Econometric Research in Finance Workshop 2018

Workshop program

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Contact

Organizing Team: conference@erfin.org

Tel.: +48 604 199 003

WIFI network at conference venue (building C)

***network (SSID)*:** erfin
***password*:** sgh092018

valid on September 13-14, 2018

Session 1: Aula I (9:00-10:40)
Davide Delle Monache, Ivan Petrella, **Fabrizio Venditti** *Adaptive state space models with applications To the Business Cycle and Financial Stress*. In this paper we develop a new framework for the analysis of state space models with time-varying parameters. We let the driver of the time variation be the score of the predictive likelihood and derive a new filter that allows us to estimate simultaneously the state vector and the time-varying parameters. In this setup the model remains Gaussian, the likelihood function can be evaluated by combining the Kalman filter with a newly developed algorithm and the parameters can be estimated without the need for computationally intensive methods. In a Monte Carlo exercise, the proposed method works extremely well in tracking time variation in the parameters for a variety of model specifications and replicates (at a lower computational cost) Stock and Watson (2007) evidence on inflation dynamics. We also use the method to estimate a small scale dynamic factor model combining financial and business cycle indicators and explore the role of time variation for the accuracy of GDP forecasts for the euro-area. Given that a variety of time series models have a state space representation, the proposed methodology is of wide interest in econometrics and applied macroeconomics.
Mustafa Caglayan, **Oleksandr Talavera**, Wei Zhang *Herding behavior: Automatic versus Human Investors on Renrendai.* The paper investigates herding behaviour in peer-to-peer (P2P) loan auctions on Renrendai.com. This platform allows both manual and automated bidding and pub- lishes new lists at three distinct times on week days. Our investigation yields evidence of non-linearities in herding behaviour, which varies depending on the time of day. Herding is observed during afternoon and evening periods as well as weekends during which human investors are active. However, at night and during early morning hours we do not observe herding. Furthermore, our investigation suggests for rational herd- ing only during evening and weekend hours. We conclude that on platforms where automation is prevalent, herding disappears. This is bad news if borrowers happen to outnumber lenders as the funds may be thinly dispersed due to automation.

Session 2A: Aula I (11:00-13:00)

Kris Boudt, Muhammad **Wajid Raza**, Dawood Ashraf

Macro-financial regimes and the performance of dynamic Shariah-compliant equity portfolios.

Shariah-compliant equity investors have freedom in choosing the investment style used, as long as they invest in a Shariah-compliant equity universe and do not take short positions. We show that a more stable performance can be achieved by dynamically allocation across investment styles and using the macro-economic regime information to calibrate those weights. For the S&P 500 universe over the period 1986-2016, we find that this dynamic allocation improves stability in performance compared to the buy-and-hold investment in the single-style market capitalization, equal weighted, low risk or fundamental value weighted portfolio.

Charles Chevalier, Serge Darolles

Trends everywhere? The case of hedge fund styles.

This paper investigates empirically whether time-series momentum returns can explain the performance of hedge funds in the cross-section. Following the trend following literature, a volatility-adjusted time-series momentum signal is applied on a daily basis across a large set of futures, covering the major asset classes. We build a hierarchical set of trend factors: the full version TREND can be split in summable factors across two dimensions, the horizon of the signals and the traded asset class. We show that Managed Futures, Global Macro and Fund of Hedge Funds strategies can be partly explained by a TREND exposure, whereas Equity Market Neutral and Quantitative Directional are only exposed to long term trend factors. Moreover, a TREND exposure is a significant determinant of hedge funds returns at the aggregate level, as well as at the fund level. Finally, funds with high TREND beta outperform by 41 basis points of alpha the funds with low Trend beta. These results prove useful when managing the risk of a portfolio of hedge funds strategies, since assessment of the Trend exposure is easier. Another contribution of this study is related to the understanding of the CTA space, composed of pure trend funds as well as funds that do not exhibit any TREND exposure.

Michael Abendschein, **Gibran Watfe**

From Cashtag to Hashcrash - Predicting Financial Market Volatility with Twitter.

Data generated and disseminated across the world wide web is more valuable than ever for analyzing the behavior of economic agents. One of the most widely used web services that allows users to spread information is Twitter. We assess the potential of activity on Twitter for improving forecasts of daily stock and index return volatilities. For this purpose, a unique high-frequency dataset of a comprehensive sample of more than 150 stocks of large international companies, systemically important banks, as well as several leading international stock indices is constructed. The results confirm the added value of Twitter data for daily volatility forecasts and they highlight the need for a sufficiently large amount of data when intraday volatilites are investigated.

