

SNB Research Report 2018

SCHWEIZERISCHE NATIONALBANK
BANQUE NATIONALE SUISSE
BANCA NAZIONALE SVIZZERA
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SNB Research Report 2018

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Preface

Dear Reader

Sound economic research is important for central banks in fulfilling their statutory mandate. The Swiss National Bank seeks to play a leading role in research on Swiss monetary policy and relies on researchers harnessing state-of-the-art knowledge and techniques in all areas relating to central banking.

I would like to share with you in more detail some of the expectations we have of staff members who conduct research. First, they should keep abreast of the latest research findings and regularly exchange ideas and insights with their peers from other central bank institutions. Second, we expect them to have a command of cutting-edge academic methods and their applications. Third, we impress on them the importance of sharing their expertise and results within the bank and with the general public.

We firmly believe that communicating our research activities is essential to ensuring public support and confidence in the professional competence of our institution. For this reason, we have decided to include a reader-friendly summary of a monetary policy paper in this year's edition.

I am pleased to present the *SNB Research Report* for 2018 and hope that you will find it an interesting and informative read.

June 2019



THOMAS J. JORDAN
Chairman of the Governing Board

This report presents the research activities at the SNB from 1 January to 31 December 2018.

The report is structured as follows:

- Chapter 2 provides a summary of SNB research activities in 2018 and a reader-friendly summary of a monetary policy paper.
- Chapter 3 contains an overview of research publications.
- Chapter 4 lists the research events organised by the SNB.
- The appendix focuses on developments in SNB research over recent years.

Research at the SNB

The SNB bases the analyses used for its monetary and financial stability policy on cutting-edge theoretical and empirical economic knowledge. To this end, it conducts its own research and works closely with the research community – especially with researchers from other central banks. Besides providing insights, research also supplies models, tools and analytical instruments for the preparation and implementation of the SNB's monetary and macroprudential policy.

Research at the SNB is largely conducted on monetary and international macroeconomics as well as on the economics of banking, other financial institutions, payment systems and financial markets. The SNB does not maintain a centralised research unit. Instead, research work is carried out in various units.

Researchers at the SNB are economists who undertake research projects alongside the main tasks assigned to them within their unit. The SNB supports research activities and promotes the ongoing development of its researchers' skills.

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SNB research activities in 2018

This chapter summarises and evaluates the SNB's research activities in 2018. Section 2.1 is dedicated to the research publications and section 2.2 outlines the research events.¹ Section 2.3 features a summary of a monetary policy paper.

2.1 RESEARCH PUBLICATIONS

This section focuses on the number of articles appearing in research journals and working papers in 2018 compared to 2017.²

Caveat

Note that published research covers only part of the research undertaken by SNB staff. Some research provides direct input into decision-making. As such it is often confidential and may not be published immediately (or indeed, at all).

Articles in research journals

Compared with 2017, the quantity of articles increased (2018: 27, 2017: 20).

Table 1

RESEARCH PUBLICATIONS: QUANTITY

	2018	2017
Articles in research journals	27	20
Of which <i>SNB Economic Studies</i>	–	1
Contributions to books	2	1
Dissertations ³	1	4

Quality

More than half of the publications were published in D-rated journals (2018: 56%, 2017: 40%). Although two articles were published in A-rated journals, the share of publications published in high-quality journals (A or B journals) was roughly unchanged (2018: 11%, 2017: 10%).

Definition of quality

An article in a high-quality journal is allocated an A or B rating, an article in a good journal a C and an article in a decent-quality journal a D.

1 Further information about these research activities can be found in chapters 3 and 4 of this report.

2 The number of articles in research journals and SNB Working Papers published by SNB staff in recent years is provided in the appendix.

3 The SNB offers young staff members the opportunity to undertake a PhD alongside the main tasks assigned to them within their unit.

Table 2

RESEARCH PUBLICATIONS: QUALITY

	2018	2017
A journals	7%	0%
B journals	4%	10%
C journals	33%	50%
D journals	56%	40%

In 2018, more articles which appeared in research journals were directly related to central banking (2018: 70%, 2017: 35%), but fewer articles were related to the Swiss economy (2018: 56%, 2017: 80%). Overall, all articles were at least indirectly related to central banking.

Relevance

Table 3

RESEARCH PUBLICATIONS: RELEVANCE CRITERIA

2018 (2017)	Related to Switzerland		Total	
	yes	no		
Related to central banking	directly	41% (30%)	29% (5%)	70% (35%)
	indirectly	15% (50%)	15% (15%)	30% (65%)
Total		56% (80%)	44% (20%)	100% (100%)

The number of working papers remained roughly the same (2018: 28, 2017: 25).

