
SNB Research Update

April 2014

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Spotlight

Dear Reader

The focus paper in this edition of the SNB Research Update presents the SNB Economic Study ‘A compact open economy DSGE model for Switzerland’ by Barbara Rudolf and Mathias Zurlinden. Research activity at the SNB has of course included many other topics recently. Two studies which particularly highlight the breadth and depth of our research activities are the article by Daniel Kaufmann and Sarah Lein investigating sector price data to validate a multi-sector model with sticky prices, and that by Manuel Ammann and Ralf Büsser, who use foreign exchange data to assess variance risk premiums.

The main goal of the SNB’s research activity is to provide a sound basis for policy decisions. In Department III, research activities primarily focus on the financial markets. These are of great importance to the Governing Board, as monetary policy measures are implemented largely through money and foreign exchange markets. Thus, understanding the structure and function of these markets is key to the effective implementation of monetary policy. In addition, it helps us to communicate our policy decisions to the financial markets and the wider public better. Furthermore, given the responsibility we have for the strategic allocation of our reserve assets, financial market analysis and applied economic research are key inputs for our asset allocation and risk control.

Much of the SNB’s research effort is for internal use only and the studies published to a wider readership represent the mere tip of the proverbial iceberg. However, it goes without saying that research in all three departments makes an important contribution to the SNB’s overall success.

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SNB ECONOMIC STUDIES, NO. 2014-08 (FORTHCOMING)

A COMPACT OPEN ECONOMY DSGE MODEL FOR SWITZERLAND

BARBARA RUDOLF AND MATHIAS ZURLINDEN

Barbara Rudolf and Mathias Zurlinden present a dynamic stochastic general equilibrium (DSGE) model of the Swiss economy. The model is one of the tools used at the SNB for policy analysis and forecasting (cf. box below).

The model

DSGE models with New Keynesian frictions such as price rigidity have become a standard tool in quantitative macroeconomics. These models are based on microeconomic foundations, they are forward-looking, and they allow for interaction between policy decisions and the economy. Shocks cause fluctuations around the steady state, while frictions are introduced to accommodate the evidence of inertia in the data.

The model presented by the authors differentiates between two economies: a small home economy and a large foreign economy. In the home economy, the agents are households, firms producing traded goods, firms producing non-traded goods, retailers importing foreign goods, and the central bank. To keep the model relatively small, there is no capital accumulation and no detailed modelling of the government sector, labour market, or financial markets. While larger models expand the scope for policy analysis and story-telling, they are often less transparent and identification problems tend to be worse.

The model includes a number of nominal and real frictions which have been discussed in the empirical literature. Prices are sluggish as monopolistically competitive firms set prices in a staggered fashion. In a given period, only some of the firms can optimally reset prices (Calvo pricing), while the other firms index their price to past inflation. Consumption responds slowly to economic conditions, reflecting habit persistence. Furthermore, the standard uncovered interest parity condition is modified to generate a hump-shaped



Authors: Barbara Rudolf and Mathias Zurlinden

response of the exchange rate to a monetary policy shock.

There are nine shocks in the home economy, four shocks in the foreign economy, and an oil price shock. The shocks in the home economy include shocks to technology (3), mark-up shocks (3), a preference (demand) shock, and a monetary policy shock. The preference shock is assumed to be affected by the foreign economy's preference shock. This provides a shortcut for capturing the cross-border effects of a foreign demand shock on the home economy documented in the literature. Without this modification, these cross-border effects would be implausibly small.

Estimation and evaluation

The model is estimated with Bayesian methods for the sample period Q2 1983 to Q2 2013. Bayesian methods allow the modeller to incorporate results from microeconomic studies or the policy maker's judgment for the estimation of parameters. This information is integrated by setting the mean and standard deviation of priors. The priors are then updated with observed data using Bayes' theorem. The parameter estimates therefore combine the prior information with the information in the observed variables.