L.K. Langer, P.B. Langer, **P. Roszkowska**

IPO (Mis)pricing. Evidence from a Natural Experiment in Poland.

Using a comprehensive sample of 871 initial public offerings (IPOs) from 2005 to mid-2017, we study IPO pricing effects in the Polish stock exchange. We exploit a natural experiment arising from the Polish government's regulatory treatment of pension funds to investigate whether a resultant demand shock on the investors' side leads to any changes in the IPO (mis)pricing. We document the average first-day market-adjusted IPO returns of 10.59% for the Warsaw Stock Exchange main market and 37.56% for the NewConnect market. We also report stocks' post-IPO underperformance, which is particularly evident during the 360-day period following an IPO. In the event of the exogenous treatment of the Polish pension funds we see neither any resultant change in the first-day IPO underpricing, nor in the average stock long-term underperformance. Conversely, we demonstrate a material change in the IPO size. In doing so, we provide a novel empirical evidence that the price pressure induced by a demand shock is also present at the book building process of equity pricing.

Session 2B: Room 1B (one floor above the ground floor) (11:00-13:00)

Katsutoshi Shimizu, **Kim Cuong Ly**

Why do firms choose negative net debt policy?

This study investigates a new phenomenon that the number of firms that have negative net debt is increasing. Although zero-leverage becomes prevalent in the world, negative net debt phenomena is more prevalent in Japan. We argue that negative net leverage can be regarded as a special form of zero gross leverage. The main findings are (i) poor investment opportunity, low default costs, low cost of holding cash, and abundant cash are the driving forces of negative net leverages, determinants a cash-rich rm is more likely to have negative net debt,(ii) the determinants of negative net leverage is qualitatively similar to those of zero leverage, (iii) in particular, higher default probability is a determinant of debt reduction, lower cost of holding cash is a determinant of cash accumulation, less profitable opportunity is a determinant of decreasing dividends, and (iv) firms continue to reduce debts, increase dividend payments and investments over time after achieving negative net leverage.

D.V. Boreiko, S.Y. Kaniovski , **Y.M. Kaniovski**, G.Ch. Pflug

Business cycles and conditional credit-rating migration matrices.

To quantify the impact of business cycles on the dynamics of credit ratings, conditional migration matrices and probabilities of the corresponding macroeconomic scenarios are estimated. The approach is tested on a S&P's dataset that covers the period from 1991 to 2013. The difference between the conditional probabilities and their unconditional counterparts is evaluated. It is the greatest, up to 300%, for contraction periods and downgrading probabilities.

Rishabh Shukla

Financial Conditions Index for India: A TVP-FAVAR Approach.

This paper uses a TVP-FAVAR approach to build a Financial Conditions In- dex(FCI) for India using important financial variables, as per the existing lit- erature, from the money market, bond market, stock market and the foreign exchange market for the Indian economy. We use factor augmented vector auto regressive models with time-varying parameters to build the index and use it to track key real macroeconomic variables like the CPI inflation rate and IIP growth rate. We show that by allowing for time variation in the model param- eters and in the weights attached to the selected financial variables, TVP-VAR and TVP-FAVAR models are better able to predict real macroeconomic ac- tivity compared to a homoskedastic VAR model which uses an FCI estimated using principal components analysis. Specifically, we are able to produce sig- nificantly better forecasts of CPI inflation and IIP growth rate at the 2- month, 3-month, 4-month, 5-month and 6-month horizon using atleast one variant of the TVP-FAVAR model compared to a VAR model.

Andrzej R. Stopczyński

The simplistic model to estimate the required amount of the bank's loss absorbing capacity.

The issue of the bank's loss absorbing capacity has been extensively discussed in recent years. That discussion has been triggered by the idea of "bail-in" – the use of certain bank's liabilities to cover the losses and recapitalization, in case when the value of the bank's equity is insufficient. Therefore one of the most important questions is how to set up the requirement on the amount of the bank's loss absorbing capacity (LAC). However, the major part of the publication concerns the ideas endorsed by the various authorities and their consequences. In contrast, this paper is focused on the very primary rules that have to be fulfilled in order to get a resolution process feasible without capital support from the state. The core of this paper is the simplistic quantitative model that explains the bindings between the shock extent and the need of the bank's capital and bail-in able debt in various resolution paths (liquidation, P&A, recapitalization). The presented approach allows to appraise the required amount of LAC and may play a supporting role in selecting the preferred resolution path.