Working papers

Table 4

ONGOING RESEARCH: QUANTITY

	2018	2017
Working papers	28	25
Of which SNB Working Papers	19	18
Of which other working papers	9	7

2.2 RESEARCH EVENTS

An extensive exchange with the research community, especially that of other central banks, is a requirement for research. Table 5 shows some key figures of further research activities conducted by the SNB.

Table 5

SUPPORT OF RESEARCH ACTIVITIES: OVERVIEW

	2018	2017
SNB research seminars	37	35
SNB research visitors	2	1
SNB research lectures	1	1
Research conferences	10	10

SNB research seminars	The SNB regularly invites external researchers to present their research results at seminars. In 2018, 37 research seminars were held.
SNB research visitors	<p>Research visitors give advice, exchange views, hold seminars and may undertake joint research projects with SNB staff. They are only present for a limited period of time. Two researchers visited the SNB in 2018:</p> <ul style="list-style-type: none"> – <i>Franz Seitz</i>, Professor at Weiden Technical University of Applied Sciences (Monetary Policy Analysis, 11–30 April 2018) – <i>Jan Wrampelmeyer</i>, Associate Professor of Finance at Vrije Universiteit Amsterdam (Money Market, 27–31 August 2018)
SNB research lectures	<p>The SNB also invites experts to give research lectures. This enables SNB economists to keep abreast of topical issues and to remain at the frontier of research. Lectures may include broader topics such as economic history or economic methodology. One SNB research lecture was held in 2018:</p> <ul style="list-style-type: none"> – <i>Michel De Vroey</i>, Université catholique de Louvain (23–24 May 2018), on ‘A History of Macroeconomics from Keynes to Lucas and Beyond’
Research conferences	The SNB organises conferences, mostly in cooperation with other institutions, at the SNB or elsewhere. Conferences are an opportunity to present and discuss papers as well as to review research in a particular area. In 2018, the SNB was a member of the programme committee of nine conferences and hosted one conference.

2.3 FEATURED ARTICLE

Central bankers and academics are discussing how monetary policy should be implemented in a structural liquidity surplus environment. The paper ‘Exit strategies for monetary policy’, published in the *Journal of Monetary Economics* by Aleksander Berentsen, Sébastien Kraenzlin and Benjamin Müller, contributes to this discussion by analysing three strategies for controlling interest rates in an environment characterised by excess reserves under two fiscal regimes. The authors add to the literature by showing that the interaction between fiscal and monetary policy is essential when choosing an exit strategy.

2.3.1 EXIT STRATEGIES FOR MONETARY POLICY

Before the 2007/2008 financial crisis, monetary policy was implemented in a structural liquidity deficit. In such an environment, the banking system was kept short of reserves and the central bank steered short-term interest rates by controlling the stock of reserves using open market operations. In the aftermath of the financial crisis, however, all major central banks substantially lowered short-term interest rates and conducted quantitative easing (QE) policies. QE expanded central banks’ balance sheets and created excess reserves, necessitating a change in the way monetary policy is implemented. The authors present a theoretical model for analysing three ‘exit strategies’ that allow central banks to control short-term interest rates in an environment of excess reserves.

1. Leave excess reserves unchanged and pay interest on reserves (IOR, cf. box 1).
2. Absorb reserves via instruments such as reverse repos, central bank bills, or term deposits (cf. box 2).
3. Reverse QE by unwinding asset purchases (cf. box 3).

These strategies have different mechanical effects on banks’ reserves and central bank balance sheets (cf. table 6). The first strategy leaves both unchanged. The second leaves the size of the balance sheet unchanged but reduces the quantity of reserves. The third reduces both the balance sheet and the quantity of reserves. The simulation of the calibrated model based on data from the Swiss franc repo market suggest that the overnight money market interest rate can be controlled with all three exit strategies, although the volatility of the overnight rate is lower with IOR than with all other strategies. As excess reserves are (temporarily or permanently) reduced with reserve-absorbing operations or with reverse QE, money market trading activity re-emerges to the pre-crisis levels, whereas it is close to zero with IOR. In the latter case, this could lead to a potential shortfall of the calculation basis for a transaction-based money market interest rate, serving for instance as an alternative to Libor. Finally, paying IOR and reserve-absorbing operations involve substantial interest rate payments to financial intermediaries. This is not the case for reverse QE.

Table 6

EFFECTS OF EXIT STRATEGIES

	Reserves	Balance sheet	Control of money market rates	Money market turnover	Interest rate payments
Paying IOR	=	=	✓	low	large
Reserve-absorbing operations	↓	=	✓	high	large
Reverse QE	↓	↓	✓	high	none

The authors analyse the effects of these strategies under two different regimes, ‘full fiscal support’ and ‘no fiscal support’. Under full fiscal support, the central bank chooses its strategy, neglecting the impact on the transfer of the central bank to the government budget. In other words, by adjusting its spending or its tax revenues, fiscal policy must ensure that the consolidated budget constraint of the fiscal and the monetary authority holds. With full fiscal support, policy rates and the inflation target can be chosen by the central bank. If fiscal support is lacking, however, the central bank might need to accept a higher inflation rate to implement a certain interest rate target.

