
SNB Research Update

April 2016

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Spotlight

Dear Reader

The SNB Research Update features the SNB's latest research activities. I regard this Spotlight as an opportunity not only to highlight the importance of research at the SNB, but also to showcase the key role that the SNB plays in collecting, providing access to, and analysing often unique data with the aim of fulfilling its public mandate.

On a monthly and quarterly basis, the SNB collects and processes data from 300 banks and 2,500 companies, amounting to over 6 million time series. A growing proportion of data are published online in aggregated form. Providing timely and user-friendly data requires good teamwork across a wide range of specialised fields, all of which are represented at the SNB, from statistics to information technology. These data also need to be processed – an activity in which economic research plays an important role.

The paper 'Re-use of collateral in the repo market' by Lucas Marc Fuhrer, Basil Guggenheim and Silvio Schumacher (cf. p. 8) is an excellent example of the synergies between data collection and research. Using a comprehensive dataset from the Swiss franc repo market, the authors showed that, especially prior to the financial crisis, banks often re-used collateral that was provided to them on a temporary basis to borrow more securities on the repo market, thereby increasing leverage and interconnectedness in the financial system. By shedding light on key drivers of the re-use of collateral, the paper provides important insights for researchers and policymakers.

The paper has been selected to be published in the *Journal of Money, Credit and Banking*, a leading journal in the field of banking and monetary economics. The fact that two of the three authors are affiliated with both the SNB and a Swiss university also makes this paper a prime example of the SNB's collaboration with Swiss universities.

ANDRÉA M. MAECHLER

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ALAIN GALLI'S ANALYSIS OF WEALTH EFFECTS ON CONSUMPTION IN SWITZERLAND

BY THOMAS LUSTENBERGER

We are all consumers. How much we can consume crucially depends on our income and wealth. Alain Galli found that Swiss consumers' reaction to changes in wealth – called wealth effects – seems to have become weaker in recent years.

In this featured article, we will highlight the economic theory of consumption and wealth, related recent developments in Switzerland, and Alain Galli's econometric findings.

Consumption and wealth effects – a bit of theory

The effect of changes in people's wealth on their consumption expenditures is called wealth effect. In general, there are two sources from which people can consume: disposable income and wealth.

The first source, disposable income, mainly consists of the money we earn in the form of labour income. Consumer theory says that if income increases permanently, consumption increases as well. Two examples to illustrate this argument. On the one hand, a consumer who has been unemployed for a while will face a permanent increase in income after finding a job. His consumption will increase accordingly. On the other hand, a permanent decrease in disposable income, arising, for example, from income tax hikes, will, in turn, decrease consumers' expenditures.

The second source to consume from is wealth, which consists of two type of assets: financial wealth (money holdings, stock market assets, bonds) and housing wealth. Increases in wealth either come from saved income or increased value of assets.

Furthermore, some of us might also have some liabilities such as mortgages and other outstanding debt. Therefore, the relevant measure for people's actual stock of wealth is usually net wealth, defined as all assets minus all liabilities. If net wealth (permanently) increases, consumption is expected to increase, too. For instance, if stock prices increase, we become wealthier and consume more.

Wealth effects are usually quantified by the marginal propensity to consume (MPC) out of wealth, which is predicted to be positive by theory.



Alain Galli

Consumption, wealth and income in Switzerland

Apart from short-run fluctuations, consumption, wealth and income have been trending upwards over time in Switzerland. The figure on the next page shows the three variables since the beginning of the 1980s.

Movements in wealth arise from its two components – financial wealth and housing wealth. Financial wealth seems to drive short-run dynamics in wealth while net housing wealth (defined by housing wealth minus all liabilities¹) is responsible for long-run dynamics. The figure illustrates that housing wealth is smoother than financial wealth.

Econometric results

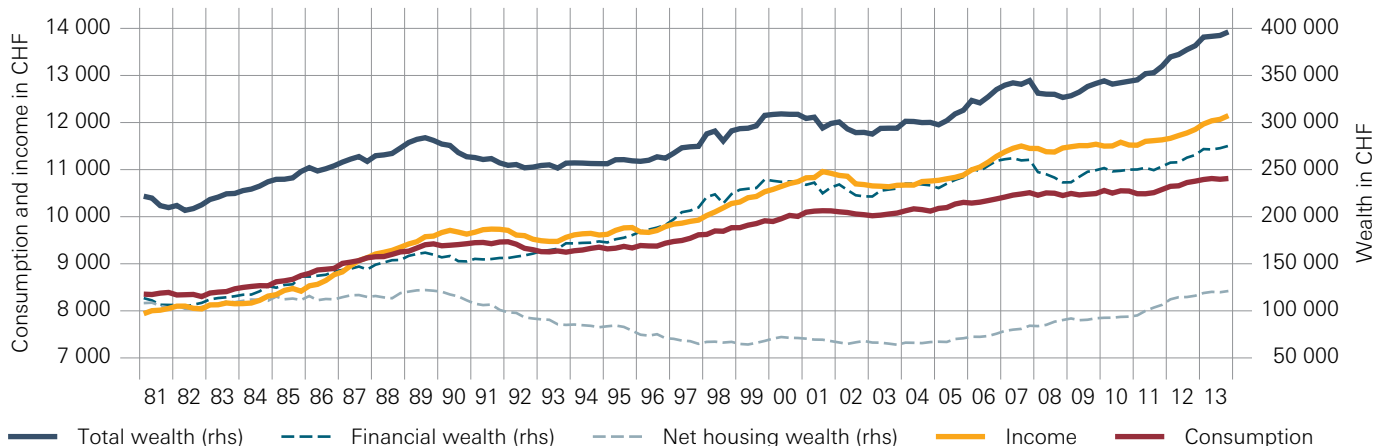
With this data Alain Galli adopts three different state-of-the-art econometric methods to analyse how wealth changes affect consumption in Switzerland. All of them are based on the assumption that consumption, wealth and income share a common trend in the long run.