Box: Models and the SNB inflation forecast

The SNB sets monetary policy for Switzerland based on a comprehensive assessment of economic data. Along with other models and indicators, the model presented here contributes to the inflation forecast that is published with the policy decision after the Governing Board's quarterly monetary policy meeting. The forecast is conditioned on the assumption that the short-term interest rate (the three-month Swiss franc Libor) remains unchanged over the forecast period. The forecast period is three years and reflects the time lags between monetary policy actions and their effects on inflation.

The authors present estimation results for both the baseline model and selected alternative specifications. The alternative specifications considered are (i) a restricted model that abstracts from non-tradables, (ii) two alternative versions of the uncovered interest-rate-parity condition, and (iii) a preference (demand) shock in the home economy that is not affected by the corresponding shock in the foreign economy. These alternatives are considered to assess some modelling choices in the baseline model that may be viewed as non-standard.

The evaluation of the model uses typical tools such as impulse response functions and forecast-error variance decompositions. The impulse responses trace out the dynamic response of each variable to one of the shocks. The forecast-error variance decompositions, in turn, compute the contributions of the various shocks to the variance of the error made in forecasting a given variable at a given horizon. In addition, following Marco del Negro and Frank Schorfheide, a DSGE-VAR is estimated to assess model misspecification. The DSGE-VAR approach combines the VAR implied by the DSGE model with an unrestricted VAR model. Various combinations are assessed, based on the marginal likelihood of the data. The higher the optimal weight on the VAR implied by the DSGE, the more informative is the DSGE model; and conversely, the lower the optimal weight, the more serious is the problem of misspecification.

Applications

The authors' emphasis is on the presentation of the model, not on applications. The applications presented in the study are therefore given as examples and do not claim to be complete.

An important application of most models used by central banks is forecasting. The authors present results of a forecasting exercise that is shaped by the SNB's set-up of the quarterly forecasting rounds. SNB staff regularly employ a set of models which differ along a variety of

dimensions. All these models are simulated based on an exogenous scenario for the international economy and the oil price. Thus both the exogenous scenario and the model may contribute to the forecast errors. The authors are interested in the contribution of the model and therefore they present forecasts based on the assumption that the exogenous scenario for the international economy and the oil price was determined with perfect foresight. The results thus provide information on the forecasting ability of the model, assuming that the exogenous scenario is error-free. However, they do not inform about the SNB's ability to forecast.

Another application is the historical decomposition of deviations of variables from steady state into the contributions from the various shocks. This can be done for inflation, output, or any other endogenous variable of the model. The graph above shows the decomposition of the CPI inflation rate into the contributions from the various shocks. The effects of some shocks are aggregated to keep the graph readable. Results are provided for the period from Q1 2000 to Q2 2013. They suggest that in Q2 2013, when CPI inflation was slightly below its steady-state value, downward pressure from monetary policy shocks and foreign economy shocks exceeded upward pressure from two mark-up shocks. The negative effect of monetary policy demonstrates that the interest rates' zero lower bound acted as a drag on inflation. Monetary policy is determined by an interest-rate rule in this model. With interest rates near zero, the SNB could not reduce the interest rate any further. The interest rate has thus contributed negatively to the rate of inflation since 2009.

Conclusion

The authors find that the model has plausible properties and fits the data reasonably well. The model supports a variety of applications and provides a useful tool for monetary policy purposes. Going forward, the model can be enriched in many directions, depending on the question of interest.

SNB WORKING PAPERS, NO. 2013-11

TIME VARIATION IN ASSET PRICE RESPONSES TO MACRO ANNOUNCEMENTS

LINDA GOLDBERG AND CHRISTIAN GRISSE

Although the effects of economic news announcements on asset prices are well established, these relationships are unlikely to be stable. This paper documents the time variation in the responses of yield curves and exchange rates using high frequency data from January 2000 to August 2011. Significant time variation in news effects is present for those announcements that have the largest effects on asset prices. The time variation in effects is explained by economic conditions, including the level of policy rates at the time of the release, and risk conditions. Government bond yields increase in response to good news, but less so when risk is elevated. Risk conditions matter since they can capture the effects of uncertainty on the information content of news announcements, the interaction of monetary policy and financial stability objectives of central banks, and the effect of news announcements on the risk premium.