While the results in table 6 hold independently of the degree of fiscal support, the implications for welfare are different. Under no fiscal support, reserve-absorbing operations and reverse QE generate greater welfare than IOR as inflation must be higher to implement an interest rate target with IOR. Under full fiscal support, IOR is welfare maximising, because the opportunity cost of holding reserves is lower than with all other strategies.

Box 1: Interest on reserves (IOR)

Paying IOR allows the central bank to implement a floor for the overnight money market rate, since depository institutions would not lend to their counterparties at a rate below the interest rate.

Box 2: Reserve-absorbing operations

When a central bank wants to decrease banks’ reserves via *reverse repo*, it sells securities to a counterparty and buys them back at a previously fixed later date. The SNB used (reverse) repos as the primary tool for implementing monetary policy up to the financial crisis.

Central bank bills are interest-bearing debt certificates issued by the central bank; issuance reduces reserves for the term of the bill. Central bank bills can be acquired by depository and non-depository institutions. The SNB issued SNB Bills in combination with reverse repos between 2010 and 2011 to absorb reserves.

Similarly, *term deposits* drain reserves because they are removed from accounts of participating institutions for the term of the deposits.

Reserve-absorbing operations are referred to as ‘temporary’ because they have to be renewed (rolled over) continuously to keep the level of reserves stable.

Box 3: Reverse QE

With reverse QE, the central bank either actively sells assets or allows assets to mature without replacement. It has the reverse effect of QE: it reduces the central bank balance sheet size and the level of reserves. In contrast to reserve-absorbing operations, the effect on reserves is referred to as ‘permanent’. For the SNB, only an active sale of foreign currency assets against Swiss francs reduces the balance sheet size and the level of reserves.

This chapter contains an overview of articles published in research journals (cf. 3.1), contributions to books (cf. 3.2), working papers (cf. 3.3) and dissertations (cf. 3.4).

3.1 ARTICLES IN RESEARCH JOURNALS

Abbate, Angela and Massimiliano Marcellino. 2018. [Point, interval and density forecasts of exchange rates with time-varying parameter models](#). *Journal of the Royal Statistical Society: Series A* 181(1): 155–179.

Backes-Gellner, Uschi, Christian Eggenberger and Miriam Rinawi. 2018. [Occupational specificity: A new measurement based on training curricula and its effect on labor market outcomes](#). *Labour Economics* 51(C): 97–107.

Baeriswyl, Romain and Camille Cornand. 2018. [The distortionary effect of monetary policy: Credit expansion vs. lump-sum transfers in the lab](#). *The B.E. Journal of Macroeconomics (Contributions)* 18(2): 1–30.

Bäurle, Gregor and Daniel Kaufmann. 2018. [Measuring exchange rate, price, and output dynamics at the effective lower bound](#). *Oxford Bulletin of Economics and Statistics* 80(6): 1243–1265.

Berentsen, Aleksander, Sébastien P. Kraenzlin and Benjamin Müller. 2018. [Exit strategies for monetary policy](#). *Journal of Monetary Economics* 99: 20–40.⁴

Blatter, Marc, Winand Emons and Silvio Sticher. 2018. [Optimal leniency programs when firms have cumulative and asymmetric evidence](#). *Review of Industrial Organization* 52(3): 403–427.

Bösenberg, Simon, Peter Egger, Valeria Merlo and Georg Wamser. 2018. [Measuring the interdependence of multinational firms' foreign investment](#). *Economic Inquiry* 56(2): 1064–1088.

Danton, Jayson and Alexander Himbert. 2018. [Residential vertical rent curves](#). *Journal of Urban Economics* 107(C): 89–100.

Föllmi, Reto, Sandra Hanslin Grossmann and Andreas Kohler. 2018. [A dynamic North-South model of demand-induced product cycles](#). *Journal of International Economics* 110: 63–86.

⁴ Cf. 2.3 for a summary of this article.

Föllmi, Reto, Christian Hepenstrick and Josef Zweimüller. 2018. [International arbitrage and the extensive margin of trade between rich and poor countries](#). *Review of Economic Studies* 85(1): 475–510.

Fuhrer, Lucas Marc. 2018. [Liquidity in the repo market](#). *Journal of International Money and Finance* 84: 1–22.

Fuster, Andreas, Benedict Guttman-Kenney and Andrew F. Haughwout. 2018. [Tracking and stress-testing U.S. household leverage](#). *Economic Policy Review. FRB New York*: 35–63.

