17th BiGSEM Workshop on Economics and Management

List of Speakers

Session 1: Applied Labour Economics

Jeremiah Nollenberger, *International Max Planck Research School on the Social and Political Constitution of the Economy*

Better save something for a rainy day? Labour hoarding, corporate saving and the family firm

Why has German employment remained so stable during the Financial and Corona Crises? Studies stress that the use of internal flexibility on a firm level is key for understanding the safeguarding of employment. Building on this literature, I argue we must systematically incorporate retained earnings and family ownership into the analysis. Introducing these two variables is not only novel from an empirical standpoint, but the findings also have interesting theoretical implications, which I illustrate using Varieties of Capitalism (VoC) as the theoretical framework by connecting VoC and labour-hoarding scholarship.

Johannes Binder, *Goethe University Frankfurt*

Singles and Couples in a risky labor market

In this paper, I study one particular channel through which the presence of a spouse changes labor market outcomes: the insurance channel. When spouses share their income, a negative income shock for one will be partially absorbed by the other. Furthermore, by adding separation risk heterogeneity, another feature of the labor market is taken into account, which is often abstracted from macroeconomics labor market models. Thus, choices about how much risk to accept are introduced into the model. To fix concepts, households are thought of as joint decision making units with income pooling. In such cases the spouse's (potential) income can attenuate the negative effects of job loss. This insurance mechanism can influence choices and outcomes in the labor market, which may explain different empirical regularities observed in the data. One of these regularities is the Marital Wage Premium (MWP), the fact that married workers earn higher wages. A different angle is the effect on precautionary savings. Workers typically self-insure against income risk in incomplete market models. Here, having a spouse with a given income may act as a substitute. Finally, taking into account the interaction of household configurations and labor market risk heterogeneity might be important for optimal unemployment insurance design.

Session 2: Finance and Computational Models

Adil Rengim Cetingoz, *University of Paris I: Panthéon-Sorbonne*

Stochastic Algorithms for Advanced Risk Budgeting

Modern portfolio theory has been for decades the main framework for optimizing port-folios. Because of its sensitivity to small changes in input parameters, especially expected returns, the mean-variance framework proposed by Markowitz has, however, been challenged by new construction methods that are purely based on risk. Among risk-based methods, the most popular ones are Minimum Variance, Maximum Diversification, and Risk Budgeting (especially Equal Risk Contribution). Despite some drawbacks, Risk Budgeting is particularly attractive because of its versatility: based on Euler's homogeneous function theorem, it can indeed be used with a wide range of risk measures. This paper presents mathematical results regarding the construction of Risk Budgeting portfolios for a very wide spectrum of risk measures and shows that, for many of them, computing the weights of Risk Budgeting portfolios only requires a standard stochastic algorithm.

Anja Janischewski, *Chemnitz University of Technology*

Exploration of phase transitions in an agent-based model of margin calls and fire sales in a scenario of declining growth rates

We investigate the role of margin trading in creating a sensitive dependence of financial stability on growth rates of underlying fundamental values, using an agent-based stock market model. For the past decades, long term economic growth rates have been declining in high income countries. There are many reasons that might lead to a continuation of this trend, such as climate change impacts or side effects of climate change mitigation measures. However, as a complex system, our economic and financial system might have become adapted to a certain level of economic growth. Thus,declines in economic growth rates could change the stability properties of the system. Specifically, we are interested in the question of whether a decline in economic growth rate can cause a phase transition in financial stability. In more detail, we analyse whether a small change in growth rates can lead to a large shift in the probability of stock market crashes. To analyze this question, we focus on the mechanism of margin calls and fire sales, since these are well known mechanisms to cause self-reinforcing dynamics in financial systems (Shleifer and Vishny, 2011). The mechanism falls into the category of Overlapping portfolio contagion (Aymanns et al., 2018), which means that the price impact from forced selling of some market participants leads to asset devaluations in the balance sheets of others who then can also face Margin calls.

Poster Session

Session 3: Marketing, Innovation and Technology

Lara Marie Berger, *University of Cologne*

How Digital Media Markets Amplify News Sentiment

This paper provides evidence that incentive structures in digital media markets enhance the sentimental slant of news headlines. I empirically show that headlines on economic issues in a wide range of news outlets are more emotional online as opposed to offline. An experiment with professional journalists reveals that this difference at least partially stems from the incentive to create more clicks: if journalists are compensated relative to the click-rates their headlines generate, they significantly more often put headlines containing emotional words on top of a given article. A second experiment shows that this has economic implications in the short run, as emotional headlines translate into emotional reactions and distortions in expectation of their readers.

