

**KOF** Swiss Economic Institute

**ANNUAL  
REPORT  
2019**



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# Editorial

Dear Readers,

Building a bridge between science and the public: this is one of the goals of the KOF Swiss Economic Institute. We want to communicate our research not only to the academic world, but also to society at large.

We pursued this goal with various measures in 2019. For example with our presence at Scientifica 2019, the Science Days of ETH Zurich and the University of Zurich. Under the motto 'Data Not Assumptions: Economic Facts for Social Discussion', KOF employees presented their work to more than 20,000 visitors. They showed, for instance, how we compile our economic surveys or how we investigate the influence of gender stereotypes in working life. The KOF Economic Forum held in June 2019 on the influence of China's 'Belt and Road' initiative on Swiss companies was also a great success. High-ranking business representatives debated the implications of the Memorandum of Understanding signed in 2019 between the People's Republic of China and Switzerland.

One topic of particular interest and concern is the labour market. We regularly provide independent research contributions on this topic and thus shape public discourse. Last year, we decided to give it even more weight and founded the Swiss Labour Market Section within the Research Division Macroeconomic Forecasting. The section analyses labour market trends and generates knowledge about the functioning of labour markets with a special focus on Switzerland. A further bridge to the public is being built with

*Liebe Leserinnen und Leser,*

*Eine Brücke zwischen der Wissenschaft und der Öffentlichkeit bauen: Das ist eines der erklärten Ziele der KOF Konjunkturforschungsstelle. Wir möchten unsere Forschungsarbeit nicht nur der akademischen Welt, sondern auch der breiteren Gesellschaft vermitteln.*

*Dieses Ziel haben wir im Jahr 2019 mit verschiedenen Massnahmen verfolgt. Etwa mit unserer Präsenz an der Scientifica 2019, den Wissenschaftstagen der ETH Zürich und der Universität Zürich. Unter dem Motto «Daten statt Annahmen: Ökonomische Fakten für die gesellschaftliche Diskussion» stellten KOF-Mitarbeitende den mehr als 20 000 Besucherinnen und Besuchern ihre Arbeit vor. Diese erfuhren etwa, wie wir unsere Konjunkturumfragen erstellen oder wie wir den Einfluss von Geschlechterstereotypen im Arbeitsleben erforschen. Ein Erfolg war auch das KOF Wirtschaftsforum im Juni 2019 zum Einfluss von Chinas «Belt and Road»-Initiative auf Schweizer Unternehmen. Hochrangige Wirtschaftsvertreter debattierten über die Implikationen der 2019 unterschriebenen Absichtserklärung zwischen der Volksrepublik China und der Schweiz.*

*Ein Thema, das die Allgemeinheit interessiert und bewegt, ist der Arbeitsmarkt. Wir liefern dazu regelmässig unabhängige Forschungsbeiträge und prägen so den öffentlichen Diskurs. Letztes Jahr haben wir uns dazu entschieden, dem Thema noch mehr Gewicht zu geben, und die Sektion Schweizer Arbeitsmarkt innerhalb des Forschungsbereichs Konjunktur gegründet. Die Sektion analysiert Arbeitsmarkttrends und generiert Wissen über die Funktionsweise von Arbeitsmärkten mit besonderem Fokus auf die Schweiz. Eine weitere Brücke zur*



Left to right: Prof Dr Marko Köthenbürger, Prof Dr Jan-Egbert Sturm and Prof Dr Peter Egger.

a geocoding project of worldwide patent data. The core consists of a data base with geographical coordinates of inventors. A website displays the regional distribution of inventions. For Switzerland and most other industrialized countries, nothing comparable has been freely available until now.

*Öffentlichkeit wird mit einem Geocoding-Projekt über weltweite Patentdaten geschlagen. Im Zentrum steht eine Datenbank mit geografischen Koordinaten von Erfindern. Mittels einer Webseite lässt sich somit ein detaillierter Blick auf die regionale Verteilung von Erfindungen werfen. Für die Schweiz und die meisten anderen Industrieländer existierte frei verfügbar bis anhin nichts Vergleichbares.*

We wish you an informative read,

*Wir wünschen Ihnen eine informative Lektüre,*

Marko Köthenbürger  
Vice Director

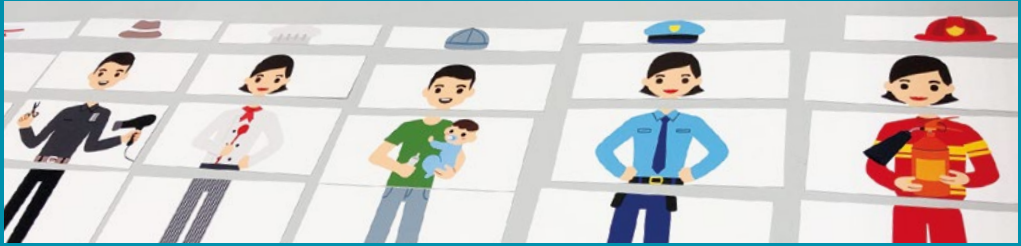
Jan-Egbert Sturm  
Director

Peter Egger  
Vice Director

# Review of 2019

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## SELECTED PROJECTS



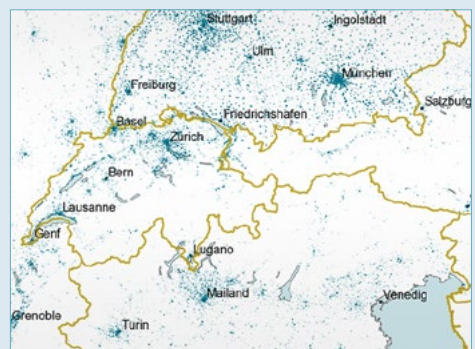
### Evidence of Discriminatory Hiring Practices

In 2019, the Swiss National Science Foundation (SNSF) project on the evidence of discriminatory hiring practices on the Swiss labour market completed its fourth year. In collaboration with the Swiss Public Employment Service and the Immigration Policy Lab of ETH Zurich, an IT infrastructure recording every click on the job placement platform 'Job-Room' was implemented. This feature allows the project members to track how firms carry out the search and selection process of possible job candidates, how much time they spend visiting candidates' profiles, and whom they contact. By analysing this search and screening behaviour of employers on the website, the Research Division Macroeconomic Forecasting studies discrimination along different dimensions (e.g. gender, age and nationality) and addresses research questions that have been hard to tackle with traditional research designs and data.

### Patent Data

The Research Division Innovation Economics conducted several projects related to patent data and the improvement of existing patent databases. First, it completed the most comprehensive geocoding of inventor addresses from worldwide patent data to date from nine patent offices, and made the data and the paper publicly available. Second, it completed a project, that was funded by the European Patent Office (EPO) Academic Research Programme, to distinguish product from process patents based on full-text data. Third, it developed a code to impute missing data in patent databases, which is accessible online.

Patent Applications in Central Europe, 2010 to 2014, Geocoded Addresses of Inventors





### LinkedIn

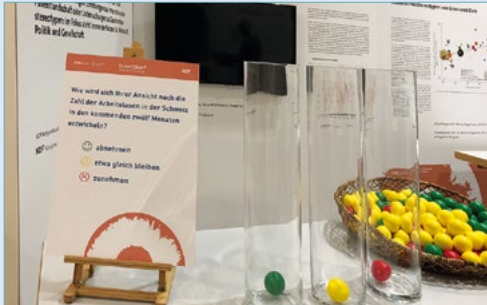
In order to stay in touch with peers and especially with KOF Alumni, the section Corporate Communication decided to set its focus on social media communication by creating a LinkedIn profile for KOF. This medium helps to spread news, stories and events to a broader public. The profile has already gained several hundred followers.

## SELECTED EVENTS



### KOF Wirtschaftsforum

At the KOF Wirtschaftsforum in March, around 80 participants from the academic, political and economic world were provided with information on the macroeconomic consequences of Brexit. The focus of the event was on the possible impacts on Switzerland and the status of the bilateral negotiations between Switzerland and the EU. Deputy Head of the Directorate for European Affairs and Ambassador Josef Renggli discussed this current topic with KOF-experts Jan-Egbert Sturm and Stefan Neuwirth. Vera Z. Eichenauer took over the moderation.



KOF Booth at Scientifica 2019, 30.8. – 1.9.2019

### Scientifica

At Scientifica 2019, an exhibition organised by ETH Zurich and the University of Zurich, KOF took the opportunity to present itself to a diverse, not purely academic audience. At the KOF booth, the institute used big data to show how to differ between Science Fiction and Science Facts. It presented three research projects that are currently being implemented at KOF. Furthermore, KOFCASTs were introduced during a special lecture.

### KOF Forecast Conference

At the KOF Forecast Conference on 2 October, experts Monika Büttler, Ben Jann, Josef Maushart and KOF-Director Jan-Egbert Sturm answered relevant questions on the highly current topic 'What role does inequality play in the Swiss labour market?' TV presenter Reto Lipp led through the event.



From left: Reto Lipp, Prof Dr Jan-Egbert Sturm, Prof Dr Monika Büttler, Prof Dr Ben Jann, and Josef Maushart.

### KOF Workshop

A KOF Workshop labelled 'The Euro at 20: Evaluating the Real Side of the Economic and Monetary Union' took place on 11 and 12 November. It offered a fresh and original look at the 20th anniversary of the euro by focusing on its real aspects. Renowned economist Barry Eichengreen (University of California) was one of the keynote speakers at the workshop.





## AWARDS




**Kaja Rangus Emerging Scholar Paper Award Finalist**

Mathias Beck, Lecturer at the Research Division Innovation Economics, was elected Kaja Rangus Emerging Scholar Paper Award Finalist from the University of California at Berkeley for his paper 'Boundary changes as a trade-off between efficiency and capability development: How production outsourcing influences value creation through innovation' (co-authored with Stefan Naef, Stephan Wagner and Martin Wörter) presented at the 6th Annual World Open Innovation Conference.

From left: Prof Dr Marcel Bogers (University of Copenhagen, WOIC Academic Program Chair), Dr Mathias Beck (KOF ETH Zurich), Prof Dr Ibrahim Shaikh (University of New Brunswick), Prof Dr Henry Chesbrough (WOIC Conference Chair, Faculty Director, Garwood Center for Corporate Innovation, University of California, Berkeley).

**Best Presentation Award**

Katherine Marie Caves, Postdoc in the Research Division Education Systems, received the Best Presentation Award, second runner-up, from ACTER (Association for Career and Technical Education Research) for her paper 'Factors and Barriers that Impact Reform of Vocational Education and Training in Serbia'.




**Diligentia Prize for Empirical Research**

Peter Egger, Head of Chair of Applied Economics: Innovation and Internationalisation, Sergey Nigai, assistant professor at University of Colorado Boulder, and Nora Strecker, Lecturer at the Chair of Applied Economics: Innovation and Internationalisation, received the Diligentia Prize for Empirical Research for their paper 'Taxing Deed of Globalization'.

From left: Prof Dr Peter Egger, Dr Sergey Nigai and Dr Nora Strecker.



#### **SSES Young Economist Award**

Katharina Erhardt, Postdoc at the Chair of Applied Economics: Innovation and Internationalisation, received the SSES Young Economist Award for the paper 'Born to be an entrepreneur? How cultural origin affects entrepreneurship'.

#### **Best Paper Award**

For the same paper, she was given the Best Paper Award granted by the GEP/CEPR postgraduate conference.

#### **Ernst-Blickle-Studienpreis**

Stephan A. Schneider, Postgraduate at the Chair of Applied Macroeconomics, was given the Ernst-Blickle-Studienpreis by the SEW Eurodrive Foundation for his master thesis.



From left: Cai Adrian Boesken, Sina Streicher and Prof Dr Kerstin Kriegelstein, Rector of the University of Constance.

#### **Dietrich H. Boesken-Price**

Sina Streicher, Postgraduate in the Research Division Macroeconomic Forecasting, received the Dietrich H. Boesken-Price for the best MSc 2019 at the University of Constance.

## APPOINTMENTS



### **Full Professor of Education Systems**

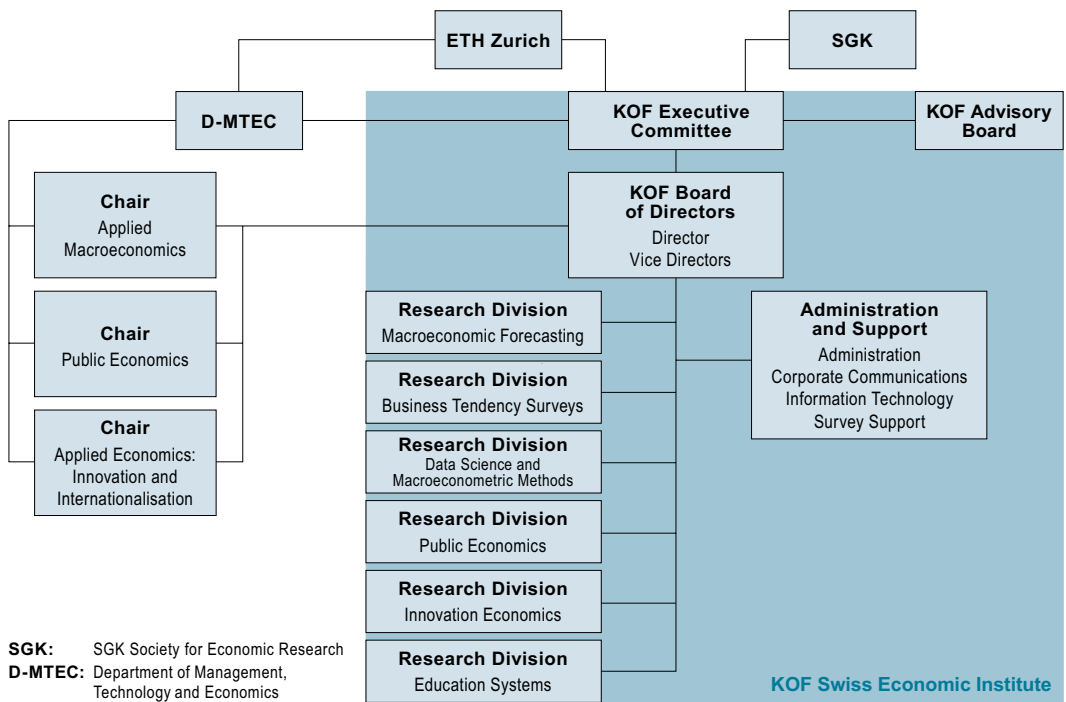
In December, Dr Ursula Renold was appointed Full Professor of Education Systems by the ETH Board. Professor Ursula Renold has been head of the KOF Research Division Education Systems since 2013. With her team of ten, she investigates what shifts are taking place in educational systems in the light of globalisation, an aging society and the breakneck evolution of technologies. She also examines the characteristics of the world's most effective educational systems.

## NEW SECTION

### **Swiss Labour Market**

As the research area Labour Market is becoming increasingly important for analysing the Swiss economy, the Section Swiss Labour Market was founded in 2019. As part of the Research Division Macroeconomic Forecasting, it identifies and analyses labour market trends and generates knowledge on how labour markets work, with a particular focus on Switzerland. It examines the development of employment, wages and unemployment in Switzerland and is responsible for the KOF Employment Indicator. It uses large datasets, innovative research designs and cutting-edge empirical methods to evaluate the effects of labour market policies. The aim of these analyses is to establish quantitative evidence relevant for policy makers and society at large. Head of the section is Dr Michael Siegenthaler.

# Organisation



The detailed organisation chart of KOF can be found on page 128.

# Research Units and Chairs

Research Division Macroeconomic Forecasting

Research Division Business Tendency Surveys

Research Division Data Science and Macroeconometric Methods

Research Division Public Economics

Research Division Innovation Economics

Research Division Education Systems

Chair of Applied Macroeconomics

Chair of Applied Economics: Innovation and Internationalisation

Chair of Public Economics

## Research Division Macroeconomic Forecasting

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### HEAD

PROF DR MICHAEL GRAFF

The Research Division Macroeconomic Forecasting comprises the Sections International Forecasts, Swiss Forecasts and Swiss Labour Market. The Section International Forecasts analyses and forecasts the international economic situation under which the small open Swiss economy operates. The section Swiss Forecasts conducts the quarterly macroeconomic KOF Economic Forecasts. The section Swiss Labour Market analyses different aspects of the Swiss Labour Market, like effects of the agreement on the free movement of persons (AFMP) or discrimination and forecasts labour market developments.

In 2019, the division primarily engaged in research within the areas of macroeconomic modelling and forecasting, business cycle measurement and analysis, national accounting and reliability of economic data. In line with this, it analysed the real time versus ex post properties of its forecasts and indicators, and monitored their quality, focusing on model uncertainty, indicator selection algorithms as well as on state of the art approaches to dealing with mixed frequency

and ragged end data. Moreover, the division finalised its work on procedures to break down quarterly data into a monthly frequency, in close cooperation with the Research Division Business Tendency Surveys.

The academic work of the division was also linked to the chief editorship of CIRET's Journal of Business Cycles, which has been in the hands of the head of the division since 2008. Two editions with a total of eight papers (including one report) were published in 2019.

The head of the division continued to be a member of the governmental cost commission for the Decommissioning Fund for Nuclear Facilities and Waste Disposal Fund for Nuclear Power Plants (Stenfo). In 2019, the commission's recommendations from the 'Kostenstudie 2016' were incorporated and implemented in the political process, and the preparations for the next vintage, the 'Kostenstudie 2021', started. As an independent member of the subcommittee on the principles of the next cost estimate, the head of the division contributed to ensuring that this will refer to the latest research on forecasting errors and systematic biases.

A main task of the division is to provide all interested parties with timely information on the state of the economy and the expected tendency of the Swiss business cycle. For this purpose, it produced a large number of publications and press releases, gave lectures at ETH and other universities, and answered requests for economic data and assessments from the media and other interested parties. An important platform for this work is the institute's quarterly journal 'KOF Analysen' (No. 11, p. 19), which publishes papers on topics important for the Swiss economy in German or French. The strategy of opening up the journal to economists outside KOF, facilitating access and expanding the journal's readership to the general public, was continued in 2019. A contribution by a guest author is in the pipeline for the first issue of 2020.



Left to right: Florian Eckert, Florian Hälgl, Justus Bamert, Marc Anderes, Dr Stefan Neuwirth, Dr Michael Siegenthaler, Daniel Kopp, Sina Streicher, Philipp Kronenberg, Yngve Abrahamsen, Prof Dr Michael Graff, (not in the picture: Dr Heiner Mikosch).

In accordance with the Humboldt tradition of combining research and teaching, several members of the division – including the head of the division and the head of the Section International Forecasts – continued to actively engage in teaching undergraduate and postgraduate courses at ETH Zurich, other universities in Switzerland and abroad.

Furthermore, in 2019 the head of the division continued to represent the department MTEC at the ETH Zurich's Lecturers' Conference (KdL).

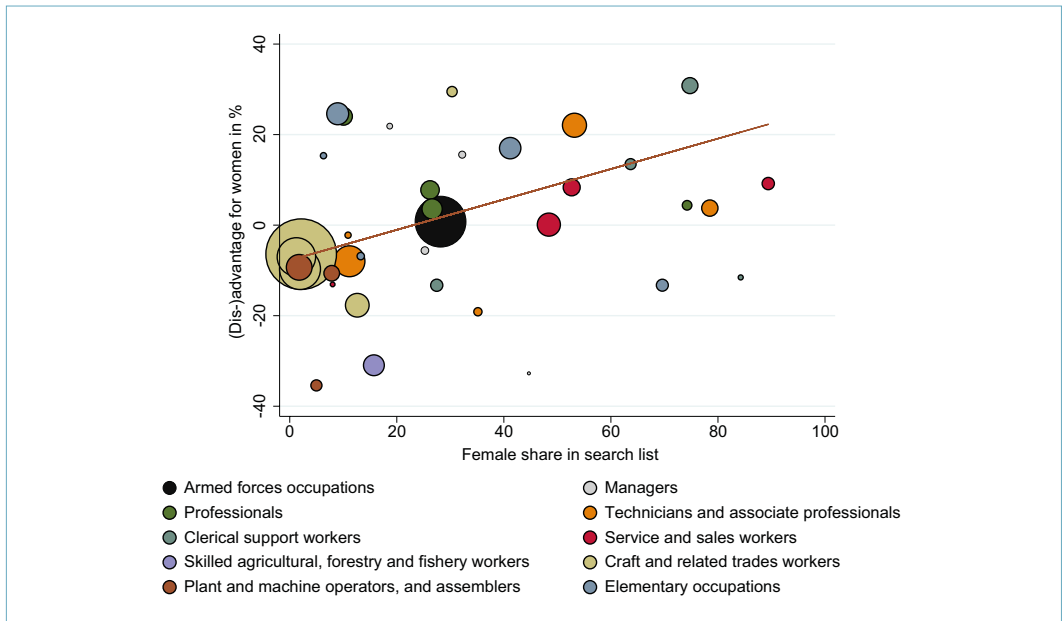
### SECTION INTERNATIONAL FORECASTS

The Section International Forecasts analyses the Swiss foreign trade flows and produces forecasts of the international economy in real terms, as well as of interest rates, exchange rates and inflation. A focus lies on the macroeconomic developments in Europe, as Switzerland is closely integrated into the economy of this region. Other economic regions of significance

to the Swiss economy, such as the US, Japan and China, are included.

The section put emphasis on nowcasting and short-term forecasting models with high-dimensional mixed-frequency data. As part of the quarterly KOF economic forecast, the section produced nowcasts and short-term forecasts for Swiss GDP, Swiss GDP components as well as sectoral employment, and delivered short-to-medium term forecasts for Swiss foreign trade and international variables for the KOF Macroeconometric Model. It further provided the international outlook for the quarterly KOF Analyses. At the KOF Wirtschaftsforum in March 2019, a member of the section gave a presentation on the possible consequences of Brexit for Switzerland and Europe. In addition, the section contributed to the KOF Bulletin and produced the KOF Globalisation Index (No. 7, p. 19) and the KOF International Forecasts, which have been available in print since winter 2018 (No. 8, p. 19).

## Discrimination Inhibits the Opportunities of Both Genders



The SNSF project 'Hiring and wage discrimination in the Swiss labour market' shows that there is hiring discrimination against men in female-dominated occupations. In contrast, there is discrimination against women in male-dominated occupation.

On behalf of the State Secretariat for Economic Affairs (SECO), the section continued to produce the tourism forecast together with the Division Data Science and Macroeconometric Methods (No. 12, p. 20). In November 2019, it contributed to a 'KOF Wirtschaftsforum' on the future of the tourism sector in various regions of Switzerland.

The section participated in the biannual Joint Economic Forecasts commissioned by the German government (No. 3, p. 19). Members of the section represented the joint consortium in the working group on the European economic developments and a section member took the position of an Adlatus. Additionally, KOF cooperated with the institute in Munich (ifo) and the Italian statistical office Istat to prepare the quarterly Eurozone Economic Outlook (EZEO) (No. 1, p. 19). The section also continued to represent KOF at the semi-annual meetings of the Association of European Conjuncture Institutes (AIECE), where a member of the section is on the Steering Committee (No. 36, p. 21). At the spring 2019

meeting in Den Haag, a member of the section gave a presentation on the global macroeconomic outlook for the short-to-medium term. Another member gave the lecture 'Introduction to Economic Policy' at ETH Zurich.

In 2019, the section made progress on the KOFCASTs project (No. 9, p. 19), which provides the interested public, academic research, public institutions as well as research and finance institutes with macroeconomic short-term forecasts for various countries on a daily basis. Together with KOF IT, it implemented a separate KOFCASTs scheme on the KOF PostgreSQL database, which allows daily data vintages to be saved and accessed as part of a real-time database. Also with KOF IT, the section set up Application Programming Interface (APIs) for communication between the database and the KOFCASTs website. It devised an interactive website for presentation of the forecasts and created the website (beta version) with help of adnexo, an IoT solutions start-up firm. The KOFCASTs project will be continued in 2020.



The section extended its forecasting infrastructure for the foreign trade and international variables: For instance, it implemented a complementary inflation forecast model for several countries in order to better disentangle the effects of oil price fluctuations, food price fluctuations and movements of core inflation and it upgraded its System of National Accounts (SNA) projection files.

Members of the section continued their PhD or habilitation projects, which included research on the effects of globalization on economic growth and the welfare state, as well as quantitative assessment of Swiss-EU trade integration. One member published on the topic of short-term forecasting of Russian GDP growth. Further projects focused on hierarchical forecasting of Swiss exports with Bayesian forecast reconciliation, reliable real-time output gap estimation for the United States and Switzerland using survey data, nowcasting using mixed-frequency dynamic factor models, and on the development of a mixed-frequency VAR model and the effects of international shocks on the Swiss economy via survey experiments. The research was presented at several conferences. Last but not least, members of the Section International Forecasts and the Division Data Science and Econometric Methods organised an internal training course on Machine Learning Methods held in Mont Sainte Odile, France.

### SECTION SWISS FORECASTS

Together with the division Data Science and Macroeconometric Methods, the Section Swiss Forecasts carried out the quarterly annual macroeconomic forecasts for the Swiss economy (No. 11, p. 19). The section maintains the traditional KOF Macroeconometric Model (No.19,p.20), whereas the division Data Science and Macroeconometric Methods is responsible for the BVAR model (No.4,p.34). In the spring forecast, the section introduced the estimation and publication of the Swiss output gap, using the same methods as DG ECFIN in the European Commission (No.21,p.20). This method applies a production function utilising the non-financial capital stock, the potential labour force and the trend of the total factor productivity, whereas the potential output in the KOF

### Selected Publications

- Eckert, F., R.J. Hyndman, and A. Panagiotelis (2019). Forecasting Swiss Exports using Bayesian Forecast Reconciliation, *KOF Working Papers*, No. 457.  
<https://doi.org/10.3929/ethz-b-000354388>
- Graff, M. (2019). Steuerwettbewerb und sozialräumliche Segregation, *KOF Analysen*, No. 4, pp. 37–49.  
<https://doi.org/10.3929/ethz-b-000385537>
- Graff, M. (2019). China's Balance of Trade in the Future, in: *The Sleeping Giant Awakes – Global Views on China's Transformation after Four Decades of Reform and Opening-up*, *China Watch*, Beijing, 122–130.  
<https://www.research-collection.ethz.ch/handle/20.500.11850/311642>
- Gygli, S., F. Hälg, N. Potrafke, and J.-E. Sturm (2019). The KOF Globalisation Index – revisited, *The Review of International Organizations*, vol. 14, issue 3, pp. 543–574.  
<https://link.springer.com/article/10.1007/s11558-019-09344-2>
- Mikosch, H. and L. Solanko (2019). Forecasting Quarterly Russian GDP Growth with Mixed-Frequency Data, *Russian Journal of Money and Finance, Bank of Russia*, vol. 78, issue 1, pp. 19–35.  
<https://doi.org/10.31477/rjmf.201901.19>

Macroeconometric model relies on the technical capacities, determined by a vintage production function and a capital productivity trend.

In collaboration with the research division Public Economics, the section made forecasts for the Swiss health expenditures (No.1,p.39), with financial support from Comparis, Association of Swiss pharmacies

(pharmaSuisse) and VGUA-AGPI) as well as for the regional expenditures in the mandatory health insurance system (No.6,p.39) on behalf of the Federal Office of Public Health (FOPH).

### SECTION SWISS LABOUR MARKET

At the end of the year, research activities in the area of the labour market were transferred to a separate section. Its members worked on a 'Digital Lives' project called 'How online labour markets transform job search, hiring and labour market research' (No.24, p.20). This project, which started in December 2018, consists of two parts. In the first part, the team conducts additional research using data collected in collaboration with the employment website of the Swiss Public Employment Service. In this context, it studies how the presentation of information affects discrimination, and how and when job seekers registered at unemployment agencies search and apply for jobs. In the second part, it explores ways to harness new data sources to study key research questions on online and offline labour markets. In a spin-off of the Digital Lives project, the team successfully applied for a research grant from the National Research Programme (NRP) on 'Digital Transformation'. The project, which involves researchers from KOF and Rafael Lalive from the University of Lausanne, examines determinants and implications of job search strategies on an online job platform. In another spin-off of the Digital Lives project, the team is currently conducting a survey among ETH alumni, together with the employer-rating platform Kununu. The aim of the survey is to better understand how the non-monetary aspects of jobs affect workers' job satisfaction, whether their importance varies by gender, and how these aspects relate to workers' wages.

In addition, the section and B,S,S Volkswirtschaftliche Beratung Basel looked at long-term unemployment in Switzerland, in a project financed by the SECO (No.38, p.21). Apart from descriptively analysing the situation

of long-term unemployed, the team also studies earnings trajectories of individuals affected by long-term unemployment as well as the reason for the divergence in unemployment trends between the official unemployment data of SECO and the unemployment figures according to the definition of the International Labor Organization (ILO). In another, closely related project financed by the SECO, the section analyses earnings trajectories of workers aged 50+ using social security data (No.34, p.21).

In 2019, led by the head of the division, a 3.5-year SNSF project on the evidence of discriminatory hiring practices on the Swiss labour market (No.17, p.20) completed its fourth year. In collaboration with the Swiss Public Employment Service and the Immigration Policy Lab of ETH Zurich, an IT infrastructure that records every click on the so-called 'Job-Room' platform was implemented. This feature allows the project members to track how firms carry out the search and selection process, how much time they spend visiting candidates' profiles, and whom they contact. By analysing this search and screening behaviour of employers on the website, the group studies discrimination along different dimensions (e.g. gender, age and nationality) and addresses research questions that have been hard to tackle with traditional research designs and data. The results of these efforts were published in several research papers. The first of these papers was recently submitted to a scientific journal.

### Awards

- Sina Streicher received the Dietrich H. Boesken-Price for the best MSc 2019 at the University of Constance.

