

CERF Report 15-16

26/07/2016

Report Type

Please indicate what type of report you would like to submit by selecting one of the following:

- Mid Term Award Report
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Full Name Please provide full name and title of the main applicant/award holder and names of all co-applicants, where applicable

Research centre: Cambridge-INET Institute, Faculty of Economics

Investigators: Professor Giancarlo Corsetti (Director), Professor Coen Teulings (Co-Director)

Coordinators: Prof. Sanjeev Goyal, Prof. Kaivan Munshi, Dr Vasco Carvalho, Prof. Hamish Low, Prof Hamid Sabourian, Prof. Chris Harris, Prof. Oliver Linton, Prof. Alexei Onatski

Your E-Mail Address

inet@econ.cam.ac.uk

Faculty/Department

Faculty of Economics

Project Title

Cambridge-INET Institute

Project Abstract (Max 250 Words)

Since its inception, Cambridge-INET has sought collaboration with---and funding by---CERF to foster research excellence in finance and economics in Cambridge, supporting projects across research groups on finance topics and the role of finance in microeconomic decisions and macroeconomic dynamics. Research in finance and economics is at the core of Cambridge-INET. Cambridge-INET was set up to promote fundamental and innovative research in economics, with the goal of pursuing excellence in New Economic Thinking in Cambridge, and contributing to our understanding of the economic and financial systems as an integrated system. Through a variety of instruments and initiatives, such as studentships and postdocs, visiting professor programme, conferences and workshops, summer schools, dissemination activities, the Institute supports rigorous and high-impact empirical and theoretical research in Cambridge. Although the initiatives of the Institute are not limited to specific areas, its organisation is structured around four strategic themes: Networks,

crowds and markets; Transmission mechanisms and policy; Information, Uncertainty and Incentives; Empirical Analysis of Financial Markets.

Activities and Achievement

A 300 word (maximum) and 100 word (minimum) summary of the main research results, in non-technical language, should be provided below. It should cover the aims and objectives of the project, main research results and significant academic achievements, dissemination activities and potential or actual impacts on policy and practice.

Since its establishment, the Institute hosted 14 postdocs, organised around 250-300 events (including conferences, public talks, workshops, reading groups and seminars) and published 50 working papers. For 15-16 Cambridge-INET has been organising 23 conferences, 30 Reading groups and about 10 Seminars.

The support of Cambridge-INET has also been determinant for a successful bid for external research funds, at UK and European level. Cambridge economics is part of the Centre for Macroeconomics, sponsored by the ESRC. In the last year, it started two Horizon2020 grant projects, ADEMU and IBSEN.

The goal range of activities of interest for the Cambridge-INET CERF partnership has been systematically highlighted in a specific document. In what follows, we focus on academic achievements, dissemination and impacts.

Cambridge-INET research has achieved important advances in all the main themes.

Projects have already produced publications and submissions in leading international journals, and ongoing work is feeding an ever increasing series of working papers and journal submissions. The Cambridge-INET WPs have already appeared in (or been accepted by) top journals, top field journals, as well as the Journal of Public Economics, and high impact journals such as Journal of Economic Literature, discussing and defining new areas of research.

Work done under Cambridge-INET has been the basis for plenary lectures in major conferences, such as the Schumpeter Lecture at the European Economic Association, and a plenary lecture in the 2015 World Congress of the Econometric Society. These two lectures are now in the process of being published.

New collaborations and projects have been developed, led by Faculty members and postdocs in areas in which Cambridge-INET and the Cambridge Faculty have established an international intellectual leadership: network and markets, institutions and development; the assessment of fiscal and monetary policy, the economics of unemployment crisis and secular stagnation, financial econometrics, herding behaviour and behavioural theories of decision making.

New frontier studies have been developed focused on financial and exchange rate markets at high frequencies, insurance and pricing of supply chains, market dynamic and self-fulfilling debt crises. On the first topic, a major conference took place in Cambridge in May (see below); Cambridge-INET researchers have engaged in project based on big data in collaboration with the European Central Bank. The second topic was discussed in a major conference in June in Cambridge (see below). On the third topic, Cambridge-INET researchers have engaged with the European Stabilization

Mechanism (ESM) in Luxembourg and Horizon 2020 ADEMU for the development of models of official lending, aimed at fostering debt sustainability and market stability. Early work has been presented internationally, and a major conference on the subject is scheduled in September 2016 in Cambridge.

Researchers are also involved in scientific and policy-related debates in different forms, especially in evolving collaboration with central banks and policy institutions. The Cambridge-INET director and co-directors have edited and/or promoted e-books on Austerity, Secular Stagnation, the crisis of the Eurozone, and contributed to positioning papers at the ECB and the Bank of England. In 2016, the Cambridge-INET wp series started to include early results from Cambridge-INET studies on secular stagnation and financial and macroeconomic problems raised by persistently low interest rates.