Three different sample periods are analysed. Over the whole sample – 1981Q1 to 2012Q4 – hardly any long-run effects from changes in wealth on consumption expenditures are found. Neither increases in housing nor in financial wealth led to higher consumption. This contradicts economic theory.

¹ Given the fact that the vast majority of Swiss household debt consists of mortgage debt, which is directly linked to real estate assets, Alain Galli decided to subtract the liabilities from housing wealth and not from financial wealth.

CONSUMPTION, INCOME AND WEALTH IN SWITZERLAND

Real, in 2010 Swiss francs, per capita, quarterly



This outcome, however, strongly depends on the sample period. For the first part of the sample, 1981Q1 to 2001Q4, the results give support to a positive relationship between wealth and consumption. The MPC out of aggregate net wealth (financial and housing) is between 0.025 and 0.043, depending on the econometric method. This means that if wealth increases by 100 Swiss centimes, consumption increases by 2.5 to 4.3 Swiss centimes.

For the second part of the sample (2002Q1 to 2012Q4), however, the relationship between consumption, wealth and income has become much weaker and much more difficult to pin down. Most estimation methods suggest that wealth effects have completely disappeared. This suggests that results for the overall sample of finding no wealth effects in Switzerland are mainly driven by the most recent period.

As in most other studies about wealth effects, the results were obtained using a method that relies on the existence of a stable long-run relationship between consumption, wealth and income. The last part of Alain Galli's analysis shows that the unstable outcomes for the most recent period can be attributed to several fragility issues related to this method.

First, one of the assumptions on which the method is based – stationary returns on aggregate wealth – may no longer be valid for the more recent past. These returns seem rather to be trending downwards.

Second, there seems to be instability over time, coming from changes in the MPC out of wealth and income. These can arise because of a variety of reasons, such as institutional developments (e.g. changes in tax policy), changes in credit market regulation, demographic shifts, changes in the wealth composition and distribution, or also changing inflation expectations. Given all these issues related to the standard approach to estimate wealth effects, more research is needed to answer the question as to whether wealth effects have completely disappeared in Switzerland or if this is only a temporary phenomenon.

Whatever the final verdict, the finding of a weakened connection of wealth and consumption in Switzerland in recent years is important for the transmission of monetary policy.

SNB WORKING PAPERS NO. 2016-03
HOW RELIABLE ARE COINTEGRATION-BASED ESTIMATES FOR WEALTH EFFECTS ON CONSUMPTION? EVIDENCE FROM SWITZERLAND

ALAIN GALLI

SNB Working Papers are available at www.snb.ch, *Research*.

SEVERIN BERNHARD. 2016.

A REAL-TIME GDP DATA SET FOR SWITZERLAND

SNB Economic Studies 2016-09

Policymakers depend on a wide set of accurate information available in good time when making decisions. Many of the underlying variables, however, are subject to revisions over time and their first prints are therefore not fully reliable, such as for Gross Domestic Product (GDP). This economic study from Severin Bernhard collects, provides and analyses such revisions for Swiss GDP. This summary first highlights how GDP revisions affect policy decisions, then shows what these revisions looked like for Switzerland in the past.

Why do GDP revisions affect policy decisions?

GDP is one of the most relevant indicators for the current state of the economy. In addition, it is also a crucial determinant for the output gap and thereby for the pressure on prices for goods and services. Both variables are thus important for evaluating the current and expected monetary policy stance.

However, due to its complexity – a precise measurement would imply knowing billions of prices and transactions – GDP is prone to revisions. Policymakers who base their decisions on the information available at a certain point in time risk that, if GDP is revised in future, their decision will no longer be optimal in hindsight. Knowing the extent of the revisions helps policymakers, at least in assessing the uncertainty about the current information.²

GDP revisions in Switzerland

How large are revisions for Swiss GDP? The figure below depicts four selected releases of real GDP growth rates from 1983Q1 to 2014Q4: The first release (first value available for any given quarter), the releases one and two years later and the last release (its value as known today). Differences between the lines indicate revisions between the corresponding releases.

