMINATION and OUTREACH

One of the key goals of the Institute is to engage the public with cutting edge research in economics. Taking advantage of the high calibre of visitors we receive, the Institute has initiated a branded video series where high profile academics are interviewed on their research and encouraged to speak about their research in a topical and accessible way. The video series will also include select lectures delivered by visitors during their stay. These videos will be made available through the University's Streaming Media Service.

### LATEST INSTITUTE VIDEOS

#### **ADEMU and Cambridge-INET Videos Series**

**Nezih Guner** – Rethinking the Welfare State

**Nicholas Crouzet** – Aggregate Implications of Corporate Debt Choices

**Simon Gilchrist** – Financial Heterogeneity and Monetary Union

**Gianluca Violante** – Monetary Policy According to HANK

**Mark Hugget** – The Sufficient Statistic Approach: Predicting the Top of the Laffer Curve

**Nobuhiro Kiyotaki** – Monetary and Financial Policies in Emerging Markets

**Eric Leeper** – Fiscal Sustainability

### **PROFESSOR COEN TEULINGS, 3 VIDEOS ON**

#### **“Low Interest Rates and the Introduction of the Pill”**

Video 1: Interest Rates and the Pill

Video 2: Three Solutions to the Savings Glut

Video 3: Savings Glut and Stability Pact

### **SCHUMPETER LECTURE, EEA MANNHEIM 2015**

**Giancarlo Corsetti** – Self-Fulfilling Crises and the Central Banks

**Estimation of a Multiplicative Covariance Structure in the Large Dimensional Case,**  
Christian M. Hafner and Oliver Linton (wp1621)

**Falling Real Interest Rates, House Prices, and the Introduction of the Pill,**  
Jason Lu and Coen Teulings (wp1620)

**Birth and Death,** Partha Dasgupta (wp1619)

**Investment in Productivity and the Long-Run Effect of Financial Crises on Output,**  
Maarten de Ridder (wp1618)

**Narrow Identities,** Partha Dasgupta and Sanjeev Goyal (wp1617)

**Networks and Markets,** Sanjeev Goyal (wp1616)

**The Earned Income Tax Credit: Targeting the Poor but Crowding Out Wealth,**  
Maren Froemel and Charles Gottlieb (wp1615)

**The Impact of Earthquakes on Economic Activity: Evidence from Italy,** Francesco Porcelli and Riccardo Trezzi (wp1614)

**Reconstruction multipliers,** Riccardo Trezzi and Francesco Porcelli (wp1613)

**Consumer Spending and Fiscal Consolidation: Evidence from a Housing Tax Experiment,** Paolo Surico and Riccardo Trezzi (wp1612)

**Step away from the zero lower bound: Small open economies in a world of secular stagnation,** Giancarlo Corsetti, Eleonora Mavroeidi, Gregory Thwaites, and Martin Wolf (wp1611)

**The Case for Flexible Exchange Rates in a Great Recession,** Giancarlo Corsetti, Keith Kuester and Gernot J. Müller (wp1610)

**Are Bubbles Bad? Is a higher debt target for the Euro-zone desirable?,** Coen N. Teulings (wp1609)

**Secular Stagnation, Rational Bubbles, and Fiscal Policy,** Coen N. Teulings (wp1608)

**Alternative Asymptotics for Cointegration Tests in Large VARs,** Alexei Onatski and Chen Wang (wp1607)

**A Semiparametric Intraday GARCH Model,** Peter Malec (wp1606)

**Reading Between the Lines: Prediction of Political Violence Using Newspaper Text,** Hannes Mueller and Christopher Rauh (wp1605)

**Simple Nonparametric Estimators for the Bid-Ask Spread in the Roll Model,**  
Xiaohong Chen, Oliver Linton and Stefan Schneeberger (wp1604)

**A Coasian Approach to Efficient Mechanism Design,** Mikhail Safronov (wp1603).  
Revised September 2016

**Financial Linkages, Portfolio Choice and Systemic Risk**, Andrea Galeotti, Christian Ghiglino, and Sanjeev Goyal [wp1602]

**Religion and Depression in Adolescence**, Jane Cooley Fruehwirth, Sriya Iyer and Anwen Zhang [wp1601]

## **PUBLISHED and FORTHCOMING PAPERS 2016**

**Networks, Markets and Inequality**, Sanjeev Goyal, forthcoming in *American Economic Review*

**Information Acquisition and Exchange in Social Networks**, Sanjeev Goyal, Stephanie Rosenkranz, Utz Weitzel, and Vincent Buskens, forthcoming in *Economic Journal*