## Activities

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### FORECASTS AND INDICATORS

#### NO. 1) EUROZONE ECONOMIC OUTLOOK

HEAD: Heiner Mikosch

COLLABORATORS: Stefan Neuwirth, Florian Eckert, Anne Stücker

PROJECT DURATION: February 2017 – Recurring

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#### NO. 2) GLOBAL BAROMETERS

HEAD: Michael Graff

COLLABORATORS: Klaus Abberger, Katharina Bloch, Jan-Egbert Sturm, Oliver Müller

PROJECT DURATION: February 2016 – Continuous

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#### NO. 3) JOINT ECONOMIC FORECAST FOR GERMANY

INITIATOR: German Federal Ministry for Economic Affairs and Energy

HEAD: Heiner Mikosch

COLLABORATORS: Florian Eckert, Stefan Neuwirth

PROJECT DURATION: August 2007 – April 2022

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#### NO. 4) KOF BAUBLATT INDICATOR

INITIATOR: Dokumedia

HEAD: Anne Kathrin Funk

COLLABORATOR: Florian Eckert

PROJECT DURATION: July 2005 – December 2020

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#### NO. 5) KOF ECONOMIC BAROMETER

HEAD: Samad Sarferaz

COLLABORATORS: Klaus Abberger, Jan-Egbert Sturm, Oliver Müller, Alexander Rathke, Michael Graff, Philipp Baumann

PROJECT DURATION: December 2014 – Recurring

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#### NO. 6) KOF EMPLOYMENT INDICATOR

HEAD: Michael Siegenthaler

COLLABORATORS: Klaus Abberger, Matthias Bannert

PROJECT DURATION: November 2008 – Recurring

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#### NO. 7) KOF GLOBALISATION INDEX

HEAD: Florian Hälg

COLLABORATOR: Jan-Egbert Sturm

PROJECT DURATION: November 2011 – Recurring

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#### NO. 8) KOF INTERNATIONAL FORECASTS

HEAD: Heiner Mikosch

COLLABORATORS: Klaus Abberger,

Yngve Abrahamsen, Florian Eckert, Florian Hälg, Stefan Neuwirth, Alexander Rathke, Vera Degonda, Nicole Koch

PROJECT DURATION: August 2007 – Recurring

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#### NO. 9) KOFCASTS

HEAD: Stefan Neuwirth

COLLABORATORS: Matthias Bannert, Florian Eckert, Heiner Mikosch, Severin Thöni

PROJECT DURATION: December 2016 – Continuous

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#### NO. 10) OKP PROGNOSE

INITIATOR: FOPH

HEAD: Jan-Egbert Sturm

COLLABORATOR: Marc Anderes

PROJECT DURATION: April 2019 – June 2024

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#### NO. 11) QUARTERLY MACROECONOMIC ANALYSIS (VJA)

HEAD: Yngve Abrahamsen

COLLABORATORS: Klaus Abberger, Michael Graff, Günther Greulich, Anne Kathrin Funk, Florian Hälg, Heiner Mikosch, Stefan Neuwirth, Alexander Rathke, Samad Sarferaz, Michael Siegenthaler, Anne Stücker, Jan-Egbert Sturm, Florian Eckert, Nina Mühlebach, Pascal Seiler, Sebastian Garmann, Sina Streicher, Marc Anderes, Franziska Kohler

PROJECT DURATION: June 2007 – Recurring

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**NO. 12) TOURISM FORECASTS FOR SWITZERLAND**

INITIATOR: SECO

HEAD: Florian Hältg

COLLABORATORS: Yngve Abrahamsen,

Samad Sarferaz, Alexander Rathke

PROJECT DURATION: December 2014 – December 2021

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## RESEARCH PROJECTS

**NO. 13) AN EVALUATION OF POLICIES  
TO PROMOTE THE LABOR MARKET INTEGRATION  
OF REFUGEES**

HEAD: Michael Siegenthaler

COLLABORATORS: Andreas Beerli, Matthias Schief

PROJECT DURATION: August 2016 – December 2020

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**NO. 14) BESONDERHEITEN SCHWEIZER  
KONJUNKTUR**

HEAD: Michael Graff

COLLABORATOR: Yngve Abrahamsen

PROJECT DURATION: December 2014 – Continuous

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**NO. 15) EUROCONSTRUCT**

HEAD: Anne Kathrin Funk

COLLABORATORS: Yngve Abrahamsen,

Mirjam Baumberger

PROJECT DURATION: December 2014 – Continuous

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**NO. 16) EVALUATION  
KURZARBEITSENTSCHÄDIGUNG 2008/2009  
UND DANACH**

INITIATOR: SECO

HEAD: Michael Siegenthaler

COLLABORATOR: Daniel Kopp

PROJECT DURATION: December 2015 – June 2020

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**NO. 17) HIRING AND WAGE DISCRIMINATION  
IN THE SWISS LABOUR MARKET**

INITIATOR: SNSF

HEAD: Michael Graff

COLLABORATORS: Michael Siegenthaler,

Daniel Kopp, Yngve Abrahamsen

PROJECT DURATION: December 2015 – June 2019

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**NO. 18) INVENTORY CYCLE AND RECESSION**

HEAD: Yngve Abrahamsen

PROJECT DURATION: December 2014 – Continuous

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**NO. 19) KOF MACROECONOMETRIC MODEL**

HEAD: Yngve Abrahamsen

COLLABORATOR: Samad Sarferaz

PROJECT DURATION: December 2003 – Continuous

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**NO. 20) NOWCASTING AND FORECASTING  
THE SWISS ECONOMY**

HEAD: Yngve Abrahamsen

COLLABORATORS: Alexander Rathke,

Samad Sarferaz

PROJECT DURATION: March 2008 – Continuous

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**NO. 21) POTENZIALWACHSTUMSRATE  
DER SCHWEIZ**

HEAD: Alexander Rathke

COLLABORATORS: Yngve Abrahamsen, Klaus

Abberger, Jan-Egbert Sturm, Alexander Rathke,

Savina Gygli, Michael Graff, Philipp Baumann

PROJECT DURATION: February 2017 – Continuous

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**NO. 22) REAL-TIME DATA ANALYSES**

HEAD: Michael Graff

COLLABORATORS: Yngve Abrahamsen,

Klaus Abberger, Alexander Rathke, Oliver Müller

PROJECT DURATION: December 2014 – Continuous

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**NO. 23) RESEARCH PROJECTS ON THE SWISS  
LABOUR MARKET**

HEAD: Michael Siegenthaler

PROJECT DURATION: January 2016 – Continuous

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**NO. 24) SNSF DIGITAL LIVES**

INITIATOR: SNSF

HEAD: Michael Siegenthaler

COLLABORATORS: Andreas Beerli, Daniel Kopp,

Severin Thöni, Matthias Bannert

PROJECT DURATION: September 2018 – December 2020

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**NO. 25) TEMPORAL DISAGGREGATION**

HEAD: Michael Graff

COLLABORATORS: Klaus Abberger, Oliver Müller,

PROJECT DURATION: September 2015 – Continuous

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**NO. 26) THE EFFECTS OF FREE MOVEMENT OF PERSONS ON FIRM PERFORMANCE, INNOVATION, AND TRAINING**

HEAD: Michael Siegenthaler

COLLABORATOR: Maria Esther Oswald-Egg

PROJECT DURATION: February 2015 – Continuous

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## DISSERTATIONS

**NO. 27) ESSAYS IN APPLIED MACROECONOMICS**

Sina Streicher

SUPERVISOR: Jan-Egbert Sturm

PROJECT DURATION: October 2018 – December 2022

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**NO. 28) ESSAYS IN APPLIED MACROECONOMICS AND FORECASTING**

Florian Eckert

SUPERVISOR: Jan-Egbert Sturm

PROJECT DURATION: June 2016 – December 2020

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**NO. 29) ESSAYS IN INTERNATIONAL MACROECONOMICS**

Florian Hälg

SUPERVISOR: Jan-Egbert Sturm

PROJECT DURATION: December 2013 – April 2020

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**NO. 30) ESSAYS IN MACROECONOMICS**

Marc Anderes

SUPERVISOR: Jan-Egbert Sturm

PROJECT DURATION: September 2018 – December 2024

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**NO. 31) LABOR DEMAND AND RECRUITMENT BEHAVIOR OF SWISS FIRMS**

INITIATOR: SNSF

Daniel Kopp

SUPERVISOR: Michael Graff

PROJECT DURATION: December 2015 – September 2020

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## HABILITATIONS

**NO. 32) MACROECONOMIC FORECASTING AND POLICY ANALYSIS WITH BIG DATA**

Heiner Mikosch

PROJECT DURATION: December 2012 – December 2021

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**NO. 33) MIXED-FREQUENCY DATA SCIENCE FOR FORECASTING**

Stefan Neuwirth

PROJECT DURATION: November 2017 – October 2020

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## POLICY ADVICE

**NO. 34) ERWERBSVERLÄUFE AB 50 JAHREN IN DER SCHWEIZ: ARBEITSMARKTINTEGRATION ÄLTERER ARBEITNEHMERINNEN UND ARBEITNEHMER**

INITIATOR: SECO

HEAD: Michael Siegenthaler

PROJECT DURATION: April 2019 – February 2020

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**NO. 35) IMF ARTICLE IV CONSULTATION**

HEAD: Yngve Abrahamsen

COLLABORATORS: Klaus Abberger, Florian Hälg, Michael Graff, Jan-Egbert Sturm, Michael Siegenthaler, Alexander Rathke, Anne Kathrin Funk

PROJECT DURATION: December 2004 – Continuous

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**NO. 36) KOMMISSIONEN/ARBEITSGRUPPEN BUND, AIECE**

HEAD: Jan-Egbert Sturm

COLLABORATORS: Klaus Abberger, Yngve Abrahamsen, Martin Wörter, Matthias Bannert, Thomas Bolli, Tiziana Borghesi Stäheli, Heiner Mikosch, Stefan Neuwirth

PROJECT DURATION: December 2015 – Continuous

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**NO. 37) KOSTENAUSSCHUSS DES STILLLEGUNGSFONDS FÜR KERNANLAGEN UND ENTSORGUNGSFONDS FÜR KERNKRAFTWERKE**

HEAD: Michael Graff

PROJECT DURATION: October 2017 – May 2024

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**NO. 38) LANGZEITERWERBSLOSIGKEIT UND AUSSTEUERUNGEN**

INITIATOR: SECO

HEAD: Michael Siegenthaler

PROJECT DURATION: September 2018 – December 2019

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## Research Division Business Tendency Surveys

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### HEAD

DR HABIL. KLAUS ABBERGER

The Research Division Business Tendency Surveys develops, implements and conducts monthly, quarterly and biannual panel surveys in manufacturing, retail, wholesale, construction, project engineering, banking and insurance, accommodation and food processing, and in other services. It also runs a semi-annual investment survey. The surveys are, for the most part, in line with the harmonised survey programme of the European Commission. The panels consist of more than 9,000 companies in Switzerland. The results are analysed and interpreted for different types of clients. The division also conducts special surveys regularly and provides advice to researchers and institutions on how to carry out and analyse surveys.

The business tendency survey results are used for forecasts, the computation of various indicators and the analysis of different research questions. For instance, they provide the main data input for the KOF Economic Barometer, a leading indicator for the Swiss economy. Of the 376 variables going into the indicator, 305 are taken from the KOF Business Tendency Surveys (see Research Division Data Science and Macroeconometric Methods).

Together with other divisions, the research division participated in the KOF Quarterly Economic Forecasts (No. 11, p. 19), the KOF Healthcare Expenditure Forecast (No. 1, p. 39) and the Euroconstruct Forecast (No. 15, p. 20). It also provided data for the biannual Tourism Forecasts on behalf of the SECO (No. 12, p. 20) and the KOF International Forecasts (No. 8, p. 19).

In collaboration with the Brazilian think tank 'Fundação Getulio Vargas' (FGV), KOF continued working on developing a barometer for global economic cycles. This barometer is based on tendency surveys from all over the world, which are made available via the data provider Datastream. The aim of the project is to obtain a leading indicator for global economic development based on a large number of national surveys among companies, consumers and experts. Major development work for this project was carried out in 2018 and continued in 2019. The indicator is scheduled to be published regularly from 2020 onwards (No. 2, p. 19).

Every year, the Business Tendency Survey Division prepares forecasts for the Swiss construction sector, which are published by Euroconstruct, a collaboration of 19 European research institutes that was established in 1974 (No. 15, p. 20). KOF is the Swiss member of the network. The forecasts of Euroconstruct are presented and discussed bi-annually during a conference, which is held in one of the member countries. After each conference, a country and summary report are published, which explain each country's forecast as well as the main drivers and challenges of the construction sector.

In 2018, the division first became a local partner of the Conference Board in an international survey of managers. The project was designed as a pilot project. The special topic of the 2018 survey was 'The Organisation of the Future'. The results were published in the first half of 2019, comparing the country



Left to right: Dr Klaus Abberger, Pascal Seiler, Mirjam Baumberger, Anne Kathrin Funk, (not in the picture: Nina Mühlebach).

results for Switzerland with the international results (No.20, p.27). However, KOF decided to pause the 2019 survey.

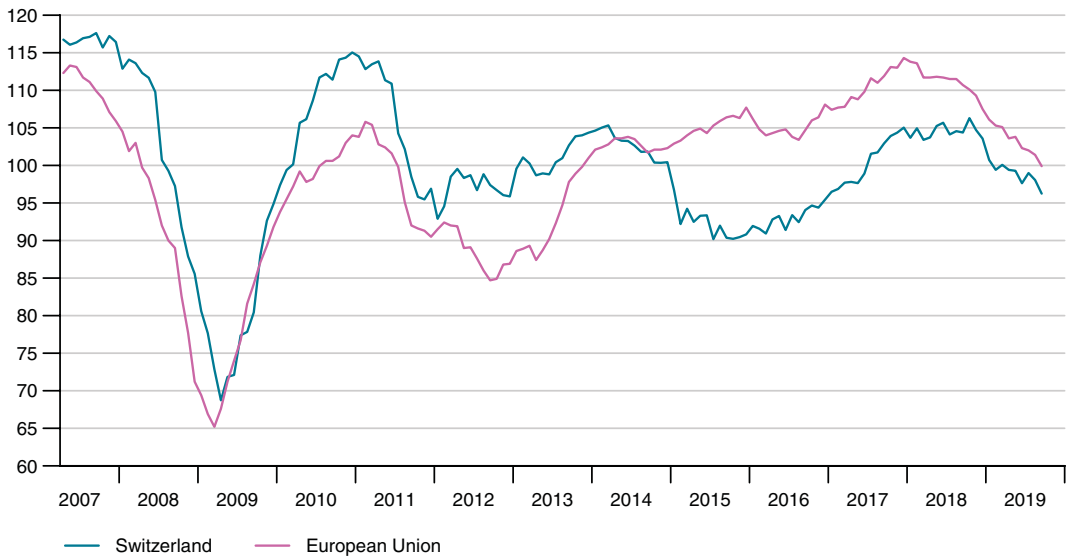
The division continued its revision of the survey conduction and aggregation process, part of which was the introduction of new survey tools for online and paper surveys. On this occasion, the questionnaires were partially revised. For the industry survey, the question frequencies were partly increased to monthly frequencies, and new questions were added. In addition, the division extended the coverage of empirical meta files and added analyses for the banking sector, wholesale trade and retail trade.

Together with the division Data Science and Macroeconometric Methods, a joint research project on imputation methods for business tendency surveys was launched in 2019. The effects of various imputation methods for unit and item non-response are being analysed. First results will be evaluated and further steps discussed.

KOF cooperates with the Swiss Federal Statistical Office (FSO) regarding firm register information. In 2019, the division drew a sample of new firms in the manufacturing and construction sectors, project engineering and the other services sector. For the new firms in the other services sector, the survey is conducted monthly. The frequency of surveys among already participating companies was further increased from quarterly to monthly in autumn 2019.

Furthermore, the division is conducting a research project that analyses nominal wage rigidity and the real effects of monetary policy in Switzerland. Low inflation, or even deflation, in the past years provides an environment in which nominal wage rigidity is particularly binding. First results indicate that base wages exhibit a high degree of rigidity, while other wage components such as bonus payments are used to make wages more flexible. Additionally, nominal wage rigidities rose in 2016 compared to 2014, after the removal of the Swiss franc floor in 2015. The results have important implications for the conduct of

### Economic Sentiment Indicator (ESI) for Switzerland



Source: KOF, EU Commission.

monetary policy. Internationally, a higher inflation target is under discussion, which could support the alleviation of nominal rigidities.

The division continued to conduct a survey among economists in Switzerland. In 2019, it decided to change media partners and conducted the first Economist Survey with the new media partner NZZ. The topic was the popular vote about the tax and pension reform (No. 19, p. 27).

The division is currently exploring the opportunities of a project to regionalise the results of the KOF Business Tendency Surveys. The approach would be to not only use direct estimates with respondents located in

a particular region, but to mix these direct estimates with model based estimates that also use responses from other regions.

During the 'Scientifica' fair of ETH Zurich and the University of Zurich, KOF had an own booth. In addition, three interviewers collected survey responses to economic tendency surveys questions from fair visitors. The responses were continuously aggregated and displayed at the booth. Two researchers represented the division and discussed the survey results.

In the European Union, the tendency survey questionnaires are largely harmonised. This enables the EU Commission to calculate indicators for regional



aggregates or for countries. One of the Commission's main indicators is the ESI. KOF, based on the methodology of the EU Commission, developed an ESI indicator for Switzerland. This indicator allows comparisons between the development in Switzerland and that in other European countries.

### INTERNATIONAL COOPERATION

Since 1999, the office of the Centre for International Research on Economic Tendency Surveys (CIRET) has been located at KOF. CIRET is a forum for leading economists and institutions that conduct business and/or consumer surveys and analyse survey data. In 2019, a workshop, hosted by the Organisation for Economic Co-operation and Development (OECD) and held back to back with the OECD/DGECFIN workshop, was organized in Paris. It focused on the topic 'The use of economic tendency surveys to assess potential growth and the position of economies in the business cycle'. Furthermore, the organization of the CIRET conference 2020, which will take place in Poznan, Poland, continued. It is being arranged together with the local organiser Poznan University of Economics and Business. The idea is to organise a one-day pre-conference workshop together with the United Nations (UN) statistics division from New York.

### Selected Publications

- Abberger, K. and W. Nierhaus (2019). Zur Produktionsbehinderung der Unternehmen im Konjunkturzyklus: Eine Compositional-Data-Analyse, *ifo Schnelldienst* No. 72, issue 5, pp. 21–27.

<https://www.ifo.de/en/publikationen/2019/>

[article-journal/obstruction-production-enterprises-business-cycle-compositional](https://www.ifo.de/en/publikationen/2019/article-journal/obstruction-production-enterprises-business-cycle-compositional)

- Abberger, K. and J.-E. Sturm (2019). KOF: Von den Umfragen zum Indikator, *Die Volkswirtschaft*, Jahrgang 92, Nr. 11, 8–11.

<https://dievolkswirtschaft.ch/de/2019/10/sturm-11-2019/>

- Funk, A. K. (2019). Quantitative easing in the euro area and SMEs' access to finance: Who benefits the most? *Graduate Institute of International and Development Studies*, Working Paper No. HEIDWP02-2019.

<https://graduateinstitute.ch/library/publications-institute/quantitative-easing-euro-area-and-smes-access-finance-who-benefits>

# Activities

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## SURVEY ACTIVITIES

### **NO. 1) COST SURVEY IN THE PHARMACY SECTOR (ROKA)**

INITIATOR: PharmaSuisse

HEAD: Matthias Bannert

COLLABORATORS: Tiziana Borghesi Stäheli,

Tolga Coban, Barbara Frank, Nadia Genova

PROJECT DURATION: December 2011 – Recurring

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### **NO. 2) KOF CONSENSUS FORECAST**

HEAD: Anne Kathrin Funk

COLLABORATORS: Mirjam Baumberger,

Florian Eckert, Franziska Kohler

PROJECT DURATION: August 2007 – Recurring

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### **NO. 3) NOGA-BEREINIGUNG MIGRATION**

HEAD: Klaus Abberger

PROJECT DURATION: April 2015 – December 2020

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### **NO. 4) QUALITATIVE INVESTMENT SURVEY (IVU)**

HEAD: Klaus Abberger

COLLABORATORS: Andreas Dibiasi, Pascal Seiler

PROJECT DURATION: December 1995 – Recurring

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### **NO. 5) REVISION UMFragen**

HEAD: Klaus Abberger

COLLABORATORS: Matthias Bannert,

Charles Clavadetscher, Tolga Coban, Oliver Müller

PROJECT DURATION: November 2013 –

December 2019

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### **NO. 6) SIA SURVEY**

HEAD: Klaus Abberger

COLLABORATOR: Anne Kathrin Funk

PROJECT DURATION: May 2013 – December 2019

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### **NO. 7) SUISSETEC**

HEAD: Klaus Abberger

PROJECT DURATION: December 2014 – Recurring

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### **NO. 8) SURVEY COORDINATION**

HEAD: Klaus Abberger

PROJECT DURATION: December 2014 – Continuous

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### **NO. 9) SURVEY FOR UBS**

INITIATOR: UBS

HEAD: Klaus Abberger

PROJECT DURATION: April 2015 – Recurring

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### **NO. 10) SURVEY ON ARCHITECTS AND ENGINEERS (AIU)**

HEAD: Klaus Abberger

COLLABORATOR: Anne Kathrin Funk

PROJECT DURATION: December 1995 – Recurring

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### **NO. 11) SURVEY ON CONSTRUCTION (BAU)**

HEAD: Klaus Abberger

COLLABORATOR: Anne Kathrin Funk

PROJECT DURATION: January 1994 – Recurring

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### **NO. 12) SURVEY ON FINANCIAL ACTIVITIES (FVU)**

HEAD: Klaus Abberger

PROJECT DURATION: December 1999 – Recurring

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### **NO. 13) SURVEY ON HOTEL AND CATERING (HOTU)**

HEAD: Klaus Abberger

PROJECT DURATION: September 1988 – Recurring

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**NO. 14) SURVEY ON MANUFACTURING INDUSTRY (INU)**

HEAD: Klaus Abberger

PROJECT DURATION: July 1955 – Recurring

**NO. 15) SURVEY ON RETAIL INDUSTRY (DHU)**

HEAD: Klaus Abberger

PROJECT DURATION: April 2005 – Recurring

**NO. 16) SURVEY ON SERVICE INDUSTRIES (DLU)**

HEAD: Klaus Abberger

COLLABORATOR: Solenn Le Goff

PROJECT DURATION: September 2006 – Recurring

**NO. 17) SURVEY ON SWISS VETERINARIANS (VETU)**

HEAD: Matthias Bannert

COLLABORATORS: Angelica Maria Becerra Garnica, Stefan Meichtry Blass, Charles Clavadetscher

PROJECT DURATION: December 2018 – December 2020

**NO. 18) SURVEY ON WHOLESALE (GHU)**

INITIATOR: VSIG Handel Schweiz

HEAD: Klaus Abberger

PROJECT DURATION: June 2006 – Recurring

**NO. 19) ÖKONOMENUMFRAGE**

HEAD: Klaus Abberger

COLLABORATORS: Franziska Kohler, Nina Mühlebach, Anne Stücker

PROJECT DURATION: July 2016 – December 2020

**NO. 20) THE CONFERENCE BOARD C-SUITE SURVEY**

HEAD: Klaus Abberger

COLLABORATORS: Tolga Coban, Anne Stücker, Jan-Egbert Sturm

PROJECT DURATION: June 2018 – December 2019

**FORECASTS AND INDICATORS****NO. 21) ECONOMIC INDICATORS FOR ZURICH**

INITIATOR: Statistical Office of the City of Zurich

HEAD: Klaus Abberger

PROJECT DURATION: September 2006 – December 2020

**NO. 22) IDENTIFICATION OF COINCIDENT AND LEADING INDICATORS**

HEAD: Michael Graff

COLLABORATORS: Klaus Abberger, Yngve Abrahamsen, Philipp Baumann, Oliver Müller

PROJECT DURATION: December 1998 – Continuous

**NO. 23) INDICATORS FOR THE REGIONS / CANTONS OF SWITZERLAND**

HEAD: Klaus Abberger

COLLABORATOR: Michael Graff

PROJECT DURATION: December 2004 – December 2019

**NO. 24) INDICATORS OF EMPLOYMENT FOR THE CANTON OF GENEVA**

HEAD: Klaus Abberger

COLLABORATOR: Michael Siegenthaler

PROJECT DURATION: December 2007 – December 2020

**NO. 25) INDICATORS OF EMPLOYMENT FOR THE CANTON OF WAADT**

HEAD: Klaus Abberger

COLLABORATOR: Michael Siegenthaler

PROJECT DURATION: December 2012 – December 2020

## RESEARCH PROJECTS

### NO. 26) GROUP RESEARCH PROJECT TENDENCY SURVEYS

HEAD: Klaus Abberger

COLLABORATORS: Matthias Bannert,  
Andreas Dibiasi, Anne Kathrin Funk,  
Nina Mühlebach, Pascal Seiler

PROJECT DURATION: October 2015 – December 2020

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## DISSERTATIONS

### NO. 27) ESSAYS IN APPLIED MACROECONOMICS

Anne Kathrin Funk

SUPERVISOR: Jan-Egbert Sturm

PROJECT DURATION: June 2015 – December 2020

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### NO. 28) ESSAYS IN MACROECONOMICS

Nina Mühlebach

SUPERVISOR: Jan-Egbert Sturm

PROJECT DURATION: September 2019 –  
September 2024

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### NO. 29) ESSAYS IN MACROECONOMICS

Pascal Seiler

SUPERVISOR: Jan-Egbert Sturm

PROJECT DURATION: June 2019 – September 2024

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## POLICY ADVICE

### NO. 30) INTERNATIONAL CONSULTING PROJECTS SURVEYS

INITIATOR: Various Organisations

HEAD: Klaus Abberger

PROJECT DURATION: May 2012 – December 2020

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# Research Division Data Science and Macroeconometric Methods

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## HEAD

DR SAMAD SARFERAZ

The Research Division Data Science and Macroeconometric Methods sits at the interface of cutting-edge data science methodology and statistical modelling of economic relationships. Its goal is to develop and apply new tools to forecast and analyse macroeconomic variables, with a particular focus on the Swiss economy. This means that the division works closely with the Economic Forecasting and Business Tendency Surveys divisions. New methods are developed and applied in the daily work of KOF.

## REGULAR PROJECTS

When preparing the quarterly KOF forecasts, the new division provided, evaluated and improved the model results from the large scale BVAR used at KOF (No. 4, p. 34). This included consistent forecasts for the income, expenditure and production side of Swiss GDP (No. 11, p. 19) as well as for monetary developments and inflation (No. 8, p. 19).

The division produced the KOF Monetary Policy Communicator – a monetary policy indicator for the Eurozone – on a regular basis (No. 2, p. 34). It started to familiarise itself with textual analysis as a basis for a possible future revision of this indicator. In a research project, the underlying data of the monetary policy communicator was used to analyse the effects of European Central Bank (ECB) communication on financial markets and professional forecasters.

The group continued to compute and publish the KOF Economic Barometer on a monthly basis (No. 5, p. 19). In September, the annual revision of the barometer saw a considerable evaluation in the available indicator pool as well as a new selection of the most suitable indicators for the reference periods 2009 to 2018.

## Output gap

One key variable for the state of the business cycle is the output gap, which defines the state of the economy relative to its potential (No. 21, p. 20). The output gap is an unobserved quantity, and different methods for inference are available. Beside some standard filtering techniques, the KOF has been publishing an output gap measure based on the methodology of the European Commission, which is reported for all EU countries, since the beginning of 2019. A complementary ongoing research project deals with the agnostic estimation and decomposition of output gaps from large datasets (together with the section International Business Cycles). The method allows capturing the nature of cyclical variations in a very flexible and robust way.

## Tourism forecast

Since spring 2015, the KOF has been publishing semi-annual forecasts for the Swiss tourism sector on behalf of the SECO. The contract was renewed in 2016



Left to right: Philipp Baumann, Dr Samad Sarferaz, (not in the picture: Dr Alexander Rathke).

and again in 2018. In 2019, based on the renewal of the forecast model in the previous year, KOF published semi-annual forecasts that include an optimal forecast combination procedure (No. 12, p. 20).

#### **Health expenditure forecast**

The division started producing the annual forecast for the FOPH and developing tools for forecasting disaggregate and aggregate health expenditures in Switzerland. The project is joint work with the division Macroeconomic Forecasting (No. 6, p. 39).

#### **Revision of base statistics**

On behalf of SECO, the group worked on a project that evaluated the properties of statistics (current account data, NOGA-Codes for the Industry Production, Orders and Turnover Statistics (INDPAU), Construction Indus-

try Production, Orders and Turnover Statistics (BAU-PAU), which form the basis of the quarterly GDP figures (No. 25, p. 20). The main objective was to evaluate if a noise component, i.e. predictable parts of data revisions, could be identified and, if there was a possibility to reduce this noise component. The group thus helped to reduce further revisions in the quarterly national account estimates. The final presentation took place in June.

#### **Direct federal tax income forecast**

The group also carried out a project for the Federal Tax Office, for which forecasts of the direct federal tax income were produced.

## FURTHER RESEARCH PROJECTS

### Models of data revisions

Based on Bayesian State Space methods, the division worked on a project that develops a model for real-time data to improve the measurement of GDP. In another related project it dealt with the design of econometric techniques that allow the use of data revisions in aggregate variables to construct a consistent measure of macroeconomic uncertainty for over 30 countries. The methods applied are advancements of multivariate unobserved component stochastic volatility models. Together with the Bundesbank, the division also worked on using forecast revisions of professional forecasters to obtain estimates of macroeconomic shocks.

