



Conference on
“Systemic Risk, Banking and Insurance, and the Role of their Shadow Entities”.

4 October 2019 – Room: 6001 (9:00-17:00)
Centre for Econometric Analysis, Cass Business School
106 Bunhill Row, London, EC1Y 8TZ

Organiser: Giovanni Urga

PROGRAMME

9:00 – 9:30 Registration

9:30 -11:00

Session 1

Chairperson: Thorsten Beck

Angela Gallo (Cass Business School, UK)

“Beyond Regulatory Arbitrage: Novel Evidence on ABCP Market” (with Barbara Casu)

Peter Cincinelli (Bergamo University, Italy) *“The Rise of Shadow Banking, Systemic Risk and the role of Monetary Policy in the Chinese Financial System”* (with Carlo Bellavite Pellegrini, Michele Meoli, Giovanni Urga)

Soon Heng Leong (Cass Business School, UK)

“The Contribution of Shadow Insurance to Systemic Risk” (with Carlo Bellavite Pellegrini, Giovanni Urga)

11:00-11:30 Coffee/Tea Break

11:30-13:00

Session 2

Chairperson: Barbara Casu

Petros Katsoulis (Cass Business School, London, UK)

“Information and Liquidity Linkages in ETFs and Underlying Markets” (with Pawel Fiedor)

Gerardo Ferrara (Bank of England, UK), Nicolas Vause

“Simulating Liquidity Stress in the Derivatives Market” (with Marco Bardoscia, Michael Yoganayam)

Giovanni Urga (Cass Business School, London, UK and Bergamo University, Italy)

“A Systemic Risk Indicator and Asset Allocation” (with Fabio Bottani and Paola Carpani)

13:00-14:00 Lunch break

14:00-16:30

Session 3

Chairperson: Giovanni Urga

Anne-Caroline Huser (Bank of England, UK)
“*Contagion Accounting*” (with Inaki Aldasoro and Christoffer Kok)

Carlo Bellavite Pellegrini (Università Cattolica del Sacro Cuore, Milan, Italy) “*What Triggers Systemic Risk in the European Financial System? The Role of Shadow Banking*” (with Peter Cincinelli, Michele Meoli, Giovanni Urga)

Michele Meoli (Bergamo University, Italy)
“*Banking Business Models and Systemic Risk in Europe*” (with Carlo Bellavite Pellegrini, Peter Cincinelli, and Giovanni Urga)

Thorsten Beck (Cass Business School, UK)
“*Bank Resolution Regimes and Systemic Risks*” (with Deyan Radev and Isabel Schnabel)

16:30 Closing Remarks.

ABSTRACTS

Barbara Casu (Cass Business School, UK) and [Angela Gallo](#) (Cass Business School, UK)

"Beyond Regulatory Arbitrage: Novel Evidence on ABCP Market"

Abstract. This paper investigates the drivers behind the deterioration of the quality of collateral held by the shadow banking system, suggesting a search for yield of shadow banks as a result of changes in interest rates and aggregate demand for safe assets. The empirical analysis is based on a unique hand-collected dataset of banks' sponsored ABCP conduits. We find that conduits increase their issuance, and thus their demand for collateral when the institutional demand for safe assets is increasing. During this expansion, they also change the quality of their collateral as higher interest rates increase their cost of funding. We find an increase in the holdings of collateral with lower rating and of CDO and MBS, ultimately increasing the vulnerability of the conduits to runs.

Carlo Bellavite Pellegrini (Università Cattolica del Sacro Cuore Milan, Italy), [Peter Cincinelli](#) (University of Bergamo, Italy) Michele Meoli (University of Bergamo, Italy), Giovanni Urga (Cass Business School, London, UK and Bergamo University, Italy)

"The Rise of Shadow Banking, Systemic Risk and the role of Monetary Policy in the Chinese Financial System"

Abstract. The institutional features of shadow banking entities in China differ significantly from those of other countries. Because of their specificities, these entities might have differently contributed to increase the systemic risk of the Chinese financial system in the years across the global financial crisis. This paper examines the features of the shadow banking system in China, its connection with the traditional banking system, the nature of systemic risk and estimate, by using the CoVaR methodology (Adrian and Brunnermeier, 2016), the contribution of different typologies of listed Chinese shadow banking entities, to the systemic risk in China. Using a sample of 201 Chinese shadow banking entities (i.e., finance services, real estate financial services), and 37 traditional commercial banks, continuously listed between 2005:4 and 2017:4, we investigate the interaction between traditional banks, shadow banking entities and the impact of their corporate variables on systemic risk.