Session 2C: Aula II (11:00-13:00)

Agata Wierzbowska, Yoichi Matsubayashi

Bank profitability and market structure in Germany: impact of the global financial crisis and regional differences.

This paper analyses the impact of market structure on performance of cooperative and savings banks in Germany with the focus on the changes due to the global financial crisis as well as regional differences in the German banking sector. The data show considerable differences across German states, with banks in the eastern regions noting usually lower returns amid generally higher market concentration. The main results reveal the considerable changes in the influence of market structure on bank profitability due to outbreak of the crisis that concentrate in the eastern Germany. Both structure-conduct-performance paradigm and relative-market-power paradigm hold prior to the crisis in the East Germany, indicating banks benefitting from market concentration and own higher market share. Neither of the paradigms holds anymore after 2009. It thus seems that higher average level of market concentration in the East as compared to the West brings out to the larger extent the bank inefficiencies amid economic slowdown and low-interest rate environment. The results suggest that further concentration in the banking sector in the eastern Germany is not desirable and would not bring higher returns to individual banks at current economic conditions, implying that the potential reforms in the sector should concentrate more on the improvement of an individual bank efficiency which seems to considerably affect banks' returns in this post-crisis period.

Tho Pham, Oleksandr Talavera, Andriy Tsapin

Branch network structure and lending behavior.

This paper examines the link between branch network structure and bank lending. The unique dataset allows us to differentiate the structures of contact points which do not have decision-making authority and delegated branches which can make loan decisions. We find that a large and dispersed network of contact points can help increase credit supply and mitigate risks through diversification. Further, banks benefit from information advantage brought by the dispersion of delegated branches. However, longer distance between headquarters and local delegations can also amplify agency problems, which outweigh the benefits. Our findings suggest that the optimal structure could be the centralized network of delegated branches combined with the diversified access point network.

Sylwester Kozak

Efficiency of non-life insurance companies and its determinants.

The goal of the research is to evaluate the efficiency of non-life insurance companies operating in Poland during years 2002-2016 and determine factors affecting it. The analysis is based on the financial data of 29 insurance companies. The SFA method was applied to calculate cost efficiency. Company specific characteristics and macroeconomic factors impacting companies' efficiency were determined using panel data Tobit model with random effects. Additionally, to recognize to what extent the identified factors are significant for companies with different levels of efficiency the Tobit regression was used, separately for two groups of companies, i.e. of lower and higher efficiency. The results of the research showed significant volatility in the level of companies' efficiency scores. The efficiency average score for the sector rose before the financial crisis from 62.5% in 2002 to 65.8% in 2007, next fell to 58,1% during the period of financial turbulences, and since 2012 moderately rose to 59.4% in 2016. Most companies were characterized by lower efficiency, and the average for the sector was driven by a small group of most efficient entities. The regression analysis showed that efficiency scores are positively impacted by the value of company's assets and acquisition costs, increase in profitability and the average wage in the non-life insurance sector, and decrease in the sector's concentration. In addition, non-life insurance companies operated more efficiently in the environment of declining rates of the economic growth and inflation. All the factors in a similar way contributed to the improvement of efficiency of both groups of companies – with higher and lower efficiency.

Session 2D: Room 1A (one floor above the ground floor) (11:00-13:00)

Mariusz Górajski, Zbigniew Kuchta

Measuring uncertainty of optimal simple monetary policy rules in DSGE models.

This paper presents a new approach to measure the parameter uncertainty for optimal simple monetary policy rules in New Keynesian dynamic stochastic general equilibrium (DSGE) models. More precisely, we propose a new algorithm which enables us to find posterior distributions of the optimal monetary policy reactions and the minimized welfare losses. To compare the distributions of the monetary policy parameters and the welfare-losses we apply the first order stochastic dominance ordering (SD1). The SD1 inequality between the probability distribution is verified by means of the Kołmogorov-Smirnov test. The proposed algorithms are applied to the Erceg, Henderson and Levine (2000) small-scale closed economy model estimated for the Polish economy. For the welfare-loss-minimizing central bank, we examine three types of the dynamic specification of its policy rule: backward-, current- and forward-looking. Finally, for a given set of optimal and implementable monetary policy rules, we show that the fully specified forward-looking monetary policy rule with interest rate smoothing mechanism minimizes the welfare-loss in the sense of the stochastic ordering SD1.