### Breakthrough technologies and economic growth

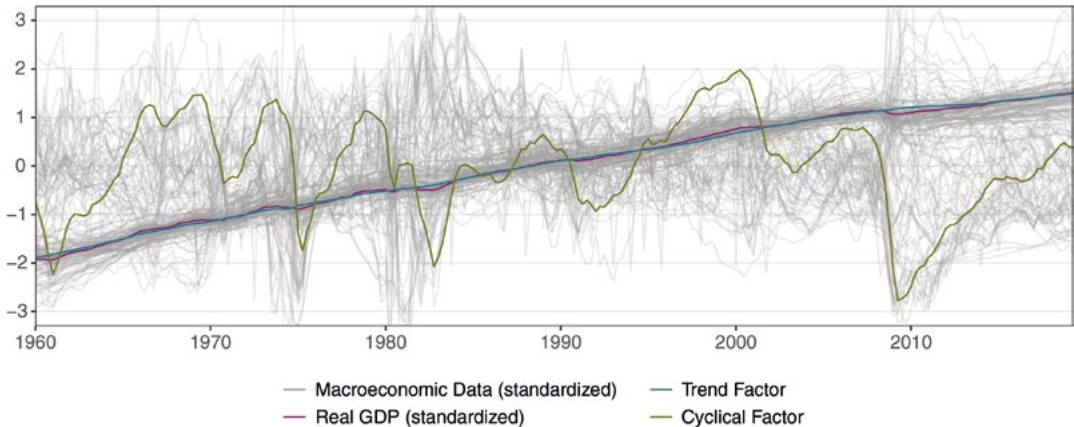
In joint work with the division Innovation Economics, the group identified technological breakthroughs and

its effects on economic growth across industries and countries using patent data (PATSTAT) and industry data (OECD STAN). Dynamic factor models with time-varying factor loadings were used to capture the technological breakthroughs and the underlying changes. Latent Dirichlet Allocations were tried as a text-based clustering method for technologies.

### Web-scraping and text-mining tools

In collaboration with the division Innovation Economics, the group started to develop innovation and business cycle indicators based on web-scraping tools and text-mining methods. In this way, the divisions can consider the heterogeneity of the innovation activities and business performances as well as a timely and cost-effective collection of data. The indicators will allow it to link technological activities all over the world to identify technological shocks that help to investigate the causal relationship between innovation indicators and general economic indicators.

## Agnostic Output Gap Estimation in Large Cross-Sections



Standardized data and factors.



### Tracking construction activity in real-time using satellite images

On the way to high-frequency indicators of economic activity with new untapped data, the division recently started considering the construction sector as a very prominent and timely part of economic activity. Based on the information contained in the Baublatt data about the location of possible sites and changes in patterns at the surface, it is possible to find out when a building was actually constructed and how far construction work proceeded. The trained algorithm, which is based on convolutional neural networks, can then also be applied to track construction activity in other countries.

### Further machine learning methods

One ongoing project in this area looked into the determinants of inflation, comparing theoretically motivated models to a Boosting approach, which considers non-linearities explicitly. Another one addressed the problem of conducting valid inference for additive and linear mixed models after model selection. In collaboration with the division Business Tendency Surveys, the division looked into the issue of how to impute unit and item non-responses in a statistically optimal way. The methods used included the Bayesian expectation-maximization algorithm and Random Forests.

### Survey experiments

Together with the section International Forecasts, the division has developed survey experimental methods using the survey infrastructure at KOF to identify macroeconomic shocks (oil price shocks, monetary policy shocks, uncertainty shocks) and their impact on Swiss firms. The aggregate survey experiments are mapped into a Bayesian VAR by using sign, zero and bounding restrictions. An algorithm was created to incorporate survey experiments into VARs.

### Selected Publications

- Furlanetto, F., S. Sarferaz, and F. Ravazzolo (2019). Identification of Financial Factors in Economic Fluctuations, *The Economic Journal*, vol. 129, issue 617, pp. 311–337.  
<https://doi.org/10.1111/eoj.12520>
- Anderes, M., A. Rathke, S. Streicher, and J.-E. Sturm (2019). The role of ECB communication in guiding markets, *Public Choice*, 1–33.  
<https://doi.org/10.1007/s11127-019-00733-0>

# Activities

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## FORECASTS AND INDICATORS

### NO. 1) ANALYZING DATA REVISIONS (DARZ)

INITIATOR: SECO

HEAD: Samad Sarferaz

COLLABORATORS: Alexander Rathke, Yngve Abrahamsen, Jan-Egbert Sturm, Alexis Perakis

PROJECT DURATION: November 2018 – December 2019

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### NO. 2) KOF-MONETARY POLICY COMMUNICATOR FOR THE EURO AREA (MPC)

HEAD: Alexander Rathke

COLLABORATOR: Stefan Neuwirth

PROJECT DURATION: December 2014 – Recurring

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### NO. 3) SHORT-TERM FORECASTING MODEL FOR SWITZERLAND'S ELECTRICITY TRADE

INITIATOR: Directorate General of Customs

HEAD: Samad Sarferaz

COLLABORATORS: Yngve Abrahamsen, Florian Hälgl

PROJECT DURATION: September 2007 – Recurring

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## RESEARCH PROJECTS

### NO. 4) BVAR FORECASTS

HEAD: Samad Sarferaz

COLLABORATOR: Alexander Rathke

PROJECT DURATION: December 2014 – Continuous

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### NO. 5) FORECASTING AND CAUSAL INFERENCE

HEAD: Philipp Baumann

PROJECT DURATION: September 2018 – October 2021

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### NO. 6) INFLATION EXPECTATIONS

HEAD: Alexander Rathke

PROJECT DURATION: December 2014 – Continuous

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## HABILITATIONS

### NO. 7) DEMOGRAPHY AND THE BUSINESS CYCLE

Samad Sarferaz

PROJECT DURATION: October 2009 – December 2020

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### NO. 8) MONETARY POLICY IN SMALL OPEN ECONOMIES

Alexander Rathke

PROJECT DURATION: December 2013 – Continuous

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## Research Division Public Economics

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### HEAD

PROF DR MARKO KÖTHENBÜRGER

The Research Division Public Economics focuses its research and policy advice on various aspects of the Swiss public sector. The spectrum of research activities includes the analysis of the political and economic factors that determine local decision-making at the cantonal and municipal level in Switzerland, the effect of the cantonal transfer systems as well as the effect of mergers and cooperations on municipal finances.

In 2019, the division further strengthened its research on municipal public finance by deepening the analysis of municipal mergers and extending it to municipal cooperations (No. 9, p. 39, No. 5, p. 39). A four-year project funded by the SNSF to explore the fiscal effects of municipal mergers and cooperation, which started in 2018, forms the basis of this research.

A key element of the division's work programme in 2019 and in the coming years is to improve the collection and use of fiscal data at the municipal level. Many of the products and outputs delivered by KOF make intensive use of fiscal data. Due to the strongly decentralized structure of the Swiss state, the municipal level often represents a substantial share of the different fiscal aggregates used by KOF. Municipal public consumption is a case in point, which accounts for more than 30% of the total public consumption. Failing to properly account for the evolution of fiscal policy at the municipal level may therefore create flaws in the estimation of structural components of the Swiss public sector and may lead to errors in forecasts of fiscal aggregates. In 2019, the division continued its effort to improve data availability by using the existing flow of municipal data at the cantonal level and the federal level more effectively. As part of these efforts, it coordinated and implemented a survey among cantons on the availability of municipal data. As indicated in the initial project plan, KOF seeks to continue the project with own resources after the SGK funding has expired.



Left to right: Prof Dr Marko Köthenbürger, Dr Sebastian Garmann.

### **MOST IMPORTANT PROJECTS**

An aspect that has received a lot of attention in the recent corporate tax reform discussion in Switzerland relates to the tax treatment of income derived from intellectual property (IP) rights (so-called patent box). To learn about the effects that are associated with patent boxes, the division analysed the fiscal experience of countries in Europe that already have a patent box in place (Koethenbueger, Liberini and Stimmelmayr, 2019).

The division also continued to implement a new database on the finances of the Swiss municipalities. After discussions with the project partners, project members started to work on the structure of the database.

A further policy issue addressed by the division – in cooperation with the division Business Tendency Surveys – is the continuation of the KOF Health Expenditure Forecast (No. 2, p.39), which is partly sponsored by Comparis, pharmaSuisse and the Association of the Group of Independent Pharmacists (VGUA). Two forecasts were published in 2019 (Koethenbueger and Anderes, 2019a,b).

## Selected Publications

- Garmann, S. (2019a), Political Efficacy and the Persistence of Turnout Shocks, *Economics and Politics*, forthcoming.

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- Garmann, S. (2019b), Voter Turnout and Public Sector Employment Policy, *Review of International Organizations*, forthcoming.

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- Koethenbueger, M., F. Liberini and M. Stimmelmayer (2019), (Un)Intended Effects of Preferential Tax Regimes – The Case of European Patent Boxes, *EconPol Working Paper*, No. 29.  
[https://www.econpol.eu/publications/working\\_paper\\_29](https://www.econpol.eu/publications/working_paper_29)

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- Koethenbueger, M. and M. Anderes (2019a), KOF Prognose der Gesundheitsausgaben Spring 2018, *KOF Studies*, No. 137.  
<https://doi.org/10.3929/ethz-b-000348724>

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- Koethenbueger, M. and M. Anderes (2019b), KOF Prognose der Gesundheitsausgaben Autumn 2019, *KOF Studies*, No. 141.  
<https://doi.org/10.3929/ethz-b-000379604>

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- Koethenbueger, M., M. Mardan and M. Stimmelmayer (2019), Profit Shifting and Investment Effects: The Implications of Zero-Taxable Profits, *Journal of Public Economics*, vol. 173, pp. 96-112.  
<https://doi.org/10.1016/j.jpubeco.2019.01.007>

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## ADDITIONAL PROJECTS

In addition to its core activities, the division generates a wide range of fiscal forecasts for the Economic Forecasting division. It provides quarterly forecasts of revenues and expenditure at the federal, cantonal and municipal level in Switzerland. These forecasts are an integral part of the KOF quarterly forecasts.

The division was also engaged in research projects that analysed the determinants of turnout stickiness (Garmann, 2019a), the relation between turnout and public sector employment policy (Garmann, 2019b) and the interaction between profit shifting by multinational firms for corporate investment (Koethenbueger, Mardan, and Stimmelmayer, 2019).

## Activities

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### FORECASTS AND INDICATORS

#### NO. 1) FISCAL FORECAST

HEAD: Marko Köthenbürger

PROJECT DURATION: September 2013 – Recurring

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#### NO. 2) HEALTH EXPENDITURE FORECASTS FOR SWITZERLAND

INITIATOR: TopPharm

HEAD: Marko Köthenbürger

COLLABORATORS: Klaus Abberger, Marc Anderes

PROJECT DURATION: May 2014 – Recurring

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### RESEARCH PROJECTS

#### NO. 3) CITIZENS' PREFERENCES AND DIRECT DEMOCRACY

INITIATOR: SNSF

HEAD: Sergio Galletta

PROJECT DURATION: January 2018 – January 2019

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#### NO. 4) CORPORATE TAX REFORM III (USR III) AND BEYOND

HEAD: Marko Köthenbürger

COLLABORATORS: Michael Stimmelmayr, Florian Chatagny

PROJECT DURATION: January 2017 – Continuous

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#### NO. 5) FISCAL TRANSFERS AND LOCAL POLICY CHOICES

HEAD: Marko Köthenbürger

COLLABORATOR: Florian Chatagny

PROJECT DURATION: December 2013 – Continuous

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#### NO. 6) PILOTSTUDIE FÜR KOSTENPROGNOSE OKP (BAG)

INITIATOR: BAG

HEAD: Marko Köthenbürger

PROJECT DURATION: June 2018 – March 2019

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#### NO. 7) POLITICAL ECONOMY OF FISCAL POLICY

HEAD: Marko Köthenbürger

PROJECT DURATION: January 2013 – Continuous

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#### NO. 8) PROGNOSEMODELL DIREKTE BUNDESSTEUER

INITIATOR: ESTV, EFV

HEAD: Marko Köthenbürger

COLLABORATOR: Samad Sarferaz

PROJECT DURATION: August 2018 – August 2022

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#### NO. 9) SNSF FISCAL EFFECTS OF INTER-MUNICIPAL COOPERATION AND MERGERS

INITIATOR: SNSF

HEAD: Marko Köthenbürger

COLLABORATORS: Christian Stettler, Florian Chatagny

PROJECT DURATION: March 2018 – March 2022

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#### NO. 10) STICKINESS OF TURNOUT

HEAD: Sebastian Garmann

PROJECT DURATION: April 2019 – Continuous

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#### NO.11) SUCCESS OF POPULIST PARTIES

HEAD: Sebastian Garmann

PROJECT DURATION: April 2019 – Continuous

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## Research Division Innovation Economics

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### HEAD

PROF DR PETER EGGER

The Research Division Innovation Economics focuses its activities on the empirical investigation of structure-oriented research questions that are related to the development of the Swiss economy and are of interest to public policy makers and the research community. The division typically combines data (e.g. survey data together with patent data) at the firm and/or industry level, which provides a deeper insight into the mechanisms of structural change, with an emphasis on the role of innovation activities. Last year, it started to collect data via web scraping. Firm-level survey data are collected by the research group itself based on the KOF enterprise panel. Moreover, the group runs the KOF Micro Data Centre.

In 2019, the research division conducted the 12th wave of the Swiss Innovation Survey. It added a further stratification level (regions) to the KOF enterprise panel. This enables KOF to provide representative innovation indicators for the seven main regions of Switzerland. Against the background of a decreasing number of Research & Development (R&D)-active

Swiss companies, the division investigated factors that have an impact on the innovation performance of Swiss firms. In particular, it analysed the contribution of inventors in foreign countries to the total factor productivity (TFP) of Swiss companies, the contribution of public research organizations to the innovation performance of Swiss firms, the effects of international funding programs to the economic performance of participating Swiss companies, the relationship between organizational change (outsourcing) and innovation performance, as well as the importance of open innovation activities for innovation success. The research division also developed a method for distinguishing product from process technologies in the patent statistics, and investigated the economic effects of early invention disclosure. Moreover, it continued its investigation of the digitization of the economy and further increased its efforts to collect and analyse data from web scraping. Such a variety of challenging research topics can only be covered by the small innovation group in cooperation with external partners.

### 12TH WAVE OF THE SWISS INNOVATION SURVEY

Mandated by the State Secretariat for Education, Research and Innovation (SERI), the division conducted the 12th wave of the Swiss innovation survey (No.2, p.45). There have been three major changes from previous waves: First, the main regions in Switzerland were added as an additional stratification feature to the KOF enterprise panel. This implied an increase of the sample from around 6000 to 8800 companies. For the first time, the survey will deliver representative figures for the innovativeness of Swiss regions. Second, in cooperation with SERI and FSO, the division added questions about the use of digital technologies in companies, including the use of artificial intelligence and big data applications. Third, it included a sample of 2300 additional firms provided by Innosuisse to the survey.





Left to right: Dr Mathias Beck, Sebastian Heinrich, Dr Florian Seliger, Prof Dr Martin Wörter, Prof Dr Peter Egger, Dr Andrin Spescha, (Not in the picture: Florian Hulfeld, Dr Michael König).

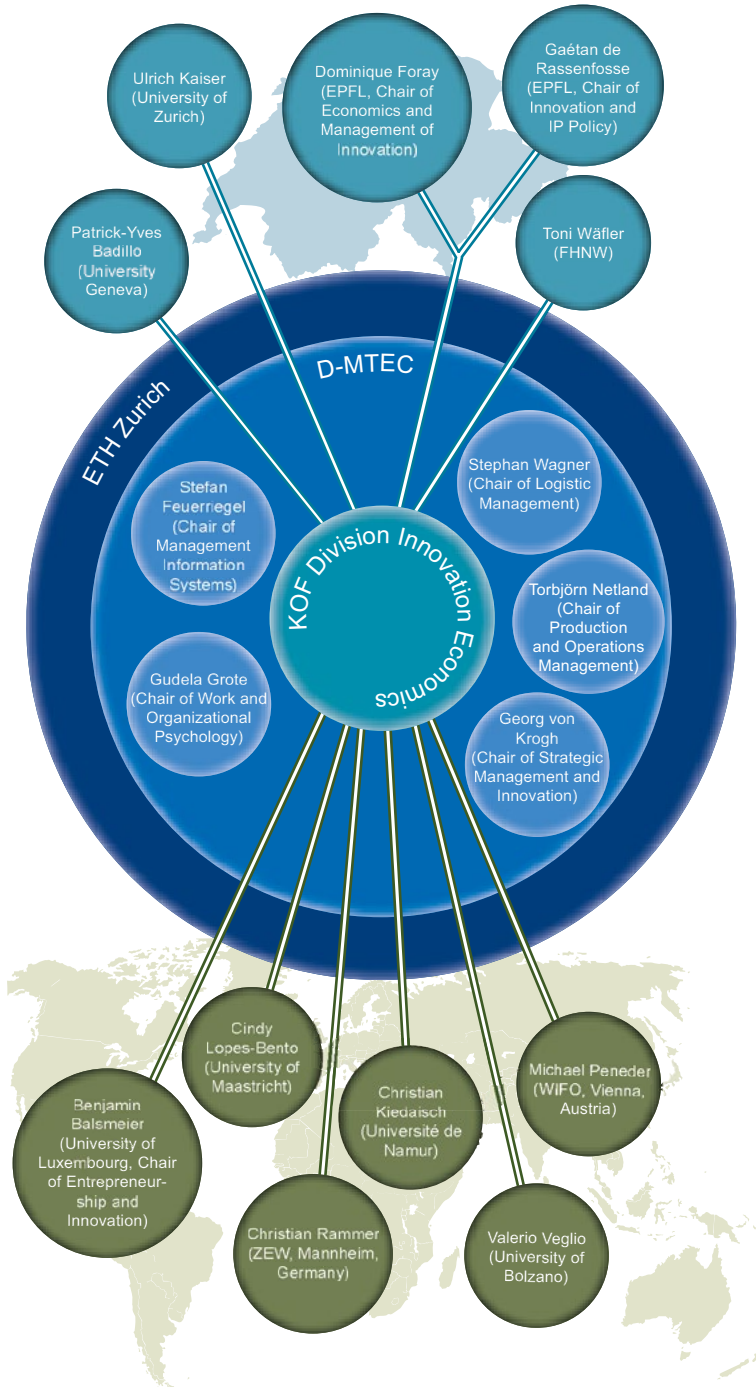
#### **INNOVATION PERFORMANCE, INTERNATIONAL KNOWLEDGE SOURCING AND PRODUCTIVITY**

The division investigated the contribution of inventors abroad (foreign knowledge stock) to the competitiveness of companies in Switzerland, thereby emphasising the consequences for policy making stemming from the differences between knowledge that has been developed exclusively by inventors in Switzerland and knowledge that has been developed together with inventors abroad. In addition, it continued to investigate the technological spillovers resulting from the international technological activities of Swiss firms for firms in Switzerland in general and firms that do not operate internationally (No. 7, p. 45). The division also started to trace technological co-movements all over the world in order to analyse the performance effects of early technological movers and late-comers (No. 15, p. 46).

#### **PATENT DATA**

The division conducted several projects related to patent data and the improvement of existing patent databases: First, it completed the most comprehensive geocoding of inventor addresses from worldwide patent data to date from nine patent offices and has made the data and the paper publicly available. Second, it completed a project funded by the EPO Academic Research Programme in order to distinguish product from process patents based on full-text data (No. 9, p. 45). Third, it developed a code in order to impute missing data in patent databases, which is accessible online (No. 11, p. 46).

**Network of the Research Division Innovation Economics**



### **THE DIGITIZATION OF THE ECONOMY**

Based on the KOF innovation data and the data from a special survey on digitization in 2016, the division analysed the effects of the organizational structure of companies and the effective use of investments in digital technologies (No. 7, p. 45). Moreover, it submitted a proposal to the NRP 77 (national research program) on 'digital transformation' to investigate the effects of digital technologies along the value chain of companies.

### **ORGANIZATIONAL CHANGE AND INNOVATION PERFORMANCE**

Companies are searching for alternative ways to organize their innovation activities in order to meet the rising costs and difficulties of developing new products and services. The division focused on several aspects of organizational changes: First, it continued its research on the effects of outsourcing activities on innovation performance and, second, on the relevance of appropriability of knowledge in cooperative R&D adventures (No. 7, p. 45). Furthermore, it continued its investigations on the relationship between 'open innovation' and firm performance.

### **EVALUATION OF INNOVATION PROMOTION ACTIVITIES**

Mandated by Innosuisse, the most important funding agency for innovation activities in Switzerland, the division collected data on the innovation activities of companies that have applied for support (No. 19, p. 46). This data will form the data basis for future evaluations of potential behavioural additionality of public innovation support. Swiss firms are also eligible for funding from the European Union. EUROSTARS is a dedicated innovation promotion program for small and medium-sized companies. In cooperation with partners in Denmark, the division completed the evaluation of this program for Switzerland and Denmark. This project has been jointly mandated by the Innovation Fund Denmark and SERI (No. 18, p. 46).

### **KNOWLEDGE AND TECHNOLOGY TRANSFER BETWEEN PUBLIC RESEARCH ORGANIZATIONS AND PRIVATE FIRMS**

Based on the knowledge and technology transfer surveys in 2005, 2011 and 2018, the division has been investigating the impact of ties to public research organizations on the innovation performance of companies, emphasizing the organization of transfer contacts and the ability of companies to absorb knowledge generated by public research organizations. Conclusions for policy makers are central to this project (No. 16, p. 46). The division also completed its reporting for SERI about the transfer survey in 2018 (No. 3, p. 45). The report will be published in 2020.

### **INTERNATIONAL INNOVATION NETWORKS**

In 2019, the division also continued its efforts to analyse innovation in connection with international networks. These networks include R&D collaborations, networks of inventors and buyer-supplier relationships that induce technology spillovers. Novel datasets are analysed with theoretical as well as empirical methods to evaluate real world policy instruments that aim at fostering the innovativeness and productivity of Swiss firms within a global interconnected economy (No. 7, p. 45).

### **DECREASING FRACTION OF R&D ACTIVE COMPANIES**

In Switzerland, a decline in the fraction of R&D active companies has been observed for many years. This challenges the sustainability of the Swiss innovation system, which is based on attractive framework conditions and highly innovative companies. Mandated by SERI, the division started to investigate what factors exert impact on the declining share of R&D active companies in Switzerland and how they affect the international competitiveness of companies. This analysis includes an international comparison with the Netherlands (No. 12, p. 46). In collaboration with Dominique Foray from École polytechnique fédérale de Lausanne (EPFL), the division continued the investigation on the institutional characteristics of R&D in the segment of small and medium sized enterprises in Switzerland –

so-called 'Coasean Institutions'. In 2019, it improved the precision of the measurement of this institution by using the data from the transfer survey in 2018 (No. 7, p. 45).

## MEASUREMENT ISSUES OF TECHNOLOGICAL ACTIVITIES

In collaboration with the Data Science and Macroeconometric Methods division, the further stepped up its efforts to use 'big data' and advanced data collection techniques such as web scraping. They started to use web scraping algorithms to collect innovation relevant data from companies' public websites (No. 4, p. 45). In 2019, they submitted a proposal to the SNSF and the MTEC-Foundation to build a KOF infrastructure for such activities and to increase the efforts in this field.

## Awards

- Mathias Beck, was elected Kaja Rangus Emerging Scholar Paper Award Finalist from the University of California at Berkeley for his paper 'Boundary changes as a trade-off between efficiency and capability development: How production outsourcing influences value creation through innovation' (co-authored with Stefan Naef, Stephan Wagner and Martin Wörter) presented at the 6th Annual World Open Innovation Conference.

## Selected Publications

- Balsmeier, B. and M. Wörter (2019). Is this time different? How digitalization influences job creation and destruction, *Research Policy*, vol. 48, issue 8, 103765.  
<https://doi.org/10.1016/j.respol.2019.03.010>
- Bolli, T., F. Seliger, and M. Wörter (2019, forthcoming). Technological Diversity, Uncertainty and Innovation Performance, *Applied Economics*, 1–14.  
<https://doi.org/10.1080/00036846.2019.1679345>
- de Rassenfosse, G. and F. Seliger (2019). Sources of knowledge flow between developed and developing nations, *Science and Public Policy*.  
<https://doi.org/10.1093/scipol/scz042>
- de Rassenfosse, G., J. Kozak, and F. Seliger (2019, forthcoming). Geocoding of worldwide patent data, *Scientific Data*.
- Geilinger, N., M. Wörter, and G. Von Krogh (2019, forthcoming). The division of innovative labour: When does customer codevelopment contribute to firm innovation performance? *Technology Analysis & Strategic Management*.
- Lück, S., B. Balsmeier, F. Seliger, and L. Fleming (2019, forthcoming). Early disclosure of invention and reduced duplication; an empirical test, *Management Science*.
- Peneder, M., M. Thompson, and M. Wörter (2019). The (anti-)competitive effect of IPRs, *Applied Economics Letters*, pp. 1–5.  
<https://doi.org/10.1080/13504851.2019.1646863>
- Stucki, T. and M. Wörter (2019). The private returns to knowledge: A comparison of ICT, biotechnologies, nanotechnologies, and green technologies, *Technological Forecasting and Social Change*, vol. 145, pp. 62–81.  
<https://doi.org/10.1016/j.techfore.2019.05.011>

# Activities

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## SURVEY ACTIVITIES

### NO. 1) ENTERPRISE PANEL SURVEY

HEAD: Andrin Spescha

PROJECT DURATION: December 2004 – Continuous

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### NO. 2) SWISS INNOVATION SURVEY 2019

INITIATOR: SERI

HEAD: Martin Wörter

COLLABORATORS: Andrin Spescha, Florian Seliger, Sebastian Heinrich, Mathias Beck, Gilles Aubert, Stefan Meichtry Blass, Charles Clavadetscher

PROJECT DURATION: January 2019 – December 2020

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## RESEARCH PROJECTS

### NO. 3) ANALYSIS OF THE KNOWLEDGE AND TECHNOLOGY TRANSFER IN SWITZERLAND

INITIATOR: SERI

HEAD: Martin Wörter

COLLABORATORS: Mathias Beck, Andrin Spescha, Gilles Aubert, Florian Hulfeld

PROJECT DURATION: January 2018 – December 2020

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### NO. 4) BIG DATA/WEBSCRAPING/ TEXT ANALYSIS

HEAD: Michael David König

COLLABORATORS: Sebastian Heinrich, Mariella Greutmann

PROJECT DURATION: March 2019 – March 2023

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### NO. 5) ENVIRONMENTAL INNOVATION

HEAD: Martin Wörter

COLLABORATOR: Mathias Beck

PROJECT DURATION: July 2014 – December 2021

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### NO. 6) GLOBALISATION OF R&D – TECHNOLOGY CLUSTERS

HEAD: Florian Seliger

COLLABORATORS: Martin Wörter, Sebastian Heinrich, Michael David König

PROJECT DURATION: November 2016 – December 2020

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### NO. 7) INNOVATION ACTIVITIES

HEAD: Martin Wörter

COLLABORATORS: Florian Seliger, Mathias Beck, Andrin Spescha, Sebastian Heinrich, Michael David König, Immanuel Jonas Feld, Florian Hulfeld

PROJECT DURATION: July 2006 – December 2022

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### NO. 8) INNOVATION STRATEGIES

INITIATOR: Chair Von Krogh Department of Management, Technology and Economics, ETH Zürich (D-MTEC)

HEAD: Martin Wörter

COLLABORATORS: Georg von Krogh, Shiko Ben-Menahem, Nina Geilinger

PROJECT DURATION: April 2013 – December 2021

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### NO. 9) KNOWLEDGE SPILLOVERS FROM PRODUCT AND PROCESS INVENTIONS IN PATENTS AND THEIR IMPACT ON FIRM PERFORMANCE

INITIATOR: EPO

HEAD: Florian Seliger

COLLABORATORS: Martin Wörter, Sebastian Heinrich

PROJECT DURATION: November 2016 – December 2019

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### NO. 10) KNOWLEDGE AND TECHNOLOGY TRANSFER BETWEEN UNIVERSITIES AND ENTERPRISES

HEAD: Martin Wörter

COLLABORATORS: Mathias Beck, Andrin Spescha, Florian Hulfeld

PROJECT DURATION: May 2006 – December 2021

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#### **NO. 11) PATENT DATA**

HEAD: Florian Seliger  
COLLABORATORS: Martin Wörter,  
Charles Clavadetscher, Sebastian Heinrich  
PROJECT DURATION: December 2013 –  
December 2020

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#### **NO. 12) SBFI: DECREASE IN R&D**

HEAD: Martin Wörter  
COLLABORATORS: Andrin Spescha,  
Michael David König  
PROJECT DURATION: November 2019 –  
December 2020

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#### **NO. 13) SQS DIGITALISIERUNG**

INITIATOR: SQS  
HEAD: Mathias Beck  
COLLABORATORS: Martin Wörter,  
Immanuel Jonas Feld  
PROJECT DURATION: November 2017 –  
December 2019

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#### **NO. 14) SPILLOVERS FROM FOREIGN KNOWLEDGE ACTIVITIES**

HEAD: Florian Seliger  
COLLABORATORS: Spyros Arvanitis, Martin Wörter  
PROJECT DURATION: June 2017 – December 2019

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### **DISSERTATIONS**

#### **NO. 15) ESSAYS ON THE ORIGIN OF ECONOMIC INNOVATION**

Sebastian Heinrich  
SUPERVISOR: Martin Wörter  
PROJECT DURATION: January 2018 – December 2020

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#### **NO. 16) ON THE IMPACTS OF INNOVATIONS**

Florian Hulfeld  
SUPERVISOR: Martin Wörter  
PROJECT DURATION: October 2018 – Continuous

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### **HABILITATION**

#### **NO. 17) ORGANIZATIONS AND INNOVATION IN TECHNOLOGICAL TRANSFORMATION**

Mathias Beck  
PROJECT DURATION: February 2018 – January 2023

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### **POLICY ADVICE**

#### **NO. 18) DANISH-SWISS IMPACT STUDY OF EUROSTARS**

INITIATOR: Innovation Fund Denmark  
HEAD: Mathias Beck  
COLLABORATORS: Martin Wörter, Birte K. Gernhardt  
PROJECT DURATION: May 2018 – December 2019

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#### **NO. 19) INNOSUISSE: PILOT MONITORING AND EVALUATION 2019–20**

INITIATOR: Innosuisse  
HEAD: Martin Wörter  
COLLABORATORS: Mathias Beck, Andrin Spescha,  
Stefan Meichtry Blass, Gilles Aubert  
PROJECT DURATION: January 2019 – March 2021

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## Research Division Education Systems

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### HEAD

PROF DR URSULA RENOLD

The Research Division Education Systems analyses educational systems worldwide and how they influence the performance of economies and labour markets. It follows three main strategic research directions: i) the definition of education and what it means to be an educated person today; ii) the ability of an education system to prepare young people for their integration into the labour market as well as the link between educational performance and the performance of firms; iii) the development of education systems over time.