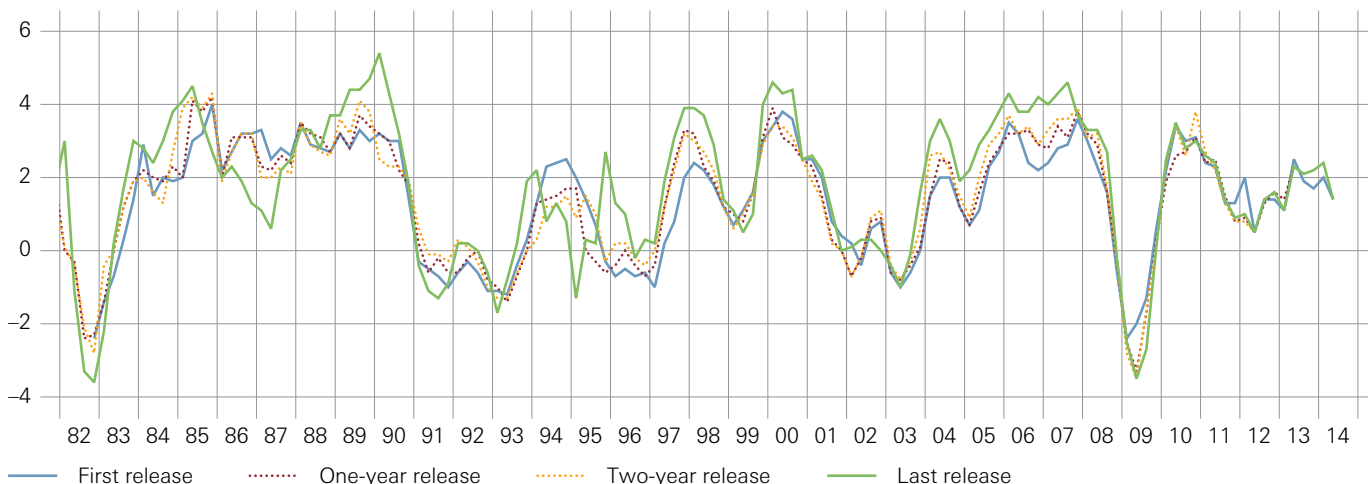
The figure clearly shows that Swiss GDP revisions can be substantial, and that current values (green line) tend to be higher than first estimates (blue line), i.e. that early releases tend to underestimate the last releases. It should, however, be noted that much of this underestimation is driven by methodological changes that revise annual values upwards. The ‘typical’ revision, as measured by the standard deviation of revisions within the first year, amounts to approximately 0.50 percentage points, while the majority of predicted signs of (changes in) growth rates had been right. Both findings worsen considerably when we compare earlier releases to today’s values. However, additional tests show that the size of revisions neither improves nor deteriorates over time.

SNB Economic Studies are available at www.snb.ch, *Research*.

² See also Nicolas Cuche-Curti, Pamela Hall & Attilio Zanetti. 2008. “Swiss GDP revisions: A monetary policy perspective”, *OECD Journal of Business Cycle Measurement and Analysis* 2: 183-213.

FOUR SPECIFIC RELEASES FOR REAL GDP GROWTH RATE

Quarterly, year-on-year, non-seasonally adjusted



Auctions are the most common issuing method for government securities in many countries. Switzerland was one of the first OECD countries to introduce auctions to raise finance for the Confederation after negative experiences with syndicated fixed-price subscription offerings. Auctions for government debt mainly come in two forms. The first are discriminatory-price auctions, in which bids above the lowest accepted price are allotted in full at the submitted price. The second are uniform-price auctions, in which all bidders pay the same price, the so-called marginal price. This is the issuing technique that the Swiss Treasury has applied without interruption for short-term debt since 1979 and for notes and bonds since 1980.

In this Economic Study the authors discuss the reasons for the Swiss authorities' adoption of the uniform-price format, describe its evolution and provide the details of each of the 356 auctions of notes and bonds that the SNB has run on behalf of the Treasury, raising over CHF 149.4 billion by year-end 2014. Studying an auction format's evolution is important because exactly identifying changes to an auction's set-up is an initial step in empirically testing theoretical predictions that may advance our understanding of auctions. It might also contribute to experimental design of an auction.

While the rationale for abandoning syndicated offering resides in growing discontent with it at a time of increased market volatility, this is not the case regarding the preference given to the uniform-price format over the discriminatory format. The authors find that revenue arguments, while important, do not seem to have been preponderant. It seems that considerations associated with the equal treatment of bidders, the unification of the primary and the secondary markets, and an encouragement to broader participation thanks to this format's simplicity, were decisive factors in the authorities' choice.

Although the base frame of the auction has remained unimpaired, some rules have undergone a permanent change. Most modifications were made during the early 1990s in times of mounting financial pressures on the government. As a general trend, the information conveyed to the market ahead of the auction has been steadily cut back. This is particularly true of auction size and has been partly offset by an announcement of the intended gross and net borrowing size in an annual calendar. Another trend has been the specification and reduction of the time lag between the announcement of an auction's terms and the closing day. A further innovation was the conduct of two or three auctions simultaneously. Another permanent change has been the transition from phone to electronic bidding, which has improved the efficiency of the auction process, eliminated cuts in the allocation at the stop, and shortened the time in which auction results are made public to participants. Meanwhile, some important rules have not been subject to any change. Most importantly, no maximum either in terms of limit on the total number of bids that can be made by any one bidder or in terms of awards has ever been imposed.

In sum the authors find that the uniform-price auction format was an instant success that has proven to be stable and robust to economic and institutional changes that have occurred over the last 35 years. In particular, no auction ever failed, all were well covered. This is remarkable taken into account that, unlike in other countries, the Treasury has never installed a formal primary dealer system. Instead, it has relied on banks and institutional investors for creating a market for government bonds without granting them the rights or obligations of market-makers and formal compensation.

SNB Economic Studies are available at www.snb.ch, *Research*.

SNB WORKING PAPERS NO. 2015-12

PRIVATE INFORMATION, CAPITAL FLOWS, AND EXCHANGE RATES

JACOB GYNTELBERG, MICO LORETAN AND TIENTIP SUBHANIJ

We demonstrate empirically that not all international capital flows influence exchange rates equally. Capital flows induced by foreign investors' transactions in local stock markets have an impact on exchange rates that is both economically significant and permanent, whereas capital flows induced by foreign investors' transactions in the local government bond market do not. We relate the differences in the price impacts of capital flows to differences in the amounts of private information conveyed by these flows. Our empirical findings are based on novel, daily-frequency datasets on prices and quantities of all transactions undertaken by foreign investors in the stock, bond, and onshore FX markets of Thailand.