Galli, Alain. 2018. [Which indicators matter? Analyzing the Swiss business cycle using a large-scale mixed-frequency dynamic factor model](#). *Journal of Business Cycle Research* 14(2): 179–218.

Gerigk, Joschka, Miriam Rinawi and Adrien Wicht. 2018. [Demographics and the current account](#). *Aussenwirtschaft* 69(1): 45–76.

Gerlach-Kristen, Petra and Seán Lyons. 2018. [Determinants of mortgage arrears in Europe: Evidence from household microdata](#). *International Journal of Housing Policy* 18(4): 545–567.

Gerlach-Kristen, Petra, Richhild Moessner and Rina Rosenblatt-Wisch. 2018. [Computing long-term market inflation expectations for countries without inflation expectation markets](#). *Russian Journal of Money and Finance* 77(3): 23–48.

Grise, Christian and Silvio Schumacher. 2018. [Term structure dynamics at low and negative interest rates: Evidence from Switzerland](#). *Swiss Journal of Economics and Statistics* 154(20): 1–17.

Grobéty, Mathieu. 2018. [Government debt and growth: The role of liquidity](#). *Journal of International Money and Finance* 83: 1–22.

Gyntelberg, Jacob, Mico Loretan and Tientip Subhanij. 2018. [Private information, capital flows, and exchange rates](#). *Journal of International Money and Finance* 81: 40–55.

Heinisch, Katja and Rolf Scheufele. 2018. [Bottom-up or direct? Forecasting German GDP in a data-rich environment](#). *Empirical Economics* 54(2): 705–745.

Mirkov, Nikola and Andreas Steinhauer. 2018. [Asymmetry of individual and aggregate inflation expectations: A survey](#). *Manchester School* 86(4): 446–467.

Moser, Thomas. 2018. [Die Rolle der Zentralbanken – 10 Jahre nach der Finanzkrise](#). *Schweizerische Zeitschrift für Wirtschafts- und Finanzmarktrecht* 2018-06: 598–604.

Nitschka, Thomas. 2018. [Bond market evidence of time variation in exposures to global risk factors and the role of US monetary policy](#). *Journal of International Money and Finance* 83 (May): 44–54.

Pirschel, Inske and Maik H. Wolters. 2018. [Forecasting with large datasets: Compressing information before, during or after the estimation?](#) *Empirical Economics* 55(2): 573–596.

Röhrs, Sigrid and Christoph Winter. 2017.⁵ [Reducing government debt in the presence of inequality](#). *Journal of Economic Dynamics and Control* 82(C): 1–20.

Stoffels, Nicolas and Cédric Tille. 2018. [Do Swiss foreign assets hedge the business cycle?](#) *Aussenwirtschaft* 69(1): 1–40.

Tola, Albi and Sébastien Wälti. 2018. [Financial crises, output losses, and the role of structural reforms](#). *Economic Inquiry* 56(2): 761–798.

3.2 CONTRIBUTIONS TO BOOKS

Assenmacher, Katrin, Franz Seitz and Jörn Tenhofen. 2018. [The use of large denomination banknotes in Switzerland](#). In *International Cash Conference 2017 – War on Cash: Is there a Future for Cash?*, 149–199. Deutsche Bundesbank, Frankfurt am Main.

Moser, Thomas. 2018. [Monetary policy below the zero-lower bound](#). In *Negative Euro Area Interest Rates and Spillovers on Western Balkan Central Bank Policies and Instruments*, Eds. Guido Della Valle, Erald Themeli, Romain Veyrune, 233–244. Bank of Albania.

3.3 WORKING PAPERS

Auer, Simone, Christian Friedrich, Maja Ganarin, Teodora Paligorova and Pascal Towbin. 2018. [International monetary policy transmission through banks in small open economies](#). SNB Working Papers 2018-04.

Baeriswyl, Romain, Camille Cornand and Bruno Ziliotto. 2018. [Observing and shaping the market: The dilemma of central banks](#). SNB Working Papers 2018-03.

Bäurle, Gregor, Sarah M. Lein and Elizabeth Steiner. 2018. [Employment adjustment and financial constraints – Evidence from firm-level data](#). WWZ Working Papers 2018-07.

Bäurle, Gregor, Elizabeth Steiner and Gabriel Züllig. 2018. [Forecasting the production side of GDP](#). SNB Working Papers 2018-16.

Bonadio, Barthélémy, Andreas M. Fischer and Philip U. Sauré. 2018. [The speed of exchange rate pass-through](#). SNB Working Papers 2018-05.