**Favoritism**, Yann Bramoullé and Sanjeev Goyal, *Journal of Development Economics*, Vol 122, pp 16-27

**The cross-quantilogram: Measuring quantile dependence and testing directional predictability between time series**, Heejoon Han, Oliver Linton, Tatsushi Oka and Yoon-Jae Whang, *Journal of Econometrics*, Vol 193, Issue 1, pp 251-270

**Networks and Misallocation: Insurance, Migration, and the Rural-Urban Wage Gap**, Kaivan Munshi and Mark Rosenzweig, *American Economic Review*, Vol 106, no 1, pp 46-98

**Network Cognition**, Roberta Dessi, Edoardo Gallo and Sanjeev Goyal, *Journal of Economic Behavior and Organisation*, Vol 123, pp 78-96

**The New Economics of Religion**, Sriya Iyer, *Journal of Economic Literature*, Vol. 54, No. 2, pp 395-441

**Trading in networks: Theory and Experiments**, Syngjoo Choi, Andrea Galeotti and Sanjeev Goyal, *Journal of the European Economic Association*

**The “Mystery of the Printing Press” Monetary Policy and Self-fulfilling Debt Crises**, Giancarlo Corsetti and Luca Dedola, December 2016 in the *Journal of European Economic Association*.

**How do you defend a network?**, by Marcin Dziubinski and Sanjeev Goyal, forthcoming in *Theoretical Economics*

**Fiscal Policy in an Unemployment Crisis**, by Pontus Rendahl, forthcoming in *Review of Economic Studies*

# NETWORKS, CROWDS and MARKETS

**Social, economic, and infrastructure networks are a defining feature of modern economies. The Networks Theme at the Cambridge-INET Institute is one of the world's strongest cluster of researchers in this dynamic and fast growing field.**

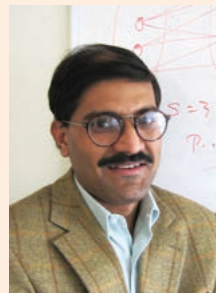
There are three broad themes of work. One line of research is concerned with the dynamics of networks. This is motivated by topical problems such as technological innovation, financial contagion, cybersecurity, disease epidemics, supply chain disruptions and international conflict. A second strand of work explores the relationship between markets, states and community networks; how traditional communities shape the behaviour of individuals and groups in a modern economy. This work has important implications for the optimal design of development policy. A third research theme explores bargaining, production and exchange in networks, with implications for industrial policy and the regulation of markets.

The Cambridge-INET Networks Group is unusual in its diversity, both with regard to the methods we use – theory, experiments, and statistical analyses with observational data – and the areas we work in – spanning micro and macro analyses in developing and developed economies and covering the three research themes discussed above.

We organised two workshops: Search and Networks Workshop, and Behavioural Economics and Networks. We also supported the International Conference on Smart Infrastructure and Construction and the Workshop on Networks in Trade and Macroeconomics.

Recent publications of the group have included papers in the *American Economic Review*, *Journal of Economic Perspectives*, *Econometrica*, *Review of Economic Studies*, and *Proceedings of the National Academy of Sciences (PNAS)*. Researchers from this group have won prizes and have been awarded prestigious research awards such as the Aliprantis Prize, Infosys Prize, Leverhulme Prize, NSF Grants, ERC Starting Grants, European Horizon 2020 Grant, and they have also secured generous funding from Keynes Fund for Applied Economic Research and from Cambridge Endowment for Research in Economics. There are several post-docs and doctoral students affiliated to this group; recent academic placements include Oxford, Northwestern, Toulouse and Queen Mary, London.

## THEME COORDINATORS



Professor Sanjeev Goyal



Professor Kaivan Munshi



*Cambridge-INET Networks Reading Group*

Non-academic placements include the UK Civil Service, IMF and McKinsey Consultants.

Members of this research group have extensive collaboration ties at the international level, both within economics but also in a number of other disciplines (such as computer science, mathematics, social psychology, engineering, and physics).

#### **VISITORS IN 2015-2016 INCLUDED:**

**Francis Bloch** (Paris)  
**Pascaline Dupas** (Stanford)  
**Marcin Dziubinski** (Warsaw)  
**Ben Golub** (Harvard)  
**Maarten Janssen** (Vienna)  
**Michael Kearns** (U Penn)  
**Botond Koszegi** (CEU)  
**Matt Leduc** (Vienna)  
**Dilip Mookherjee** (BU)  
**Mark Rosenzweig** (Yale)  
**Fernando Vega-Redondo** (Bocconi)  
**Xiaobo Zhang** (Beijing)