SNB WORKING PAPERS NO. 2015-13

COLLATERALISED LIQUIDITY, TWO-PART TARIFF AND SETTLEMENT COORDINATION

THOMAS NELLEN

This paper analyses the liquidity management game played in payment systems with free but collateralised intraday credit facilities, under the assumption that settlement risk is the driving force. Settlement equilibria are found to depend on the combination of the intraday liquidity facilities' design and the collateral policy applied by the central bank. The effectiveness of a two-part tariff in coordinating on early settlement depends on the same factors. Model predictions are consistent with stylised facts from a comparison of settlement behaviour in the Swiss Interbank Clearing and Fedwire funds.

SNB WORKING PAPERS NO. 2016-01

FOREIGN PMIs: A RELIABLE INDICATOR FOR EXPORTS?

ROLF SCHEUFELE AND SANDRA HASLIN

Foreign economic activity is a major determinant of export development. This paper presents an indicator for nowcasting and forecasting exports that is based on survey data capturing foreign economic perspectives. We construct an indicator by weighting foreign Purchasing Managers Indices (PMIs) of main trading partners with their respective export shares. For two very trade exposed countries (Germany and Switzerland), the paper shows that the indicator based on foreign PMIs is strongly correlated with exports (both total exports and goods exports). In an out-of-sample forecast comparison, we employ MIDAS models to forecast the two different definitions of exports. We observe that our export indicator performs very well relative to univariate benchmarks and relative to other major leading indicators using hard and soft data.

SNB WORKING PAPERS NO. 2016-02

EXCHANGE RATE PREDICTABILITY AND STATE-OF-THE-ART MODELS

YEŞİN PINAR

This paper empirically evaluates the predictive performance of the International Monetary Fund's (IMF) exchange rate assessments with respect to future exchange rate movements. The assessments of real trade-weighted exchange rates were conducted from 2006 to 2011, and were based on three state-of-the-art exchange rate models with a medium-term focus which were developed by the IMF. The empirical analysis using 26 advanced and emerging market economy currencies reveals that the 'diagnosis' of undervalued or overvalued currencies based on these models has significant predictive power with respect to future exchange rate movements, with one model outperforming the other two. The models are better at predicting future exchange rate movements in advanced and open economies. Controlling for the exchange rate regime does not increase the predictive power of the assessments. Furthermore, the directional accuracy of the IMF assessments is found to be higher than market expectations.

HOW RELIABLE ARE COINTEGRATION-BASED ESTIMATES FOR WEALTH EFFECTS ON CONSUMPTION? EVIDENCE FROM SWITZERLAND

ALAIN GALLI

According to economic theory, the intertemporal budget constraint of households implies that a permanent increase in wealth should have a positive effect on consumer spending. Given the comparatively strong increase in Swiss household wealth over the past few years, the question of the extent to which changes in wealth influence expenditures of households has become of special interest for Switzerland. In this paper, I show that while the link among consumption, wealth and income was quite strong from 1981 to 2000, it has been very unstable since 2001. This fact suggests that the gap among the three variables, i.e. the deviation from long-run equilibrium that has opened up over the last few years, is less likely to close. The results apply to aggregate wealth effects as well as to separate financial and housing wealth effects. Furthermore, I document several fragility issues related to the use of the cointegration approach to estimating wealth effects. These issues highlight the importance of carefully checking the robustness of the results, instead of looking just at one cointegration estimation method and only one time period. They also highlight the need for a non-cointegration approach to estimating wealth effects.

FORECASTING WITH LARGE UNBALANCED DATASETS: THE MIXED FREQUENCY THREE-PASS REGRESSION FILTER

CHRISTIAN HEPENSTRICK AND MASSIMILIANO MARCELLINO

In this paper, we propose a modification of the three-pass regression filter (3PRF) to make it applicable to large mixed frequency datasets with ragged edges in a forecasting context. The resulting method, labelled MF-3PRF, is very simple but compares well to alternative mixed frequency factor estimation procedures in terms of theoretical properties, finite sample performance in Monte Carlo experiments, and empirical applications to GDP growth nowcasting and forecasting for the USA and a variety of other countries.

THE BANKING SECTOR AND THE SWISS FINANCIAL ACCOUNT DURING THE FINANCIAL AND EUROPEAN DEBT CRISES

RAPHAEL A. AUER AND CÉDRIC TILLE

The US financial crisis and the later eurozone crisis have substantially impacted capital flows into and out of financial centres like Switzerland. We focus on the pattern of capital flows involving the Swiss banking industry. We first rely on balance-of-payment statistics and show that net banking inflows rose during the acute phases of the crises, albeit with a contrasting pattern. In the wake of the collapse of Lehman Brothers, net inflows were driven by a substantial retrenchment into the domestic market by Swiss banks. By contrast, net inflows from mid-2011 to mid-2012 were driven by large flows into Switzerland by foreign banks. We then use more detailed data from Swiss banking statistics which allow us to differentiate the situation across different banks and currencies. We show that during the US financial crisis, the bank flows cycle was driven strongly by exposures in US dollars, and to a large extent by Swiss-owned banks. During the eurozone crisis, by contrast, the flight to the Swiss franc and move away from the euro was also driven by banks that are located in Switzerland, yet are foreign-owned. In addition, while the demand for the Swiss franc was driven by both foreign and domestic customers from mid-2011 to early 2013, domestic demand took a prominent role thereafter.