Karol Szafranek

The nexus between oil prices and the US dollar.

Oil prices and the US dollar are negatively correlated. However, the strength of this link is not stable in time which sparks the debate on the changing dependence between the prices of both assets as well as its determinants . By utilizing a two-step procedure in this paper I firstly estimate time-varying correlation between the oil prices and the US dollar based on a DCC model. In the second step I establish the determinants of the evolving oil-dollar nexus through the lens of a structural VAR model estimated in a Bayesian fashion. The results show that the negative link between oil prices and the US dollar has been strengthening before the outburst of the global financial crisis and during the global recession. On the other hand, during the shale revolution the strength of this link has weakened due to the decreasing share of US trade balance of petroleum products in the current US GDP, high level of oil production and stocks and a relatively low level of global risk aversion. A considerable increase in global risk aversion in February 2018 as well as a drop in the oil stocks have propelled a considerable rise in the dependence between oil prices and the US exchange rate.

Olga S. Kuznetsova, **Sofiya Ulyanova**

Financial Market Reaction to Government and Central Bank Announcements: the Evidence from England.

This paper analyses the effects of announcements made by the Bank of England officials and the UK Government authorities on the FTSE100 index and GBP/USD exchange rate. We focus on the United Kingdom as communication of policy-makers in this country has several peculiar properties. First, there is a strict communication guidance for FPC and MPC. Second, there is a clear division of responsibilities between departments. Finally, MPC includes a non-voting member from HM Treasury, who helps central bank officials to be fully informed about fiscal policy developments, while the government authorities are kept informed about monetary policy. Using daily data from July 2014 until February 2016, we estimate ARMA-EGARCH models which allow to evaluate the impact of the announcements not only on the average values of returns, but also on their volatility. Our findings suggest that statements of both fiscal and monetary policy authorities have significant impact on the exchange rates and stock exchange indexes. Moreover, we show that similar statements of the Bank of England officials and the UK Government authorities have opposite effects on the financial market. We suggest these results can be explained by mistakes in expectations of the market agents or by low frequency of the Government forecasts.

Pavel Gertler
Central Bank Communication and Financial markets

This paper examines the financial market impact of intermeeting communication of the members of the European Central Bank's Governing Council (GC) using high frequency data between July 2008 and January 2014. Constructing a rich dataset of GC members' public statements (speeches, conference discussions and media interviews) between monetary policy meetings allows us to investigate a detailed pattern of market responses to the ad-hoc communication of central bankers. Using least squares and quantile regressions, we document the impact of policymakers' public statements on interest rates and the stock market with very little or no impact on exchange rates. In general, we find little evidence that the timing, sequencing or content of communication matters in immediate response. On the contrary, the results suggest that the market concentrates on the communication of key members of the committee.

Poster Session: Entresol (13:45-14:30)

Camilla Jensen

What influences cross-border acquisition performance? A meta-analysis.

We propose to contribute to two areas of the literature on meta-studies in international business and finance. Our first contribution is methodological, where we replicate and extend the study by Stahl and Voigt (2008) to aggregate additional research and variables to find the drivers of performance in cross-border acquisitions. This is accomplished through content analysis of existing research to aggregate research results by conducting meta-studies and potentially also expand its scientific domain. Additional methodological contributions of such meta-analysis could include: 1) helping to uncover entirely new findings from existing research, 2) examining complex non-linear models, and 3) easing the task of compiling the data to investigate larger and more diverse samples on their topic of interest. Second, we will apply recently developed techniques to compare drivers of cross-border acquisition performance to identify a set of the most influential factors. Using the validated prediction model on a new and expanded dataset from the first step, we will apply advanced analytical techniques to answer: What influences cross-border acquisition performance? A fundamental challenge of cross-border acquisitions involves cultural distance that reflects a combination displaying both a need for knowledge and barriers to obtaining it (Reus & Lamont, 2009; Stahl & Voigt, 2008). Cultural distance is often expected to have an overall negative effect on acquisition performance (e.g., Goerzen & Beamish, 2003; Hutzschenreuter, Voll & Verbeke, 2011; Stahl & Voigt, 2008). While research recognizes additional dimensions to cultural distance, involving language, geographic and institutional distance (Bauer et al., 2018; Coval & Moskowitz, 1999; Kedia & Reddy, 2016), research rarely examines different dimensions of cultural distance and how associated challenges can be mitigated (Risberg, 2001, Rottig, 2011). Using prediction algorithms (Shaikhina et al., 2017), we can compile studies with variables of interest on measures of performance and distance in cross-border acquisition research.