Anne Mareike Flaswinkel, *Bielefeld University*

Insights on the impact of brand size on eWOM valence

Although marketing scholars and practitioners have spent significant time studying what drives consumers to express their opinions about products, services, and brands online in the form of electronic word of mouth (eWOM), little information is available on how specific brand attributes influence consumer review behavior. While gut instinct suggests that big brands receive a higher volume of eWOM due to bigger market share and consumer awareness, we wonder about the valence of these expressed consumer opinions and ask: Do big brands receive more positive or more negative eWOM ratings compared to their smaller competitors? We find evidence that brand popularity is bought with negative valence in brand related social media posts and lower star ratings on online review platforms and show that increasing market share and awareness, as well as being viewed favorably by consumers' eWOM articulations, are mutually contradictory objectives.

Session 4: Game Theory

Sarah Kühn, *Paderborn University*

Community Costs in Neighborhood Help Problems

We define neighborhood help problems where agents may seek and/or provide various kinds of help as one-sided matching markets with incompatibilities. To obtain a Pareto efficient outcome the top trading cycles mechanism (TTC) (Shapley and Scarf, 1974) may be used. However,a short supply of compatible helpers may result in many agents being unmatched forcing them to rely on costly outside options. These Agents leave the market without helping and a lot of potential is lost. To overcome this issue we introduce the so-called pool option. This pool gives agents an incentive to provide help while getting help outside of the market.We propose the neighborhood top trading cycles and chains mechanism that incorporates the pool option and is based on the TTCC by Roth et al.(2004). The mechanism is Pareto efficient and strategy-proof. Additionally, it (weakly) reduces overall costs compared to theTTC.

Tahmina Faizi, *Paderborn University*

Cartel formation with differentiated products, asymmetric cost, and quantity competition - The case of three firms

The subject of cartel formation in oligopolistic industries has become one of the best developed areas of research especially in the field of industrial organization which has received considerable attention in economic literature in recent years. While most of the literature focus on cartel formation with symmetric firms and homogenous goods, our model is comprehensive because it allows for different degrees of product differentiation and cost asymmetry. In this paper, we analyze the formation of cartels along with the stability of the cartel for the case of three firms that produce differentiated products and differ in their cost of production. Inspired by Bloch (1995), we study a two stage non-cooperative game, where in the first stage, firms decide whether to form a cartel or not (the firms have the option of either to participate in a cartel or to remain independent) and, where in the second stage, firms inside the cartel coordinate their behavior and compete in quantities with cartel outsiders in a differentiated market.

Session 5: Behavioural Economics

Levke Jessen-Thiesen, *Kiel Institute*

Striking Evidence? Demand Persistence for Inter-City Buses from German Railway Strikes

This paper investigates the effect of the largest rail strikes in German history on long-distance buses – a then newly liberalized market. Using a unique dataset of detailed bus ticket sales, we perform a difference-in-difference estimation exploiting variations in rail service cancellations across routes. We find that the disruption in rail transport increased demand for bus rides on short routes, regardless of how affected they were by rail cancellations. The demand surge persists beyond the strike. Some travellers seem to not return to their originally preferred mode of transport. This suggests that inter-city transport agents were previously under-experimenting, as has been shown to be the case for inner-city transport.

Muhammed Alperen Yasar, *Ca' Foscari University of Venice*

The evolution of miscategorization

This paper uses an agent-based model to investigate the evolution of miscategorizations in a series of asymmetric hawk-dove games played by birds. There are two colors; red and blue. Red agents are stronger than blue agents on average. Each color has two shades that are void of effect. An agent can be; (1) color-blind, not seeing either the colors or shades (a coarse categorizer); (2) regular, seeing only colors; or (3) a fine categorizer, seeing both colors and shades. Our results show that miscategorization can be more efficient than accurate specification, depending on how costly fighting is. We observe that category-blindness provides an evolutionary advantage when the cost of fighting is high, because it allows agents to be peaceful earlier than others. A fine categorizer gains an advantage when the cost of fighting is low, thanks to the exploratory effect of having more categories. Finally, we see that a shade is eliminated by another shade the same color when fine-categorizing birds dominate the simulation, even though there is no difference between shades.

Session 6: Macroeconomics I: International Economics

Nwabisa Florence Ndzama, *Corvinus University of Budapest*

Modeling the Sustainability of Current Account Balance using the Probability Approach

This thesis proposes an approach that allows characterising the probability distribution of future current account balances. In turn, this approach would allow for assessing whether the current account deficit is on a sustainable path. The proposed probabilistic concept aims to test current account sustainability using probability density forecasts, as it allows quantifying the uncertainty around future values of the current account balance.