5 Retrospectively recorded in the *SNB Research Report* 2018.

- Cukierman, Alex and Thomas Lustenberger. 2018. *International evidence on professional interest rate forecasts: The impact of forecasting ability*. SNB Working Papers 2018-10.
- Cukierman, Alex, Thomas Lustenberger and Allan H. Meltzer. 2018. *The permanent-transitory confusion: Implications for tests of market efficiency and for expected inflation during turbulent and tranquil times*. CEPR Discussion Papers 13187.
- Fischer, Andreas M. and Philip U. Sauré. 2018. *Identifying Chinese supply shocks – Effects of trade on labor markets*. CEPR Discussion Papers 13122.
- Fischer, Andreas M. and Lucca Zachmann. 2018. *Do the rich pay their taxes early?* SNB Working Papers 2018-08.
- Fischer, Andreas M., Henrike Groeger, Philip U. Sauré and Pinar Yesin. 2018. *Current account adjustment and retained earnings*. SNB Working Papers 2018-12.⁶
- Föllmi, Reto, Adrian Jäggi and Rina Rosenblatt-Wisch. 2018. *Loss aversion at the aggregate level across countries and its relation to economic fundamentals*. SNB Working Papers 2018-01.
- Fuhrer, Lucas Marc, Basil Guggenheim and Matthias Jüttner. 2018. *What do Swiss franc Libor futures really tell us?* SNB Working Papers 2018-06.
- Fuster, Andreas and James Vickery. 2018. *Regulation and risk shuffling in bank securities portfolios*. Federal Reserve Bank of New York Staff Reports 851.
- Fuster, Andreas, Ricardo Perez-Truglia and Basit Zafar. 2018. *Expectations with endogenous information acquisition: An experimental investigation*. NBER Working Papers 24767.
- Fuster, Andreas, Matthew Plosser and James Vickery. 2018. *Does CFPB oversight crimp credit?* Federal Reserve Bank of New York Staff Reports 857.
- Girsberger, Esther Mirjam, Matthias Krapf and Miriam Rinawi. 2018. *Wages and employment: The role of occupational skills*. WWZ Working Papers 2018-16.⁷
- Grise, Christian and Gisle James Natvik. 2018. *Sovereign debt crises and cross-country assistance*. SNB Working Papers 2018-15.
- Guggenheim, Basil, Mario Meichle and Thomas Nellen. 2018. *Confederation debt management since 1970*. SNB Working Papers 2018-07.

⁶ In 2018, this working paper also appeared as CEPR Discussion Paper 13142, Federal Reserve Bank of Dallas – Globalization Institute Working Paper 345 and GSME Discussion Paper Series 1809.

⁷ In 2018, this working paper also appeared as CESifo Working Paper 7114, IZA Discussion Paper 11586 and Leading House Working Paper 153.

Haab, David and Thomas Nitschka. 2018. *Carry trade and forward premium puzzle from the perspective of a safe-haven currency*. SNB Working Papers 2018-17.

Hunziker, Hans-Ueli, Christian Raggi, Rina Rosenblatt-Wisch and Attilio Zanetti. 2018. *The impact of guidance, short-term dynamics and individual characteristics on firms' long-term inflation expectations*. SNB Working Papers 2018-18.

Imhof, Stephan, Cyril Monnet and Shengxing Zhang. 2018. *The risk-taking channel of liquidity regulations and monetary policy*. SNB Working Papers 2018-13.⁸

Jost, Adriel. 2018. *Cultural differences in monetary policy preferences*. SNB Working Papers 2018-02.

Lustenberger, Thomas. 2018. *Has the American output growth path experienced a permanent change?* SNB Working Papers 2018-14.

Lustenberger, Thomas and Enzo Rossi. 2018. *Does central bank transparency and communication affect financial and macroeconomic forecasts?* WWZ Working Papers 2018-06.

Lustenberger, Thomas and Enzo Rossi. 2018. *The social value of information: A test of a beauty and non-beauty contest*. WWZ Working Papers 2018-05.

Nitschka, Thomas. 2018. *Did China's anti-corruption campaign affect the risk premium on stocks of global luxury goods firms?* SNB Working Papers 2018-09.

Phillot, Maxime and Rina Rosenblatt-Wisch. 2018. *Inflation expectations: The effect of question ordering on forecast inconsistencies*. SNB Working Papers 2018-11.

Reynard, Samuel. 2018. *Negative interest rate, QE and exit*. SNB Working Papers 2018-19.

3.4 DISSERTATIONS

Lustenberger, Thomas. 2018. *Four essays on expectation formation in monetary economics and macroeconomics*. Dissertation, University of Basel.

⁸ In 2018, this working paper also appeared as Study Center Gerzensee Working Paper 18.03.

This chapter reviews research events organised by the SNB, including research seminars (cf. 4.1), research visitors (cf. 4.2), research lectures (cf. 4.3) and research conferences (cf. 4.4).