Abebe Bayu Chariye

Measuring the Efficiency of Pan African Commercial Banks: An Application of Malmquist DEA Methods.

The aim of this paper is to measure the efficiency of Pan African Commercial Banks using Malmquist Data Envelopment Analysis Methods (DEA) over the period 2010-2015. Malmquist DEA methods are used to calculate indices of total factor productivity change; technological change; technical efficiency change and scale efficiency change. According to empirical findings the total factor productivity of Pan African Commercial banks declined over the study period. The main cause for the decline in total factory production was due to a reduction in technological efficiency. It is therefore recommended that Pan African Commercial banks substantially upgrade technology. Moreover, there is an increase in technical efficiency of Pan African Commercial Banks over the study period. On average the technical efficiency of the Pan African commercial banks is largely contributed by the scale efficiency than pure technical efficiency. Therefore, Pan African Commercial banks should enhance managerial efficiency.

Rumiana Górska, **Aneta Kłopocka**

Forecasting Household Saving Rate with Consumer Confidence Indicator and its Components: Panel Data Analysis of 14 European Countries.

Consumer confidence plays an important role in households' decision-making processes. Most previous research on the Consumer Confidence Index has been concerned with the impact of the index on personal consumption expenditure. Surprisingly little attention has been paid to individual component questions that the aggregate Consumer Confidence Index is based on. This study investigates the effects of consumer confidence on a household saving rate, which are unsatisfactorily considered in previous research. The question of interest is whether Consumer Confidence Index contains information about future household saving rate aside from the information contained in other economic indicators. Apart from the aggregate confidence indicator, its components are also used to provide more precise information. A comparative analysis of 15 European countries (2002Q1 - 2016Q2) confirms the relevance of the Consumer Confidence Index as an important factor that affects household savings. The dynamic models of the variables of interest allow to identify the time lag of the impact. Additionally, the panel data analysis takes into account country heterogeneity. Comparison of our results with the use of different estimation techniques offers well-founded conclusions. In most countries, the multi-indicator Consumer Confidence Index predicts less accurately than some of its components do. This findings support the recommendation for combining the strengths of objective indicators (such as economic fundamentals) and the subjective ones (such as consumer confidence) to improve household financial behavior forecasts. It is recommended to further examine the influence of financial optimism or pessimism on household saving behavior at the household level. Better understanding of the relationship between household financial expectations and household financial decisions constitute a valuable contribution to a number of policy areas, especially the monetary policy and financial stability analysis.

Maximilian Wenzel
Investment Strategies of German Households.

This extended abstract focuses on diversification of household wealth portfolios in Germany using data from the Household Finance and Consumption Survey(HFCS). I use decomposed asset classes to implement a Global Asset Pricing Model in Germany. Household return losses, i.e. the difference between the expected return of the household's portfolio and the MSCI Europe Index benchmark, are calculated to analyze its association with socio-economic characteristics. The estimations reveal that German households follow a cautious investment strategy holding large shares of the wealth portfolio in saving accounts or other riskless asset classes. This abstract is a first step towards a broad analysis of household asset portfolios based on survey data.

Elena Sholomitskaya
Estimating investment functions using dynamic panel data: the case of Russian enterprises.

We estimate investment functions on the panel data for Russian listed companies in 2004-2017. The sample is divided into three periods: before and after the global financial crisis of 2008, and after the introduction of economic and financial sanctions against Russia. We found that the factors of investments are different by periods. During the pre-GFC period the influence of financial constraints was weak, while the dependence on investment opportunities was significant. After that financing constraints began to play the main role. After the introduction of sanctions Russian companies found themselves under more tight and severe macroeconomic and financial conditions. Companies under personal sanctions suffered most – their investments appeared to be under substantial debt overhang influence.