Alexander Valentin, *Goethe University Frankfurt*

The Post-ECB Announcement Drift

This paper documents a drift in equity prices in the days following monetary policy announcements of the European Central Bank (ECB).Using intra day data from European Equities And Yields Between 2002 And 2020, I construct monetary Policy shocks and analyze the long-run response of European equities to these shocks. I find a prolonged drift in equity prices for up to 20 days. This Drift is particularly strong in response to information shocks amounting to 160(-114) basis points for positive(negative)shocks. To rationalize the drift I investigate the role of investor disagreement on ECB announcement days. As measures of investor disagreement, I consider trading volume, textual data from Q&A sessions of The ECB press conference, and forecast dispersion among participants of the ECB Survey of Professional Forecasters. My findings suggest that higher levels of disagreement are associated with a stronger price drift in the days following the monetary policy event.

Session 7: Macroeconomics II

Yuki Tada, *The New School for Social Research*

The paradox of debt and balance sheet recession: nonlinear effects of saving crisis and secular stagnation in Japan

This paper replicates the Minsky-Koo financialized capitalist macroeconomy in which the firm's initial attempt to control indebtedness and corresponding deleveraging behaviour will be an impetus to debt as argued by the paradox of debt. The firm's attempt to fix its balance sheet and adjust the leverage ratio to its target will lead to lower productivity-enhancing investment and effective demand, and contraction of the macroeconomy. While the paradox of the debt cycle and the Minsky cycle is based on the firm's investment behaviour: the actual leverage ratio exceeds the benchmark leverage ratio to reduce the level of debt; However, the paradox of debt is more likely aligned with firms that in nature have a high propensity to save, which makes this to be an explicitly debt-burdened regime. In the case of the paradox of debt, the more firms attempt to reduce the debt perversely, the debt-to-capital ratio increases since deleveraging causes a decrease in the effective demand directly without wealth effects affecting the consumption (debt effect dominates the wealth effects). While the Minsky debt cycle with a lower propensity save of firms can be more likely led by the stock market fluctuation: the rate of return of share and households portfolio choice leads to instability. More importantly, even if both cycles converge to a steady state, the case with a higher firm's propensity to save causes permanently lower growth rates while the debt-to-capital ratio is permanently higher. This can explain the secular stagnation of Japan.

Gianni Carvelli, *University of Bergamo*

Public debt shocks and the private sector

This study examines the links between public debt and the private sector on a panel of 188 countries from 2010 to 2021. By using projections and actual data from the IMF's World Economic Outlook, we identify exogenous variations in public debt through debt forecast errors. Moreover, we build a modern dynamic panel setup that accommodates country heterogeneity and cross-units dependence on the error term. The estimates highlight that positive shocks in public debt are harmful to the growth of output generated by the private sector. Such a negative effect turns out to be statistically insignificant when countries follow a fiscal consolidation path over the previous years. The estimates at the country level confirm the general finding for the whole sample, although there are few countries mainly emerging that benefit from additional public debt. Lastly, the results provide some evidence of a non-linear effect of public debt, although it does not take the form of a Laffer-type curve of debt.

Session 8: Market and Institutional Analysis

Mohamed Souka, *Bielefeld University*

Can the form of instruction manuals make a difference? An experimental study on the effect of augmented reality in encouraging post-purchase customer participation activities

Retailers offer numerous Augmented Reality (AR) applications across the customer journey to deliver utilitarian and hedonic benefits and enrich the customer experience. While research investigating the impact of AR on consumers has considerably increased in the last few years, little attention has been given to applications in the post-purchase stage. Product assembly, installation, and maintenance are vital post-purchase activities as they are directly related to the product consumption experience and often require customer participation. By performing such activities, customers integrate resources and create value. Thus, such customer participation may lead to positive outcomes (e.g., satisfaction with the activity), which in turn can result in higher product satisfaction and lower customer dependency on after-sales services. To support customer participation activities, retailers need to provide customers with clear guidelines and instructions. AR is characterized by its interactive format and three-dimensional content representation, making it suitable for conveying information. In addition, the spatial presentation of information can reduce the cognitive load when performing functional activities using AR and decrease the processing time as well as the number of errors.

Arianna Ciabattoni, *University of Turin*

Judicial Performance and intra-European Export Trade Flows

The present paper explores the link between judicial performance and international trade flows, focusing on intra-European exports. Relying on previous works dealing with the impact of the legal system's enforcement on economic activities, this study stresses the idea that judicial efficiency and the importing country's perceived independence may affect its inbound trade flows. More specifically, the results from the empirical analysis demonstrate that a faster resolution of proceedings, a higher clearance rate and a better business perception of a European country's judiciary increase the exported value of goods and services by foreign companies to that country. Conversely, an ineffective legal environment appears to discourage international trade and does not allow interested economies to fully exploit its positive effects on economic development.