In 2019, the division continued to expand its research activities in three broad areas: 1) empirical analyses of the impact of Vocational Education and Training systems (VET) on individuals and firms, 2) surveys and indices quantifying VET and the labour market situation of youth, and 3) qualitative and consultative research on systemic components of VET systems. The following text highlights some projects in these areas.

### 1) EMPIRICAL ANALYSES OF THE IMPACT OF VET ON INDIVIDUALS AND FIRMS

**Evaluating the Social Status of Swiss Vocational Education and Training from the Firm Perspective:** Enrolment in the Swiss VET system has decreased over the past years, which may reflect a decreasing attractiveness of VET compared to academic education. Some firms may be contributing to this decreasing attractiveness by favouring university graduates over VET graduates. In order to assess the 'social status' of VET from a firm perspective, this project (No.31, p.55) compares the recruitment preferences of companies for hypothetical candidates, which differ only in their certificate but not in their skills, work experience and other attributes. It does so by using a vignette survey, which will be conducted in 2020.

### RCT to Evaluate the Introduction of a 24-Month Dual Apprenticeship in Nepal:

The division is evaluating the impact of introducing a 24-month dual apprenticeship program in Nepal on the labour market outcomes of participants by means of a randomized controlled trial (RCT) (No.17, p.54). In 2019, the research team conducted semi-structured interviews with schools, apprentices and companies of the first cohort to evaluate what works and what does not. In the course of the RCT, the randomization of the second cohort of students into schools for the RCT took place in September 2019. They started their training in November 2019. From 2020 until the end of the project, further publications will contain results of the formative evaluation of the project.

**Evaluating the Effectiveness of In-Classroom Instruction versus Self-Study in the Case of the Swiss Vocational Baccalaureate II:** The 'AKAD training method', developed by private education provider The Swiss





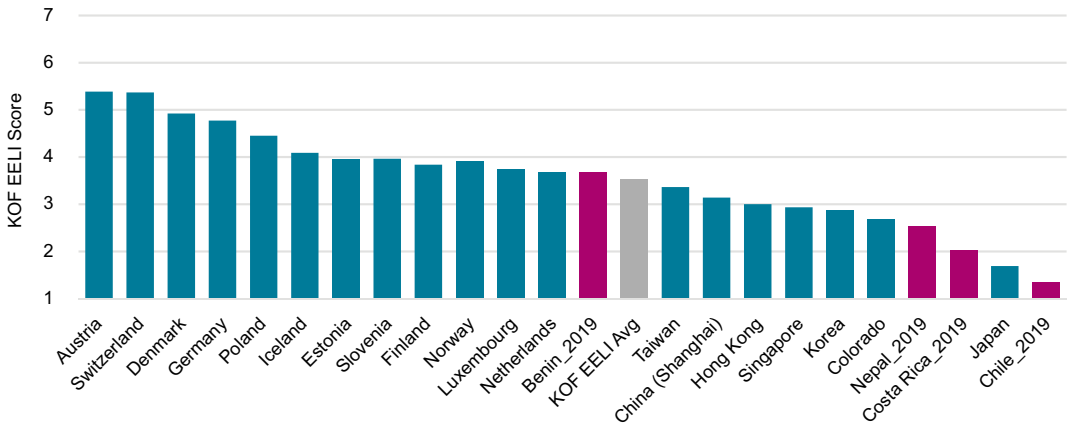
Left to right: Dr Ladina Rageth, Filippo Pusterla, Dr Karina Maldonado Mariscal, Dr Thomas Bolli, Prof Dr Ursula Renold, Beat Scherrer, Aranya Sritharan, Andrea Ghisletta, Dr Johanna Kemper, Samuel Wolf, (not in the picture: Jutta Bürgi, Dr Katherine M. Caves, Maria Esther Oswald-Egg).

Education Institute (AKAD), is a combination of supervised self-study and classroom teaching for students who want to attain the Vocational Baccalaureate. This project (No. 3, p. 53) investigates whether the often-mentioned disadvantage of this training method, in comparison to pure in-classroom education, holds up empirically. Therefore, education and labour market outcomes of former students of the AKAD training method are compared to students who attended pure in classroom education. In addition, it evaluates the effectiveness of introducing virtual classrooms in the AKAD training offers that prepare for the Vocational Baccalaureate by means of a Randomized Controlled Trial (RCT).

## 2) SURVEYS AND INDICES QUANTIFYING VET SYSTEMS AND THE LABOUR MARKET SITUATION OF YOUTH

**Applying the KOF Education-Employment Linkage Index (EELI) to Formal VET Programs in Benin, Costa Rica, Chile and Nepal:** Based on an expert survey, the KOF EELI measures education-employment linkage in terms of power-sharing between the actors of the education system and those of the employment system with respect to curriculum design, application (program delivery), and the phase of updating VET programs. In this project (No.25,p.55), the division applied the KOF EELI to upper-secondary VET programs in Benin, Chile, Costa Rica, and Nepal. The

### KOF Education-Employment Linkage Index (EELI)



Overall KOF EELI index scores for Benin, Chile, Costa Rica, and Nepal in comparison to all countries studied using KOF EELI thus far (Renold et al., 2016; Renold et al., 2018). Source: Own depiction.

results suggest that Benin has relatively high education-employment linkage, while the other three countries score very low.

**Social Institutions of VET:** Building on different institutionalism approaches, this project (No. 14, p. 54) developed a theoretical framework of social institutions and provided a methodological approach to assessing the robustness and thereby the effectiveness of social institutions. This methodological approach is applied to identify social institutions in VET programs. These are defined as mechanisms which ensure the functioning of a VET program, such as business associations that coordinate member firms with respect to VET-related issues. In 2020, the theoretical framework will be extended to inter-institutional relationships among social institutions, since it is assumed that these have a decisive influence on the outcome of a program. To quantify the robustness of social institutions of VET across programs and countries, the team

developed an expert survey to measure social institutions of VET. A pilot of the survey is planned for Spring 2020.

### 3) IMPLEMENTATION RESEARCH AND VET SYSTEMS ENGINEERING

Center on the Economics and Management of Education and Training Systems (**CEMETS**): In 2019, the fifth CEMETS Summer Institute took place (No. 4, p. 53). This Center on the Economics and Management of Education and Training Systems (<http://www.cemets.ethz.ch>) is a reform lab for education systems engineering. Twelve teams of education reform leaders from Benin, Chile, Costa Rica, Micronesia, Nepal, Serbia, South Africa and the American states of Colorado, California, Indiana, New York and Washington D.C. participated in ten intensive days of lectures and site visits. All reform teams presented and developed their ongoing reform cases.

## THE 2019 CEMETS-RELATED RESEARCH PROJECTS INCLUDE THE FOLLOWING:

- 1) **Constitutional Reform in Nepal:** The division is advising Nepal's VET sector in the process of its constitutional reform to federalise the country. Related to this work is the supervision of a (No. 10, p. 53) financial flow study in collaboration with the Chair of Public Finance, headed by Prof Dr Marko Köthenbürger.
- 2) **Implementation of Serbia's Dual Education Law:** This project (No. 29, p. 55) supports the implementation of a dual VET system in Serbia by conducting implementation research, analysing costs and benefits for participating firms, and pointing out success factors and barriers to implementation.

**Annual HFW Curriculum Evaluation, Including Interviews with HFW Graduate's Employers in Key Sectors:** This project (No. 35, p. 55) conducted a survey among current and former students of Professional Education and Training (PET) college degree programs in business Höhere Fachschulen für Wirtschaft, (HFW)

and their employers. Employers were interviewed about their overall satisfaction with the graduates, their accuracy and timeliness, their skills, as well as their assessment of the future prospects of HFW graduates. The results show a higher satisfaction among graduates than current students. Employer interviews provide valuable insights in the job-relevancy of graduate skills and provide suggestions for improvements.

### LELAM-TVET4INCOME Project:

This ongoing research project analyses how VET can contribute to the development of low- and middle income countries (<http://www.r4d.tvet4income.ethz.ch/>). It was further developed in 2019 in cooperation with colleagues from Nepal, Benin, Chile, Costa Rica and the Center for Development and Cooperation at ETH Zurich (NADEL) (No. 24, p. 55). Its sub-projects are diverse. For example, these include a cross-case analysis of VET programs in all four partner countries (No. 14, p. 54), as well as a meta-analysis of VET's impact on youth labour market outcomes in developing countries (No. 10, p. 53), which was started in 2019 and will end in 2020.



Participants of the CEMETS Summer Institute 2019: Twelve teams of education reform leaders from Benin, Chile, Costa Rica, Micronesia, Nepal, Serbia, South Africa and the American states of Colorado, California, Indiana, New York and Washington D.C. participated in ten intensive days of lectures and site visits.

## Selected Publications

- Rageth, L. and U. Renold (2019). The linkage between the education and employment systems: ideal types of vocational education and training programs, *Journal of Education Policy*.  
<https://doi.org/10.1080/02680939.2019.1605541>
- Caves, K., M. E. Oswald-Egg, and U. Renold (2019). Governance im Berufsbildungssystem Schweiz: Systemische Steuerung des schweizerischen Berufsbildungssystems, *KOF Studies*, No. 127.  
<https://doi.org/10.3929/ethz-b-000337058>
- Renold, U., K. Caves, K. Maldonado-Mariscal, M. E. Oswald-Egg, J. Markovic, Z. Veselinovic, D. Stankovic, I. Ceneric, and M. Todorovic (2019). Implementation of the Serbian Law on Dual Education: First Report on Drivers and Barriers in the Pre-Implementation Phase, *KOF Studies*, No. 129.  
<https://doi.org/10.3929/ethz-b-000337794>
- Caves, K., S. Baumann, and U. Renold (2019). Getting there from here: a literature review on vocational education and training reform implementation. *Journal of Vocational Education & Training*, pp. 1–32.  
<https://doi.org/10.1080/13636820.2019.1698643>
- Renold, U., L. Rageth, K. Caves, and J. Buergi (2019). Theoretical and Methodological Framework for Measuring the Robustness of Social Institutions in Education and Training, *KOF Working Papers*, No. 461.  
<https://doi.org/10.3929/ethz-b-000356629>

## Awards

- Katherine Marie Caves received the Best Presentation Award, runner up, from ACTER (Association for Career and Technical Education Research) for her paper 'Factors and Barriers that Impact Reform of Vocational Education and Training in Serbia'.

## Appointment as ETH Professor

- Ursula Renold has been appointed Full Professor of Education Systems by the ETH Board in December 2019. She has taken up her new position on 1 January 2020.

## Activities

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### FORECASTS AND INDICATORS

#### NO. 1) KOF YOUTH LABOR MARKET INDEX

INITIATOR: Gebert Rűf Foundation

HEAD: Ursula Renold

COLLABORATORS: Filippo Pusterla, Thomas Bolli

PROJECT DURATION: May 2013 – Recurring

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### RESEARCH PROJECTS

#### NO. 2) A THEORY-BASED TYPOLOGY OF VET

INITIATOR: Gebert Rűf Foundation

HEAD: Ladina Rageth

COLLABORATOR: Ursula Renold

PROJECT DURATION: February 2014 –  
December 2019

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#### NO. 3) AKAD: WIRKSAMKEIT VON PRÄSENZ- UNTERRICHT IM AKAD-BILDUNGSANGEBOT ZUR BERUFSMATURITÄT II

INITIATOR: AKAD

HEAD: Ursula Renold

COLLABORATORS: Ladina Rageth, Thomas Bolli,  
Johanna Kemper, Maria Esther Oswald-Egg

PROJECT DURATION: March 2018 – December 2021

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#### NO. 4) CEMETS IMPACT STUDY

HEAD: Katherine Caves

PROJECT DURATION: October 2019 – Continuous

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#### NO. 5) CEMETS RESEARCH

INITIATOR: CEMETS

HEAD: Katherine Caves

COLLABORATOR: Ursula Renold

PROJECT DURATION: January 2015 – Continuous

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#### NO. 6) CEMETS SUMMER INSTITUTE

HEAD: Ursula Renold

COLLABORATOR: Katherine Caves

PROJECT DURATION: February 2015 – February 2027

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#### NO. 7) COMPLEMENTARITIES AMONG TYPES OF EDUCATION IN AFFECTING FIRMS' PRODUCTIVITY

INITIATOR: SERI

HEAD: Filippo Pusterla

COLLABORATORS: Thomas Bolli, Ursula Renold

PROJECT DURATION: October 2016 – October 2020

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#### NO. 8) COMPLEMENTARITIES BETWEEN ICT AND EDUCATION

INITIATOR: SERI

HEAD: Filippo Pusterla

PROJECT DURATION: December 2018 – June 2020

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#### NO. 9) COMPLEMENTARITIES OF VPET, CAPITAL AND ORGANIZATION

INITIATOR: SERI

HEAD: Filippo Pusterla

PROJECT DURATION: March 2018 – December 2020

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#### NO. 10) CONSTITUTIONAL REFORM AND ITS IMPACT ON TVET GOVERNANCE IN NEPAL

INITIATOR: SDC

HEAD: Ursula Renold

COLLABORATOR: Katherine Caves

PROJECT DURATION: September 2016 – May 2019

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#### NO. 11) CONTINUING EDUCATION AND TRAINING (CET) LANDSCAPE STUDY IN SINGAPORE

INITIATOR: Institute for Adult Learning (IAL),  
Singapore

HEAD: Ursula Renold

PROJECT DURATION: August 2016 – December 2019

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#### NO. 12) COSTS AND BENEFITS OF FIRMS IN THE ELP PROGRAMME OF SINGAPORE

INITIATOR: Skillsfuture Singapore Agency

HEAD: Thomas Bolli

COLLABORATOR: Ursula Renold

PROJECT DURATION: July 2017 – February 2019

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**NO. 13) COUNTRY FACTBOOKS  
OF EDUCATION SYSTEMS**

HEAD: Johanna Kemper

COLLABORATOR: Maria Esther Oswald-Egg

PROJECT DURATION: November 2013 – Continuous

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**NO. 14) CROSS-CASE STUDY ANALYSIS: HOW DO  
SOCIAL INSTITUTIONS OF TVET CONTRIBUTE TO  
THE SUCCESS OF TVET PROGRAMS WORLDWIDE?**

INITIATOR: r4d (SNSF&SDC)

HEAD: Karina Maldonado

COLLABORATORS: Ursula Renold, Johanna Kemper

PROJECT DURATION: January 2018 – June 2020

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**NO. 15) DETERMINANTEN DER AUSBILDUNGS-  
ENTSCHEIDUNGEN NACH DER BERUFSLEHRE**

HEAD: Thomas Bolli

COLLABORATORS: Ursula Renold, Ladina Rageth,  
Aranya Sritharan

PROJECT DURATION: January 2019 – January 2021

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**NO. 16) DOES VOCATIONAL EDUCATION AND  
TRAINING IMPROVE THE YOUTH LABOUR MARKET  
PERFORMANCE?**

INITIATOR: Gebert Rűf Foundation

HEAD: Thomas Bolli

COLLABORATORS: Maria Esther Oswald-Egg,  
Ladina Rageth

PROJECT DURATION: September 2014 –  
December 2020

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**NO. 17) ENSURE RCT**

INITIATOR: SDC

HEAD: Thomas Bolli

COLLABORATORS: Ursula Renold, Johanna Kemper

PROJECT DURATION: June 2018 – June 2022

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**NO. 18) EDUCATION SYSTEMS AND YOUTH LABOR  
MARKET**

INITIATOR: Gebert Rűf Stiftung

HEAD: Ursula Renold

COLLABORATOR: Thomas Bolli

PROJECT DURATION: November 2013 –  
December 2020

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**NO. 19) EVALUATING THE IMPACT OF GENERAL  
VERSUS VOCATIONAL EDUCATION ON LABOR  
MARKET OUTCOMES IN EGYPT BY MEANS  
OF A RDD**

HEAD: Johanna Kemper

PROJECT DURATION: September 2018 –  
October 2021

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**NO. 20) EXPERIENCE AND LABOUR MARKET  
OUTCOMES**

HEAD: Maria Esther Oswald-Egg

COLLABORATORS: Ursula Renold, Thomas Bolli,  
Katherine Caves

PROJECT DURATION: February 2016 – February 2019

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**NO. 21) GENERIC VET FUNCTION AND THE ROLE  
OF GOVERNANCE LEVELS**

INITIATOR: Chamber of Commerce and Industry  
Serbia (CCIS)

HEAD: Ursula Renold

COLLABORATORS: Katherine Caves, Maria Esther  
Oswald-Egg, Jutta Bűrgi

PROJECT DURATION: February 2017 –  
December 2019

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**NO. 22) KOF EDUCATION-EMPLOYMENT LINKAGE  
INDEX (KOF-EELI)**

INITIATOR: Center on International Education  
Benchmarking (CIEB), CareerWise Colorado, CCIS

HEAD: Ursula Renold

COLLABORATORS: Thomas Bolli, Katherine Caves,  
Maria Esther Oswald-Egg, Johanna Kemper

PROJECT DURATION: March 2015 – December 2030

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**NO. 23) KOF GOVERNANCE OF VET INDEX**

INITIATOR: SERI

HEAD: Ursula Renold

COLLABORATORS: Katherine Caves,  
Maria Esther Oswald-Egg

PROJECT DURATION: November 2018 – March 2019

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**NO. 24) LINKING EDUCATION AND LABOUR MARKETS: UNDER WHAT CONDITIONS CAN TECHNICAL VOCATIONAL EDUCATION AND TRAINING (TVET) IMPROVE THE INCOME OF THE YOUTH?**

INITIATOR: SNSF

HEAD: Ursula Renold

COLLABORATORS: Thomas Bolli, Jutta Bürgi, Johanna Kemper, Silvia Walter, Karina Maldonado

PROJECT DURATION: May 2017 – May 2023

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**NO. 25) MEASURING EDUCATION-EMPLOYMENT LINKAGE IN R&D LELAM-TVET&INCOME COUNTRIES**

INITIATOR: SNSF & SDC

HEAD: Johanna Kemper

COLLABORATORS: Ursula Renold, Andrea Ghisletta, Jutta Bürgi, Katherine Caves

PROJECT DURATION: January 2019 – May 2020

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**NO. 26) META-ANALYSIS: ASSESSING THE IMPACT OF TECHNICAL VOCATIONAL EDUCATION AND TRAINING (TVET) PROGRAMS**

HEAD: Johanna Kemper

COLLABORATORS: Ursula Renold, Andrea Ghisletta

PROJECT DURATION: January 2019 – January 2020

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**NO. 27) MISMATCH**

HEAD: Ursula Renold

COLLABORATOR: Thomas Bolli

PROJECT DURATION: March 2013 – Continuous

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**NO. 28) NVQF EVALUATION – NEPAL**

INITIATOR: SDC

HEAD: Katherine Caves

COLLABORATOR: Ursula Renold

PROJECT DURATION: June 2018 – April 2020

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**NO. 29) SERBIAN DUAL EDUCATION LAW**

INITIATOR: SDC

HEAD: Ursula Renold

COLLABORATORS: Thomas Bolli, Maria Esther Oswald-Egg, Filippo Pusterla, Karina Maldonado, Katherine Caves, Andrea Ghisletta

PROJECT DURATION: May 2018 – May 2021

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**NO. 30) SOCIAL INNOVATION IN VOCATIONAL EDUCATION**

HEAD: Karina Maldonado

COLLABORATOR: Ursula Renold

PROJECT DURATION: October 2018 – October 2020

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**NO. 31) SOCIAL STATUS OF VET: THE FIRM PERSPECTIVE**

INITIATOR: Hirschmann Foundation

HEAD: Ladina Rageth

COLLABORATORS: Ladina Rageth, Thomas Bolli, Karina Maldonado

PROJECT DURATION: December 2017 – August 2021

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**NO. 32) SOCIAL STATUS OF VOCATIONAL EDUCATION AND TRAINING**

INITIATOR: Hirschmann Foundation

HEAD: Ladina Rageth

COLLABORATORS: Thomas Bolli, Ursula Renold

PROJECT DURATION: March 2014 – December 2020

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**NO. 33) VERBLEIBSTUDIE UND KOMPETENZ-ANALYSE BEKLEIDUNGSGESTALTER/IN**

INITIATOR: IG Berufsbildung Bekleidungsgestalter/in

HEAD: Ursula Renold

COLLABORATORS: Thomas Bolli, Ladina Rageth, Aranya Sritharan, Silvia Walter

PROJECT DURATION: May 2019 – June 2022

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**NO. 34) WILLINGNESS TO TRAIN: EDUCATION BEYOND SCHOOLS SURVEY**

INITIATOR: CareerWise Colorado

HEAD: Katherine Caves

COLLABORATORS: Ursula Renold, Thomas Bolli

PROJECT DURATION: May 2013 – Continuous

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**NO. 35) YEARLY HFW CURRICULUM EVALUATION**

INITIATOR: Organizing Institution RLP HFW

HEAD: Ursula Renold

COLLABORATORS: Thomas Bolli, Ladina Rageth, Aranya Sritharan, Karina Maldonado

PROJECT DURATION: December 2013 – February 2024

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## DISSERTATIONS

### **NO. 36) DIGITALIZATION AND VPET**

INITIATOR: SERI

Filippo Pusterla

SUPERVISOR: Jan-Egbert Sturm

COLLABORATORS: Thomas Bolli, Ursula Renold

PROJECT DURATION: October 2016 – June 2020

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### **NO. 37) ESSAYS ON EDUCATIONAL CHOICE**

Aranya Sritharan

SUPERVISOR: Jan-Egbert Sturm

PROJECT DURATION: April 2019 – May 2023

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### **NO. 38) ESSAYS ON THE INTERCONNECTION OF THE EDUCATION SYSTEM AND THE LABOUR MARKET**

INITIATOR: Gebert Rűf Foundation

Maria Esther Oswald-Egg

SUPERVISOR: Jan-Egbert Sturm

PROJECT DURATION: August 2014 – December 2020

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### **NO. 39) SOCIAL INSTITUTIONS OF TECHNICAL VOCATIONAL EDUCATION AND TRAINING (TVET)**

INITIATOR: SNSF

Jutta Bűrgi

SUPERVISOR: Jan-Egbert Sturm

COLLABORATORS: Ursula Renold, Johanna Kemper

PROJECT DURATION: May 2017 – September 2019

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# Chair of Applied Macroeconomics

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## HEAD

PROF DR JAN-EGBERT STURM

The expertise of the Chair of Applied Macroeconomics lies in empirical analysis. It deals with current macroeconomic policy problems, combining data at the country level with geospatial information and microeconomic data, among others. In 2019, its research activities focused mainly on political economy, macroeconomic modelling and forecasting.

In 2019, the chair established a wide range of research and policy contacts at national and international level, participated in 25 international conferences and workshops, and contributed to its academic field by publishing 10 papers and providing services to other researchers.

It organised two conferences, which were attended by renowned economists such as Philippe Aghion (Harvard University) and Barry Eichengreen (University of California). The first one took place in Venice and was titled 'The Future of Europe: Structural Reforms, Growth and Globalisation'. The second conference was conducted at KOF on the topic 'The Euro at 20:

Evaluating the Real Side of the Economic and Monetary Union'. In order to reach a broader audience, the chair also contributed to other KOF activities. It co-organised the 'KOF Wirtschaftsforum' on the Memorandum of Understanding between Switzerland and the People's Republic of China, created a new Swiss Network on Public Economics and organised its inaugural workshop on December 13 that brought together policy makers, academics and other specialists interested in Swiss policy.

Jan-Egbert Sturm continued as editor of the European Journal of Political Economy, one of the leading journals in this field, and Jaqueson K. Galimberti maintained his position as editor for the Econometric Time Series report of Research Papers in Economics (RePEc), an important indexing database that disseminates recent research in economics and finance on a weekly basis. Vera Eichenauer continued her role as president of the European Association of Young Economists (EAYE), which organises the annual Spring Meeting of Young Economists (SMYE) attended by young economists from all fields of economics, until October 2019. In the same month, Stephan Schneider became a new member of the EAYE board.

Like every year, the chair helped prepare the annual 'Silvaplana Workshop in Political Economy', which is aimed at scholars in the field of political economy. Furthermore, it organised the 'Young Swiss Economist Meeting', which is part of the conference programme of the Swiss Society of Economics and Statistics (SSES), and invites PhD students and researchers who have recently received their PhD in any field of economics or related social sciences with a strong link to Switzerland to present their work. The chair was also responsible for the organisation of the KOF Research Seminar and the KOF-ETH-University of Zurich (UZH) Seminar in International Economic Policy.



Left to right: Prof Dr Jan-Egbert Sturm, Lamar Crombach, Dr Andreas Beerli, Regina Pleninger, Frédéric Pellet, Stephan Schneider, Dr Stefan Pichler, Simon Hilber, Ana Boskovic, Severin Schweizer, Flurina Schneider, Dr Vera Eichenauer, Rebecca Gerosa, (not on the picture: Jaqueson K. Galimberti, Daniel Wochner).

The chair constructed the 2019 rankings of researchers, universities and institutes in the field of economics located in Austria, Germany and Switzerland, which are based on bibliometric data. As in previous editions, these are based on quality weighted journal publications. The main results were published in the *Handelsblatt* and available through [www.forschungsmonitoring.org](http://www.forschungsmonitoring.org).

In terms of research activities, some highlights of 2019 focused on monetary policy and economic forecasting. In particular, the influence of central banks on the economy has received increasing attention given their role during the Great Financial Crisis and the subsequent challenges facing the euro.

Together with the late David Mayes (University of Auckland) and Pierre Siklos (Wilfrid Laurier University), Jan-Egbert Sturm edited the *Oxford Handbook of the Economics of Central Banking*. In addition to his contributions related to central bank communication and the management of expectations, the handbook contains contributions of e.g. Alex Cukierman (Tel-Aviv University), Barry Eichengreen (University of California), Charles Goodhart (London School of Economics), and Ricardo Reis (London School of Economics). It reflects the state of the art in theory and practice and covers a wide range of topics such as central bank governance, the differing degrees of central bank independence, and the internal dynamics of their decision-making. The focus lies on questions such as

whether central banks can ameliorate fiscal burdens, on various strategies to affect monetary policy, and how the global financial crisis affected the relationship between the traditional focus on inflation targeting and unconventional policy instruments such as quantitative easing, foreign exchange market interventions, negative interest rates, and forward guidance.

Economists and central bankers nowadays believe that forward guidance has become more important in a world in which key interest rates have hit their effective lower bounds. Anderes et al. (2019) examine whether forward guidance has increased the informational content of the introductory statements at the press conferences following ECB policy meetings in the case of the ECB. They find that ECB communication through its press releases triggers movements in financial markets and thereby the shadow rate. It also causes professional forecasters to change their outlooks.

Adaptive learning allows persistent deviations of beliefs from equilibrium to more realistically reflect agents' attempt to track the continuous evolution of the economy. A characterization of these beliefs is therefore paramount to a proper understanding of the role of expectations in the determination of macroeconomic outcomes. For applied purposes, recursive algorithms for representing how agents update their beliefs require initial estimates of agents' perceived law of motion. Obtaining appropriate initial estimates can become prohibitive within the usual data availability restrictions of macroeconomics. To circumvent this issue, Berardi and Galimberti (2019) propose a new smoothing-based initialization routine that optimizes

## Selected Publications

- Mayes, D., P.L. Siklos, and J.-E. Sturm (2019). The Oxford Handbook of the Economics of Central Banking, *Oxford University Press*.
- Anderes, M., A. Rathke, S. Streicher, and J.-E. Sturm (2019). The role of ECB communication in guiding markets, *Public Choice*, pp. 1–33.  
<https://doi.org/10.1007/s11127-019-00733-0>
- Berardi, M. and J. K. Galimberti (2019). Smoothing-based initialization for learning-to-forecast algorithms, *Macroeconomic Dynamics*, Cambridge University Press, vol. 23, No. 3, pp. 1008–1023.  
<https://doi.org/10.1017/S1365100517000128>
- Galimberti, J. K. (2019). An approximation of the distribution of learning estimates in macroeconomic models, *Journal of Economic Dynamics & Control*, vol. 102, pp. 29–43.  
<https://doi.org/10.1016/j.jedc.2019.03.003>

## Awards

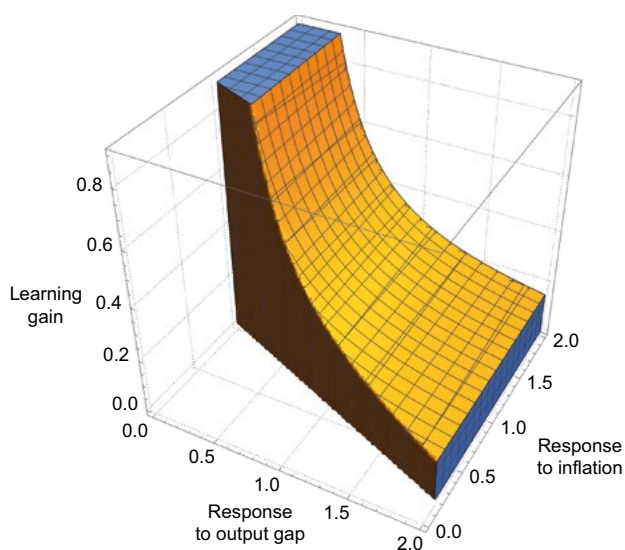
- Stephan A. Schneider was given the 'Ernst-Blickle-Studienpreis' by the SEW Eurodrive Foundation for his master thesis.

the use of a training sample of data to obtain initials consistent with the statistical properties of the learning algorithm. Their method is generically formulated to cover different specifications of the learning mechanism and is able to speed up the convergence of initial estimates in exchange for a higher computational cost.

In this same line of literature, Galimberti (2019) proposes a simple approximation of the asymptotic distribution of learning estimates for a general class of

dynamic macroeconomic models under constant-gain learning. His approximation provides renewed convergence conditions that depend on the learning gain and the model's structural parameters. He validates the accuracy of this approximation with numerical simulations of a Cobweb model, a standard New-Keynesian model, and a model including a lagged endogenous variable. The relevance of his results is further evidenced by an analysis of learning stability and the effects of alternative specifications of interest rate policy rules on the distribution of agents' beliefs.