[Soon Heng Leong](#) (Cass Business School, UK), Carlo Bellavite Pellegrini (Università Cattolica del Sacro Cuore Milan, Italy), Giovanni Urga (Cass Business School, London, UK and Bergamo University, Italy)

"The Contribution of Shadow Insurance to Systemic Risk"

Abstract. The main aim of this paper is to evaluate the contribution of shadow insurance to systemic risk of the global insurance sector using a sample of 215 publicly traded insurers worldwide over the period 2002-2017. In addition, we use 745 banks to compute the interconnectedness between insurance and banking sectors. Using network analysis, we plot the tail risk structure of the global insurance sector and we show that there is a sharp increase in "risk spillover" following the 2008 financial crisis. Using the global systemic risk measures CoVaR (Adrian and Brunnermeier, 2016) and SRISK (Acharya et al., 2012), (Brownlees and Engle, 2016), we find that the practice of shadow insurance is a significant driver of systemic risk.

Pawel Fiedor and [Petros Katsoulis](#) (Cass Business School, London, UK)

"Information and Liquidity Linkages in ETFs and Underlying Markets"

Abstract. We show that exchange-traded funds (ETFs) establish strong information links with the underlying equities but weak ones with the underlying corporate debt securities. This has several distinct effects on each asset class. First, ETFs propagate illiquidity to equities but not to debt securities. Second, ETF share price returns exhibit comovement with the underlying securities' returns but to a much larger magnitude with equities than with debt securities. Third, higher ETF ownership increases equities' volatility but decreases debt

securities' volatility. The results are consistent with the view that the higher accessibility of equities facilitates the formation of close information links with ETFs through arbitrage, which makes equities' prices sensitive to ETF demand shocks and creates the potential for illiquidity contagion when this link is disrupted. In contrast, the hard-to-access nature of corporate debt securities results in weak information

Marco Bardoscia, **Gerardo Ferrara** (Bank of England, UK), Nicolas Vause (Bank of England, UK) and Michael Yoganayam (Bank of England, UK)

"Simulating Liquidity Stress in the Derivatives Market"

Abstract. We analyse whether margin calls between derivative counterparties could strain their ability to pay and thereby spread liquidity stress through the market. Using trade repository data on bilateral derivative portfolios, we simulate variation margin calls in a stress scenario and compare these with institutions' liquid-asset buffers. Where these buffers are insufficient to meet the margin calls we assume institutions borrow the shortfall, but only at the last moment when payment is due. This delay can force recipients to borrow more than otherwise to help make their own payments. This is how liquidity stress can spread through the network. That said, we find aggregate liquidity shortfalls equivalent to only a modest proportion of average daily cash borrowing in repo markets, and only a small proportion of this is attributable to the contagion mechanism just described. However, more important than this result is the toolkit that generated it. This could be used regularly to investigate whether margin calls could generate systemic liquidity strains. If that were the case, additional liquidity requirements targeted at institutions that spread liquidity stress would reduce potential liquidity shortfalls most effectively. Changes to the structure of margin payments could also reduce potential liquidity shortfalls. We show how our toolkit can quantify the effects of such policies.

Fabio Bottani (Banca Aletti, Milan, Italy), Paola Carpani (Banca Aletti, Milan, Italy), and **Giovanni Urga** (Cass Business School, London, UK and Bergamo University, Italy)

"A Systemic Risk Indicator and Asset Allocation"

Abstract. We propose a comprehensive indicator to measure systemic risk at global level combining the dynamics of international financial markets and of the economic cycle. The indicator is constructed using both financial data at high frequency and economic indicators at monthly frequency. We find that the indicator is an important source of information in asset allocation decisions to manage the tail risk of a portfolio.