Warapong Wongwacharay, Bovonvich Jindarak, **Sophon Tunyavetchakit**, Chutipa Klungjaturavet
Incorporating Financial Stability into Monetary Policy Framework: The Bank of Thailand's Experience.

Since the aftermath of the Global Financial Crisis during 2007-2008, financial stability (FS) has become top priority for central banks around the world. The conduct of monetary policy (MP) sees no exception. By leveraging on the existing literature, we propose a systematic approach to incorporate FS considerations into MP framework. This starts with calculating financial cycle (FC) which is a measure of financial imbalances and a predictor of financial crises. The interaction between FC and business cycle variables such as output gap provides important information for policy making, for it could stipulate an inter-temporal trade-off between financial and price stability. We then look at an FS dashboard which consolidates pockets of risks facing the financial sector, and show how it may be used in conjunction with FC in FS surveillance. Finally, we consider the calibration of monetary and macroprudential policies in order to design the optimal policy mix. As a demonstration of our approach, we discuss, in each section, an on-going attempt at the Bank of Thailand to systematically incorporate FS into flexible inflation targeting.

Session 3A: Aula I (14:30-16:00)

Gazi Salah Uddin, Md Lutfur Rahman, **Axel Hedström**, Ali Ahmed

Cross-Quantilogram based Correlation and Dependence between Renewable Stock and other Asset Classes.

We study the cross-quantile dependence of renewable energy (RE) stock prices on aggregate stock index, oil and gold prices, and exchange rates. Applying recently developed cross-quantilogram approach, we provide two novel findings. First, renewable stock prices' positive dependence on oil and aggregate stock index reported by previous studies is not symmetric across quantiles and this asymmetry is higher in longer lags. Second, while the extant literature provides evidence that exchange rates and gold prices exert a positive influence on aggregate stock prices, we report that this positive influence on RE stock prices is observed only during extreme market conditions. These results are robust, (i) even after controlling for economic policy and equity market uncertainties, and (ii) both in full sample and rolling subsample estimations.

Tihana Škrinjarić

Revisiting herding investment behaviour on Zagreb Stock Exchange: a quantile regression approach.

Herding investment behaviour on stock markets has consequences for practitioners, theorists and policy makers. Thus, empirical research on this topic in the last couple of years has grown exponentially. There exist only few papers dealing with Croatian stock market regarding herding behaviour. However, this study employs quantile regression approach of estimating several herding investor behaviour models for the first time in literature. Based upon daily data on 37 most liquid stocks on Zagreb Stock Exchange for the period September 22nd 2014 – May 8th 2018, several model specifications are observed via quantile regression. Since quantile regression approach deals with specific characteristics of financial data (stylized facts) better than OLS method, more robust results can be achieved in order to evaluate if herding behaviour is present on Croatian market. The results indicate that weak evidence on herding behaviour exists in bull markets. However, in extreme (negative) market movements, a much greater dispersion in the market occurs. Moreover, market volatility has a prominent effect on the herding as well. Finally, Agrokor concern crisis in 2017 was controlled for in the model and was found to lower herding behaviour on the market.

Victor Troster , Jose Penalva, Abderrahim Taamouti , Dominik Wied

Cointegration, Information Transmission, and the Lead-Lag Effect between Industry Portfolios and the Stock Market.

This paper shows that lagged information transmission between industry portfolio and market prices entail cointegration. We analyze monthly industry portfolios in the US market for the period 1963-2015. We find cointegration between six industry portfolio and market prices. We show that the equilibrium error, the long-term common factor between industry portfolio and market cumulative returns, has strong predictive power for excess industry portfolio returns. In line with gradual information diffusion across connected industries, the equilibrium error proxies for changes in the investment opportunity set that lead to industry return predictability by informed investors. Forecasting models including the equilibrium error haves uperior forecasting performance relative to models without it, illustrating the importance of cointegration between the industry portfolio and market prices. Overall, our findings have important implications for investment and risk-management decisions, since the out-of-sample explanatory power of the equilibrium error is economically meaningful for making optimal portfolio allocations.