SNB WORKING PAPERS, NO. 2014-01

THE GOOD? THE BAD? THE UGLY? WHICH NEWS DRIVE (CO)VARIATION IN SWISS AND US BOND AND STOCK EXCESS RETURNS?

THOMAS NITSCHKA

Based on a vector autoregressive model, this paper shows that time variation in monthly excess returns on Swiss government bonds and stocks is predominantly driven by news of inflation and dividends, respectively. This finding is in marked contrast to US evidence, which points to a more prominent role of excess return news in this respect. The bond market findings for both Switzerland and the US are consistent with the view that market participants put more weight on news of macroeconomic risks (i.e. long-term inflation) in periods of exceptionally low real interest rates and in crisis periods, than in normal times.

SNB WORKING PAPERS, NO. 2014-02

MONETARY POLICY SHOCKS AND FOREIGN INVESTMENT INCOME: EVIDENCE FROM A LARGE BAYESIAN VAR

SIMONE AUER

This paper assesses the transmission of monetary policy in a large Bayesian vector autoregression based on the approach proposed by Banbura, Giannone and Reichlin (2010). The paper analyses the impact of monetary policy shocks in the United States and Canada not only on a range of domestic aggregates, trade flows, and exchange rates, but also foreign investment income. The analysis provides three main results. First, a surprise monetary policy action has a statistically and economically significant impact on both gross and net foreign investment income flows in both countries. Against the background of growing foreign wealth and investment income, this result provides preliminary evidence that foreign balance-sheet channels might play an increasingly important role for monetary transmission. Second, the impact of monetary policy on foreign investment income flows differs considerably across asset categories and over time, suggesting that the investment instruments and the currency denomination of a country's foreign assets and liabilities are potentially relevant for the way in which monetary policy affects the domestic economy. Finally, the results support existing evidence on the effectiveness of large vector autoregressions and the Bayesian shrinkage approach in addressing the curse of dimensionality and eliminating price and exchange rate puzzles.

SNB WORKING PAPERS, NO. 2014-03

REPATRIATION OF DEBT IN THE EURO CRISIS: EVIDENCE FOR THE SECONDARY MARKET THEORY

FILIPPO BRUTTI AND PHILIP U. SAURÉ

The euro crisis has stopped the process of the European financial integration and triggered a strong repatriation of debt from foreign to domestic investors. We investigate this empirical pattern in light of competing theories of cross-border portfolio allocation. Three empirical regularities stand out: i) repatriation of debt occurred mainly in crisis countries; ii) repatriation affected mainly public debt; iii) public debt of crisis countries was reallocated to politically influential countries within the euro area. Standard theories are in line with pattern (i) at best. We argue that the full picture constitutes evidence for the 'secondary market theory' of sovereign debt.

SNB ECONOMIC STUDIES

BARBARA RUDOLF AND MATHIAS ZURLINDEN. 2014.
[A COMPACT OPEN ECONOMY DSGE MODEL FOR SWITZERLAND](#)

SNB Economic Studies 2014-08 (Forthcoming)

This study describes a compact dynamic stochastic general equilibrium (DSGE) model fitted for the Swiss economy with Bayesian techniques. The model features two economies (small home economy, large foreign economy), five types of agents (households, producers of tradables, producers of non-tradables, retailers, monetary authority), nominal and real frictions, and a number of shocks. The study gives details on the specification and the estimation of the model. The evaluation is based on impulse responses and variance decompositions, a DSGE-VAR to assess misspecifications and results of forecasting experiments. The model is one of the tools used for policy analysis and forecasting at the Swiss National Bank.