PRICE EXPECTATIONS AND THE US HOUSING BOOM

PASCAL TOWBIN AND SEBASTIAN WEBER

As it has proved difficult to explain the recent US house price boom on the basis of fundamentals, many observers have emphasised the role of speculation. This kind of argument is, however, indirect, as speculation is treated as a deviation from a benchmark. Our paper identifies house price expectation shocks directly, using a VAR with sign restrictions. House price expectation shocks are the most important driver of the US house price boom. We also show that a model-based measure of changes in price expectations leads a survey-based measure. Our baseline specification leaves the question of whether expectation shifts are realistic or unrealistic unanswered. In alternative specifications, we provide evidence that expectation shifts during the boom were largely unrealistic.

SNB ECONOMIC STUDIES

SEVERIN BERNHARD. 2016.

[A REAL-TIME GDP DATA SET FOR SWITZERLAND](#)

SNB Economic Studies 2016-09

This economic study presents and analyses newly collected real-time data for Swiss GDP. It extends existing data sets by covering annual and quarterly aggregate GDP values for a longer sample, with vintages starting in 1971 (annual) and 1983 (quarterly). The analysis comprises a graphical and statistical description of quarterly GDP releases and tests for unbiasedness and efficiency of the revisions. Overall, revisions can be large and substantial, and early releases tend to underestimate GDP growth. Yet statistical tests on unbiasedness provide only limited evidence for a statistically significant bias. Additional tests point at some degree of informational inefficiency for selected revisions, and show that absolute revisions neither improve nor deteriorate over time. Most findings are consistent with existing literature. However, a closer look at revisions during the mid-nineties, a period characterised by large revisions, shows that annual and benchmark revisions can affect quarterly revisions considerably (and thus the results above). In addition, this closer look illustrates the difficulties with interpreting the recent business cycle in the presence of revisions.

ANGELO RANALDO AND ENZO ROSSI. 2016.

[UNIFORM-PRICE AUCTIONS FOR SWISS GOVERNMENT BONDS: ORIGIN AND EVOLUTION](#)

SNB Economic Studies 2016-10

The Swiss Treasury has used the sealed-bid, uniform-price auction format for allocating government bonds since 1980. In this study, we examine the authorities' motivation for choosing the uniform-price auction. In addition, we describe how the institutional set-up evolved over time. It includes bidding requirements, class of bidders, pre-auction information, the bidding process, the determination of the cut-off price and the release of post-auction information. Finally, we provide the details of each of the 356 auctions that were held until and including 2014.

PUBLICATIONS IN JOURNALS

LUCAS MARC FUHRER, BASIL GUGGENHEIM AND SILVIO SCHUMACHER.

[RE-USE OF COLLATERAL IN THE REPO MARKET](#)

Journal of Money, Credit and Banking (forthcoming)

This paper introduces a methodology to estimate the re-use of collateral based on actual transaction data. With a comprehensive dataset from the Swiss franc repo market we are able to provide the first systematic empirical study on the re-use of collateral. We find that re-use was most popular prior to the financial crisis, when roughly 10% of the outstanding interbank volume was based on re-used collateral. Furthermore, we show that re-use increases with the scarcity of collateral. By giving an estimate of collateral re-use and explaining its drivers, the paper contributes to the ongoing debate on collateral availability.

NIKOLA MIRKOV AND GISLE JAMES NATVIK.

[ANNOUNCEMENTS OF INTEREST RATE FORECASTS: DO POLICYMAKERS STICK TO THEM?](#)

Journal of Money, Credit and Banking (forthcoming)

If central banks value the ex-post accuracy of their published forecasts, previously announced interest rate paths might influence the current policy rate. We explore if 'forecast adherence' has affected monetary policy in New Zealand and Norway, where central banks have published their interest rate forecasts the longest. We derive and estimate policy rules with separate weights on past interest rate forecasts, and find that they have explanatory power for current policy decisions, over and above their correlation with other conventional interest rate rule arguments.

We study firm-level pricing behaviour through the lens of exchange rate pass-through and provide new evidence on how firm-level market shares and price complementarities affect pass-through decisions. Using US import price microdata, we identify two facts: First, the firms that react the most with their prices to changes in their own costs are exactly the ones that react the least to changing prices of competing importers. Second, the response of import prices to exchange rate changes is U-shaped in our proxy for market share, while it is hump-shaped in response to the prices of competing importers. We show that both facts are consistent with a model based on Dornbusch (1987) that generates variable markups through a nested-CES demand system. Finally, based on the model, we find that direct cost pass-through and price complementarities among importers play almost equally important roles in determining pass-through but also partly offset each other. This suggests that equilibrium feedback effects in import pricing are large. Omission of either channel in an empirical analysis results in a failure to explain how market structure affects price-setting in industry equilibrium.

With the beginning of the euro crisis, the long-standing trend of European financial integration reversed. Investors unwound cross-border positions of debt obligations and increased holdings of locally issued debt. In other words, debt obligations were repatriated. We use data on bank portfolios to document three new empirical regularities of financial disintegration: (i) repatriation affected mainly debt of crisis countries; (ii) repatriation affected mainly public debt; (iii) the public debt of crisis countries that was not repatriated was reallocated to large and politically influential countries within the euro area. We read these results in light of standard theories of cross-border portfolio allocation and argue that the sum of these patterns constitutes evidence for the secondary market theory of public debt.