### Learning Stability in the New-Keynesian Model with an Expectations-based Policy Rule



The three-dimensional regions represent the combinations of policies responses and learning gain for which macroeconomic expectations would remain stable. The upper bound on the learning gain decreases with the strength of responses to the output gap, while it is not affected by the strength of responses to inflation. These results imply that the central bank faces a lower risk of destabilizing expectations when reacting more mildly (or less countercyclically) to output gaps.

# Activities

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## RESEARCH PROJECTS

**NO. 1) A NEW SCRAMBLE FOR AFRICA AND THE DEVELOPING WORLD? AN ANALYSIS OF CHINESE AND INDIAN DEVELOPMENT PROJECTS**

HEAD: Vera Z. Eichenauer

PROJECT DURATION: April 2017 – November 2022

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**NO. 2) DECEMBER FEVER IN PUBLIC FINANCE**

HEAD: Vera Z. Eichenauer

PROJECT DURATION: December 2016 – October 2019

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**NO. 3) DISASTROUS DISCRETION – THE NONLINEAR POLITICAL BIAS IN U.S. HURRICANE RELIEF**

HEAD: Stephan A. Schneider

PROJECT DURATION: December 2017 – Continuous

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**NO. 4) ESSAYS ON PERSISTENT LEARNING AND MACROECONOMIC STABILITY**

HEAD: Jaqueson Galimberti

PROJECT DURATION: December 2016 – January 2020

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**NO. 5) ETHNIC WINNING COALITIONS AND THE POLITICAL ECONOMY OF AID**

HEAD: Vera Z. Eichenauer

PROJECT DURATION: December 2016 – November 2019

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**NO. 6) LIGHTING UP MACROECONOMIC NOWCASTING**

INITIATOR: ETH Zürich

HEAD: Jaqueson Galimberti

PROJECT DURATION: December 2018 – January 2020

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**NO. 7) MACROECONOMICS AND G-TRENDS**

HEAD: Daniel Wochner

PROJECT DURATION: November 2014 – April 2021

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**NO. 8) MEASURING INEQUALITY WITH GEOSPATIAL DATA**

INITIATOR: MTEC-Foundation

HEAD: Jaqueson Galimberti

COLLABORATORS: Stefan Pichler, Regina Pleningner

PROJECT DURATION: November 2017 – January 2020

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**NO. 9) REGIONAL AUTONOMY, POLITICIZATION AND TRUST IN PUBLIC INSTITUTIONS: EVIDENCE FROM THE SWISS JURA REGION**

HEAD: Vera Z. Eichenauer

PROJECT DURATION: May 2017 – December 2021

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**NO. 10) REGIONAL RESOURCES AND DEMOCRATIC SECESSIONISM**

HEAD: Stephan A. Schneider

PROJECT DURATION: May 2015 – December 2019

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**NO. 11) TECHNOLOGICAL AND ORGANIZATIONAL CAPITAL: WHERE COMPLEMENTARITIES EXIST**

HEAD: Daniel Wochner

COLLABORATOR: Tobias Stucki

PROJECT DURATION: December 2014 – April 2021

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**NO. 12) THE ALLOCATION AND FINANCING OF EMERGENCY AID AFTER THE 2015 NEPAL EARTHQUAKE**

HEAD: Vera Z. Eichenauer

PROJECT DURATION: December 2016 – November 2021

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**NO. 13) THE CAUSAL EFFECTS OF TRADE, AID AND INVESTMENT ON CHINA'S IMAGE ABROAD**

HEAD: Vera Z. Eichenauer

PROJECT DURATION: December 2016 – December 2019

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## DISSERTATIONS

### NO. 14) ESSAYS ON ECONOMICS OF DIGITIZATION

Daniel Wochner

SUPERVISOR: Jan-Egbert Sturm

PROJECT DURATION: April 2014 – April 2021

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### NO. 15) ESSAYS ON INCOME INEQUALITY

Regina Pleninger

SUPERVISOR: Jan-Egbert Sturm

PROJECT DURATION: October 2016 – October 2020

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### NO. 16) ESSAYS ON INTERNATIONAL AND MONETARY ECONOMICS

Simon Hilber

SUPERVISOR: Jan-Egbert Sturm

PROJECT DURATION: November 2014 –  
November 2020

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## HABILITATIONS

### NO. 17) ESSAYS IN APPLIED MICROECONOMICS

Andreas Beerli

PROJECT DURATION: January 2015 – Continuous

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### NO. 18) ESSAYS IN HEALTH AND THE LABOR MARKET

Stefan Pichler

PROJECT DURATION: December 2013 –

September 2021

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### NO. 19) ESSAYS ON ADAPTIVE LEARNING AND EXPECTATIONS IN MACROECONOMICS

Jaqueson Galimberti

PROJECT DURATION: January 2014 – January 2019

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# Chair of Applied Economics: Innovation and Internationalisation

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**HEAD**  
PROF DR PETER EGGER

## HIGHLIGHTS OF 2019

In 2019, the Chair of Applied Economics: Innovation and Internationalization saw its members engaged in many activities. Peter Egger continued his work as editor-in-chief of *The Review of International Economics*, the *German Economic Review*, and of *The World Economy's* European issues, as well as associate editor of *Letters in Spatial and Resource Sciences*, the *Annals of Regional Science*, and *Empirica*. The chair published seven articles in peer-reviewed international journals, 13 editorials and three working papers, and presented 23 papers at international academic conferences.

In 2019, Peter Egger, Nora Strecker and Sergey Nigai were awarded the inaugural *Diligentia* Prize for empirical research for their article 'The Taxing Deed of Globalization' which was published in the *American Economic Review* in February. The article sparked several editorials, including pieces in *Barron's* and *London School of Economics and Politics (LSE) Business Review*.

The Chair of Applied Economics: Innovation and Internationalization focuses on three broad areas of research: international economics, public economics and applied econometrics.

The specific research themes are:

- Sector-level and aggregate models of domestic and foreign demand for goods, services and factors (such as direct investment and migration).
- Globalization with heterogeneous agents (firms, workers, and households), the formulation and estimation of models determining optimal tax setting, and the consequences of taxation for open regions and countries.
- Quantifiable general equilibrium models to assess the economic effects of spatial policies.
- Discrete or continuous treatment effects and those for the analysis of data featuring cross-sectional interdependence (spatial and peer-group models) and equi-correlation (panel models) with application to firm level, matched-employer-employee-level, sector level, regional and country level data.

The chair won a grant from the SNSF for the project 'Winners and Losers from Trade and Investment Liberalization: A Global Capital Market Perspective'. Peter Egger, Nora Strecker and Benedikt Zoller-Rydzek's project 'Estimating Bargaining-related Tax Advantages of Multinational Firms', funded by the MTEC Foundation, was completed and accepted for





Left to right: Han Wu, Sophia Ding, Gerard Masllorens Fuentes, Dr Nora Strecker, Dr Katharina Erhardt, Prof Dr Peter Egger, (not on the picture: Alexander Baumgartner, Nicole Loumeau, Rahul Rade, Xi Rao, Dr Davide Suverato).

publication in the *Journal of International Economics*. In addition, a paper by Badi Baltagi, Peter Egger and Michaela Kesina was published in *Regional Science and Urban Economics*, and the work of Katharina Erhardt and her co-authors was published in the *AEA's Papers and Proceedings*. PhD students Sophia Ding and Dominique Blümer (external) successfully completed their dissertations.

### **MOST IMPORTANT PROJECTS**

In fall 2019, the SNSF started funding the project 'Winners and Losers from Trade and Investment Liberalization: A Global Capital Market Perspective'. A lion's share of the international economics literature suggests unequivocal positive average effects of preferential economic liberalization, at least for the liberalizing countries. It would otherwise be hard to explain

the incredible surge in the number of country pairs who have signed various types of preferential economic integration agreements (PEIAs). Macroeconomically, preferential trade agreements increase bilateral trade between the involved countries and their average welfare. At the micro level, such preferentialism was proven to be productivity-enhancing, with positive effects on firms' profit margins and the level of employment. In several papers, this project seeks to address the question about whether these predictions are taken into account by investors when they learn about a country's prospects of joining a preferential trade agreement.

In March 2019, the chair began collaborating with the Swiss Data Science Center on the project 'EconMulti-plex – Multiplex Networks in International Trade'. This

## Selected Publications

- Egger P. H., S. Nigai, and N. M. Strecker (2019). The Taxing Deed of Globalization, *American Economic Review*, vol. 109, issue 2, pp. 353–390.  
<https://doi.org/10.1257/aer.20160600>
- Egger P. H., M. Kesina, and B. Baltagi (2019). Contagious exporting and foreign ownership: Evidence from firms in Shanghai using a Bayesian spatial bivariate probit model, *Regional Science and Urban Economics*, vol. 76, pp. 125–146.  
<https://doi.org/10.1016/j.regsciurbeco.2018.04.003>
- Auer R., A. Burstein, K. Erhardt, and S. Lein (2019). Exports and Invoicing: Evidence from the 2015 Swiss Franc Appreciation, *American Economic Review Papers & Proceedings*, vol. 109, pp. 533–538.  
<https://doi.org/10.1257/pandp.20191008>

project addresses the issue of economic network interdependence at the level of firms in China and their connectedness among each other as well as with the rest of the world. Since the Economic and Financial Crisis of 2007 and 2008, researchers have been aware that understanding economic network structures at the micro-level is crucial to determining the

exposure and resilience of firms, jobs, sectors, and countries to adverse shocks globally. Understanding the economy of China as a supplier of intermediate and final goods, as well as its internal and external economic network, structure is of global importance. This project uses modern methods in data science and statistics (network and spatial econometrics) to gain insights into the nature of the domestic and foreign network structure of Chinese firms.

Another strand of work aims to develop methods for the estimation of parameters in models with spatial and network interdependence. Within this area, the Chair considers issues of missing data mainly through sample or treatment selection. The Chair's interdisciplinary data science project with the Swiss Data Science Center is a significant focus within this research area.

The Chair is also focused on several other research areas: (i) the role of taxation in the global economy, (ii) the empirical analysis of bilateral international trade, (iii) regional economics of innovation and trade, and (iv) the development and estimation of models with spatial and network interdependence.

One ongoing project on the role of taxation, which has been commissioned as a book with MIT Press, documents the features of personal income tax systems around the world. A related project explores the political economy drivers behind income tax systems in large panel data across countries and years. A third project examines the effects of taxation on the before- and after-tax income distributions across time for a

## Awards

- Peter Egger, Nora Strecker and Sergey Nigai were awarded the inaugural Diligentia Prize for their article 'The Taxing Deed of Globalization' in the *American Economic Review*.
- Katharina Erhardt's paper 'The Cultural Roots of Firm Entry, Exit, and Growth' [joint work with Simon Hänni, UZH] received the Best Paper Award at the GEP/CEPR Annual Postgraduate Conference and the Best Paper Award at the Annual Congress of the SSES in 2019.

large panel of countries. In addition, a large-scale fourth project features a fundamental heterogeneity of economic actors, non-homothetic preferences of consumers, and a broad consideration of taxes. It will quantify the extent to which existing tax instruments do or do not compensate the losers of international trade, and establish a causal link to macroeconomic outcomes.

Within the empirical analysis of bilateral international trade, several projects are concerned with the development of methods for the empirical analysis of so-called gravity equations of bilateral international trade. The Chair's contribution to the EU-Marie Skłodowska Curie Program Transatlantic Trade and Investment Partnership – International Training Network (TTIP-ITN) is part of this research area. The most recent SNSF project 'Winners and Losers from Trade and Investment Liberalization: A Global Capital Market Perspective' and 'Measurement Error in Structural Empirical Work of International Economics' are also part of this effort. The latter project is concerned with measurement errors in explanatory variables of bilateral trade and the avoidance of associated parameter biases.

The Chair's work on regional economics focuses on quantifiable general equilibrium models to assess the economic effects of spatial policies, such as large-scale transportation investments or R&D investment incentives. The work adopts a structural approach, which permits accounting for direct and indirect effects of spatial policies, and models are calibrated to fit basic population and income statistics of the analysed regions. The analyses focus on the effects of key parameters, including place-specific employment, productivity, and welfare.

# Activities

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## RESEARCH PROJECTS

### NO. 1) A TOUR OF LABOR INCOME TAX IN THE WORLD, 1980–2012

HEAD: Nora Strecker

COLLABORATOR: Peter Egger

PROJECT DURATION: February 2015 – December 2019

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### NO. 2) EU PROJEKT TTIP-ITN

INITIATOR: EU Marie Skłodowska Curie Program

HEAD: Peter Egger

COLLABORATOR: Gerard Masllorens Fuentes

PROJECT DURATION: March 2017 – March 2020

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### NO. 3) ESTIMATING BARGAINING-RELATED TAX ADVANTAGES OF MULTINATIONAL FIRMS

INITIATOR: MTEC-Foundation

HEAD: Nora Strecker

COLLABORATOR: Peter Egger

PROJECT DURATION: November 2017 – December 2019

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### NO. 4) INNOVATION AND TRADE

HEAD: Katharina Erhardt

PROJECT DURATION: February 2018 – December 2024

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### NO. 5) MEASUREMENT ERROR IN STRUCTURAL EMPIRICAL WORK OF INTERNATIONAL ECONOMICS

INITIATOR: SNSF

HEAD: Peter Egger

COLLABORATOR: Michaela Kesina

PROJECT DURATION: September 2016 – September 2019

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### NO. 6) TAX POLICY AND INEQUALITY IN A GLOBALIZING WORLD

HEAD: Nora Strecker

COLLABORATOR: Peter Egger

PROJECT DURATION: December 2014 – Continuous

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### NO. 7) TRADE POLICY

HEAD: Katharina Erhardt

PROJECT DURATION: February 2018 – December 2024

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## DISSERTATIONS

### NO. 8) ESSAYS ON BILATERAL INVESTMENT TREATIES AND GLOBAL VALUE CHAINS

INITIATOR: EU Marie Skłodowska Curie Program

Gerard Masllorens Fuentes

SUPERVISOR: Peter Egger

PROJECT DURATION: August 2017 – August 2020

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### NO. 9) ESSAYS ON TRADE, GEOGRAPHY AND DEVELOPMENT

Nicole Loumeau

SUPERVISOR: Peter Egger

PROJECT DURATION: February 2015 – November 2019

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### NO. 10) GRAVITY MODELS FOR ALL FLOWS

INITIATOR: SNSF

Pinar Kaynak

SUPERVISOR: Peter Egger

PROJECT DURATION: June 2015 – June 2019

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### NO. 11) SELECTION MODELS IN THE PRESENCE OF NETWORKS: THEORY AND APPLICATION FOR PANEL DATA

Sophia Ding

SUPERVISOR: Peter Egger

PROJECT DURATION: July 2015 – October 2019

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# Chair of Public Economics

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## HEAD

PROF DR MARKO KÖTHENBÜRGER

The focus of the Chair of Public Economics lies on theoretical and empirical research in the area of public economics, such as corporate taxation, social security, fiscal federalism and behavioural public economics. Its research strategy involves normative as well as political economy analyses.

## HIGHLIGHTS OF 2019

In 2019, the members of the group were engaged in various activities. In addition to being the editor of *Economics of Governance*, Marko Köthenbürger is a member of the editorial board of the *Nordic Tax Journal* and *International Tax and Public Finance*. The chair presented papers at various conferences, was engaged in the organisation of policy-oriented conferences and published papers as working papers in refereed journals. Furthermore, three post-docs took up positions as assistant or associate professor.

## MOST IMPORTANT PROJECTS

In a research project, the chair analysed how to locate public facilities when accounting for endogenous location decisions of individuals. After the development of a quantifiable general equilibrium model with

endogenous residential densities, housing prices, residential development and public facility characteristics, this framework was applied to the Paris region at a micro-spatial level (200m x 200m cells). The analysis reveals significant inefficiencies in residential densities, commutes and land use due to the observed location decisions made between 2001 and 2015. A more decentralized strategy is predicted to increase welfare significantly (Loumeau, 2019).

In another project, the chair studied whether politicians manipulate fiscal policy to extract private rents in the setting of Italian municipalities. In particular, the analysis exploits discontinuities in mayors' salaries that are based on population thresholds to examine whether mayors systematically apply lower rates to their own tax bracket. The analysis documents large rent-seeking activity (Giommoni, 2019).

Mergers and acquisition (M&A) have increased in importance in recent years. The chair investigated the impact of taxes on the international location of targets in M&A, allowing for domestic acquisitions and heterogeneous responses by companies. The statutory tax rate in the target country is found to have a negative impact on the probability of an acquisition in that country. In addition, the estimated size of the effect is found to depend on whether (i) acquirer is a domestic or a multinational enterprise; (ii) the acquisition is domestic or cross-border; and (iii) the acquirer's country has a worldwide or territorial tax system (Arulampalam, Devereux and Liberini, 2019).

The role of digital technologies and digital markets were the focus of various projects at the chair in 2019. For instance, in one project the chair looked at how non-linear tariffs, which are a central pricing policy in telecommunication markets, affect the way commodity taxes influence the market outcome and welfare (D'Annunzio, A., M. Mardan and A. Russo, 2019).



Left to right: Prof Dr Marko Köthenbürger, Christian Waloszek, Dr Sergio Galletta, Dr Tommaso Giommoni, Christian Stettler, (not on the picture: Meret Bozi, Dr Gabriel Loumeau, Yannick Sottas, Dr Michael Stimmelmayer).

Two-sided digital markets have received increased attention from society's perspective. Consumer tracking allows platforms in these markets to generate advertising income. In one project, the relation between consumer tracking and the role of advertising income was analysed (D'Annunzio and Russo, 2019). Furthermore, the chair examined tax policy implications of two-side digital markets (Koethenbuerger, 2019).

On 23 June 2016, the United Kingdom voted in favour of 'Brexit'. The chair studied the predictors of anti-EU sentiment and can provide initial evidence that a central channel of influence lies in a person's feelings about their own financial situation. In contrast, the project's findings indicate relatively little evidence of the regression-equation for the widely-discussed idea

that Brexit was favoured by the old and the unhappy. The analysis shows that UK citizens' feelings about their incomes were a substantially better predictor of pro-Brexit views than their actual incomes. This seems an important message for economists, because the subject of economics has typically avoided the study of human feelings in favour of 'objective' data (Liberini, Oswald, Proto and Redoano, 2019).

Finally, in 2019 the chair was involved in a variety of projects related to the taxation of multinational firms. For instance, the system of formula apportionment is used in various countries and is repeatedly discussed as a policy option for corporate taxation in the European Union. In a research project, members of the chair analysed the relevance of firm losses for tax revenue and welfare when switching from separate

## Selected Publications

- Arulampalam, W., M. P. Devereux, and F. Liberini (2019). Taxes and the location of targets, *Journal of Public Economics*, vol. 176, pp. 161–178.  
<https://doi.org/10.1016/j.jpubeco.2019.05.005>
- D’Annunzio, A., M. Mardan, and A. Russo (2019). Multi-part tariffs and differentiated commodity taxation, *The Rand Journal of Economics*, forthcoming.
- D’Annunzio, A. and A. Russo (2019). Ad Networks and Consumer Tracking, *Management Science*, forthcoming.  
<https://doi.org/10.1287/mnsc.2019.3481>
- Giommoni, T. (2019). A Fistful of Dollars: Rent Seeking Behaviour and Local Tax Manipulation, *Dondena Working Papers*, vol. 130.  
<http://hdl.handle.net/20.500.11850/386844>
- Koethenbueger, M. (2019). Belastingheffing op digitale platforms, *Ontwerp voor een Beter Belastingstelsel*, edited by Cnossen, Sijbren and Jacobs, Bas, pp. 106–115.  
<http://hdl.handle.net/20.500.11850/395523>
- Koethenbueger, M., M. Mardan, and M. Stimmelmayer (2019). Profit Shifting and Investment Effects: The Implications of Zero-Taxable Profits, *Journal of Public Economics*, vol. 173, pp. 96–112.  
[https://ideas.repec.org/p/ces/ceswps/\\_6895.html](https://ideas.repec.org/p/ces/ceswps/_6895.html)
- Liberini, F., A. J. Oswald, E. Proto, and M. Redoano (2019). Was Brexit triggered by the old and unhappy? Or by financial feelings? *Journal of Economic Behavior and Organization*, vol. 161, pp. 287–302.  
<https://doi.org/10.1016/j.jebo.2019.03.024>
- Loumeau, G. (2019). Locating Public Facilities: Theory and Micro Evidence from Paris, *KOF Working Papers*, No. 452.  
<https://doi.org/10.3929/ethz-b-000332703>
- Mardan, M. and M. Stimmelmayer (2019). Grenzüberschreitender Gewinnausgleich und Steuerwettbewerb, *KOF Analysen*, No. 3, 95–104.  
<https://doi.org/10.3929/ethz-b-000369802>

accounting to a system of tax base consolidation with formula apportionment (Mardan and Stimmelmayer, 2019). Multinational firms may engage in profit shifting to reduce their tax liability. Also, this tax avoidance measure may increase investments due to constraints in the profit shifting behaviour (Koethenbueger, Mardan and Stimmelmayer, 2019). Preferential tax regimes in the form of patent boxes have been introduced in many European countries, including Switzerland. Such preferential tax regimes might have

unintended effects in the country in which they are introduced. Most notably, the rise in reported profit might not translate into higher tax revenues (Koethenbueger, Liberini and Stimmelmayer, 2019).

In a further on-going research project, the chair is analysing the effect of municipal mergers and corporations on the fiscal performance of municipalities in Switzerland. The project is being funded by the SNSF.



## Activities

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### RESEARCH PROJECTS

#### NO. 1) ACTIVE THROUGH INCENTIVE MECHANISMS

INITIATOR: MTEC-Foundation

HEAD: Christian Waloszek

PROJECT DURATION: January 2017 – December 2019

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#### NO. 2) COMPETITION ON TWO SIDED PLATFORMS

HEAD: Antonio Russo

PROJECT DURATION: September 2016 – January 2019

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#### NO. 3) CORPORATE TAXATION AND MANAGERIAL INCENTIVES

HEAD: Marko Köthenbürger

COLLABORATOR: Michael Stimmelmayer

PROJECT DURATION: August 2013 – Continuous

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#### NO. 4) CROSS BORDER LOSS OFFSET AND MNES

HEAD: Marko Köthenbürger

COLLABORATORS: Mohammed Mardan,

Michael Stimmelmayer

PROJECT DURATION: August 2014 – December 2020

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#### NO. 5) EFFECTS OF PATENT BOXES

HEAD: Marko Köthenbürger

COLLABORATORS: Michael Stimmelmayer,

Federica Liberini

PROJECT DURATION: July 2016 – Continuous

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#### NO. 6) ESSAYS ON LOCAL PUBLIC FINANCE

HEAD: Gabriel Loumeau

PROJECT DURATION: December 2014 – December 2021

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#### NO. 7) FISCAL DEVALUATION

HEAD: Michael Stimmelmayer

PROJECT DURATION: September 2013 – December 2021

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#### NO. 8) FISCAL INSTRUMENTS FOR THE DIGITAL ECONOMY

HEAD: Federica Liberini

COLLABORATOR: Antonio Russo

PROJECT DURATION: December 2015 – December 2019

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#### NO. 9) FLYPAPER EFFECT IN LOCAL POLICY CHOICES

HEAD: Gabriel Loumeau

PROJECT DURATION: May 2015 – December 2021

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#### NO. 10) INVESTMENT TAX INCENTIVES IN DEVELOPING COUNTRIES

HEAD: Federica Liberini

COLLABORATOR: Mohammed Mardan

PROJECT DURATION: January 2016 – December 2019

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#### NO. 11) LOCAL BORDER REFORMS AND ECONOMIC ACTIVITY

HEAD: Marko Köthenbürger

COLLABORATORS: Peter Egger, Gabriel Loumeau

PROJECT DURATION: December 2016 – December 2020

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#### NO. 12) POLITICAL CAMPAINING IN THE SOCIAL NETWORK ERA

HEAD: Federica Liberini

COLLABORATOR: Antonio Russo

PROJECT DURATION: September 2017 – December 2019

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**NO. 13) PROFIT SHIFTING AND PATENT BOX  
REGIME DRIVEN ENTRY**

HEAD: Marko Köthenbürger

COLLABORATORS: Federica Liberini,  
Michael Stimmelmayer

PROJECT DURATION: October 2015 – December 2020

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**NO. 14) PUBLIC TRANSPORT AND ROAD  
CONGESTION**

HEAD: Federica Liberini

COLLABORATOR: Antonio Russo

PROJECT DURATION: March 2015 – June 2019

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**NO. 15) SNF-FISCAL EFFECTS OF INTER-  
MUNICIPAL COOPERATIONS AND MERGERS**

INITIATOR: Swiss National Science Foundation

HEAD: Christian Stettler

COLLABORATORS: Meret Bozi, Yannick Sottas,  
Marko Köthenbürger, Silvia Walter

PROJECT DURATION: March 2018 – March 2022

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**NO. 16) TAXATION AND REGULATION IN THE  
DIGITAL ECONOMY**

HEAD: Marko Köthenbürger

PROJECT DURATION: December 2015 – October 2020

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**DISSERTATIONS**

**NO. 17) REAL-EFFORT TASKS IN BEHAVIORAL  
AND EXPERIMENTAL ECONOMICS**

Christian Waloszek

SUPERVISOR: Marko Köthenbürger

PROJECT DURATION: September 2014 –  
March 2020

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# Administration and Support

# Administration and Support

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## HEAD

TOLGA COBAN

The work of the scientific staff would not be possible without the division 'Administration and Support'. The section IT takes care of KOF specific challenges in the area of scientific IT, running IT-related environments and processing and providing data. It cooperates with ETH IT Services, which provide the required network and all the hard- and software as well as support in commodity IT aspects. The section Administration is responsible for all financial, personnel and administrative aspects and the survey support section is now part of this section. Administration makes sure that the numerous surveys and all related activities carried out at KOF all run smoothly from a non-technical perspective. The section Corporate Communications ensures that the scientific work is accessible and understandable to the public.

## ADMINISTRATION

The section Administration is responsible for all personnel and financial aspects of KOF and its associated chairs, as well as for the general administration of the institute. It works in close collaboration with the corresponding central services at ETH Zurich and is the point of contact for all kinds of concerns addressed by internal and external partners.

In 2019, the survey support was integrated into the administration section. The purpose of this new structure was to optimize task- and project-oriented operations through all research groups and chairs in a more standardized way. The focus now lies on higher-level tasks for the entire institute rather than on specific duties for individual KOF research groups or chairs. The newly formed section can now redistribute administrative tasks and create task-related synergies. This has improved the ability of the administration section to build the necessary competences needed to handle more specific, complex and engaging challenges in project management assistance, legal, accounting, HR and in maintaining relationships with various contacts. The newly appointed head of this section is responsible for the entire administration. She will support and accompany the further development.

On January 1, 2019 ETH Zurich introduced its new accounting principles and a new version of the administration platform EThis. The administration section has mastered the transition to the new system well and the initial difficulties and teething troubles have been overcome. After reviewing the reporting capacities, the administration section came to the



Back row (left to right): Gilles Aubert, Christian Gschwendt, Tolga Coban, Charles Clavadetscher, Solenn Le Goff, Daniel Matyas, Franziska Kohler, Dr Matthias Bannert, Anne Stücker, Oliver Müller, Corinne Schibli-Lozano, Severin Thöni, front row (left to right): Silvia Walter, Vera Degonda, Nicole Koch, Katharina Bloch, Sabrina Humbel, (not on the picture: Angelica Becerra, Tiziana Borghesi Stäheli, Barbara Frank, Immanuel Feld, Nadia Genova, Mariella Greutmann, Daniel Kun, Theresa Manz, Stefan Meichtry Blass, Thomas Schär, Sonja Wegmann-Balz).

conclusion that they were not meeting KOF's needs. Financial reporting is still complex and requires a great deal of effort. Moreover, new survey tools have been adopted in the survey area. Familiarization with the new survey management tool KOSMOS and the new processes have progressed well. The section has already observed that the stability of the survey operation processes has improved and the flexibility in handling the survey processes has increased.

### CORPORATE COMMUNICATIONS

To build a bridge between academia and public is an important part of KOF's mission statement. The main task of the Corporate Communications section is therefore to draw attention to the scientific work carried out at KOF and to communicate it comprehensibly to a non-scientific audience.

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**KOSMOS** v1.1-655-g65bad50

Umfragen Umfragen-Übersicht Datenpflege

### Listen

Liste

Rücklaufquoten

**Beschreibung**

Liste der Rücklaufquoten der Konjunkturumfragen für die ausgewählte Welle.

**Filter**

Jahr: 2019

Monat: 12

Liste anzeigen

(8 Datensätze)

Umfrage	Jahr	Monat	Gesendet	erhalten	Ratio
AJU	2019	12	530	399	75.3
BANU	2019	12	79	65	82.3
BAU	2019	12	906	614	67.8
DHU	2019	12	1689	913	54.1
DLU	2019	12	322	154	47.8
FINU	2019	12	97	82	84.5
INU	2019	12	1205	844	70
VERU	2019	12	32	23	71.9

Participants Weights Waves Memo Mail

1.2019: Antwort: Teilgenommen

Zurück setzen Speichern

**Contact** Contact Id: +

Person Address Box Geolocation Properties Memos Contact

Anrede: Sehr geehrter Herr / Herr

Vorname: Hans

Nachname: Muster

E-Mail: hans.muster@example.ch

Telefon:

Mobil:

Sprache: Deutsch

Geschlecht: männlich

The blog *Ökonomenstimme* reflects these efforts to promote an exchange between economists and a broader public. It enjoys a steady influx of new articles from researchers, and feedback from authors as well as readers is always positive. However, 2019 was a crucial year for *Ökonomenstimme*. The section had to decide whether – and if so, how – the platform should be further developed. Together with board members, it was agreed to undertake a relaunch of *Ökonomenstimme* and to dedicate resources to its development, both in terms of content and technical measures. The concept phase began at the end of 2019 and will last until summer 2020.