Cambridge-INET has intensified its programme of public talks and debates on emerging issues in theory and policy. Cambridge-INET has started a video series, with interviews and dialogues aiming to explain in a simple and accessible manner major research topics and results and also covers public events on contemporary issues, sponsored by Cambridge-INET.

Highlights from March 2016:

April 19 Macroeconomics of Financial Frictions Mini Conference, organised by Vasco Carvalho

This joint Cambridge INET-ADEMU workshop featured three presentations of cutting-edge work on how financial frictions and financial intermediaries in dynamic macroeconomic models. Simon Gilchrist (Boston University) documented that many firms have actually raised their product prices during the recent downturn in crisis-affected Eurozone states, contrary to conventional understanding. He highlights how a contraction in credit may have prompted such firms behaviour. Nicolas Crouzet (Kellogg School of Management) provided a new model of corporate debt choice that could explain fall in 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.

PhD students and Postdocs in Cambridge are actively researching finance and economics, drawing on similar models. By way of example, Jasmine Xiao is progressing in models of financial decisions by firms and banks, affecting cash holding, investment and the composition of debt. A key result from the analysis is a framework to disentangle empirically firm-demand from credit-supply shocks.

May 10 Heterogeneous Agents and Macroeconomics organised by ADEMU & C-INET (Vasco Carvalho)

This joint Cambridge-INET-ADEMU workshop brought together three leading speakers dealing with the consequences of heterogeneity and aggregation under incomplete markets. Among the participants, Gianluca Violante (NYU) presented an heterogeneous agents model under incomplete markets and sticky prices, used to analyse how heterogeneity affects the financial channels of transmission of monetary policy. This work pursues the same agenda as leading researchers in Cambridge INET, reconsidering fiscal multipliers in the absence of markets and mechanisms allowing workers to share income risks.

May 26 The UK and the EU event organised by Giancarlo Corsetti

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. Prof. 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. Prof. Runciman, head of Politics, downplayed fears 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 Prof. Ferran, from 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. Prof. 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.

May 19-20 Microstructure of Foreign Exchange Markets organised by Oliver Linton and Soheil Mahmoodzadeh

The impact of market microstructure on market quality has garnered increasing scrutiny, with particular impetus stemming from events such as the May 6, 2010 Flash Crash and the Oct 15, 2014 bond market ash 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 grasp 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 Ranaldo, 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.

Jun 3 Networks Working Group (Edo Gallo) – Financial contagion in Networks: An experiment

The 2008 global financial crisis highlighted the crucial role that the network architecture of the financial system plays in determining systemic contagion. In the aftermath of the crisis, the Bank of England argued that “the financial network should be structured so as to reduce the chances of future systemic collapse” and “better information on connections between firms in the financial network [is crucial to] building a more resilient financial system”.

The aim of the project is to investigate experimentally the roles of network and information structures on financial contagion, price formation, and the behaviour of traders. Participants have heterogeneous valuations for assets and they are assigned to a position in a network of liabilities that leaves them exposed to counterparty risk. One participant is hit by a shock whose size is common knowledge. Participants can trade assets in a double auction market and they face a trade-off: buy to earn a long-term return from the assets vs. sell to raise liquidity to cushion the potential spillovers from the shock.

Network structure has a significant impact on the resilience of the system to shocks. Financial contagion and individual bankruptcy are much more likely in core-periphery compared to circle networks. In core-periphery networks, the traders perceive this heightened risk leading to collapse in prices and a market freeze where everyone is trying to sell assets. In contrast, in circle networks the market functions normally. Whether market participants have information about the location of the shock in the network, however, has no substantial effect on financial contagion, individual bankruptcy, the evolution of prices, or traders' bidding behaviour.

The paper summarizing the findings was presented at the following seminars: NTU and NUS (both in Singapore), and University of Macau (China). I also presented it at the BiNoMa Workshop on the Economics of Networks (Univ. of East Anglia).

Jun 8 Cambridge-INET/Cemmap Econometric Methods Symposium organised by Oliver Linton and Richard Smith

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.

The Cambridge-INET Institute jointly with the Centre for Microdata Methods and Practice organised an Econometric Methods Symposium on 8 June 2016.

The symposium saw the participation of leading scholars, including Guido Imbens (Stanford University); Sokbae Lee (Seoul National University); Susan Athey (Stanford University); Quentin Berthet (University of Cambridge); and Andres Santos (U.C. San Diego). It provided a forum for a deep discussion of new directions of research, and applications to problems arising from empirical studies of economic and financial behaviour.

Jun 13-14 Networks in Trade and Macroeconomics organised by Matt Elliott, Ben Golub and the Centre for History and Economics

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 program 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, including asset pricing and insurance. Arguably, the next frontier in this literature is to endogenize 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).