4.1 SNB RESEARCH SEMINARS

12 January 2018	<i>Stefan Avdjiev</i> (BIS) The dollar, bank leverage and the deviation from covered interest parity
16 January 2018	<i>Eric Shanning</i> (Norges Bank) Fire sales, indirect contagion and systemic stress testing
23 January 2018	<i>Christian Schmieder</i> (Financial Stability Board) FSB work on the effects of G20 financial regulatory reforms
26 January 2018	<i>Sarah Lein</i> (University of Basel) Price responses to large shocks and implications for CPI measurement and household inflation: The Swiss experience
9 February 2018	<i>Kjell Nyborg</i> (University of Zurich) Collateral, central bank repos, and systemic arbitrage
2 March 2018	<i>Nicolas Veron</i> (Bruegel and Peterson Institute for International Economics) The Franco-German euro report: A realistic agenda for euro area reform?
6 March 2018	<i>Todd Keister</i> (Rutgers University) Bailouts, bail-ins, and banking crisis
23 March 2018	<i>Ulf Lewrick</i> (BIS) and <i>Tirupam Goel</i> (BIS) Bank capital allocation under multiple constraints
5 April 2018	<i>Jens Christensen</i> (Federal Reserve Bank of San Francisco) Term structure analysis with big data
13 April 2018	<i>Damjan Pfajfar</i> (Board of Governors of the Federal Reserve System) Confidence in central banks and inflation expectations
20 April 2018	<i>Michael Siegenthaler</i> (KOF Swiss Economic Institute) Intertemporal labor supply substitution? Evidence from the Swiss income tax holidays
27 April 2018	<i>Franz Seitz</i> (Ostbayerische Technische Hochschule) Cash abolition to overcome the zero lower bound: A welfare-theoretic analysis
4 May 2018	<i>Marc-Antoine Ramelet</i> (University of St. Gallen) and <i>Winfried Koeniger</i> (University of St. Gallen) Monetary policy, consumption and housing tenure
17 May 2018	<i>Signe Krogstrup</i> (IMF) International capital flow pressures
25 May 2018	<i>Katsiaryna Svirydenka</i> (IMF) Financial cycles – Early warning indicators of banking crises
31 May 2018	<i>Kristian Blickle</i> (University of St. Gallen) Local banks, credit supply, and house prices
22 June 2018	<i>Raphael Schoenle</i> (Brandeis University) Price rigidities and the granular origins of aggregate fluctuations
29 June 2018	<i>Christoph Basten</i> (University of Zurich) How banks respond to negative interest rates: Evidence from the Swiss exemption threshold
3 July 2018	<i>Ashoka Mody</i> (Princeton University) Europe ends up some place else
13 July 2018	<i>Johannes Gräß</i> (ECB) Predicting risk premia in short-term interest rates and exchange rates
26 July 2018	<i>Michele Lenza</i> (ECB) An inflation-predicting measure of the output gap in the euro area

3 August 2018	<i>Andrea Ferrero</i> (University of Oxford) Concerted efforts? Monetary policy and macroprudential tools
10 August 2018	<i>Antoine Martin</i> (Federal Reserve of Bank New York) Cryptocurrency and the potential for central bank digital currencies
17 August 2018	<i>Rodney Strachan</i> (University of Queensland) Reducing dimensions in a large TVP-VAR
7 September 2018	<i>Cédric Tille</i> (Graduate Institute Geneva) Taming the global financial cycle: What role for the global financial safety net?
13 September 2018	<i>Darrell Duffie</i> (Stanford University) No longer too big to fail
25 September 2018	<i>Gunther Schnabl</i> (University of Leipzig) Ultra-loose monetary policy and regional concentration of economic activity: Evidence from Japan
5 October 2018	<i>Nir Jaimovich</i> (University of Zurich) Location, location, location: Industrial structure and the distribution of house price growth
26 October 2018	<i>Christian Hilber</i> (London School of Economics) The economic impacts of constraining second home investments
2 November 2018	<i>Katrin Assenmacher</i> (European Central Bank) A cointegration model of money and wealth
9 November 2018	<i>Ellis Tallman</i> (Federal Reserve Bank of Cleveland) Fighting financial crises: Learning from the past
14 November 2018	<i>Joanna Stavins</i> (Federal Reserve Bank of Boston) Does getting a mortgage affect credit card use?
16 November 2018	<i>Jonathan McMillan</i> (pseudonym) The end of banking – Building a financial architecture for the digital age
19 November 2018	<i>Giancarlo Corsetti</i> (University of Cambridge) Exchange rate misalignment, capital flows, and optimal monetary policy trade-offs
30 November 2018	<i>Ruy Lama</i> (IMF) Unconventional policies and exchange rate dynamics
7 December 2018	<i>Mitali Das</i> (IMF) The revised External Balance Assessment (EBA) – Lite methodology of the IMF
13 December 2018	<i>Jonathan Ostry</i> (IMF) Taming the tide of capital flows