PUBLICATIONS IN JOURNALS

DANIEL KAUFMANN AND SARAH M. LEIN. 2013.
[STICKY PRICES OR RATIONAL INATTENTION – WHAT CAN WE LEARN FROM SECTORAL PRICE DATA?](#)

European Economic Review 64: 384–394

This paper derives stylised facts on sectoral inflation dynamics and confronts these facts with two popular theoretical models of price setting. Based on sectoral price responses to macroeconomic shocks estimated from an approximate factor model, we find that the frequency of price changes explains a relevant share of the cross-sectional variation of the speed and size of responses. Moreover, there is little evidence that the volatility of sectoral inflation due to idiosyncratic shocks dampens the size and speed of the responses to macroeconomic shocks. These findings support a multi-sector model with sticky prices rather than a rational-inattention model. We derive the results from different modelling and sampling decisions proposed in the literature, and we find that the explanatory power of the frequency of price changes for the speed of response to a macroeconomic shock proves robust in the face of these decisions. Other results are sensitive with respect to the choice of the factor model and the treatment of outliers.

MANUEL AMMANN AND RALF BÜSSER. 2013.
[VARIANCE RISK PREMIUMS IN FOREIGN EXCHANGE MARKETS](#)

Journal of Empirical Finance 23: 16–32

Based on the theory of static replication of variance swaps, we assess the sign and magnitude of variance risk premiums in foreign exchange markets. We find significantly negative risk premiums when realised variance is computed from intraday data with low frequency. As a likely consequence of microstructure effects, however, the evidence is ambiguous when realised variance is based on high-frequency data. Common to all estimates, variance risk premiums are highly time-varying and inversely related to the risk-neutral expectation of future variance. When we test whether variance risk premiums can be attributed to classic risk factors or fear of jump risk, we find that conditional premiums remain significantly negative. However, we observe a strong relationship between the size of log variance risk premiums and the VIX, the TED spread, and the general shape of the implied volatility function of the corresponding currency pair. Overall, we conclude that there is a separately priced variance risk factor which commands a highly time-varying premium.

ANDREAS KROPF AND PHILIP U. SAURÉ. 2014.
[FIXED COSTS PER SHIPMENT](#)

Journal of International Economics 92(1): 166–184

Exporting firms do not only decide how much of their products they ship abroad, but also at which frequency. In doing so, they face a trade-off between saving on fixed costs per shipment (by shipping large amounts infrequently) and saving on storage costs (by delivering just in time with small and frequent shipments). The firm's optimal choice defines a mapping from size and frequency of shipments to fixed costs per shipment. We use a unique dataset of Swiss cross-border trade on the transaction level to infer the size and shape of the underlying fixed costs. The inferred fixed costs are specific to each firm–country–product combination. Our results suggest that the fixed costs per shipment of the average Swiss exporter are large, ranging between 0.82% of the export value, in our most conservative specification, and 5.4%. We document that the imputed fixed costs per shipment correlate negatively with language commonalities, trade agreements and geographic proximity.

FILIPA SÁ, PASCAL TOWBIN AND TOMASZ WIELADEK. 2014.

CAPITAL INFLOWS, FINANCIAL STRUCTURE AND HOUSING BOOMS

Journal of the European Economic Association 12(2): 522–546

We use a panel VAR to study the effect of shocks to capital inflows, which are identified using sign restrictions, on the housing market in OECD countries. To explore how effects of these shocks change with the structure of the mortgage market and the degree of mortgage securitization, we allow the VAR coefficients to vary with mortgage-market characteristics. Our results indicate that capital-inflow shocks have a significant and positive effect on real house prices, real credit available to the private sector, and real residential investment. The responses of these variables are stronger in countries with more developed mortgage markets and in countries where securitization is allowed.

THOMAS NITSCHKA. 2014.