#### **VISITORS PLANNED FOR 2016-2017 INCLUDE:**

**Marcin Dziunbinski** (Warsaw)  
**Willimien Kets** (Northwestern)  
**Dilip Mookherjee** (BU)  
**Michael Kosfeld** (Frankfurt)  
**Michael Kearns** (U Penn)  
**Matt Leduc** (Vienna)  
**Rosemarie Nagel** (UPF)  
**Andrea Galeotti** (EUI, Florence)

## TRANSMISSION MECHANISMS and ECONOMIC POLICY

The “Transmission Mechanisms and Economic Policy” theme at the Cambridge-INET Institute brings together researchers conducting fundamental research in macroeconomics. We use a variety of approaches – encompassing micro and macro econometrics, macro models and historical and institutional analysis – to develop theoretical and empirical work on a wide range of issues, from firm growth and firm churning to household level savings and inequality, from unemployment dynamics to supply chains, from the analysis of monetary policy to international finance and global imbalances. Our research aims to generate inputs for stabilisation and structural policy.

During the 2015-2016 academic year, the theme continued to support two regular research events at Cambridge: the weekly Macroeconomics Seminar and the new internal Macroeconomics workshop, where Cambridge-based researchers are encouraged to present and discuss early stages work. During Easter 2016, the theme – in cooperation with the Centre for Macroeconomics and a new research initiative, “A Dynamic Economic and Monetary Union (ADEMU)”, hosted at the Faculty of Economics – promoted a series of mini-conferences, showcasing cutting edge work on financial frictions and the macroeconomy, the consequences of household heterogeneity under incomplete markets, economic growth and international trade.

Additionally, we hosted two major international conferences on “Firm Dynamics and Macroeconomics” and “Debt Sustainability and Lending Institutions”. We also co-hosted both the launch of the ADEMU research initiative (with a two-day conference on “Reassessing the EU Monetary and Fiscal Framework”) and the CEPR Annual International Macroeconomics and Finance Meeting. Finally, together with INET-New York we co-organised a meeting on “Rules vs. Discretion: Macro and Financial Economics”.

Throughout the academic year we invited and hosted 14 leading experts in macroeconomics and related fields. We have also organised a number of public talks on topical issues such as Brexit and UK-EU relations, bank stress tests in Europe and the US or the monetary and fiscal policy of the Eurozone.

### THEME COORDINATORS



Dr Vasco Carvalho



Professor Hamish Low





*Firms in Macroeconomics (31 August – 1 September)*

Recent publications of the group have included papers in the *American Economic Review*, *Journal of Economic Perspectives*, *Econometrica* and the *Review of Economic Studies*. Members of the group have secured awards such as European Research Council Grants, the Leverhulme Prize, the European Union Horizon 2020 grant, and benefited from funding from the Keynes Fund for Applied Research and the Cambridge Endowment for Research in Finance.

## **VISITORS**

**OCT 15**

**Giovanni Gallipoli** (University of British Columbia)

**FEB 16**

**Basile Grassi** (University of Oxford)

**MAR 16**

**Eric Leeper** (Indiana University)

**Makoto Nirei** (Ministry of Finance, Tokyo)

**Joao Bernardo Duarte** (University of Illinois)

**APR 16**

**Simon Gilchrist** (Boston University)

**Guillermo Ordenez** (University of Pennsylvania)

**Luca Dedola** (European Central Bank)

**Christian Dippel** (UCLA Anderson)

**MAY 16**

**Mark Huggett** (Georgetown)

**Swati Dhingra** (LSE)

**Stephen Redding** (Princeton)

**Rob Johnson** (Dartmouth)

**JUN 16**

**Nicholas Bloom** (Stanford University)

## **PHD STUDENT**

**Rafe Martyn**

## **POST-DOC APPOINTMENTS**

**Maren Frömel**

**Miguel Morin**

**Christopher Rauh**

# INFORMATION, UNCERTAINTY and INCENTIVES

**Microeconomics starts from the premise that phenomena should be understood as a result of individual choices. These choices are determined by the incentives that individuals face, and by the psychological make up of these individuals. Furthermore competition, coordination and learning are vital in aggregating individual choices, and thereby shaping them into the collective behaviour observed in markets and even whole economies.**

This theme brings together researchers working on individual and group decision making, risk sharing, contracts, behavioural approaches to savings decisions, experimental economics and competition among firms. The application of these works have been to diverse areas such as financial markets and banking, epidemiology, decision making in human organ transplanation. It is hoped that a better understanding of individual choices will allow policy makers to eliminate some of the more obvious design flaws in their policies, and that a better understanding of how these choices interact to determine collective outcomes will help to identify policies that result in more stable collective outcomes (possibly at the expense of sacrificing some features that appear desirable at the individual level).