4.2 SNB RESEARCH VISITORS

Franz Seitz visited the SNB from 11 to 30 April 2018. Professor Franz Seitz teaches Economics with a special focus on monetary policy and financial markets at Weiden Technical University of Applied Sciences. He is author of numerous articles in national and international journals. His main fields of research are monetary theory and policy, empirical macroeconomics and payments markets, especially cash in circulation. For many years now, Professor Seitz has worked as a consultant on various projects for central banks, commercial banks and financial as well as non-financial corporations.

Jan Wrampelmeyer visited the SNB from 27 to 31 August 2018. Jan Wrampelmeyer is Associate Professor of Finance at the Vrije Universiteit Amsterdam (VU), The Netherlands. He joined the School of Business and Economics in January 2017 and teaches courses on financial markets and institutions and financial data decision analysis (financial econometrics). Prior to joining the VU, he was Assistant Professor at the University of St.Gallen, Switzerland. He gained experience in the financial industry working as risk modeling and analytics specialist in UBS AG's group-wide Risk Control and Methodology unit. He holds a Ph.D. in Banking and Finance from the University of Zurich and a M.Sc. in Econometrics and Operations Research from Maastricht University. His research focuses on money markets, international finance, risk management, asset pricing and financial econometrics. Jan Wrampelmeyer has published papers in *The Journal of Finance* as well as *The Review of Financial Studies*.

4.3 SNB RESEARCH LECTURES

Michel De Vroey delivered the SNB Research Lecture on 'A history of macroeconomics from Keynes to Lucas and beyond' on 23 and 24 May 2018. The talks were based on Michel De Vroey's book of the same name.

Michel De Vroey is a leading expert in the history of economic thought. He is a professor emeritus at the University of Louvain and a visiting professor at the Université Saint Louis in Brussels. He has held visiting positions at the Sorbonne University, Duke University, the University of British Columbia, Vancouver, and Clemson University. He has published several books, including *Involuntary unemployment: The elusive quest for a theory* (2007) and *Keynes, Lucas: D'une macroéconomie à l'autre* (2009). He has also published extensively in scholarly journals.

4.4 RESEARCH CONFERENCES

This section presents the conferences co-organised, managed and/or hosted by the SNB.

4.4.1 JOINT SNB-BIS RESEARCH WORKSHOP

Date	22 March 2018
Venue	BIS, Basel
Organising committee	Leonardo Gambacorta, BIS Petra Gerlach, SNB

4.4.2 67TH ECONOMIC POLICY PANEL

Date	12–13 April 2018
Venue	Zunfthaus zur Zimmerleuten, Zurich
Organising committee	George de Menil, Fondation Nationale des Sciences Politiques Hans-Werner Sinn, CESifo Charles Wyplosz, Centre for Economic Policy Research (CEPR)

4.4.3 8TH HIGH-LEVEL CONFERENCE ON THE INTERNATIONAL MONETARY SYSTEM: CHALLENGES FOR MONETARY POLICY AND THE GFSN IN AN EVOLVING GLOBAL ECONOMY

Date	8 May 2018
Venue	Baur au Lac, Zurich
Organising committee	Alain Gabler, SNB Miriam Rinawi, SNB International Monetary Fund

4.4.4 15TH ANNUAL NBP-SNB JOINT SEMINAR: MACROPRUDENTIAL STRESS TESTING

Date	25–26 June 2018
Venue	National Bank of Poland, Warsaw
Organising committee	Magdalena Berlinska, National Bank of Poland Gilbert Heim, SNB

4.4.5 AUSSENWIRTSCHAFT WORKSHOP 2018

Date	6 July 2018
Venue	Metropol, Zurich
Organising committee	Reto Föllmi, University of St. Gallen Alain Gabler, SNB Thomas Moser, SNB

4.4.6 KARL BRUNNER DISTINGUISHED LECTURE BY OTMAR ISSING

Date	20 September 2018
Venue	ETH, Zurich
Organising committee	Thomas Moser, SNB Marcel Savioz, SNB

4.4.7 SNB RESEARCH CONFERENCE: CURRENT MONETARY POLICY CHALLENGES

Date	21–22 September 2018
Venue	Metropol, Zurich
Organising committee	Ernst Baltensperger, Study Center Gerzensee Athanasios Orphanides, Massachusetts Institute of Technology (MIT) Samuel Reynard, SNB Marcel Savioz, SNB