Sept 14-16 Stochastic Dominance Theory and Applications Workshop & Masterclass organised by Oliver Linton

Ranking uncertain prospects is a central occupation in finance as it guides decision making and portfolio choice in particular. Recognizing 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 organizing 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 available through the website.

Dissemination

Dissemination A. Please outline any specific plans you have for further publication and/or other means of dissemination of the outcomes and results of the research. B. Discuss any potential or actual impacts on policy and practice that your work may have.

The working papers series are routinely submitted to leading international journals. Some of them have already been accepted for publication in top international journals. In addition, the Institute holds conferences, workshops, seminars, reading groups, and summer schools to disseminate the findings of research.

Work on sovereign debt market has progressed substantially during the past academic year. The Schumpeter lecture by Giancarlo Corsetti has been revised and accepted by the Journal of the European Economic Association. It has provided a key input for a board seminar at the European Central Bank, and an ECB discussion paper (forthcoming).

Cambridge-INET researchers' have started collaborating with the European Stability Mechanism, to develop models for the design and assessment of official lending and their impact on sovereign debt pricing.

Studies on secular stagnation and low interest rates by Cambridge-INET researchers' have also been an input in policy debates, with an ample circulated e-book, a working paper invited by the IMF Economic Review and a working paper written by in collaboration with a team at the Bank of England.

Following up of the May 26 The UK and the EU event, Giancarlo Corsetti published scenarios from a macroeconomic model often used by monetary and financial institutions, exploring the effects of heightened risks in investing in the UK economy, on the pound, the monetary stance of the central bank, and the balance between external and internal demand. The results (discussed in a VoxEU column) provides scenarios in which the weakness of the currency (confirmed in the aftermath of the referendum) is persistent, and may or may not offset a possible deterioration of domestic demand, depending on the margin for further monetary expansions.

Anil Ari, an outstanding Ph.D. students working in close collaboration with Cambridge INET, has developed innovative models of shadow banking, and banking dynamics in the presence of Sovereign risk, hinging upon the interaction of depositors and bank managers. Early version of the work, that collected several prestigious international prizes, has been published as working paper by the European Central Banks, quoted in speeches by the ECB Board members. As recipient of a Keynes fund award, Anil has started an ambitious new project on the dynamics of bank crisis, with historical applications.

Outputs

Please give full details of the outputs which should accompany this report. For each research paper, please, provide: a) the title b) an abstract c) web link where the paper can be downloaded d) bibliographical reference in case the paper is accepted for publication e) details regarding conferences or seminars where the paper has been presented For other outputs (such as software, datasets), please, provide a description of the output and a web link through which the output can be downloaded. If a web link is not available then provide an electronic copy with this report.

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Our PhD students: <http://www.inet.econ.cam.ac.uk/research-support/phd-stu>

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Major Difficulties and Any Other Issues

Major difficulties Please detail below any major difficulties, scientific or administrative/logistical, encountered during your research and comment on any consequent impact on the project. Provide details including any advice you might have for resolving such problems in future projects. Other issues and unexpected outcomes Please describe any outcomes of your research, beneficial or otherwise that were not expected at the outset or other issues which were important to the research. If there are none, please state so.

The need to position the Institute within the Cambridge community and worldwide raises strategic and organisational issues. A key question is the scope for collaboration. By its very nature and goals, Cambridge-INET pursues excellence in new economic thinking, which requires significant collaboration across disciplines. At this stage in the development of C-INET, it is important to establish robust links with other parts of the Cambridge research community, both in other Faculties and Colleges. Potential areas of collaboration include finance and economics, financial and economic history, neuroscience, mathematics and computation, conflict and violence analysis, environmental studies, risk assessment and management, law and economics, and European Studies. Within the Faculty, Cambridge-INET is hosting other (publically funded) projects such as CFM, ERC and prospectively Horizon 2020. Further projects could be promoted in collaboration with researchers from outside the Faculty.

Web Links

Please insert here any web links to relevant outputs and web pages. If there are none, please state so.

See Outputs

Optional - detailed findings and output

Optional - if you would like to provide a more detailed report containing the information you have provided to us, please attach a Word document here.

Additional Information

This section can be used to provide any additional information that may be relevant

Declaration The CERF Database is a publicly available online research database, containing summary details of all CERF research projects and their associated publications and outputs. Please select one of the statements below.

Details of relevant outputs of this award have been submitted to the CERF Database and details of any ensuing outputs will be submitted in due course.

This award has not yet produced any relevant outputs, but details of any future publications will be submitted to the CERF database as soon as they become available.

x Signature - Main Award Holder This Report is an accurate statement of the objectives, conduct, results and outputs (to date) of the research project funded by CERF.