Session 3B: Room 1B (one floor above the ground floor) (14:30-16:00)

Faisal Nazil Zargar

The Distribution of Stock Market Volatility in India: A Study Based on Unbiased Extreme Value Volatility Estimator

Using intraday extreme prices data on the constituents of Nifty 50 index, we examine the distribution of daily stock market volatilities and covariances in a model-free environment. We have taken recently developed unbiased AddRS volatility estimator (Kumar and Maheswaran, 2014) and unbiased covariance (Cov) estimator (Padmakumari and Maheswaran, 2017). We find that the unconditional distributions of the AddRS estimator and covariance estimator at the stock level are highly positively-skewed and fat-tailed. However, the unconditional distributions of logarithmic standard deviations () and correlations afford a close to normal approximation, so do the distributions of returns standardized by realized standard deviations (). A strong temporal dependence is observed in the volatilities, conforming volatility time-series to be a long-memory process. The study also reports the evidence of presence of excess volatility in the stocks of the Indian market and also extends support in favor of leverage effect to explain the asymmetric return-volatility relation.

Amat Adarov

Financial Cycles Around the World

The study analyzes financial cycles based on a global sample of 34 advanced and developing countries over the period 1960Q1–2015Q4. We use dynamic factor models and state-space techniques to estimate financial cycles in credit, housing, bond and equity markets, as well as aggregate financial cycles for each country in the sample using a large number of variables conveying price, quantity and risk characteristics of respective markets. The analysis reveals highly persistent and recurring nature of financial cycles, which tend to fluctuate at frequencies much lower than business cycles, 9–15 years on average, and are indicative of major financial distress episodes. Our results point at notable intra-regional synchronization, as well as nontrivial co-movement tendencies between European, American and Asian financial cycles. We also extract global and regional financial cycles, the former closely associated with the dynamics of the US T-bill rate and the VIX index, confirming the existence of common supranational factors governing the boom-bust dynamics of financial market activity around the world.

Marcin Borsuk, Oskar Krzesicki

Credit risk models for estimating loan losses under adverse scenario

Session 3C: Aula II (14:30-16:00)

Michał Gradzewicz

What happens after investment spike - investment events and firm performance.

Our study aims at investigating the relationship between investment spikes and subsequent productivity development at the firm level. We propose a novel identification scheme for effects of investment spike, using matching techniques and adequate econometric modelling. It allows us to find efficiency differentials against matched firms. We showed that TFP falls after an investment spike and slowly recovers thereafter, consistently with learning-by-doing effects. For smaller firms the fall is more pronounced and the subsequent recovery is longer. On the contrary, labor productivity rises after an investment spike, driven mainly by capital deepening. The increase of sales after a spike suggest that expansionn is the main purpose of an investment spike and rising employment confirms that this type of investment is complementary to labor. As firms with spikes are on average more efficient and investment spikes attract resources and production factors, it suggest that improved allocative efficiency is an important factor driving positive macroeconomic correlation between investment and TFP.

Sorin Gabriel Anton

Does debt overhang affect gazelles' growth? A note from quantile regression approach.

The aim of the paper is to examine the relationship between leverage and firm growth using a panel data quantile regression approach. Employing a sample of gazelles from emerging Europe for the period 2006-2014, we find that debt overhang negatively affects firm growth only for the lower growth quantiles. However, for the higher growth quantiles, the impact of debt on firm growth is positive and statistically significant. Our results reconcile the mixed results of the previous studies and have practical implications for financing strategies in emerging markets.

Van Hoa Tran

Performance of Foreign Direct Investment Enterprises in Developing Economies: Econometric Modelling Evidence.

The paper studies the growth and performance of foreign direct investment enterprises in developing countries in the context of global economic integration and domestic reform with a focus on Vietnam as a case study. A SUR model of enterprise performance is constructed to provide empirical findings and evidence-based policy implications on the role of capital, labour, investment, monetary and development policy, entrepreneurship, and legal reform in this important private sector's performance. The findings from official survey data show the importance of openness and especially beneficial legal reform in assisting these enterprises' performance as measured by high profitability per capital invested and per enterprise turnover.

Session 3D: Room 1A (one floor above the ground floor) (14:30-16:00)

Jakub Rybacki

Does Forward guidance matters in small open economies? –examples from Europe.