DEVELOPED MARKETS' BUSINESS CYCLE DYNAMICS AND TIME VARIATION IN EMERGING MARKETS' ASSET RETURNS

Journal of Banking & Finance 42: 76–82

This paper empirically studies the predictability of emerging markets' stock returns by means of business cycle variables, and the role of developed markets' business cycle dynamics in this respect. The evidence shows that the link between business cycles and future stock market returns in emerging markets is considerably weaker than in developed markets. By contrast, I find strong evidence of stock return predictability via the respective country's dividend-price ratio. This latter finding could reflect that variation in dividend-price ratios potentially reflects both the temporary impact of 'hot money' inflows on emerging markets' asset prices and rational expectations of future returns.

MATTHIAS GUBLER AND MATTHIAS S. HERTWECK. 2013.

COMMODITY PRICE SHOCKS AND THE BUSINESS CYCLE: STRUCTURAL EVIDENCE FOR THE US

Journal of International Money and Finance 37: 324–352

This paper evaluates the relative importance of commodity price shocks in the US business cycle. Therefore, we extend the standard set of business cycle shocks to include unexpected changes in commodity prices. The resulting SVAR shows that commodity price shocks are a very important driving force of macroeconomic fluctuations - second only to investment-specific technology shocks - particularly with respect to inflation. Neutral technology shocks and monetary policy shocks, on the other hand, seem less relevant at business cycle frequencies. Neutral technology shocks rather play an important role at low frequencies.

TAESUK LEE, MICO LORETAN AND WERNER PLOBERGER. 2013.

RATE-OPTIMAL TESTS FOR JUMPS IN DIFFUSION PROCESSES

Statistical Papers 54(4): 1009–1041

Suppose one has a sample of high-frequency intraday discrete observations of a continuous time random process, such as foreign exchange rates and stock prices, and wants to test for the presence of jumps in the process. We show that the power of any test of this hypothesis depends on the frequency of observation. In particular, if the process is observed at intervals of length $1/n$ and the instantaneous volatility of the process is given by σ_t , we show that, at best, one can detect jumps of height no smaller than $\sigma_t(2 \log(n)/n)^{1/2}$. We present a new test which achieves this rate for diffusion-type processes and examine its finite-sample properties using simulations.

JACOB GYNTELBERG, MICO LORETAN, TIENTIP SUBHANIJ AND ERIC CHAN. 2014.

EXCHANGE RATE FLUCTUATIONS AND INTERNATIONAL PORTFOLIO REBALANCING

Emerging Markets Review 18(1): 34–44

We present empirical evidence for several hypotheses of how exchange rates are affected by investors' cross-border equity portfolio rebalancing decisions. Our results are based on comprehensive, daily-frequency datasets of foreign exchange market transactions and equity market capital flows undertaken by nonresident investors in Thailand in 2005 and 2006. We find that net purchases of Thai equities by nonresident investors systematically lead to an appreciation of the Thai baht. Furthermore, higher returns on Thai equities relative to those on a reference market are associated with subsequent sales of Thai equities by foreign investors as well as a depreciation of the Thai baht, although the latter effect is not statistically significant.

PASCAL TOWBIN. 2013.

FINANCIAL INTEGRATION AND EXTERNAL SUSTAINABILITY

International Journal of Finance & Economics 18(4): 375–395

A stable net external position requires that the trade balance responds negatively to changes in the net external position. If financial integration makes financing external imbalances less costly, we expect slower external adjustment in more integrated economies. The study estimates theoretically founded trade balance reaction functions for a panel of 70 countries from 1970–2008. The empirical analysis finds that adjustment in integrated economies is slower. Consistent with the theory presented, the trade balance of integrated economies is more persistent, responds less strongly to net foreign assets and is more sensitive to fluctuations in net output. Under high integration, the response to the net external position is weak and close to the minimum required to ensure external sustainability.