4.4.8 BUNDESBANK-OENB-SNB RESEARCH WORKSHOP

Date	4–5 October 2018
Venue	Oesterreichische Nationalbank, Vienna
Organising committee	Emanuel Mönch, Deutsche Bundesbank Marcel Savioz, SNB Martin Summer, Oesterreichische Nationalbank (OeNB)

4.4.9 JOINT CENTRAL BANK CONFERENCE

Date	16–17 October 2018
Venue	Federal Reserve Bank of Cleveland, Cleveland
Organising committee	Bank of Canada Federal Reserve Bank of Cleveland Federal Reserve Bank of Atlanta SNB

4.4.10 JME-SNB-SCG CONFERENCE: MONEY CREATION AND CURRENCY COMPETITION

Date	19–20 October 2018
Venue	Study Center Gerzensee, Gerzensee
Organising committee	Dirk Niepelt, Study Center Gerzensee Ricardo Reis, London School of Economics Marcel Savioz, SNB

5 Appendix

5.1 HISTORY OF SNB RESEARCH

This appendix provides an overview of the quantity of articles in peer-reviewed journals and working papers written by SNB staff in the last decade.

Since 2008, a total of 246 articles have been published in research journals (cf. chart 1). This corresponds on average to more than 20 articles per year.

From 2008 to 2018, a total of 195 SNB Working Papers were published (cf. chart 2). Per year, the number of SNB Working Papers varied within the range of 10 and 20.

Chart 1

ARTICLES IN RESEARCH JOURNALS

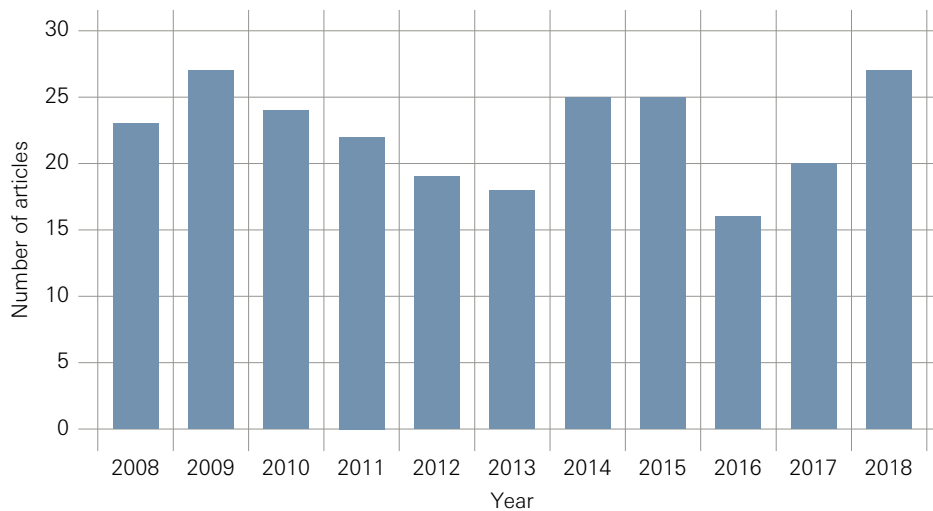
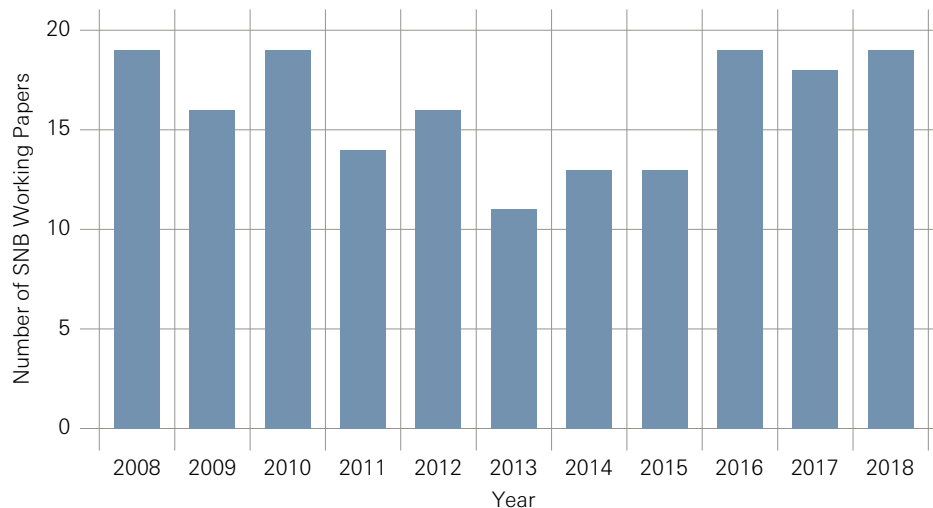


Chart 2

SNB WORKING PAPERS



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