The weight assigned to public information in Keynesian beauty contests depends on both the precision of signals and the degree of strategic complementarities. This experimental study shows that the response of subjects to changes in signal precision and the degree of strategic complementarities is qualitatively consistent with theoretical predictions, though quantitatively weaker. The weaker response of subjects to changes in the precision of signals, however, mainly drives the weight observed in the experiment, qualifying the role of strategic complementarities and overreaction in experimental beauty contests.

In this article, we examine the effect of estimation biases – introduced by model misspecification – on the impulse response analysis for dynamic stochastic general equilibrium (DSGE) models. Thereby, we use full and limited information estimators to estimate a misspecified DSGE model and calculate impulse response functions (IRFs) based on the estimated structural parameters. It turns out that IRFs based on full information techniques can be unreliable under misspecification.

This paper estimates the policy reaction function of the Swiss National Bank (SNB) using real-time internal inflation forecasts and output gap estimates from 2000 to 2012. We analyse potential non-linearities of policy rate responses to economic fundamentals using a novel semi-parametric approach. We find a linear response of the SNB's policy rate to inflation forecasts but a strong non-linear response of the policy rate to the output gap and exchange rate changes. This finding suggests that the SNB reacts to extreme movements of these variables if they become a concern for price stability and economic activity.

PETRA GERLACH-KRISTEN, ROBERT MCCAULEY AND
KAZUO UEDA. 2016.

CURRENCY INTERVENTION AND THE GLOBAL PORTFOLIO BALANCE EFFECT: JAPANESE LESSONS

Journal of the Japanese and International Economies 39: 1-16

This paper extends the analysis of Bernanke et al. (2004) to show that the official Japanese purchases of foreign exchange in 2003–04 seem to have lowered long-term interest rates not only in the United States, but in a wide range of countries, including Japan. It seems that this decline was triggered by the investment of the intervention proceeds in US bonds and that global portfolio rebalancing spread the resulting decline in US dollar yields to bond markets in other currencies, thus easing global monetary conditions. We also show that the global portfolio balance effect is detectable in the response of yields to large Japanese intervention in data before and after 2003/04, though the effect is weaker. While our findings contribute to a growing body of work that points to common responses across bond markets to official portfolio shifts in the form of large-scale bond purchases (“quantitative easing”), our analysis has the advantage of focusing on a pure portfolio shock.

MATTHIAS S. HERTWECK AND OLIVER SIGRIST. 2015.

THE INS AND OUTS OF GERMAN UNEMPLOYMENT: A TRANSATLANTIC PERSPECTIVE

Oxford Economic Papers 67(4): 1078-1095

This article decomposes fluctuations in the German unemployment rate into changes in inflows (job separation) and outflows (job finding). For this purpose, we construct and examine monthly labour market transition rates from the West German sample of the SOEP (and the CPS) for the period 1984–2009. We explicitly take account of the low level of labour market transition rates in Germany. Our article shows that in West Germany, changes in the inflow rate are more important (about 60%) than changes in the outflow rate, whereas in the USA close to 80% are due to changes in the outflow rate.

ROMAIN BAERISWYL. 2015.

INTERTEMPORAL DISCOORDINATION IN THE 100% RESERVE BANKING SYSTEM

Procesos de Mercado: Revista Europea de Economía Política 12(2):
43-80

The 100%-Money plan advocated by Fisher (1936) has a Misesian flavor as it aims at mitigating intertemporal discoordination by reducing (i) the discrepancy between investment and voluntary savings, and (ii) the manipulation of interest rates by monetary injections. Recent proposals to adopt the 100% reserve banking system, such as the Chicago Plan Revisited by Benes and Kumhof (2013) or the Limited Purpose Banking by Kotlikoff (2010), take, however, a fundamentally different attitude towards the role of the central bank in the credit market and ignore that intertemporal discoordination arises independently from whether the credit expansion is financed by the creation of outside or inside money. These plans allow the central bank to inject outside money into the credit market and to effectively lower interest rates in negative territory in order to overcome the limit that the liquidity trap sets to credit expansion in the fractional reserve system. Although such an attempt may succeed in stimulating the economy in the short run, it exacerbates intertemporal discoordination and weakens economic stability in the long run.

GIUSEPPE COCLITE, OLEG REICHMANN AND NILS H. RISEBRO. 2016.

A CONVERGENT DIFFERENCE SCHEME FOR A CLASS OF PARTIAL INTEGRO-DIFFERENTIAL EQUATIONS MODELING PRICING UNDER UNCERTAINTY

SIAM Journal on Numerical Analysis 54(2): 588-605

In this paper we present a finite difference scheme to approximate viscosity solutions of a class of partial integro-differential equations describing pricing under model uncertainty. We establish that the approximations converge to the unique viscosity solution as the discretisation parameter tends to zero, and give an asymptotic rate of the convergence. We also present several numerical examples showing this convergence.

DETERMINANTS OF THE SWISS FRANC REAL EXCHANGE RATE

Swiss Journal of Economics and Statistics 151(4): 299-331

We conduct an empirical investigation of the determinants of the Swiss franc real exchange rate. Theory and related empirical papers suggest various specific factors as potential determinants. We select some of these factors, and test their significance and magnitude in affecting the course of the CHF real exchange rate. Results stemming from a co-integration approach point to terms of trade and relative government spending as the most significant explanatory variables. Balassa-Samuelson effects do not play any significant role. Our results also confirm that this kind of empirical approach is sensitive to the choice of explanatory variables, panel countries and sample periods. In our case, the importance of GDP per capita and net foreign assets as explanatory variables depends on the inclusion in the panel of the JPY/CHF exchange rate.