In order to stay in touch with peers and especially with KOF Alumni, the section decided to set its focus on social media communication by creating a LinkedIn profile for KOF. This medium helps direct news, stories and events to a broader public.

KOF's visibility in the wider, non-media public can be improved. Following its goal to build a bridge between academia and the public, it cultivated the KOF network within the scientific and broader public through

numerous events. At Scientifica it took the opportunity to present itself to a diverse, not purely academic audience.

## IT

The IT department invested heavily in the advancement of its quality control mechanisms by implementing new tests and process standards for KOF indicators, forecasts, reports and various other results of research projects. It formed a DevOps group, which is responsible for the operational and infrastructural provision of research outcomes that must be reproducible outside of the research context.

With the introduction of the first version of a data search website, IT further improved the accessibility of survey data for economic researchers.

Moreover, IT supported the Business Tendency Surveys division in its efforts to increase the frequency of the services sector survey from quarterly to monthly. It worked closely with the division to support the redesign of the company structure model in the database.

### LinkedIn Profile of KOF







# KOF Publications

KOF Working Paper Series

KOF Analysen

KOF Studies

KOF Dissertation Series

KOF Bulletin

KOF Education System Factbooks

Ökonomenstimme

# KOF Working Paper Series

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Anderes, M., A. Rathke, S. Streicher, and J.-E. Sturm (2019). The Role of ECB Communication in Guiding Markets. KOF Working Paper 464.

<https://doi.org/10.3929/ethz-b-000368196>.

Bolli, T., K. Caves, and M.E. Oswald-Egg (2019). Valuable experience: How internships affect university graduates' income. KOF Working Paper 459.

<https://doi.org/10.3929/ethz-b-000355960>.

Bolli, T., M.N. Parajuli, and U. Renold (2019). Has the relationship between formal education and the formal employment sector in Nepal changed between 1995 and 2014? KOF Working Paper 455.

<https://doi.org/10.3929/ethz-b-000337924>.

Bolli, T. and F. Pusterla (2019). Is Technological Change Really Skills-Biased? Firm-level Evidence of the Complementarities between ICT and Workers' Education. KOF Working Paper 468.

<https://doi.org/10.3929/ethz-b-000385031>.

Bolli, T., L. Rageth, and U. Renold (2019). The Social Status of Vocational Education and Training in Switzerland. KOF Working Paper 451.

<https://doi.org/10.3929/ethz-b-000323964>.

Caves, K., A. Ghisletta, and J.M. Bolli-Kemper (2019). Meeting in the middle: TVET programs' education-employment linkage in developing contexts. KOF Working Paper 460.

<https://doi.org/10.3929/ethz-b-000356567>.

De Rassenfosse, G., J. Kozak, and F. Seliger (2019). Geocoding of worldwide patent data. KOF Working Paper 458.

<https://doi.org/10.3929/ethz-b-000354925>.

De Rassenfosse, G. and F. Seliger (2019). Sources of knowledge flow between developed and developing nations. KOF Working Paper 444.

<https://doi.org/10.3929/ethz-b-000323958>.

Dibiasi, A. and D. Iselin (2019). Measuring Knightian Uncertainty. KOF Working Paper 456.

<https://doi.org/10.3929/ethz-b-000341984>.

Eckert, F., R.J. Hyndman, and A. Panagiotelis (2019). Forecasting Swiss Exports using Bayesian Forecast Reconciliation. KOF Working Paper 457.

<https://doi.org/10.3929/ethz-b-000354388>.

Eckert, F. and S. Sarferaz (2019). Agnostic Output Gap Estimation and Decomposition in Large Cross-Sections. KOF Working Paper 467.

<https://doi.org/10.3929/ethz-b-000384365>.

Galimberti, J. K. (2019). An approximation of the distribution of learning estimates in macroeconomic models. KOF Working Paper 453.

<https://doi.org/10.3929/ethz-b-000332885>.

Kopp, D. and M. Siegenthaler (2019). Short-Time Work and Unemployment in and after the Great Recession. KOF Working Paper 462.

<https://doi.org/10.3929/ethz-b-000359533>.

Lassmann, A. and B. Zoller-Rydzek (2019). Decomposing the Margins of Transfer Pricing. KOF Working Paper 450.

<https://doi.org/10.3929/ethz-b-000322881>.

Loumeau, G. (2019). Locating Public Facilities: Theory and Micro Evidence from Paris. KOF Working Paper 452.

<https://doi.org/10.3929/ethz-b-000332703>.

Peneder, M., M. Thompson, and M. Wörter (2019). The (Anti-)Competitive Effect of Intellectual Property Rights. KOF Working Paper 454.

<https://doi.org/10.3929/ethz-b-000334871>.

Pleninger, R. and J.-E. Sturm (2019). The Effects of Economic Globalisation and Ethnic Fractionalisation on Redistribution. KOF Working Papers 465.

<https://doi.org/10.3929/ethz-b-000383383>.

Sturm, J.-E., R. Pleninger, and J. de Haan (2019). The 'Forgotten' Middle Class: An Analysis of the Effects of Globalisation. KOF Working Papers 466.

<https://doi.org/10.3929/ethz-b-000383388>.

Renold, U., L. Rageth, and K. Caves (2019). Theoretical and Methodological Framework for Measuring the Robustness of Social Institutions in Education and Training. KOF Working Paper 461.

<https://doi.org/10.3929/ethz-b-000356629>.

Silverstovs, B. and D. Wochner (2019). Recessions as Breadwinner for Forecasters State-Dependent Evaluation of Predictive Ability: Evidence from Big Macroeconomic US Data. KOF Working Paper 463.

<https://doi.org/10.3929/ethz-b-000374306>.

## KOF Analysen

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Abberger, K., Y. Abrahamsen, M. Anderes, A. Dibiasi, F. Eckert, A. K. Funk, M. Graff, F. Hälg, F. Kohler, H. Mikosch, N. Mühlebach, S. Neuwirth, A. Perakis, A. Rathke, S. Sarferaz, M. Siegenthaler, A. Stücker, S. Streicher and J.-E. Sturm (2019a). Konjunktur-analyse: Prognose 2019/2020. Schweizer Wirtschaft kämpft mit schwierigen Rahmenbedingungen. KOF Analysen Frühjahr 2019, 1–70.

<https://doi.org/10.3929/ethz-b-000334776>.

Abberger, K., Y. Abrahamsen, M. Anderes, M. Baum-berger, F. Eckert, M. Graff, F. Hälg, F. Kohler, H. Mikosch, N. Mühlebach, S. Neuwirth, A. Rathke, S. Sarferaz, M. Siegenthaler, S. Streicher, and J.-E. Sturm (2019b). Konjunktur-analyse: Prognose 2019/2020. Industrie stützt Schweizer Konjunktur. KOF Analysen Sommer 2019, 1–23.

<https://doi.org/10.3929/ethz-b-000347269>.

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[www.oekonomenstimme.org](http://www.oekonomenstimme.org)

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# External Publications

Contributions in Refereed Journals

Contributions in Other Journals

Other Working Paper Series

Books and Book Contributions

Selected Newspaper Articles and Interviews

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Interview with Erhardt, K. and M. Ianni, (2019). *Les Alémaniques ont plus la fibre entrepreneuriale que les Romands*. Topic, Schweizer Unternehmen. L'AGEFI: Le guide 2000 des PME, 8–9, 2019-04-08.

Interview with Mikosch, H. and S. Giger (2019). 'Innovationen sind in reifen Märkten entscheidend'. *Handelszeitung*, 38–38, 2019-02-07.

Renold, U., T. Bolli, F. Hulfeld, and et al. (2019). Chancen und Herausforderungen des Selbststudiums. Schweizerische Gesellschaft für angewandte Berufsbildungsforschung. SGAB Newsletter, 2019-10-22.

\* Full Media Coverage p.139

# Referee Reporting and Committees

Referee Reporting

Committees

## Referee Reporting

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Bannert, M. (2019): Journal of Business Cycle Research

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Beck, M. (2019): Research Policy (2x), Journal of Engineering and Technology Management (2x), Int. J. of Technology Management, European Management Journal, Information Economics and Policy, Industry and Innovation

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Caves, K. (2019): Journal of Vocational Education and Training (2x), Empirical Research in Vocational Education and Training, Journal of Vocational Education and Training (4x), American Educational Research Journal

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Eckert, F. (2019): Journal of Business Cycle Research

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Egger, P. (2019): American Economic Journal, Economic Policy, American Economic Review, Canadian Journal of Economics, Eastern Economic Journal, Economica, Economics Letters, Empirical Economics, European Journal of Political Economy, German Economic Review, International Economic Review, Journal of Applied Econometrics, Journal of International Economic Development, Journal of International Trade and Economic Development, Journal of Public Economics, Review of International Economics, Cambridge University Press, MIT Press, Deutsche Forschungsgemeinschaft (DFG), Economic and Social Research Council (ESRC), National Science Foundation (NSF)

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Eichenauer, V. (2019): European Journal of Political Economy (4x), Review of International Organizations, Development in Practice, PLOS ONE, European Journal of Political Economy (3x), World Bank Economic Review, Review of International Organizations, International Studies Quarterly, Comparative Economic Studies, The Journal of International Development, Review of International Political Economy

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Erhardt, K. (2019): Review of International Economics, Scandinavian Journal of Economics, Swiss Journal of Economics and Statistics, International Economics, European Economic Review (2x), Review of World Economics, Review of International Economics, Conflict Management and Piece Science

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Galimberti, J. K. (2019): Journal of Economic Dynamics and Control

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Galletta, S. (2019): European Economic Review (2x), Journal of Happiness Study, Journal of Public Economics, Italian Economic Journal, Regional Science and Urban Economics

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Garmann, S. (2019): Political Science Research and Methods, Journal of European Integration, Economic Modelling, Regional Studies

---

Graff, M. (2019): Journal of International Money and Finance, Review for Macroeconomic Dynamics, Economic Modelling, Sustainability

---

Kopp, D. (2019): Journal of Business Cycle Research

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Köthenbürger, M. (2019): Nordic Tax Journal

---

Liberini, F. (2019): Journal of Public Economics, Journal of Public Economic Theory, American Journal of Political Science (2x)

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Mardan, M. (2019): Public Finance Review, Finanz-Archiv/Public Finance Analysis

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Mikosch, H. (2019): Journal of Business Cycle Research

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Neuwirth, S. (2019): International Journal of Forecasting

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Pichler, S. (2019): Health Economics, Labour Economics, Diligentia Foundation for Empirical Research

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Pleninger, R. (2019): European Journal of Political Economy (7x), European Journal of Political Economy (8x)

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Rathke, A. (2019): European Journal of Political Economy

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Sarferaz, S. (2019): Journal of Money, Credit and Banking, Journal of Business & Economic Statistics, Studies in Nonlinear Dynamics & Econometrics, Review of International Economics

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Schneider, S. (2019): Public Choice, The Economics of Transition

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Seliger, F. (2019): Science and Public Policy, Journal of Business Cycle Research

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Siegenthaler, M. (2019): Industrial and Labor Relations Review, Review of World Economics, Journal of Business Cycle Research, Journal of the European Economic Association, The Journal of Labor Economics,

Swiss Journal of Economics and Statistics, European Journal of Political Economy (2x), Journal of Labor Economics, Review of Economics and Statistics, Review of Economics and Statistics

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Stimmelmayer, M. (2019): Scottish Journal of Political Economy (2x), Public Finance Review, Journal of Public Economics, International Tax and Public Finance, FinanzArchiv/Public Finance Analysis

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Sturm, J.-E. (2019): Economic Change and Restructuring, Social Indicators Research, Journal of Business Cycle Research JBCY, Public Choice, International Studies Quarterly, Journal of Money Credit and Banking, Social Science Research, Journal of International Money and Finance, Empirical Economics

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Wörter, M. (2019): Academy of Management Discovery (2x), Australian Economic Papers, Economics of Innovation and New Technology, European Journal of Political Economy, Managerial and Decision Economics, Research Policy (2x), Review of Industrial Organization, Technology Forecasting & Social Change

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## Committees

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Egger, P. (2019): The Review of International Economics, President; German Economic Association (Verein für Sozialpolitik), Advisory Board Member; CES Council LMU Munich, Advisory Board Member; The World Economy, Member of the Editorial Board; Letters in Spatial and Resource Sciences, Associate Editor; Annals of Regional Science, Associate Editor; Empirica, Associate Editor; Anlagekommission, Member; Tenure Committee, Member

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Eichenauer, V. (2019): European Association of Young Economists, President; Foundation of the Academia Engelberg, Member of Foundation Board; foraus Review Board, Member of the Editorial Board

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Galimberti, J. K. (2019): RePEc New Economics Papers on Econometric Time Series, Associate Editor

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Graff, M. (2019): Kostenausschuss des Stilllegungsfonds für Kernanlagen und Entsorgungsfonds für Kernkraftwerke, Member; Editorial Board Journal of Business Cycle Research, Head; Konferenz des Lehrkörpers (KdL), Member

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Köthenbürger, M. (2019): European Policy Research Unit (EPRU), Copenhagen, Fellowship; Economics of Governance, Co-Editor; Nordic Tax Journal, Co-Editor; Norwegian Centre for Taxation (NoCeT), Bergen, Member; PhD Committee Mäder, HSG University of St. Gallen, Member; Swiss Economic Association, Board, Advisory Board Member; Swiss Economic Association (SGVS), Member; International Tax and Public Finance, Co-Editor; PhD Committee, University of Fribourg, Member; ifo Center for Public Finance and Political Economy, Munich, Fellowship; CESifo Research Network, Munich, Fellowship; Tenure Committee, ETH Zurich, Member; Strategiekommision, ETH Zurich, Member

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Mardan, M. (2019): Norwegian School of Economics, Bergen, External Corrector

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Maldonado Mariscal, M. (2019): International Scientific Advisory Board, International Conference of Education, Research and Innovation, Advisory Board Member

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Mikosch, H. (2019): Association of European Conjunction Institutes Steering Committee, Advisory Board Member

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Renold, U. (2019): Member of the International Advisory Group, Center of International Education Benchmarking CIEB, Advisory Board Member; Member of the International Expert Panel, Pearson (UK), Panel Membership; Member of the Serbian Commission Art. 40 of Dual Education Law, Member; Member, Board of Trustees Committee, swisscontact, Member; Research Advisory Council of the German Economic Institute, Advisory Board Member

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Schneider, S. (2019): European Association of Young Economists, Member of Foundation Board

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Sturm, J.-E. (2019): CIRET Centre for International Research on Economic Tendency Surveys, President; VfS Verein für Socialpolitik, Member; User Advisory Council of the ifo Institute for Economic Research, Member; Advisory Commission regarding the LIK (consumer price index) revision 2020, President; Expert Group commissioned by the Swiss Federal Council to review the Swiss debt brake, President; Scientific Board of the IWH Halle Institute for Economic Research, Member; Ökonomenstimme, www.oekonomenstimme.org, Head; Swiss Economic Forum (SEF) Steering Committee, Member; WISTA, expert group on economic statistics at the Swiss Federal Statistical Office (FSO), Member; EEAG European Economic Advisory Group at CESifo, Member; CESifo Venice Summer Institute, Political Economy Aspects of Income (Re-)Distribution, Venice, Head; European Journal of Political Economy, Head; Silvaplane Workshop on Political Economy, Pontresina, Member; SEF Swiss Economic Forum, Member; Kommission für Wirtschaftspolitik, Member; LUSTAT - Statistik Luzern, President; CRUS Rector's Conference of the Swiss Universities/Support Group Research for the Benefit of SMEs, Member; Scientific Advisory Board of Media Tenor - Institute for Media Analysis, Member; YSEM Young Swiss Economists Meeting, Zurich, Head; Economics-Business Cycle Analysis (e-journal), Member; CEBRA (Central Bank Research Association), Member; Scientific Committee of the Swiss Association of Asset Managers (SAAM), Member; Berufungskommision UZH 'Macroeconomics and Political Economy', Member; Berufungskommision UZH 'Empirical Policy Analysis', Member; Departementsleitung D-MTEC, Member; Assistant Professor (Tenure Track) of Spatial Development, Member

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Wörter, M. (2019): CH-Inno-Platform, Advisory Board Member

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# Events and Presentations

CEMETS Summer Institute

EEAG Report 2019

Evènements avec la CVCI

KOF Prognosetagung

KOF Wirtschaftsforen

Scientifica

SPECIAL Events/Seminars

Workshops

Young Swiss Economists Meeting

KOF Research Seminar

ETH-UZH Seminar in International Economic Policy

KOF Brown Bag Seminar

Academic Presentations

Non-academic Presentations

## CEMETS Summer Institute

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ETH Zurich. CEMETS' flagship project is its annual Summer Institute on Economic Policy Development for Educational Reform Leaders. Participants receive knowledge and feedback from colleagues and leading researchers in public finance, personnel economics, and education economics. 26 June – 5 July 2019.

[www.cemets.ethz.ch](http://www.cemets.ethz.ch)

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## EEAG Report 2019

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**A fragmenting Europe and the rise of China: Will all roads lead to Beijing? 20 March 2019**

Swiss Re Centre for Global Dialogue, Rüschtikon. Presenters: Prof Dr Jan-Egbert Sturm, ETH Zurich, Presentation: 'Macroeconomic conditions and outlook'. Harold James, Claude and Lore Kelly Professor in European Studies; Professor of History and International Affairs, Presentation: 'Shift in the global economy and the rise of China: Implications for the EU'. Linda Yueh, Professor of Economics, Oxford University and London Business School, Presentation: 'Can China grow rich?'.

<https://www.swissre.com/institute/conferences/eeag-2019.html>

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## Evènements avec la CVCI

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**Présentation des perspectives conjoncturelles du KOF, 8 avril 2019**

Lausanne (Chambre vaudoise du commerce et de l'industrie). Prof Dr Jan-Egbert Sturm, KOF ETH Zurich, Présentation: Mot de bienvenue et présentation de l'association SGK. Dr Heiner Mikosch, KOF, Section Conjoncture internationale, Présentation des perspectives pour l'économie suisse jusqu'en 2020. Dr Katharina Erhardt, Chaire d'économie appliquée: innovation et internationalisation et Dr Simon Hänni, Zentrum für Kindeswohl und Entwicklung am Institut der Volkswirtschaftslehre der Universität Zurich, Présentation: 'Création d'entreprise en Suisse avec l'accent sur la Romandie'.

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**'Le franc fort et la compétitivité de l'économie suisse', 26 septembre 2019**

Lausanne (Chambre vaudoise du commerce et de l'industrie). Daniel Kaufmann, Assistant professor of applied macroeconomics, Université de Neuchâtel, Présentation: 'Raisons du franc fort – Le rôle de la politique monétaire'. Prof Dr Jan-Egbert Sturm, KOF ETH Zurich, Présentation; 'Malédiction ou bénédiction? – Influence du franc fort sur les régions et les secteurs'. Entretien avec Jean-Claude Biver, Hublot; Florence Vuichard, Bilanz, Modératrice.

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## KOF Prognosetagung

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**Welche Rolle spielt die Ungleichheit im Schweizer Arbeitsmarkt? Antworten aus Forschung und Wirtschaft, 2. Oktober 2019**

UBS-Konferenzgebäude Grünenhof, Zurich. Reto Lipp, SRF, Moderation. Prof Dr Jan-Egbert Sturm, ETH Zurich, Referat: 'Einkommensverteilung im Konjunkturverlauf'. Prof Dr Ben Jann, Universität Bern, Referat: 'Ungleicher Lohn für gleichwertige Arbeit? Geschlechterdifferenzen auf dem Schweizer Arbeitsmarkt'. Prof Dr Monika Büttler, Universität St. Gallen, Referat: 'Ungleichheit im Alter: die Rolle der Sozialversicherungen'. Josef Maushart, CEO & VRP FRAISA Gruppe, Referat: 'Nachholbildung als gesellschaftliche Verantwortung der Industrie am Beispiel der Fraisa SA'.

[www.kof.ethz.ch/prognosetagung](http://www.kof.ethz.ch/prognosetagung)

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## KOF Wirtschaftsforen

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**Der Brexit und die Schweiz, 27. März 2019**

KOF Konjunkturforschungsstelle, ETH Zurich. Dr Vera Z. Eichenauer, KOF ETH Zurich, Moderation. Dr Stefan Neuwirth, KOF ETH Zurich, Referat: 'Europa und die Schweiz im Angesicht des Brexit'. Botschafter Josef Renggli, Eidgenössisches Departement für auswärtige Angelegenheiten (EDA), Referat: 'Beziehungen Schweiz-EU – das institutionelle Abkommen'. Prof Dr Jan-Egbert Sturm, KOF ETH Zurich, Referat: 'Die Frühjahrsprognose'.

<https://www.kof.ethz.ch/wirtschaftsforum-brexit>

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**Was bedeutet Chinas 'Belt and Road'-Initiative für Schweizer Unternehmen? Die Chancen und die Umsetzung nach der Unterzeichnung der Absichtserklärung, 25. Juni 2019**

KOF Konjunkturforschungsstelle, ETH Zurich. Dr Stefan Brupbacher, Swissmem; Dr Vera Z. Eichenauer, KOF ETH Zurich; Jörg Gasser, Schweizerische Bankiervereinigung; Markus Herrmann, Sinolytics; Heinz Karrer, Präsident Economiesuisse; Stefan Klötzli, EDA; Dr Urs Leimbacher, SwissRe.

<https://kof.ethz.ch/wirtschaftsforum-belt-and-road>

**Hängen die Städte die Bergregionen ab? Wie sich der Tourismus in den verschiedenen Gebieten entwickelt, 8. November 2019**

KOF Konjunkturforschungsstelle, ETH Zurich. Dr Vera Z. Eichenauer, KOF ETH Zurich; Florian Hälg, KOF ETH Zurich; Richard Kämpf, SECO; Martin Sturzenegger, Zürich Tourismus; Andreas Züllig, HotellerieSuisse.

<https://kof.ethz.ch/wirtschaftsforum-tourismus-berge-staedte>

## Scientifica

**Science Fiction – Science Facts, 30 August – 1 September 2019**

ETH Zurich and University of Zurich. At Scientifica 2019, an exhibition organised by ETH Zurich and the University of Zurich, KOF took the opportunity to present itself to a diverse, not purely academic audience through a booth and a special lecture.

## SPECIAL Events / Seminars

KOF Swiss Economic Institute, ETH Zurich.

- World Bank Seminar, 16 January 2019: Global economic prospects January 2019
- Admin R event, 14 March 2019
- International Monetary Fund Seminar, 23 April 2019: WEO chapter 'The Determinants of Bilateral Trade and Spillovers from Tariffs'
- World Bank and KOF Breakfast Event, 13 June 2019: Presentation of the Global and Swiss Prospects
- OECD Lunch Event, 5 November 2019: OECD Economic Survey of Switzerland: Policies for an ageing society.

## Workshops

**KOF Workshop – The Euro Area at 20, 11 – 12 November 2019**

KOF Swiss Economic Institute, ETH Zurich. Since its launch 1999, the single currency has been the subject of continuous scrutiny. As the single currency turns twenty, multiple conferences are taking stock and most of these take a monetary perspective. This workshop offered a fresh and original look at the 20th anniversary of the euro by focusing on its real aspects instead. Keynote speakers: Barry Eichengreen and Jakob de Haan.

**1st Workshop of the Swiss Network on Public Economics, 13 December 2019**

KOF Swiss Economic Institute, ETH Zurich. The goal of the network was to connect researchers working on topics related to Swiss public economics (including public finance and public policy) and/or having an interest in Swiss data. The workshop was the kick-off meeting.

## Young Swiss Economists Meeting

KOF Swiss Economic Institute, ETH Zurich. Young Swiss Economists Meeting of the Swiss Society of Economics and Statistics (SSES), organised by KOF Swiss Economic Institute (KOF) at ETHZ. 14–15 February 2019.

<https://kof.ethz.ch/en/ysem2019>

## KOF Research Seminar

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Anne-Celia Disdier, Paris School of Economics: Do Standards Improve the Quality of Traded Products, December 11, 2019.

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Horst Raff, Christian-Albrechts-University of Kiel: How Importers May Hedge Demand Uncertainty: Inventory, Dual Sourcing and the Effects of Trade Policy, December 9, 2019.

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Johannes Wohlfart, University of Copenhagen: Subjective Models of the Macroeconomy: Evidence From Experts and a Representative Sample, December 4, 2019.

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Costanza Naguib, University of St. Gallen: The Impact of Opening the Borders on Wage Mobility, November 27, 2019.

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Ørjan Robstad, Norges Bank: Output Gap Estimates: Cyclical Sensitivity, Real-Time Evaluation and Forecasting Properties, November 18, 2019.

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Tim Schmidt-Eisenlohr, Federal Reserve Board: Trade Credit and Markups, October 30, 2019.

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Daniel Kaufmann, University of Neuchatel: Shocking Interest Rate Floors, October 16, 2019.

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Christian Mueller, Jacobs University: Uncertainty and Economics – a paradigmatic perspective, October 9, 2019.

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Roger Bivand, Norwegian School of Economics (NHH): Progress in the R ecosystem for open source spatial analysis software, October 7, 2019.

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Ana Paula Alves Vieira, BrasilPrev: Deep Learning for Time Series Forecasting: An application in Swiss franc/US Dollar exchange rate, September 30, 2019.

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Marco Bottone, Bank of Italy: Monetary policy, firms' inflation expectations and prices: causal evidence from firm-level data, September 18, 2019.

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Konstantin M. Wacker, University of Groningen: Correlated heterogeneous effects and estimation of interaction terms in small-T panel data: the case of FDI and growth, September 11, 2019.

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Ada Gonzalez-Torres, Ben-Gurion University of the Negev, Israel: Local Media and the Spread of Ebola: Evidence from Guinea, September 4, 2019.

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Ferdinand Rauch, Oxford University: Economic Geography Aspects of the Panama Canal, August 28, 2019.

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Oliver Holtemöller, Martin Luther University Halle-Wittenberg/Halle Institute for Economic Research (IWH): Globalization, Productivity Growth, and Income Distribution, July 10, 2019.

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Anastasios Panagiotelis, Monash University: Hierarchical Probabilistic Forecasting of Australian GDP, July 2, 2019.

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Gregor von Schweinitz, Halle Institute for Economic Research (IWH): Technology News Shocks and the Slope of the Yield Curve: An International Perspective, May 22, 2019.

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Yoto Yotov, Drexel University, Philadelphia: A Structural Trade Openness Index, May 15, 2019.

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Boriss Siliverstovs, Bank of Latvia: Recessions as Breadwinner for Forecasters: Further Evidence on Models' Forecasting Performance in Expansions and Recessions, May 8, 2019.

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Gabriel Ahlfeldt, London School of Economics: The Effective Density Elasticity of Productivity for Movers and Stayers, May 6, 2019.

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Andreas Brunhart, Liechtenstein-Institut: The composite index KonSens: A sub-annual business cycle sensor for Liechtenstein's Economy, April 17, 2019.

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Daphné Skandalis, Federal Reserve Bank of New York: Unemployment Insurance and Job Search, March 27, 2019.

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Sabien Dobbelaere, Vrije Universiteit Amsterdam: WTO accession and time variation in the competitiveness of product and labor markets of Chinese firms: An application of the distance test, March 20, 2019.

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Jonathan Stoeterau, Humboldt Uni Berlin/RWI Essen: The bias of impact evaluations using administrative data in informal labor markets. Evidence from a skill training program in Serbia, March 13, 2019.

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Andreas Moxnes, University of Oslo: Opening the Floodgates: Immigration and Structural Change, February 27, 2019.

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Andrzej Rzonca, Narodowy Bank Polski (Central Bank of the Republic of Poland): In search of appropriate lower bound February 20, 2019.

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Ulrich Fritsche, University of Hamburg: Deciphering Professional Forecaster's Stories - Analyzing a Corpus of Textual Predictions for the German Economy January 16, 2019.

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Sarah Necker, Walter Eucken Institut Freiburg: Toward An Understanding of Collaborative Tax Evasion – A Field Experiment With Businesses January 9, 2019.

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## ETH-UZH Seminar in International Economic Policy

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Antonio Ciccone, Mannheim University: Some Long-Run Economic Consequences of Keeping Out Refugees: Evidence from the Distribution of Refugees After WW2, December 19, 2019.

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Ingrid Ott, Karlsruhe Institute of Technology (KIT): Institutional design and spatial (in)equality, December 5, 2019.

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Rolf Tschernig, Universität Regensburg: Fractional trends in unobserved components models, November 28, 2019.

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Filippo Di Mauro, National University of Singapore: Firm-level analysis reconsidered: A novel EU wide dataset and one research application, November 5, 2019.

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Luca David Opromolla, Banco de Portugal: Goods and Factor Market Integration: A Quantitative Assessment of the EU Enlargement, October 31, 2019.

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Georg Schaur, University of Tennessee: Tariff Rate Uncertainty and the Structure of Supply Chains, October 28, 2019.

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Arturas Juodis, University of Groningen: Quantifying Noise, October 24, 2019.

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Wilhelm Kohler, University of Tübingen: Heterogeneous Workers, Trade, and Migration, October 17, 2019.

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Gunnar Bardsen, NTNU Trondheim: Expectations switching in a DSGE model of the UK, September 26, 2019.

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Assaf Razin, Tel Aviv University: Welfare State vs. Market Forces in a Globalization Era, September 19, 2019.

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Isabelle Méjean, CREST-Ecole Polytechnique: Search Frictions in International Good Markets, September 12, 2019.

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Ayhan Kose, World Bank: Understanding Global Confidence Cycles, June 12, 2019.

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Fabian Waldinger, Ludwig Maximilian University of Munich: Discrimination, Managers, and Firm Performance: Evidence from 'Aryanizations' in Nazi Germany, June 6, 2019.

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Maximilian von Ehrlich, Universität Bern: Calling from the outside: The role of networks in residential mobility May 16, 2019.

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Michael McMahon, University of Oxford: Economic Policymakers' Uncertainty, May 2, 2019.

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Karsten Müller, Princeton University: Busy Bankruptcy Courts and the Cost of Credit, March 28, 2019.