CARLOS CACERES, MARCOS POPLAWSKI-RIBEIRO AND DARLENA TARTARI. 2013.

INFLATION DYNAMICS IN THE CEMAC REGION

Journal of African Economies 22(2): 239–275

This paper analyses inflation dynamics in the Central African Economic and Monetary Community (CEMAC) using a constructed dataset for country-specific commodity price indices and panel cointegrated vector autoregressive models. Imported commodity price shocks are significant in explaining inflation in the region. In most CEMAC countries, the largest effect of global food and fuel prices occurs after four or five quarters in non-core inflation and then decays substantially over time. Second-round effects are significant only in Cameroon and, to a lesser extent, in the Republic of Congo.

RALF BÜSSER. 2013.

THE FINE STRUCTURE OF CURRENCY RETURNS IMPLIED IN ONE-TOUCH OPTIONS

The Journal of Derivatives 20(4): 78–98

This article examines the fine structure of risk-neutral currency returns. For this purpose, I specify models comprising pure or time-changed diffusion risk, pure or time-changed jumps, or both. The models are calibrated to vanilla options and subsequently applied to the one-touch option market. Since one-touches are unspanned by a complete set of vanilla options, they lend themselves to a rigorous out-of-sample test. The results suggest that vanilla and one-touch option markets do not generally agree on the fine structure of currency returns. Evidence from the vanilla market favours a complex model with stochastic volatility and jumps, whereas one-touch options imply purely diffusive currency dynamics. This latter finding gives rise to two interpretations. Either the high activity in currency markets is best reflected by the infinite variation of a diffusive risk factor, or the result is an artifact of market makers who anchor their quotes to what the pure diffusion Black-Scholes model implies.

MANFRED GÄRTNER, BJÖRN GRIESBACH AND FLORIAN JUNG. 2013.

TEACHING MACROECONOMICS AFTER THE CRISIS: A SURVEY AMONG UNDERGRADUATE INSTRUCTORS IN EUROPE AND THE UNITED STATES

The Journal of Economic Education 44(4): 406–416

The Great Recession raised questions of what and how macroeconomists teach at academic institutions around the globe, and what changes in the macroeconomics curriculum should be made. The authors conducted a survey of undergraduate macroeconomics instructors affiliated with colleges and universities in Europe and the United States at the end of 2010. The results show that courses feature very much the same lineups of models as they did before the crisis. A notable exception concerns public debt dynamics, which receives considerably more emphasis. The finer fabric of undergraduate macroeconomics teaching, however, shows substantial shifts. A host of topics related to financial markets has entered the curriculum, and there is more interest in economic history, the history of economic thought, and case studies.

YVAN LENGWILER AND CARLOS LENZ. 2014.

[THE INTELLIGIBLE FACTOR MODEL: INTERNATIONAL COMPARISON AND STYLIZED FACTS](#)

In *Developments in Macro-Finance Yield Curve Modelling*, ed. Jagjit S. Chadha, Alain C.J. Durré, Michael A.S. Joyce, Lucio Sarno, 200–215. Cambridge: Cambridge University Press.

Factor models of yield curve dynamics are used for forecasting, to study the effects of different types of economic shocks, or to reduce complexity while capturing the main features of changes in the shape of the yield curve. The common denominator of such models is a dynamic specification for a small number of factors and a mapping relating the factors to the yield curve. In this paper we apply the model we developed in Lengwiler and Lenz (2010) to identify a set of stylised facts of yield curve dynamics across countries. Using data for the US, the UK and Germany, we find, for example, that shocks originating in the medium maturity spectrum are the main driver of yield curve dynamics. This might be bothersome if one thinks that a central bank influencing the short rates has some leverage over longer rates.

KATRIN ASSENMACHER-WESCHE. 2013.

[MONETARY POLICY SINCE THE FINANCIAL CRISIS: WHY INTEREST RATES NEED TO BE LOW](#)

In *41st Economics Conference 2013: A Changing Role for Central Banks?* 156–164. Vienna: Oesterreichische Nationalbank.