CHRISTIAN HEPENSTRICK. 2016.

THE SOURCES AND MAGNITUDES OF SWITZERLAND'S GAINS FROM TRADE

Swiss Journal of Economics and Statistics 152(1): 1-21

This paper uses the modern workhorse model of quantitative trade theory (Eaton and Kortum, 2002) as a measurement tool to quantify Switzerland's gains from trade. I find that individual trading partners matter surprisingly little for Switzerland's welfare because of reallocation effects: if trade between Switzerland and a partner country is inhibited, other supplier countries step into the breach so that the losses are limited and typically amount to less than 1%. The conclusions are different if one considers groups of countries, for example the EU: participating in a multilateral 25% trade cost reduction increases Swiss welfare by 11% relative to the status quo. However, it must also be noted that in the case of non-participation, the actual welfare losses relative to the status quo are modest with less than 1%.

JÜRIG MÄGERLE AND THOMAS NELLEN. 2015.

INTEROPERABILITY BETWEEN CENTRAL COUNTERPARTIES

The Journal of Financial Market Infrastructures 4(2): 49-71

This paper analyses the risk management and regulation of financial exposures resulting from links between central counterparties (CCPs). Interoperability is shown to enable a fragmented clearing system to reduce exposures between CCPs and their participants to the optimal benchmark of a single CCP. This comes at the cost of newly established exposures between CCPs. Due to concerns about the systemic risk implications of a formerly applied cross-CCP risk management model of European cash equity CCPs, responsible regulators have issued guidelines to eliminate systemic risk. These guidelines are shown to come at the cost of collateral requirements exceeding the optimal level. Two approaches are investigated that help to reduce collateral requirements while containing systemic risk.

ELISABETH BEUSCH, BARBARA DÖBELI, ANDREAS M. FISCHER AND PINAR YEŞİN.

MERCHANTING AND CURRENT ACCOUNT BALANCES

The World Economy (forthcoming)

Merchanting is goods trade that does not cross the border of the firm's country of residence. Merchanting grew strongly in the last decade in several European economies and has become an important determinant of these countries' current account. Because merchanting firms reinvest their earnings abroad to expand their international activities, this practice raises national savings in the home country without increasing domestic investment. This paper examines the empirical linkages between merchanting and the current account balance. Using a sample of 53 countries during 1980-2011, it shows that merchanting activity is a determinant of the medium-term current account balance.

PAST EVENTS

23–24 OCTOBER 2015

FED ST. LOUIS-JEDC-SCG-SNB-UNI BERN CONFERENCE ON 'INTERNATIONAL ECONOMICS'

HOST: STUDY CENTER GERZENSEE, GERZENSEE

The Fed St. Louis, the Study Center Gerzensee (SCG), the University of Bern and the SNB, together with the Journal of Economic Dynamics and Control (JEDC), organised a conference at the Study Center Gerzensee on 23–24 October 2015. The theme of the conference was 'International Economics'. The members of the organising committee were Harris Dellas (University of Bern), Carlos Garriga (Fed St. Louis), Dirk Niepelt (Study Center Gerzensee), B. Ravikumar (Fed St. Louis and Arizona State University), and Marcel Savioz (SNB). The dinner address was given by Fritz Zurbrügg (Vice Chairman of the Governing Board, SNB).

29–30 OCTOBER 2015

6TH EUROPEAN SEMINAR ON BAYESIAN ECONOMETRICS (ESOB) ANNUAL CONFERENCE ON 'COMPLEXITY IN ECONOMICS: BIG DATA AND PARALLELIZATION'

HOST: STUDY CENTER GERZENSEE, GERZENSEE

The European Seminar on Bayesian Econometrics held a Conference at the Study Center Gerzensee on 29–30 October 2015. The theme of the conference was 'Complexity in Economics: Big Data and Parallelization'. The organisation committee of the conference consisted of Sylvia Frühwirth-Schnatter (Vienna University of Economics and Business), Sylvia Kaufmann (Study Center Gerzensee) and Herman K. van Dijk (Erasmus University Rotterdam).

4–6 NOVEMBER 2015

JOINT CENTRAL BANK CONFERENCE (FEDERAL RESERVE BANK OF CLEVELAND, BANK OF CANADA, FEDERAL RESERVE BANK OF ATLANTA, SNB): 'CHALLENGES TO MONETARY POLICY IN THE FUTURE'

HOST: SWISS NATIONAL BANK, BERNE



Thomas Jordan and Dennis Lockhart

'Challenges to monetary policy in the future' was the topic of the Joint Central Bank Conference held at the SNB in Berne on 5–6 November 2015. The Bank of Canada, the Federal Reserve Bank of Atlanta, the Federal Reserve Bank of Cleveland and the SNB alternately organise the Joint Central Bank Conference. At the conference, eight research papers were presented. The organising committee consisted of Césaire Meh (Bank of Canada), Karen Kopecky (Federal Reserve Bank of Atlanta), Filippo Occhino (Federal Reserve Bank of Cleveland), and Enzo Rossi (SNB).

Dennis Lockhart, President and Chief Executive Officer of the Federal Reserve Bank of Atlanta, gave a dinner speech in which he explained his views on the state of the US and global economy as well as US monetary policy. Mr Lockhart also highlighted that Thomas Jordan, the Chairman of the Governing Board of the SNB, is a founding father of the Joint Central Bank Conference. The Federal Reserve Bank of Cleveland and the SNB initiated the conference in 2002 and were later joined by the Federal Reserve Bank of Atlanta and the Bank of Canada. The conference became a cornerstone for regular academic exchange among the four central banks.