The impact of forward guidance on interest rate expectations in small, open economies is often described as heterogeneous. There are examples of positive feedback from markets on projections published by the central banks. On the other hand medium-term expectations can persistently deviate from trajectories presented by decision makers. Based on the event study author analysed which factor better reflects markets' expectations about level of the short-term rates in Sweden, Norway and Czech Republic – domestic bank forward guidance present expectations regarding ECB policy. Three-month interbank rate path implied with Nelson-Siegel model were contrasted with trajectory of policy rates presented in projections and implied rates level in Eurozone. We found that interest rates expectations are more influenced by policy of major central bank rather than domestic assumptions especially when forecast horizon exceeds 4 quarters.

Piotr Staszkiewicz

The gatekeeper's sentiment miscommunication.

This paper extends priory discussion by investigation of the credibility assurance in annual reports. The paper gives empirical evidence on the existence of a link between the season overrun and the sentiment of audit reporting. It based the study on the archived data. The sample consists of 65511 reports for the period 1993-2016. Paper combined the text mining with panel and quantile regression and control for the formal type of the audit report. It documents the existence of a robust link between the busy season and audit opinion sentiment. The results show that audit reports are not homogenous in sentiment. The paper shows that that extending audit reports impair the consistency of factual and emotional communication to public. Therefore, priory identified inverse effects for negative and positive word lists is conditioned on the sentiment consistency within the audit report. This research raises the concern that extending audit reports impair the consistency of factual and emotional communication. Thus, the gatekeeper's sentiment affects annual statements reliability.

Alessandro Attilio Antonio Miele, **Malgorzata Sulimierska**

An investigation into how the quantitative easing programme, Vickers' ring-fencing regulation and the 'Brexit' announcement impacted the UK banking sector.

In this paper, 'Events study analysis' is used to analyse the impact of Vickers' ring-fencing regulation, quantitative easing programme and the United Kingdom's vote to leave the European Union ('Brexit') on the UK banking system. Ten banks have been included in the study and the stock price data for each of them was collected from the 14th January 2011 to the 30th of July 2016. We find that banks affected by Vickers' regulation did have negative abnormal returns as the policy progressed, indicating that the policy may not be the best way to limit risk in banks. The results also show that Quantitative Easing does affect the banks' abnormal returns positively and that 'bigger' banks benefit more from its implementation. Finally, we discover that the 'Brexit' vote did cause negative abnormal returns across all banks, however, it was the smaller 'unaffected' banks which suffered the most.

Session 4: Aula I (16:20-17:50)

Adam Goliński, Joao Madeira, Dooruj Rambaccussing

Persistence of the Price-Dividend Ratio in a Present-Value Model of Stock Prices.

We find evidence of antipersistence in returns and dividend growth, while the price-dividend ratio appears to exhibit nonstationary long memory, which seems contradictory in the present-value context. We reconcile these findings by showing that the aggregation of antipersistent expected dividend growth and expected returns gives the price-dividend ratio non-standard properties: a) asymptotically, the moving average coefficients decay hyperbolically at the same rate as the underlying antipersistent expected dividend growth and expected returns series; b) the spectral density at the zero frequency is finite and bounded away from zero as in short memory processes; c) close to zero frequency the spectral density is convex, which can imitate long memory in finite samples. Taking these features into account, we extend and estimate the present-value model by allowing for fractionally integrated processes in expected returns and dividend growth. We show this improves the model's forecasting power in-sample and out-of-sample.

Ľubomíra Gertler, Lukáš Majer

Macro Drivers of Credit Risk. Sector Based Analysis with Slovak Data

We investigate the microstructure of the corporate sector, namely dependence of sector specific default rates on the domestic and external macroeconomic factors. We find that strength and importance of macroeconomic determinants differs for explaining individual sector default rates in Slovakia. Our results also confirm a general hypothesis that financial stability of the companies in construction and trade sectors is more sensitive to macroeconomic environment than of the companies in manufacturing and services.

Michal Rubaszek, Michele Ca' Zorzi

Exchange rate forecasting on a napkin.

This paper shows that there are two regularities in foreign exchange markets in advanced countries with flexible regimes. First, real exchange rates are mean-reverting, as implied by the Purchasing Power Parity model. Second, the adjustment takes place via nominal exchange rates. These features of the data can be exploited, even on the back of a napkin, to generate nominal exchange rate forecasts that outperform the random walk. The secret is to avoid estimating the pace of mean reversion and assume that relative prices are unchanged. Direct forecasting or panel data techniques are better than the random walk but fail to beat this simple calibrated model.