Central banks around the world lowered interest rates to almost zero and took exceptional measures in response to the financial crisis. It has been claimed that these policies have unintended side effects while yielding little benefit for the real economy. In particular, a long period with low interest rates may induce unsustainable asset-price developments and financial instability. These concerns need to be taken seriously. Currently, however, there is little evidence that the unintended side effects are dominating the benefits of the expansive monetary policy. Nevertheless, an exit from the low-interest-rate environment will be challenging. Central banks should focus on price stability as their main target.

Events

PAST EVENTS

18/19 OCTOBER 2013

JMCB-SNB-UNI BERN CONFERENCE

HOST: STUDY CENTER GERZENSEE, GERZENSEE

The University of Bern, together with the Journal of Money, Credit and Banking and the SNB, held the JMCB-SNB-UniBern Conference at the Study Center Gerzensee on 18/19 October 2013. The theme of the conference was 'Financial Frictions'. Fritz Zurbrügg, Member of the Governing Board, SNB, presented a dinner address. The organisation committee of the conference consisted of Harris Dellas (University of Bern), Cyril Monnet (Study Center Gerzensee), Dirk Niepelt (Study Center Gerzensee) and Marcel Savioz (Swiss National Bank).

24/25 OCTOBER 2013

DEUTSCHE BUNDESBANK, OESTERREICHISCHE NATIONALBANK, SWISS NATIONAL BANK WORKSHOP

HOST: DEUTSCHE BUNDESBANK TRAINING CENTRE, ELTVILLE AM RHEIN

The 15th annual joint workshop of the Deutsche Bundesbank, the Oesterreichische Nationalbank and the SNB was held in Eltville am Rhein on 24/25 October 2013. Each central bank had the opportunity to present three working papers related to monetary policy. The workshop was organised by Heinz Herrmann (Deutsche Bundesbank).

6-8 NOVEMBER 2013

JOINT CENTRAL BANK CONFERENCE

HOST: FEDERAL RESERVE BANK OF CLEVELAND, CLEVELAND

The Federal Reserve Bank of Cleveland, together with the Bank of Canada, the Federal Reserve Bank of Atlanta, and the Swiss National Bank, held the Joint Central Bank Conference in Cleveland on 6-8 November 2013. The Day-Ahead Meeting focused on macroprudential and financial stability issues, where Thomas Moser presented the views of the Swiss National Bank. The conference was about challenges for monetary policy in the aftermath of the Great Recession. The organisation committee consisted of Mark Schweitzer and Pedro Amaral (Federal Reserve Bank of Cleveland).

UPCOMING EVENTS

20/21 MAY 2014

SNB-UZH WORKSHOP ON 'ASSET PRICES AND EXCHANGE RATES: MACROECONOMIC AND FINANCIAL PERSPECTIVES'

HOST: UNIVERSITY OF ZURICH, ZURICH

2/3 JUNE 2014

CEPR-SNB CONFERENCE ON 'EXCHANGE RATES AND EXTERNAL ADJUSTMENT'

HOST: SWISS NATIONAL BANK, ZURICH

26/27 JUNE 2014

DEUTSCHE BUNDESBANK, OESTERREICHISCHE NATIONALBANK, SWISS NATIONAL BANK WORKSHOP

HOST: SWISS NATIONAL BANK, ZURICH

26/27 SEPTEMBER 2014

SNB RESEARCH CONFERENCE 2014

HOST: SWISS NATIONAL BANK, ZURICH

7/8 NOVEMBER 2014

JME-SNB-SCG CONFERENCE

HOST: STUDY CENTER GERZENSEE, GERZENSEE

18/19 DECEMBER 2014

SWISS ECONOMISTS ABROAD

HOST: SWISS NATIONAL BANK, ZURICH

PUBLISHER

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