As at previous conferences, a day-ahead meeting with a focus on policy issues was held, during which time Thomas Jordan gave a talk about the growing interest of politicians into central bank topics since the financial crisis. Thomas Moser, an Alternate Member of the Governing Board of the SNB, spoke about the Swiss experience with the negative nominal interest rate.

17–18 DECEMBER 2015

5TH WORKSHOP ON 'FINANCIAL DETERMINANTS OF EXCHANGE RATES'

HOST: SWISS NATIONAL BANK, ZURICH

The 5th Workshop on 'Financial Determinants of Exchange Rates' was held in Zurich on 17–18 December 2015. The workshop provided an international forum to discuss topical questions about the determination of exchange rates. More than 40 participants from academia, central banks and the financial industry attended this workshop. In his keynote lecture, Hanno Lustig (Stanford) argued that common movements in bilateral exchange rates are related to determinants of trade. An invited lecture by Matteo Maggiori (Harvard) highlighted how the combination of imperfect capital markets with variation in the risk tolerance of financial intermediaries influences exchange rate dynamics. The organising committee consisted of Alessio Anzuini (Bank of Italy), Fabio Fornari (ECB) and Thomas Nitschka (SNB).

21–22 JANUARY 2016

EURO AREA BUSINESS CYCLE NETWORK (EABCN)- SNB CONFERENCE ON 'MEDIUM AND LONG-RUN IMPLICATIONS OF FINANCIAL CRISES'

HOST: SWISS NATIONAL BANK, ZURICH

The SNB hosted the Euro Area Business Cycle Network (EABCN) Conference on 26–27 June 2015 in Zurich. The topic was 'Medium and long-run implications of financial crises'. The organising committee consisted of Carlos Lenz (SNB), Massimiliano Marcellino (Bocconi University, EABCN and CEPR), Attilio Zanetti (SNB) and Fabrizio Zilibotti (University of Zurich and CEPR). Andréa Maechler (Alternate Member of the Governing Board, SNB) gave a dinner speech.

Karl Brunner Distinguished Lecture Series

The Swiss National Bank (SNB) has established an annual Karl Brunner Distinguished Lecture Series in memory of the internationally renowned Swiss economist Karl Brunner, who would have been 100 years old this year. His contribution to the development of monetary economics and his influence on monetary policy both in the United States and in Europe have proved to be of major importance. The lecture series will feature eminent monetary theory and policy thinkers whose research has been relevant to central banking. The inaugural lecture will be held by Kenneth S. Rogoff, Professor of Economics and the Thomas D. Cabot Professor of Public Policy at Harvard University, in Zurich on 22 September 2016.

Karl Brunner (1916–1989)

Karl Brunner's career illustrates the importance of the interplay between academic research and the practice of central banking. He studied economics at the University of Zurich and the London School of

Economics, and he received his doctorate from the University of Zurich in 1943. After a short period as an economist at the Swiss National Bank and as a research associate and lecturer at the University of St. Gallen, Karl Brunner left Switzerland on a grant from the Rockefeller Foundation in 1949 to become a visiting fellow at the Cowles Commission at the University of Chicago. He then joined the faculties of the University of California, Los Angeles (UCLA) (1952–1966), the Ohio State University (1966–1971) and the University of Rochester (1971–1989). In the course of his academic career he founded two leading journals in the field of monetary economics, the *Journal of Monetary Economics* (1975) and the *Journal of Money, Credit and Banking* (1969). In the 1970s, Karl Brunner frequently returned to Europe after accepting a Professorship at the University of Konstanz, Germany (1969–1973) and subsequently the University of Bern, Switzerland (1974–1985). In 1979, Karl Brunner was named Fred H. Gowen Professor of Economics at the University of Rochester, a position he held until his death in 1989.

UPCOMING EVENTS

23–24 MAY 2016

13TH ANNUAL NBP-SNB JOINT SEMINAR

HOST: NATIONAL BANK OF POLAND (NBP), WARSAW

24–25 JUNE 2016

IMF-IMF ECONOMIC REVIEW-SNB CONFERENCE ON EXCHANGE RATES AND EXTERNAL ADJUSTMENT

HOST: SWISS NATIONAL BANK, ZURICH

1 JULY 2016

HSG-AUSSENWIRTSCHAFT WORKSHOP

HOST: SWISS NATIONAL BANK, ZURICH

22 SEPTEMBER 2016

1ST KARL BRUNNER DISTINGUISHED LECTURE

HOST: SWISS NATIONAL BANK, ZURICH

The inaugural lecture of the Karl Brunner Distinguished Lecture Series (cf. box) will be held by Kenneth S. Rogoff, Professor of Economics and the Thomas D. Cabot Professor of Public Policy at Harvard University.

23–24 SEPTEMBER 2016

SNB RESEARCH CONFERENCE

HOST: SWISS NATIONAL BANK, ZURICH

13 OCTOBER 2016

BUBA-OENB-SNB WORKSHOP

HOST: DEUTSCHE BUNDESBANK, ELTVILLE AM RHEIN

15–16 NOVEMBER 2016

JOINT CENTRAL BANK CONFERENCE (FEDERAL RESERVE BANK OF CLEVELAND, BANK OF CANADA, FEDERAL RESERVE BANK OF ATLANTA, SNB)

HOST: FEDERAL RESERVE BANK OF ATLANTA, NASHVILLE

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