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Miklós Koren, Central European University Budapest: Expatriate Managers and Firm Performance March 6, 2019.

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## KOF Brown Bag Seminar

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Anne Funk: Nominal Wage Rigidity: Evidence From Matched Survey and Register Data, November 25, 2019, Zurich.

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Gabriel Loumeau: Metropolitan Structures and Urban Population Growth, October 21, 2019, Zurich.

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Regina Plening: Impact of Natural Disasters on Income Inequality, September 16, 2019, Zurich.

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Maria Esther Oswald-Egg: To train or not to train – How immigration affects firms' recruiting strategies, June 19, 2019, Zurich.

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Florian Eckert: Bayesian Forecast Reconciliation, April 24, 2019, Zurich.

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Sebastian Garmann: A Race to the Top? Staggered Electoral Cycles and Strategic Interactions in Business Taxes, April 23, 2019, Zurich.

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Isabel Z. Martínez, University of St. Gallen: Intertemporal Labor Supply Substitution? Evidence from the Swiss Income Tax Holidays, April 11, 2019, Zurich.

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Timo Schäfer, Goethe University Frankfurt: Analysing Textual Data, March 8, 2019, Zurich.

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Michael Graff: Gedanken zur Zukunft der Arbeit, February 11, 2019, Zurich.

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## Academic Presentations

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Aklin, M. and V. Z. Eichenauer (2019). Voting with your Feet: Socio-economic Sorting in the Aftermath of Regional Autonomy. 1st Workshop of the Swiss Network on Public Economics. Zurich, Switzerland. December 13, 2019.

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Anderes, M., A. Rathke, S. Streicher, and J.-E. Sturm (2019). The Role of ECB Communication in Guiding Markets. 28th Silvaplana Political Economy Workshop 2019. Pontresina, Switzerland. July 21-25, 2019.

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Arvanitis, S., F. Seliger, M. Wörter, and B. Krieger (2019). Spillovers from International Knowledge Activities. 8th ZEW/MaCCI Conference on the Economics of Innovation and Patenting. Mannheim, Germany. May 16-17, 2019.

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Balsmeier, B., L. Fleming, S. Lück, and F. Seliger (2019). Early Disclosure Law Increases Efficiency of the US and European Patent Systems: Evidence of Reduced Duplication. 14th Annual Conference on European Policy for Intellectual Property (EPIP 2019). Zurich, Switzerland. September 11-13, 2019.

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Beck, M. and C. Lopes-Bento (2019). Innovation, partner configuration and partner adaptation in R&D alliances. 17th Annual International Industrial Organization Conference (IIOC 2019). Boston, MA, USA. April 5-7, 2019.

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Beck, M., S. Naef, S. Wagner, M. Wörter, and T. Loilier (2019). Boundary changes as a trade-off between efficiency and capability development: How production outsourcing influences value creation through innovation. 6th Annual World Open Innovation Conference (WOIC 2019). Rome, Italy. December 12-13, 2019.

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Beck, M., U. Kaiser, and M. Junge (2019). Public R&D Funding and Corporate Innovation. 2019 EURAM Conference. Lisbon, Portugal. June 26-28, 2019.

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Bolli, T. (2019). Applied Regression Analysis. Master in Technical and Vocational Education and Training. Kathmandu, Nepal. September 4, 8, and 9, 2019.

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Bolli, T. (2019). Combining Workplace Training with Classroom Education. Master in Technical and Vocational Education and Training. Kathmandu, Nepal. September 3, 5 and 6, 2019.

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Bürgi, J., U. Renold, and K. Caves (2019). A theoretical framework of social institutions of technical vocational education and training (TVET). 6th World Interdisciplinary Network for Institutional Research Conference (WINIR 2019). Lund, Sweden. September 19-22, 2019.

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Caves, K. (2019). Education-Employment Linkage and Implementation. CEMETS Summer Institute 2019. Zurich, Switzerland. June 26-July 5, 2019.

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Caves, K. (2019). The future of education is systems engineering. Congress of the Swiss Sociological Association 2019. Neuchâtel, Switzerland. September 10-12, 2019.

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Caves, K. and M. E. Oswald-Egg (2019). Factors and Barriers that Impact Reform of Vocational Education and Training in Serbia. ACTER Conference. Anaheim, CA. December 3-4, 2019.

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Caves, K. and M. E. Oswald-Egg (2019). Good Enough is Good Enough: Actor Networks in Vocational Education and Training. Association for Career and Technical Education Research Annual Conference: Vision ACTER 2019. Anaheim, CA, USA. December 4-7, 2019.

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Caves, K. and M. E. Oswald-Egg (2019). Networking for VET – Applying a New Network Approach for Public Goods to the Swiss VET Network. 2nd BIBB Conference on the Economics of Vocational Education and Training: Markets – Institutions – Systems (2019). Siegburg, Germany. November 7-8, 2019.

---

Caves, K. and M. E. Oswald-Egg (2019). Storming and forming: Implementing a new dual VET law in Serbia. 3rd International VET Conference Crossing Boundaries in Vocational Education and Training: Pedagogical concerns and market demands. Valencia, Spain. May 2-3, 2019.

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Caves, K. and M. E. Oswald-Egg (2019). Unintended Consequences – A Game-Theoretic Analysis of Companies' Participation in Training in Serbia. 2nd BIBB Conference on the Economics of Vocational Education and Training: Markets – Institutions – Systems (2019). Siegburg, Germany. November 7-8, 2019.

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Caves, K., M. E. Oswald-Egg, and U. Renold (2019). Governance der Berufsbildung Schweiz. Brown Bag Seminar KOF. Zurich, Switzerland. April 24, 2019.

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Crombach, L. (2019). Political Budget Cycles: The Role of Government Competence Dispersion. European Public Choice Society Annual Meeting (EPCS 2019). Jerusalem, Israel. April 1-4, 2019.

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Crombach, L. and J. Smits (2019). The Demographic Window of Opportunity and Economic Growth at the Sub-National Level in Sub-Saharan Africa. 8th African Population Conference (APC). 'Harnessing Africa's Population Dynamics for Sustainable Development 25 Years after Cairo and Beyond'. Entebbe, Uganda. November 18-22, 2019.

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Eckert, F. (2019). Bayesian Hierarchical Forecasting. 39th International Symposium on Forecasting 2019. Thessaloniki, Greece. June 16-19, 2019.

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Eckert, F. (2019). Bayesian Hierarchical Forecasting. SSES Annual Congress 2019: Sustainable Development. Geneva, Switzerland. June 13-14, 2019.

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Eckert, F. and S. Sarferaz (2019). Agnostic Output Gap Estimation and Decomposition in Large Cross-Sections. CIRET Workshop. Paris, France. November 13-14, 2019.

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Egger, P. (2019). Heterogeneous Effects of Tariff and Non-Tariff Trade-Policy Barriers in Quantitative General Equilibrium. 21st Annual Conference of the ETSG 2019. Bern, Switzerland. September 12-14, 2019.

---

Egger, P. and F. Tarlea (2019). Comparing Apples to Apples: Estimating Consistent Partial Effects of Preferential Economic Integration Agreements. 11th Research Workshop on International Trade in Villars. Villars-sur-Ollon, Switzerland. January 31-February 1, 2019.

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Egger, P., K. Erhardt, and C. Keuschnigg (2019). Heterogeneous Tax Sensitivity of Firm-level Investments. 12th FIW Research Conference 'International Economics'. Vienna, Austria. December 5-6, 2019.

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Egger, P., G. Li, J. Li, and Y. Zheng (2019). Does property rights protection affect export quality? Evidence from a property law enactment. 21st Annual Conference of the ETSG 2019. Bern, Switzerland. September 12-14, 2019.

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Eichenauer, V., A. Fuchs, and L. Brückner (2019). The Effects of Trade, Aid, and Investment on China's Image in Developing Countries. Seminar. Groningen, Netherlands. February 7, 2019.

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Eichenauer, V., N. Campos, and J.-E. Sturm (2019). Close Encounters with the Non-Euro Effect: Structural reforms, Economic Integration and Sectoral Reallocation. Venice Summer Institute 2019: The Future of Europe: Structural Reforms, Growth and Globalisation. Venice, Italy. June 5-6, 2019.

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Funk, A. (2019). The Construction Market in Switzerland. 87th Euroconstruct Conference: European Construction Market Forecasts to 2021 – Investing in water and water management. Rome, Italy. June 12-13, 2019.

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Funk, A. (2019). The Construction Market in Switzerland. 88th Euroconstruct Conference. Warsaw, Poland. November 28-30, 2019.

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Gold, M., J. Egger, C. Zurbrügg, D. Bruno, M. Bonelli, G. Tettamanti, M. Casartelli, E. Schmitt, A. Mathys, and A. Scheidegger (2019). Residence time and in vitro digestion model of the black soldier fly (*Hermetia illucens*) larva midgut. Entomological Societe of America (ENTOMOLOGY 2019). St. Louis, MO, USA. November 17-20, 2019.

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Graff, M. (2019). 'Normal' Capacity Utilisation across Time. Analyses with Macro and Micro Data from Business Tendency Surveys. CIRET/KOF/OECD/INSEE Workshop. Boulogne-Billancourt, France. November 13-14, 2019.

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Graff, M. (2019). Imputing monthly values for quarterly time series. An application performed with Swiss business cycle data. International Conference on Time Series (ITISE 2019). Granada, Spain. September 25-27, 2019.

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Graff, M. (2019). Ist die industrielle Kapazitätsauslastung eine stationäre Grösse? KOF-SNF Workshop 2019 – Output Gap. Zurich, Switzerland. November 11, 2019.

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Graff, M. (2019). Transforming quarterly into monthly time series. An application to Swiss business tendency survey data. 23rd International Conference on Macroeconomic Analysis and International Finance. Rethymno, Crete, Greece. May 30 - June 1, 2019.

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Graff, M., R. Etter, and M. Wörter (2019). Determinants of perceived normal capacity utilisation – Evidence from international panel data and Swiss micro data. 5th International Conference on Applied Theory, Macro and Empirical Finance (AMEF 2019). Thessaloniki, Greece. April 22-23, 2019.

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Hälg, F. (2019). Mutual recognition and exporting: evidence from Swiss-EU trade integration. 21st Annual Conference of the European Trade Study Group (ETSG 2019). Berne, Switzerland. September 12-14, 2019.

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Hälg, F., N. Potrafke, and J.-E. Sturm (2019). Determinants of social expenditure in OECD countries. 75th Annual Congress of the International Institute of Public Finance (IIPF 2019). Glasgow, Scotland, United Kingdom. August 21-23, 2019.

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Hangartner, D., D. Kopp, and M. Siegenthaler (2019). Monitoring recruiters at work: determinants of ethnic discrimination on an online recruitment platform. 33rd Annual Conference of the European Society for Population Economics (ESPE 2019). Bath, United Kingdom. June 20-22, 2019.

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Kopp, D. (2019). Monitoring recruiters at work: determinants of ethnic discrimination on an online recruitment platform. SSES Annual Congress 2019: Sustainable Development. Geneva, Switzerland. June 13-14, 2019.

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Kopp, D. (2019). Monitoring recruiters at work: determinants of ethnic discrimination on an online recruitment platform. Young Swiss Economist Meeting. Zurich, Switzerland. February 14-15, 2019.

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Kopp, D. and M. Siegenthaler (2019). Short term work and unemployment in and after the Great Recession. 1st Workshop of the Swiss Network on Public Economics. Zurich, Switzerland. December 13, 2019.

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Kopp, D., M. Siegenthaler, and D. Hangartner (2019). Monitoring recruiters at work: determinants of ethnic discrimination on an online recruitment platform. 2nd IDSC of IZA/CAIS Workshop: Matching Workers and Jobs Online. Bochum, Germany. September 20-21, 2019.

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Kopp, D., M. Siegenthaler, and D. Hangartner (2019). Screening recruiters at work: determinants of ethnic discrimination on an online recruitment platform. Workshop on Labour Economics (WLE 2019). Trier, Germany. April 12-13, 2019.

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Lück, S., L. Fleming, F. Seliger, and B. Balsmeier (2019). Early disclosure law reduces duplication in the US and European patent systems. Twelfth Annual Conference on Innovation Economics. Chicago, IL, USA. June 20-21, 2019.

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Maclean, C., S. Pichler, and N. Ziebarth (2019). Mandated Sick Pay: Coverage, Utilization and Welfare Effects. NBER Workshop Labor Demand and Older Workers. Cambridge, MA, USA. November 15, 2019.

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Maldonado-Mariscal, K. (2019). From an Innovation to an Institution: Institutional Change in Education in Switzerland. WINIR Conference 2019. Institutions for Inclusive Societies: Global & Comparative Perspective. Lund, Sweden. September 19-22, 2019.

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Maldonado-Mariscal, K. (2019). Sozialinnovationen in Berufsbildung in Deutschland und der Schweiz: Aufbau, Grundlagen und Methoden. XX. Tagung für Angewandte Sozialwissenschaften. Nachhaltig Leben und Wirtschaften: Management Sozialer Innovationen als Gestaltung gesellschaftlicher Transformation. Munich, Germany. May 24-25.

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Maldonado-Mariscal, K. (2019). Workshop on Qualitative Research for PhD Students. International Conference on TVET for Employment, Income, and Job Quality. Kathmandu, Nepal. September 9-10, 2019.

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Maldonado-Mariscal, K., U. Renold, L. Rageth, and A. Sritharan (2019). Evaluation of a Curriculum HFW in Switzerland: employers' perception. International Conference on TVET for Employment, Income, and Job Quality (ICTVET 2019). Dhulikhel, Nepal. September 11-12, 2019.

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Martínez, I., E. Saez, and M. Siegenthaler (2019). Inter-temporal labor supply substitution? Evidence from the Swiss income tax holiday. NBER Summer Institute (SI 2019). Boston, MA, USA. July 22-25, 2019.

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Naef, S., M. Beck, M. Wörter, and S. Wagner (2019). How production outsourcing influences product innovation performance. Organizing in the Era of Digital Technology (Digiera 2019). Monte Verità, Ascona, Switzerland. June 12-15, 2019.

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Naef, S., M. Beck, M. Wörter, and S. Wagner (2019). How production outsourcing influences value creation through innovation. XXX ISPIM Innovation Conference. Florence, Italy. June 16-19, 2019.

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Pichler, S. and N. Ziebarth (2019). Sick Leave and Medical Leave in the United States: A Categorization and Recent Trends. AEI-Brookings Author Conference (AEI 2019). Washington D.C., USA. November 18-19, 2019.

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Pichler, S., C. Maclean, and N. Ziebarth (2019). Mandated Sick Pay: Access, Utilization, and Welfare Effects. 41st APPAM Annual Fall Research Conference (APPAM 2019). Denver, CO, USA. November 7-9, 2019.

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Pichler, S., J. K. Galimberti, and R. Pleninger (2019). Measuring Inequality using Geo-Spatial Data. Essen Health Economics Seminar. Essen, Germany. December 16, 2019.

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Pichler, S., N. Ziebarth, and C. Maclean (2019). Mandated Sick Pay: Access, Utilization, and Substitution Effects. Third Applied Microeconomics Workshop. Bolzano, Italy. March 11-12, 2019.

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Pichler, S., N. Ziebarth, and C. Maclean (2019). Mandated Sick Pay: Coverage, Utilization and Welfare Effects. 11. DGGÖ Jahrestagung 2019. Augsburg, Germany. March 18-19, 2019.

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Pichler, S., N. Ziebarth, and C. Maclean (2019). Mandated Sick Pay: Coverage, Utilization and Welfare Effects. Cornell University, Labor Work-in-Progress Seminar. Ithaca, NY, USA. November 14, 2019.

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Pichler, S., N. Ziebarth, and C. Maclean (2019). Mandated Sick Pay: Coverage, Utilization and Welfare Effects. Department of Economics, Department Seminar. Copenhagen, Denmark. September 16, 2019.

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Pichler, S., N. Ziebarth, and C. Maclean (2019). Mandated Sick Pay: Coverage, Utilization and Welfare Effects. DICE-Forschungsseminar. Düsseldorf, Germany. January 8, 2019.

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Pichler, S., N. Ziebarth, and C. Maclean (2019). Mandated Sick Pay: Coverage, Utilization and Welfare Effects. SKILS 2019. Engelberg, Switzerland. January 14, 2019.

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Pichler, S., N. Ziebarth, and C. Maclean (2019). Mandated Sick Pay: Coverage, Utilization, and Welfare Effects. Economics Seminar Series at Aarhus University, Department of Economics and Business Economics. Aarhus, Denmark. September 17, 2019.

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Pleninger, R. (2019). Impact of Natural Disasters on Income Inequality. 25th International Panel Data Conference (IPDC 2019). Vilnius, Lithuania. July 4-5, 2019.

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Pleninger, R. (2019). Impact of Natural Disasters on Income Inequality. Swiss Society of Economics and Statistics Annual Congress 2019. Sustainable Development. Geneva, Switzerland. June 13-14, 2019.

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Pleninger, R. (2019). Impact of Natural Disasters on the Income Inequality. Seminar in Public Economics at the University of Konstanz. Konstanz, Germany. October 28, 2019.

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Pleninger, R. and J.-E. Sturm (2019). The Effects of Economic Globalisation and Ethnic Fractionalisation on Redistribution. European Public Choice Society Annual Meeting (EPCS 2019). Jerusalem, Israel. April 1-4, 2019.

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Pleninger, R., J.-E. Sturm, and J. de Haan (2019). The 'Forgotten' Middle Class – An Analysis of the Effects of Globalisation. 75th Annual Congress of the International Institute of Public Finance (IIPF 2019). Taxation and Mobility. Glasgow, Scotland. August 21-23, 2019.

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Pleninger, R., J.-E. Sturm, and J. de Haan (2019). The 'Forgotten' Middle Class: An Analysis of the Effects of Globalisation. VfS Annual Conference 2019 '30 Years after the Fall of the Berlin Wall: Democracy and Market Economy'. Leipzig, Germany. September 22-25, 2019.

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Pusterla, F. (2019). Is Technological Change Really Skills-Biased? Firm-level Evidence of the Complementarities between ICT and Workers' Education. CVER Conference. London, United Kingdom. September 12-13, 2019.

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Pusterla, F. (2019). The Complementary Effect of Organizational Practices and Workers' Type of Education. 5th Leuven Economics of Education Research Conference on Education Economics (LEER 2019). Leuven, Belgium. April 4-5, 2019.

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Pusterla, F. (2019). The Complementary Effect of Organizational Practices and Workers' Type of Education. 16th European Workshop on Efficiency and Productivity Analysis (EWEPA 2019). London, UK. June 10-13, 2019.

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Pusterla, F. (2019). The Complementary Effect of Organizational Practices and Workers' Type of Education. 23rd Annual Conference of the Society for Institutional & Organizational Economics (SIOE2019). Stockholm, Sweden. June 27-29, 2019.

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Pusterla, F. (2019). The Complementary Effect of Organizational Practices and Workers' Type of Education. 31st EALE Conference. Uppsala, Sweden. September 19-21, 2019.

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Pusterla, F. (2019). The Complementary Effect of Organizational Practices and Workers' Type of Education. SSES Annual Congress 2019. Geneva, Switzerland. June 13-14, 2019.

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Pusterla, F. and T. Bolli (2019). Is Technological Change Really Skills-Biased? Firm-level Evidence of the Complementarities between ICT and Workers' Education. 2nd BIBB Conference on the Economics of Vocational Education and Training: Markets – Institutions – Systems (2019). Siegburg, Germany. November 7-8, 2019.

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Rageth, L. (2019). A Configurational Analysis of Vocational Education and Training Programmes: Types of Education-Employment Linkage and their Explanatory Power. 6th Congress on Research in Vocational Education and Training. Zollikofen, Switzerland. March 4-6, 2019.

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Rageth, L. (2019). A Configurational Analysis of Vocational Education and Training Programmes: Types of Education-Employment Linkage and their Explanatory Power. 8th International INAP Conference. Constance, Germany. March 21-22, 2019.

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Rageth, L. (2019). A Configurational Analysis of Vocational Education and Training Programmes: Types of Education-Employment Linkage and their Explanatory Power. ECSR 2019 Conference. Lausanne, Switzerland. September 12-14, 2019.

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Renold, U. (2019). Analytical Framework: Comparing VET System. CEMETS Summer Institute 2019. Zurich, Switzerland. June 26 - July 5, 2019.

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Renold, U. (2019). Comparative analysis of VET: how can we establish strong linkages between actors of the education and employment system? International TVET Conference. Dhulikhel, Nepal. September 11-12, 2019.

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Renold, U. (2019). Dual VET in Switzerland and the USA. Visit of a US-Delegation led by the Federal Department of Education, KOF Swiss Economic Institute, ETH Zurich. Zurich, Switzerland. June 25, 2019.

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Renold, U. (2019). Governance and financing VET systems. Presentation at CAS NADEL, ETH Zurich. Zurich, Switzerland. November 5, 2019.

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Renold, U. (2019). Governance of TVET Systems – what are the main problems to solve. Master TVET lecture, Kathmandu University. Kathmandu, Nepal. March 7, 2019.

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Renold, U. (2019). How can we establish strong linkages between actors from the education and employment system? Visit of a Chinese Delegation at KOF Swiss Economic Institute, ETH Zurich. Zurich, Switzerland. August 14, 2019.

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Renold, U. (2019). Implementation of Complex Reforms: Pathway to Impact – Evidence-based Policy Guidance Course. Policy Advisor Course for PhD Students. Zurich, Switzerland. May 7, 2019.

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Renold, U. (2019). Inaugurational speech. International Conference on TVET for Employment, Income, and Job Quality (LELAM-TVET4INCOM). Dhulikhel, Nepal. September 11-12, 2019.

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Renold, U. (2019). The Concept of the Curriculum Value Chain. CEMETS Summer Institute 2019. Zurich, Switzerland. June 26 - July 5, 2019.

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Renold, U. (2019). The Role of Policy Advice – Socially Constructed Concepts – methodological Problems. Policy Advisor Course for PhD Students. Zurich, Switzerland. June 12, 2019.

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Renold, U. (2019). The Role of Policy Advice in the Field of Labour Market Oriented Education Systems – Comparing VET System. Policy Adviser Course for PhD students. Zurich, Switzerland. May 7, 2019.

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Renold, U. (2019). The Role of Swiss Companies in Shaping Dual Education in Serbia. SSCC Conference on Dual Education. Belgrade, Serbia. October 25, 2019.

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Renold, U. (2019). The Swiss VPET System. CEMETS Summer Institute 2019. Zurich, Switzerland. June 26 – July 5, 2019.

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Renold, U., L. Rageth, and K. Caves (2019). Theoretical and Methodological Framework for Measuring the Robustness of Social Institutions in Education and Training. 145th ESA Conference. Manchester, United Kingdom. August 20-23, 2019.

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Renold, U., L. Rageth, and K. Caves (2019). Theoretical and Methodological Framework for Measuring the Robustness of Social Institutions in Education and Training. International TVET Conference. Dhulikhel, Nepal. September 11-12, 2019.

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Renold, U., T. Bolli, and S. Mühlemann (2019). Lecture on Challenges of Comparing Vocational Education and Training Systems – Institutional Settings. Gastdozentenseminar: International Topics in Human Resource Education and Management. Munich, Germany. November 11, 2019.

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Schneider, S. and S. Kunze (2019). Disastrous Discretion – The Nonlinear Political Bias in U.S. Hurricane Relief. 24th Spring Meeting of Young Economists (SMYE 2019). Brussels, Belgium. April 11-13, 2019.

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Schneider, S. and S. Kunze (2019). The Political Economic Determinants of Disaster Relief Provision – Evidence from Hurricane Impacts in the United States. Annual Meeting of the European Public Choice Society (EPCS 2019). Jerusalem, Israel. April 1-4, 2019.

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Siegenthaler, M. (2019). Intertemporal labor supply substitution? Evidence from the Swiss income tax holiday. Research Seminar. Warsaw, Poland. March 31, 2019.

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Siegenthaler, M. (2019). Monitoring hiring discrimination through online recruitment platforms. 31st European Association of Labour Economists (EALE) Conference. Uppsala, Sweden. September 19-21, 2019.

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Siegenthaler, M. (2019). Monitoring hiring discrimination through online recruitment platforms. Research Seminar. Frederiksberg, Denmark. April 4, 2019.

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Siegenthaler, M. (2019). Monitoring hiring discrimination through online recruitment platforms. Research Seminar. Lausanne, Switzerland. November 1, 2019.

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Siegenthaler, M. (2019). Monitoring recruiters at work: determinants of ethnic discrimination on an online recruitment platform. Empirical Micro Seminar. Zurich, Switzerland. May 21, 2019.

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Siegenthaler, M. (2019). Monitoring recruiters at work: Ethnic discrimination on an online recruitment platform. Seminar 'Macroeconomics and Labor Market'. Erlangen, Germany. November 12, 2019.

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Sturm, J.-E. (2019). Die Effekte von Krisen auf die Globalisierung. 5. Symposium 'Ordnungspolitik für das dritte Jahrtausend'. Die Rückkehr des ökonomischen Nationalismus – Protektionismus, Populismus und das Ende der zweiten Ära der Globalisierung? Freiburg, Germany. May 2-3, 2019.

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Sturm, J.-E. (2019). Quo Vadis? Die Zerfallsdynamik der Globalisierung und die Perspektiven der europäischen Wirtschaft. Brown Bag Seminar. Köln, Germany. February 1, 2019.

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Sturm, J.-E. and F. Bohn (2019). Do Recession Expectations Kill Political Budget Cycles? EEA ESEM 2019 Conference. 34th Annual Congress of the European Economic Association and the 72th European Meeting of the Econometric Society. Manchester, United Kingdom. August 26-30, 2019.

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Sturm, J.-E., D. Quinn, and J. de Haan (2019). Old Sour Wine in New Opaque Bottles: New Forms of Political Budget Cycles. VfS Annual Conference 2019 '30 Years after the Fall of the Berlin Wall: Democracy and Market Economy'. Leipzig, Germany. September 22-25, 2019.

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Sturm, J.-E., K. Abberger, M. Graff, O. Müller, A. Lemos Gouveia, A. Campelo, and R. Bastos Vieira (2019). The KOF-FGV Global Economic Barometer: A composite leading indicator for the world economy. 62nd ISI World Statistics Congress (ISI 2019). Kuala Lumpur, Malaysia. August 18-23, 2019.

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Sturm, J.-E., N. Campos, and V. Z. Eichenauer (2019). Close Encounters of the European Kind: Structural Reforms, Economic Integration and Sectoral Reallocation. 12th Beyond Basic Questions Workshop (BBQ). Kiel, Germany. June 28-29, 2019.

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Sturm, J.-E., O. Müller, A. Lemos Gouveia, M. Graff, A. Campelo, R. Bastos Vieira, and K. Abberger (2019). The Global Economic Barometers: A composite coincident and leading indicator for the world economy. World Bank Seminar. Zurich, Switzerland. August 9, 2019.

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Wörter, M., F. Seliger, and S. Arvanitis (2019). How Important is International Knowledge Sourcing for Domestic Innovation and Productivity. 46th Annual Conference of the European Association for Research in Industrial Economics (EARIE 2019). Barcelona, Spain. August 30 - September 1, 2019.

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Wörter, M., F. Seliger, and S. Arvanitis (2019). How Important is International Knowledge Sourcing for Domestic Innovation and Productivity. European Policy for Intellectual Property 14th Annual Conference (EPIP 2019). Zurich, Switzerland. September 11-13, 2019.

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Zoller-Rydzek, B., P. Egger, and N. Strecker (2019). Estimating bargaining-related tax advantages of multinational firms. Oxford Business Taxation Workshop. Oxford, England. June 12-13, 2019.

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## Non-academic Presentations

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Beck, M. (2019). Herausforderungen für erfolgreiche Innovationssysteme. Innovation Deep Dive Schweiz. Zurich, Switzerland. September 17-18, 2019.

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Beck, M. and T. Stucki (2019). Circular Economy: the Role of Digitization. BAFU-Kaderklausur. Gwatt, Switzerland. November 27, 2019.

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Beck, M. and M. Wörter (2019). Danish-Swiss Impact Study of the Eurostars innovation programm. Presentation to SERI and Innovation Fund Denmark. Zurich Switzerland. May 24, 2019.

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Bolli, T. and U. Renold (2019). Presentation of Randomization of Dual VET Apprentices. SDC Workshop. Kathmandu, Nepal. September 5, 2019.

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Eichenauer, V. (2019). Einführung: Belt and Road Initiative. KOF Wirtschaftsforum: Was bedeutet Chinas 'Belt and Road'-Initiative für Schweizer Unternehmen? Zurich, Switzerland. June 25, 2019.

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Graff, M. (2019). Konjunktur – Was tun, wenn der Abschwung kommt? UnternehmerCircle Dietlikon. Dietlikon, Switzerland. April 17, 2019.

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Heinrich, S., F. Seliger, M. Wörter, V. Behrens, C. Rammer, U. Schmoch, N. Banholzer, and S. Feuerriegel (2019). Knowledge Spillovers from Product and Process Inventions in Patents and their Impact on Firm Performance. End Presentation, EPO Academic Research Programme. Munich, Germany. December 2, 2019.

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Renold, U. (2019). 'Hiring an apprentice campaign'. Opening ceremony, Industry Association. Biratnagar, Nepal. March 6, 2019.

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Renold, U. (2019). Benefits of dual VET for companies and how to integrate SME? Employer Event with President Aleksandar Vucic. Belgrade, Serbia. December 23, 2019.

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Renold, U. (2019). Commission Art. 40 - Master plan. Dual Education Law Serbia Implementation, Government of Serbia. Belgrade, Serbia. March 19, 2019.

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Renold, U. (2019). Dual VET in the context of developing countries. Dual VET Donor Partner Workshop. Berne, Switzerland. September 26, 2019.

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Renold, U. (2019). Education System Re-Engineering in Indiana – System Building Strategies. Workshop with the Indiana Youth Apprenticeship Initiative. Indianapolis, IN, USA. October 3, 2019.

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Renold, U. (2019). Global trends, Governance models and configurations of institutions in TVET Systems. Meeting at Instituto Nacional de Aprendizaje (INA). San José, Costa Rica. May 15-16, 2019.