Inaki Aldasoro (Bank of England, UK), **Anne-Caroline Huser** (Bank of England, UK) and Christoffer Kok (Bank of England, UK).

"Contagion Accounting"

Abstract. We provide a simple and tractable accounting-based stress-testing framework to assess loss dynamics in the banking system. Contagion can occur through direct and indirect interbank exposures, indirect exposures due to overlapping portfolios, and price dynamics via fire sales in a context of leverage targeting. We apply the framework to three granular proprietary ECB datasets, including an interbank network of 26 large euro area banks as well as their overlapping portfolios of loans and securities. A 1 percent shock to the prices of assets held in the trading book leads to an initial loss of 7 percent of system equity and an additional loss of 9 percent due to fire sales spillovers. Amplification through interbank exposures is negligible in our analysis.

Carlo Bellavite Pellegrini (Università Cattolica del Sacro Cuore Milan, Italy), Peter Cincinelli (University of Bergamo, Italy), Michele Meoli (University of Bergamo, Italy), Giovanni Urga (Cass Business School, London, UK and Bergamo University, Italy)

"What Triggers Systemic Risk in the European Financial System? The Role of Shadow Banking"

Abstract. The identification of systemic risk determinants in the worldwide financial system has played an important role in the scientific, policy making and financial industry communities, especially in the aftermath of the Global Financial Crisis. However, the contribution of shadow banking entities has not been properly assessed yet. In this paper, we focus on the corporate features triggering systemic risk in the European financial system, using a unique dataset of 476 listed traditional and shadow banking entities, belonging to 24 different European countries, over the period 2006:1-2015:4. We find that larger institutions increased systemic risk over the long run, but size decreased the contribution to financial turmoil during the worst phases of the crisis. While shadow entities generally increase systemic risk, higher level of maturity mismatch may mitigate losses.

Carlo Bellavite Pellegrini (Università Cattolica del Sacro Cuore Milan, Italy), Peter Cincinelli (University of Bergamo, Italy), **Michele Meoli** (Bergamo University, Italy), Giovanni Urga *“Banking Business Models and Systemic Risk in Europe”*

Abstract. Financial literature has progressively stressed the relevance of maturity mismatch as one of the key determinants of systemic risk. Our paper investigates how the different components of maturity mismatch affect systemic risk, with reference to the variety of business models observable in the European banking system. We devote specific attention to the nature and to the components of banking liabilities, focusing to the relative to deposit and other sources of banking funding. We adopt the methodology implemented by Adrian and Brunnermeier (2016) taking into examination a comprehensive sample composed by all 218 European listed banks between 2006Q1 and 2012Q4, belonging to 26 different Euro and non-Euro countries. We find that business models characterized by strong deposit base significantly reduced bank risk, though the effect is non-linear.

Thorsten Beck (Cass Business School, UK), Deyan Radev (University of Bonn, Germany) and Isabel Schnabel (University of Bonn, Germany)

“Bank Resolution Regimes and Systemic Risks”

Abstract. Using a novel and comprehensive database on bank resolution regimes in 22 member countries of the Financial Stability Board, we analyze how systemic risk at bank level changes in response to system-wide and bank-specific shocks, depending on the prevailing bank resolution regimes. We find that systemic risk increases more for banks in countries with more comprehensive bank resolution frameworks after negative system-wide shocks, such as Lehman Brothers' default, while it decreases more after positive system-wide shocks, such as Draghi's “Whatever it takes” speech. In contrast, systemic risk increases less in countries with more comprehensive bank resolution regimes in the case of bank-specific negative shocks, such as Deutsche Bank's loss announcement in 2016. These results suggest that bank resolution rules are effective in dealing with bank-specific shocks, while they may exacerbate the effect of system-wide shocks