In the past academic year the research group has continued its research on issues related to the theme of the project. During the year we successfully organised a number of events and workshops (large and small) and hosted a very large number of eminent economic theorists in Cambridge for anywhere between a few days to a few weeks. These events and the presence of so many first class visitors have been very beneficial to the microeconomics researchers and PhD students in Cambridge. They have also been very helpful in raising the profile of Cambridge in economic theory worldwide.

Juan Block, Abhimanyu Khan and Michael Safranov were the three post-doctoral fellows on this theme during the academic year 2015-16. They have been very active during the year producing a number of good papers, organising weekly economic theory workshops and contributing to the running of the different events.

## THEME COORDINATORS



Professor Hamid Sabourian



Professor Chris Harris



*Economic Theory Workshop (June 2016)*

## **VISITORS**

### **OCT 15**

**Sander Heinsalu** (University of Queensland)

**Jeff Ely** (Northwestern University)

**Aldo Rustichini** (University of Minnesota)

**Luis Corchon Diaz** (University of Carlos III in Madrid)

### **NOV 15**

**Qingmin Liu** (Columbia University)

**Antonio Penta** (University of Wisconsin)

### **FEB 16**

**Jihong Lee** (Seoul National University)

### **MAR 16**

**Ludovic Renou** (University of Essex)

### **MAY 16**

**Dan Friedman** (University of California, Santa Cruz)

### **JUL 16**

**Luis Carvalho** (ISCTE Lisbon)

**Wei-Torng Juang** (Institute of Economics, Academia Sinica)

### **JUL 16**

**Mariann Ollar** (University of Pennsylvania)

## **POST-DOC APPOINTMENTS**

**Juan Block**

**Abhimanyu Khan**

**Mikhail Safronov**

# EMPIRICAL ANALYSIS of FINANCIAL MARKETS

**Financial markets serve the important function of transferring risk across individuals and over time, and they provide information on the performance of firms and economies. As such their effective performance is of great interest to policymakers, pension holders, and consumers, yet recent events have created profound mistrust about their operation.**

The theme brings together researchers working on fundamental methodological issues that can help provide evidence on the functioning of financial markets. We have several projects concerned with market microstructure, about how the trading environment impacts the outcomes for long term investors and policy makers. Does the presence and use of advanced technology improve or degrade outcomes for pension funds and retail investors? What is the best way of measuring volatility with a view to comparisons across markets and across time? Does the presence of market stabilisation mechanisms such as circuit breakers reduce the potential for nonlinear feedback loops and volatility spillovers across securities and markets? Speed is one aspect of current financial markets, but big data is another. The vast databases and the improved hardware and software environments mean that the research cutting edge is constantly being redefined to take account of the better possibilities for evidentiary analysis. We have several projects and researchers who are at the forefront of this work.

In the past academic year, our group has continued to focus on conducting research in the econometric analysis of financial markets. In addition to teaching and research work, we successfully organised five conferences, two Masterclasses and several seminars. Furthermore, we invited and hosted seven leading international econometricians. To expand our research group, we appointed two new post-doctoral fellows.

## THEME COORDINATORS



Professor Oliver Linton



Dr Alexei Onatski





*Big Data Big Methods (September 2015)*

#### **VISITORS**

**OCT 15**

**Offer Lieberman** (Bar-Ilan)

**NOV 15**

**Roger Koenker** (University of Illinois)

**JAN 16**

**Yoon Jae Whang** (Seoul National University)

**FEB 16**

**Gordon Anderson** (University of Toronto)

**MAR 16**

**Whitney Newey** (MIT)

**APR 16**

**Haim Levy** (Hebrew University of Jerusalem)

**JUN 16**

**Martina Mincheva** (Fox School of Business, Temple University)

#### **PhD STUDENT**

**Ekaterina Smetanina**

#### **POST-DOC APPOINTMENTS**

**Soheil Mahmoodzadeh**

**Peter Malec**

**Chen Wang**



## **CAMBRIDGE-INET INSTITUTE MANAGEMENT COMMITTEE MEMBERS**

Professor Giancarlo Corsetti (Director)

Professor Coen Teulings (Co-Director)

Professor Phil Allmendinger (Head of the School of Social Sciences and Humanities)

Dr William Janeway (INET Board member)

Dr Robert Johnson (INET Board Member)

Professor Sanjeev Goyal (Chairman of Faculty)

## **CAMBRIDGE-INET INSTITUTE ADVISORY BOARD MEMBERS**

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Mr Andrew Haldane

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Professor Bart Lambrecht

Professor Stephen Morris

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Institute Manager: Marion Reusch

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