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Renold, U. (2019). INA as national competence center for TVET in Costa Rica. Meeting at Instituto Nacional de Aprendizaje (INA). San José, Costa Rica. May 15-16, 2019.

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Renold, U. (2019). KOF Research Division Education Systems. Vortrag beim Institut der deutschen Wirtschaft. Köln, Germany. February 1, 2019.

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Renold, U. (2019). Linking Education and Employment: Public-Private Partnership in the Swiss VET System – comparison with other countries. Here-to-Here. New York City, NY, USA. June 5, 2019.

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Renold, U. (2019). Linking Education and Employment: Public-Private Partnership for a strong VET System. Indianapolis Economic Forum. Indianapolis, IN, USA. October 2, 2019.

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Renold, U. (2019). Private Sector Strategy in TVET Sector of Nepal. Industry Associations Event. Kathmandu, Nepal. February 27, 2019.

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Renold, U. (2019). Reforming the Swiss VPET System 1970–2015. Workshop at the Federal Department of Education. Washington, DC, USA. July 19, 2019.

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Renold, U. (2019). The Role of Employer and Employer Associations in a VET System. Employer Workshop. Indianapolis, IN, USA. October 2, 2019.

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Renold, U. (2019). TVET Federalization process in Nepal. SDC. Berne, Switzerland. March 15, 2019.

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Renold, U. (2019). TVET Federalization process in Nepal. Donor Partner Working Group. Nepal. March 7, 2019.

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Renold, U. (2019). TVET Federalization process in Nepal – progress report. SDC. Kathmandu, Nepal. March 7, 2019.

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Renold, U., T. Bolli, and M. Maldonado Mariscal (2019). HFW RLP – Rahmenlehrplan HF Betriebswirtschaft: Ergebnisse der fünften Umfrage. Mitgliederversammlung Trägerschaft HFW Rahmenlehrplan. Zurich, Switzerland. April 5, 2019.

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Renold, U., K. Caves, and M. Maldonado Mariscal (2019). Implementation of Dual Education Law – Overview about research results and achievements. Steering Committee Implementation of Dual Education Law. Belgrade, Serbia. October 24, 2019.

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Renold, U., K. Caves, and F. Pusterla (2019). Cost-benefit Analysis: Concept and CCIS. CCIS Workshop. Belgrade, Serbia. October 24, 2019.

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Sturm, J.-E. (2019). Ausblick Schweizer Bauwirtschaft. Unternehmerfrühstück VGQ 2019. Biel, Switzerland. September 18, 2019.

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Sturm, J.-E. (2019). Ausblick Schweizer Wirtschaft. Global Economic & Policy Outlook 2020. August 26, 2019.

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Sturm, J.-E. (2019). Ausblick wirtschaftliche Entwicklungen in der Schweiz. Tax & Legal Excellence: Perspektiven und Wirtschaftsentwicklung in der Schweiz. Zurich, Switzerland. March 26, 2019.

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Sturm, J.-E. (2019). Curse or blessing? Influence of the strong franc. Chambre vaudoise du commerce et de l'industrie (CVCI). Lausanne, Switzerland. September 26, 2019.

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Sturm, J.-E. (2019). Die europäische Bauwirtschaft im gesamtwirtschaftlichen Kontext. 25. Internationales Holzbau-Forum (IHF). Innsbruck, Austria. December 4-6, 2019.

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Sturm, J.-E. (2019). Die Folgen der Personenfreizügigkeit: Ökonomische Forschungsergebnisse und Wirkungen. Ökonomen-Hearing zu den Bilateralen. Berne, Switzerland. February 15, 2019.

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Sturm, J.-E. (2019). Die Schweiz in einer globalisierten Welt. Tag der Zuger Wirtschaft 2019. Zug, Switzerland. March 25, 2019.

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Sturm, J.-E. (2019). Die Schweizer Konjunktur im Kontext der internationalen Wirtschaftsentwicklungen. 35. Ordentliche Mitstifterversammlung der Anlagestiftung Winterthur für Personalvorsorge (AWi). Küsnacht, Switzerland. May 22, 2019.

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Sturm, J.-E. (2019). Die Schweizer Konjunktur im Kontext der internationalen Wirtschaftsentwicklungen. Frühjahrs-*Apéro* der Complementa AG. Zurich, Switzerland. March 21, 2019.

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Sturm, J.-E. (2019). Die Schweizer Wirtschaft im internationalen Kontext. 21. KOF Baulunch. Zurich. November 7, 2019.

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Sturm, J.-E. (2019). Die Schweizer Wirtschaft im internationalen Kontext. 20. KOF Baulunch. Zurich. May 14, 2019.

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Sturm, J.-E. (2019). Die Schweizer Wirtschaft im internationalen Kontext: Lage und Aussichten. Exchange Traded Product Day 2019. Zurich, Switzerland. May 9, 2019.

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Sturm, J.-E. (2019). Discussions with Jan-Egbert Sturm. UBS Knowledge Network. December 11, 2019.

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Sturm, J.-E. (2019). Einkommensverteilung im Konjunkturverlauf. KOF Prognosetagung Herbst 2019. Welche Rolle spielt die Ungleichheit im Schweizer Arbeitsmarkt? Antworten aus Forschung und Wirtschaft. Zurich, Switzerland. October 2, 2019.

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Sturm, J.-E. (2019). Evidence-based Economic Research: Keeping a Finger on the Pulse of Economy. Visit of WBF Secretary General Nathalie Goumaz. November 20, 2019.

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Sturm, J.-E. (2019). KOF Frühjahrsprognose 2019: Schweizer Wirtschaft kämpft mit schwierigen Rahmenbedingungen. KOF Wirtschaftsforum – Der Brexit und die Schweiz. Zurich, Switzerland. March 27, 2019.

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Sturm, J.-E. (2019). KOF Konjunkturprognose. swissT. net Wirtschafts*apéro*. Zollikerberg, Switzerland. November 21, 2019.

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Sturm, J.-E. (2019). KOF Summer Forecast 2019: Industry supports Swiss Economy. World Bank Group: Global Economic Outlook. Zurich, Switzerland. June 13, 2019.

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Sturm, J.-E. (2019). Konjunktur. KOF Konjunkturprognose, Herbst 2019. Fracht AG: Informationsveranstaltung für die Kundschaft. Basel, Switzerland. November 8, 2019.

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Sturm, J.-E. (2019). Konjunktureller Ausblick 2020. Swiss Real Estate Datapool Herbestanlass (SRED 2019). Zurich, Switzerland. November 27, 2019.

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Sturm, J.-E. (2019). Konzeption Handelsblattranking. CHES Lecture 2019. Zurich, Switzerland. November 19, 2019.

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Sturm, J.-E. (2019). Productivity challenges in the construction sector. Installers' Summit 2019. Montreux, Switzerland. October 17-18, 2019.

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Sturm, J.-E. (2019). Quo vadis? World economic developments and their implications for Switzerland. Durham Business School. Durham, England. April 10, 2019.

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Sturm, J.-E. (2019). Schweizer Konjunktur im internationalen Kontext. 178. Delegiertenversammlung des Gewerbeverbands der Stadt Zürich. Zurich, Switzerland. May 21, 2019.

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Sturm, J.-E. (2019). Wirtschaftsausblick für die Schweizer Industrie und ihre Zulieferer. Konferenz der Schweizer Industrie-Zulieferer. Niederörsch, Switzerland. September 25, 2019.

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Sturm, J.-E. (2019). Wirtschaftsaussichten 2020. Thurgauer Prognoseforum (TWI). Kreuzlingen, Switzerland. October 24, 2019.

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Sturm, J.-E. (2019). Wirtschaftslage und Aussichten. 2. Wirtschaftspodium Meilen. Meilen, Switzerland. September 18, 2019.

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Sturm, J.-E. (2019). Zweigeteilte Konjunktur: Aussen- vs. Binnenwirtschaft. Zukunft Ostschweiz – Konjunkturforum der IHK St. Gallen-Appenzell und der St. Galler Kantonalbank. St. Gallen, Switzerland. November 18, 2019.

---

Sturm, J.-E. and H. James (2019). A Fragmenting Europe in a Changing World. Launch Conference: EEAG Report on the European Economy 2019. Rüschiikon, Switzerland. March 20, 2019.

---

Sturm, J.-E., H. Mikosch, and K. Erhardt (2019). Les perspectives pour l'économie suisse jusqu'en 2020: L'économie helvétique face à un contexte international difficile. KOF Prévisions conjoncturelles – Printemps 2019. Zurich, Switzerland. April 8, 2019.

---

Wörter, M. (2019). Cyber Risks in the Swiss Economy – an Empirical Overview. Risk Center Block Course Fall 2019. Zurich, Switzerland. October 24, 2019.

---

Wörter, M. (2019). Innovationsaktivitäten der Schweizer Privatwirtschaft: was sind hemmende und was fördernde Faktoren, – Teilergebnisse der Innovationsumfrage 2016. Öffentliche Innovationsförderung Schweiz: Jahrestagung 2019. Basel, Switzerland. March 27, 2019.

---

Wörter, M. and B. Balsmeier (2019). Is this Time Different? How Digitalization Influences Job Creation and Destruction. Organizing in the Era of Digital Technology 2019. Monte Verità, Switzerland. June 12-15, 2019.

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# Teaching

ETH Zurich

Other Universities

THE ETH COURSE CATALOGUE CAN BE FOUND  
ON THE ETH WEBSITE:

<http://www.vorlesungsverzeichnis.ethz.ch>

## LECTURES SPRING 2019

Advances in Public Economics  
Marko Köthenbürger

---

Identification and Causal Inference  
Jan-Egbert Sturm, Stefan Pichler,  
Michael Siegenthaler

---

International Economics: Theory of New Trade  
and Multinational Firms  
Peter Egger, Katharina Erhardt

---

International Monetary Economics  
Jan-Egbert Sturm, Jaqueson K. Galimberti

---

Introduction to Economic Policy  
Heiner Mikosch

---

Microeconomics  
Michael Graff

---

Public Economics  
Marko Köthenbürger, Gabriel Loumeau

---

Political Economy  
Jan-Egbert Sturm, Vera Z. Eichenauer

---

Principles of Econometrics  
Jan-Egbert Sturm, Adreas Beerli

---

## LECTURES FALL 2019

Empirical Innovation Economics  
Martin Wörter

---

Fiscal Competition and Multinational Firms  
Marko Köthenbürger, Michael Stimmelmayer

---

Intermediate Econometrics  
Nora Strecker, Sophia Ding

---

Introduction to Microeconomics  
Martin Wörter, Matthias Beck

---

Managerial Economics  
Peter Egger, Marko Köthenbürger

---

Monetary Policy  
Jan-Egbert Sturm, Alexander Rathke

---

PhD Course: Applied Econometrics  
Peter Egger

---

Principles of Macroeconomics  
Jan-Egbert Sturm

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## Other Universities

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Innovation Economics and Management  
 FFHS  
 Zurich, Switzerland  
 Mathias Beck

---

Economic Development  
 University of St. Gallen  
 St. Gallen, Switzerland  
 Michael Graff

---

International Trade and Investment  
 The University of Queensland  
 Brisbane, Australia  
 Michael Graff

---

Milestones of Globalisation from Palaeolithic  
 Times to the Present  
 University of St. Gallen  
 St. Gallen, Switzerland  
 Michael Graff

---

Fiscal federalism and Equalization,  
 Lecture Autumn Semester (PhD course)  
 University of Lausanne  
 Lausanne, Switzerland  
 Marko Köthenbürger

---

Workshop in Qualitative Research for  
 PhD Students  
 Kathmandu University  
 Dhulikhel, Nepal  
 M. Karina Maldonado Mariscal

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Methods of Empirical Macroeconomics  
 University of Zurich  
 Zurich, Switzerland  
 Alexander Rathke

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Bildungssystem Schweiz und die Bedeutung  
 für die Wirtschaftspolitik  
 University of Zurich  
 Zurich, Switzerland. May 22, 2019.  
 Ursula Renold

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Bildungssystem Schweiz und seine Bedeutung  
 für die Wirtschaftspolitik  
 University of Zurich  
 Zurich, Switzerland. November 6, 2019.  
 Ursula Renold

---

Principles and Theories of Education and Work  
 Kathmandu University  
 Kathmandu, Nepal  
 Ursula Renold

---

Challenges of comparing Vocational Education and  
 Training Systems  
 Ludwig Maximilian University of Munich  
 Munich, Germany  
 Ursula Renold and Thomas Bolli

---

Apprenticeship Training: Institutions and Markets  
 (PhD course)  
 University of Zurich  
 Zurich, Switzerland  
 Ursula Renold

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Labor Economics  
 University of Bern  
 Berne, Switzerland  
 Michael Siegenthaler

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# Network

Research Stays

KOF Research Fellows

Associations

Organisation (details)

# Research Stays

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## RESEARCH STAYS OF KOF RESEARCHERS

### AUSTRALIA

#### Florian Eckert

Monash University, Melbourne, Australia  
October 29, 2018 – February 22, 2019.

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### EUROPE

#### Heiner Mikosch

ifo Institute for Economic Research,  
Munich, Germany  
July 8 – 12, 2019.

---

## GUEST PROGRAM AT KOF

#### Ass. Prof Davide Suverato

TU München, Germany  
January 14 – 16/21 – 25, 2019.

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#### Prof Nauro Campos

Brunel University London, UK  
January 29 – 1st February, 2019.

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#### Prof Denis Quinn

Brunel University London, UK  
February 12 – 14, 2019.

---

#### Prof Andreas Moxnes

University of Oslo, Norway  
February 26 – 28, 2019.

---

#### Prof Yoto Yotov

Drexel University, Philadelphia, USA  
February 28 – March 3, 2019.

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## USA

#### Katharina Erhardt

Massachusetts Institute of Technology,  
Cambridge, USA  
October 1, 2019 – September 30, 2021.

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#### Prof Miklós Koren

Central European University, Budapest, Hungary  
March 5 – 7, 2019.

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#### Dir. Ayhan Kose

World Bank Group Washington DC, USA  
March 11 – 13, 2019.

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#### Jonathan Stoeterau

Humboldt Uni Berlin/RWI, Essen, Germany  
March 11 – 13, 2019.

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#### Sabien Dobberlaere

March 19 – 21, 2019.

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#### PhD Tobias Renkin

March 27 – 29, 2019.

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**PhD Daphné Skandalis**

Federal Reserve Bank of New York, USA  
March 27 – 29, 2019.

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**Dr Boriss Siliverstovs**

Bank of Latvia, Lettland  
May 2 – 10, 2019.

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**Ass. Prof Gregor von Schweinitz**

Leibniz-Institut für Wirtschaftsforschung Halle,  
Germany  
May 22 – 24, 2019.

---

**Prof Simon Lüchinger**

University of Lucerne, Switzerland  
June 3 – 14, 2019.

---

**Ass. Prof Anastasios Panagiotelis**

Monash University, Australia  
June 30 – July 7, 2019.

---

**Prof Jakob de Haan**

University of Groningen, Netherlands  
July 8 – 10, 2019.

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**Prof Jochen Hartwig**

Technische Universität Chemnitz, Germany  
July 15 – 19, 2019.

---

**Prof Badi Baltagi**

Syracuse University New York, USA  
August 4 – 10, 2019.

---

**Prof Christoph Moser**

Friedrich-Alexander-Universität Erlangen-Nürnberg,  
Germany  
August 25 – 30, 2019.

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**Dr Ferdinand Rauch**

Oxford University, UK  
August 25 – 29, 2019.

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**Dr Ada I. Gonzalez-Torres**

Ben-Gurion University of the Negev,  
Be'er Sheva, Israel  
September 4 – 6, 2019.

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**PhD Ana Paula Alves Vieira**

University of São Paulo, Brazil  
September 30 – October 8, 2019.

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**Prof Roger Bivand**

Norwegian School of Economics, Bergen, Norway  
October 7 – 9, 2019.

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**Prof Arturas Juodis**

University of Groningen, Netherlands  
October 22 – 25, 2019.

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**Prof Georg Schaur**

Haslam College of Business,  
The University of Tennessee, USA  
October 27 – 29, 2019.

---

**Dr David Opromolla**

Banco de Portugal, Lisbon, Portugal  
October 31 – November 3, 2019.

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**Dr Andreas Dibiasi**

Eurac, Center for Advanced Studies,  
Bolzano/Bozen, Italy  
November 18 – 22, 2019.

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**Prof Horst Raff**

Christian-Albrechts-Universität zu Kiel, Germany  
December 8 – 14, 2019.

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**Prof Alain Pirotte**

University of Paris II and TEPP (CNRS), France  
December 13 – 15, 2019.

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## KOF Research Fellows

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**Prof Benjamin Balsmeier**

University of Luxembourg, Luxembourg

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**Prof Nauro F. Campos**

University College London, UK

---

**Dr Florian Chatagny**

Eidgenössische Finanzverwaltung, Switzerland

---

**Prof Dr Christian Conrad**

University of Heidelberg, Germany

---

**Prof Dr Jakob de Haan**

University of Groningen, The Netherlands

---

**Prof Dr Laurent Donzé**

University of Fribourg, Switzerland

---

**Prof Dr Axel Dreher**

Ruprecht-Karls-University Heidelberg, Germany

---

**Prof Dr Ulrich Fritsche**

University of Hamburg, Germany

---

**Prof Dr Martin Gassebner**

Leibniz University of Hannover, Germany

---

**Prof Dr Jochen Hartwig**

Technical University of Chemnitz, Germany

---

**Prof Dr Daniel Kaufmann**

University of Neuchâtel, Switzerland

---

**Prof Dr Michael Lamla**

Leuphana University Lüneburg, Germany

---

**Prof Dr Sarah Lein**

University of Basel, Switzerland

---

**Prof Dr Simon Lüchinger**

University of Lucerne, Switzerland

---

**Prof Dr Pierre Mohnen**

Maastricht University, The Netherlands

---

**Prof Dr Christoph Moser**

University Erlangen-Nürnberg, Germany

---

**Prof Dr Volker Nitsch**

Darmstadt University of Technology, Germany

---

**Prof Dr Michael Pfaffermayr**

University of Innsbruck, Austria

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**Dr Boriss Siliverstovs**

Latvijas Banka, Lithuania

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**Prof Barry Williams**

Monash University, Australia

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## Associations

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**AIECE** Association of European Conjuncture Institutes (<http://www.aiece.org>). As a member of the AIECE, KOF Swiss Economic Institute contributes to the semiannual General Report on the outlook for the European and the world economy.

<http://sites.uclouvain.be/aiece/>

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**CBCN** Central Bank Communication Network is an impartial supranational and interdisciplinary network of academic researchers working on central bank communication. It is intended for regular and structural exchange of ideas, views and opinions at the research-frontier of central bank communication.

<http://www.central-bank-communication.net>

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**CIRET** Centre for International Research on Economic Tendency Surveys, is a forum for leading economists and institutions, that conduct and analyse business and/or consumer survey data. Since 1953, CIRET promotes the exchange of knowledge not only of the theoretical, but especially of the operational aspects of economic cycle research. As a platform, CIRET provides quick information often unavailable from official statistics such as plans, assessments and expectations of businesses and consumers.

<https://www.ciret.org/>

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**EconPol Europe** the European network for economic and fiscal policy research – is a network of 14 policy-oriented university and non-university research institutes across 12 countries, who contribute scientific expertise to the discussion of the future design of the European Union. The network's joint interdisciplinary research covers sustainable growth and best practice, reform of EU policies and the EU budget, capital markets and the regulation of the financial sector, and governance and macroeconomic policy in the European Monetary Union. The network was founded in spring 2017 by the ifo Institute, along with eight renowned European research institutes. A further five associate partners were added to the network in January 2019. Amongst them KOF. The foundation of EconPol Europe was made possible by an initiative of the German Federal Ministry of Finance (BMF) to intensify and deepen cross-border research and cooperation in Europe. The ifo Institute was commissioned by the BMF to set up this independent network, providing evidence-based policy advice to inform the economic and fiscal policy debate in Europe.

[https://www.econpol.eu/about\\_econpol\\_europe](https://www.econpol.eu/about_econpol_europe)

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**Euroconstruct** Network of European construction forecasts institutes, which publishes construction reports twice annually. KOF Swiss Economic Institute is the Swiss representative of Euroconstruct.

<http://www.euroconstruct.org/>

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# Organisation (details)

## Research Divisions and Sections / Forschungsbereiche und -sektionen

<b>Business Tendency Surveys / Konjunkturmfragen</b>		<b>Macroeconomic Forecasting / Konjunktur</b>		<b>Data Science and Macroeconometric Methods / Data Science und Makroökonomische Methoden</b>	
<b>Abberger</b>	<b>Klaus, Dr habil.</b>	<b>Graff</b>	<b>Michael, Prof Dr</b>	<b>Sarferaz</b>	<b>Samad, Dr</b>
Dibiasi	Andreas, Dr	<b>Sektion Internationale Konjunktur</b>		Rathke	Alexander, Dr
Funk	Anne Kathrin	<b>Sektion International forecasts</b>		Baumann	Philipp
Mühlebach	Nina	<b>Mikosch</b>	<b>Heiner, Dr</b>		
Seiler	Pascal	Eckert	Florian		
		Hälg	Florian		
		Neuwirth	Stefan, Dr		
		<b>Sektion Schweizer Konjunktur</b>			
		<b>Sektion Swiss forecasts</b>			
		<b>Abrahamsen</b>	<b>Yngve</b>		
		Anderes	Marc		
		Streicher	Sina		
		<b>Sektion Arbeitsmarkt</b>			
		<b>Sektion Labour market</b>			
		<b>Siegenthaler</b>	<b>Michael, Dr</b>		
		Bamert	Justus		
		Kopp	Daniel		

## Chairs / Professuren

<b>Applied Macroeconomics / Angewandte Wirtschaftsforschung</b>		<b>Applied Economics: Innovation and Internationalisation / Angewandte Ökonomie: Innovation und Internationalisierung</b>		<b>Public Economics / Öffentliche Finanzen</b>	
<b>Sturm</b>	<b>Jan-Egbert, Prof Dr</b>	<b>Egger</b>	<b>Peter, Prof Dr</b>	<b>Köthenbürger</b>	<b>Marko, Prof Dr</b>
Beerli	Andreas, Dr	Ding	Sophia, Dr	Galletta	Sergio, Dr
Boskovic	Ana	Erhardt	Katharina, Dr	Giommoni	Tommaso, Dr
Crombach	Lamar	Kaynak	Pinar	Loumeau	Gabriel, Dr
Eichenauer	Vera, Dr	Kesina	Michaela, Dr	Stettler	Christian
Galimberti	Jaqueson K., Dr	Loumeau	Nicole	Stimmelmayr	Michael, Dr
Hilber	Simon	Maslorens Fuentes	Gerard	Waloszek	Christian
Pichler	Stefan, Dr	Rao	Xi (Susie)	Liberini	Federica, Dr
Pleninger	Regina	Strecker	Nora, Dr	Russo	Antonio, Dr
Schneider	Stephan A.	Suverato	Davide, Dr		
Wochner	Daniel	Zoller-Rydzek	Benedikt, Dr		



<b>Public Economics / Öffentliche Finanzen</b>	
<b>Köthenbürger</b>	<b>Marko, Prof Dr</b>
Chatagny	Florian, Dr
Garmann	Sebastian, Dr

<b>Innovation Economics / Innovationsökonomik</b>	
<b>Egger</b>	<b>Peter, Prof Dr</b>
<b>Wörter</b>	<b>Martin, Prof Dr</b>
Beck	Mathias, Dr
Heinrich	Sebastian
Hulfeld	Florian
König	Michael D., Dr
Seliger	Florian, Dr
Spescha	Andrin, Dr

<b>Education Systems / Bildungssysteme</b>	
<b>Renold</b>	<b>Ursula, Prof Dr</b>
Bolli	Thomas, Dr
Bolli-Kemper	Johanna, Dr
Bürgi	Jutta
Caves Gahr	Katie, Dr
Maldonado	Karina, Dr
Oswald-Egg	Maria Esther
Pusterla	Filippo
Rageth	Ladina, Dr
Sritharan	Aranya

<b>Administration and Support / Zentrale Dienste</b>			
<b>Coban Tolga</b>			
<b>KOF Corporate Communications</b>		<b>Survey Support / Umfragedienste</b>	
<b>Stücker</b>	<b>Anne</b>	Aubert	Gilles
Degonda	Vera	Frank	Barbara
Koch	Nicole	Genova	Nadia
Kohler	Franziska	Schär	Thomas
Le Goff	Solenn	Wegmann-Balz	Sonja
Schibli-Lozano	Corinne		

<b>Information Technology / Informatiksysteme</b>	
<b>Coban</b>	<b>Tolga</b>
Bannert	Matthias, Dr
Becerra	Angelica
Clavadetscher	Charles
Meichtry Blass	Stefan
Müller	Oliver
Thöni	Severin

<b>Administration</b>	
<b>Humbel</b>	<b>Sabrina</b>
Bloch	Katharina
Borghesi Stäheli	Tiziana
Diehl	Michaela
Walter	Silvia



# Official Bodies

SGK Society

KOF Executive Committee

KOF Advisory Board

# SGK Society

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## EXECUTIVE BOARD

- UELI DIETIKER (PRESIDENT),  
FORMER CFO SWISSCOM AG

## MEMBERS

- FRANÇOIS GANIÈRE
- CHRISTIAN MÄHR, UBS AG
- DR STEPHAN MUMENTHALER,  
SCIENCEINDUSTRIES
- BRUNO SAUTER, OFFICE FOR ECONOMY AND  
LABOUR, CANTON ZURICH (RESIGNED 2019)
- DR ERIC SCHEIDEGGER, SECO
- DR MARTIN SCHLEGEL, SNB

## RESPONSIBILITIES

The Swiss Society for Business Cycle Research (an association according to Art. 60 ff. of the Swiss Civil Code) supports KOF in empirical research on economic developments in Switzerland and promotes the corporate surveys and economic services provided by the institute, within the framework of a contractually regulated cooperation with ETH Zurich.

The SGK Executive Board meets once a year prior to the SGK General Assembly in spring. In 2019, the meeting took place on 6 May. The main topics on the

agenda were adjustments to the statutes planned for 2020, as well as successful strategies for the acquisition of new SGK members. The Board oversees the business activity of the society and supports KOF in getting funding for research. Dr Martin Schlegel, Swiss National Bank (SNB), was elected as a new member of the SGK Board and succeeds Mr Thomas Moser. The president of the Board, Ueli Dietiker, as well as the previous SGK Board members were re-elected.

In 2019, the SGK Society counted approximately 180 members. The members of the SGK received the following services:

1. A printed issue of the new quarterly journal 'KOF Analysen', which provides analyses and forecasts of the international economic conditions and developments in the Swiss economy. Each issue also includes analyses by KOF staff on current research topics.
2. Invitations to participate at the KOF Economic Forum meetings ('KOF Wirtschaftsforum') held by the SGK three to four times a year.
3. An invitation to KOF's yearly Forecast Event (KOF Prognosetagung) in autumn.
4. Advice on macroeconomic developments and as of how to access KOF data.



Left to right: Dr Martin Schlegel, François Ganière, Ueli Dietiker, Dr Stephan Mumenthaler, Dr Eric Scheidegger, Christian Mähr, (not in the picture: Bruno Sauter).

## KOF Executive Committee

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### CHAIRMAN

- PROF DR ULRICH WEIDMANN,  
ETH ZURICH

### MEMBERS

- PROF DR HANS GERSBACH, ETH ZURICH
- DR MARTIN SCHLEGEL, SNB
- DR ERIC SCHEIDEGGER, SECO

### RESPONSIBILITIES

An Executive Committee made up of an equal number of members from ETH Zurich and the SGK Society (Swiss Society for Business Cycle Research) oversees KOF. The KOF director participates in the committee's meetings in a consultative capacity. Besides approving the financial accounts of the previous year and the budget for the following year, this committee oversees KOF's strategic developments. To this end, the executive committee appoints an Advisory Board, whose members are proposed by the director of the institute.

In 2019, the KOF Executive Committee was composed of Prof Ulrich Weidmann, Vice President of Personnel and Resources, ETH Zurich, Prof Hans Gersbach, D-MTEC ETH Zurich, Dr Martin Schlegel, Alternate Member of the Governing Board, SNB, and Dr Eric Scheidegger, SECO.



Left to right: Prof Hans Gersbach, Dr Eric Scheidegger, Dr Martin Schlegel, Prof Ulrich Alois Weidmann.

# KOF Advisory Board

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## CHAIRMAN

- PROF DR DOMINIQUE FORAY,  
EPFL – CDM – CEMI

## MEMBERS

- JANWILLEM C. ACKET,  
BANK JULIUS BÄR & CO. AG
- PROF DR MARTIN BROWN,  
UNIVERSITY OF ST. GALLEN
- PROF DR MONIKA BÜTLER,  
UNIVERSITY OF ST. GALLEN
- DR PETER SCHWENDENER,  
FEDERAL DEPARTMENT OF FINANCE
- PROF DR GEORGES-SIMON ULRICH,  
FEDERAL STATISTICAL OFFICE, BFS
- DR KLAUS WOHLRABE,  
CES-IFO GROUP MUNICH
- DR ATTILIO ZANETTI, SNB

## RESPONSIBILITIES

The Advisory Board is a permanent body that supports the Executive Committee, the KOF directorate and the heads of the research divisions in the fulfilment of their tasks, ensuring independent quality controls and advising the KOF on its long-term research and development planning. It also helps strengthen contacts between KOF and academic and research bodies as well as relevant economic policy institutions.

In 2019, the KOF Advisory Board appointed two new members. While Dr Attilio Zanetti served his last year as board member and was replaced by his successor, Prof Matthias Lutz, Assistant Director Economic Analysis of the Swiss National Bank, Prof Georges-Simon Ulrich ended his regular 1st term and was succeeded by Dr Livio Lugano, Assistant Director of the Swiss Federal Statistical Office, in 2020. The extensive experience of both Dr Zanetti and Prof Ulrich has resulted in valuable contributions, suggestions and innovative ideas to further strengthen the development of the KOF. We are very grateful for their distinguished membership.



Left to right: Dr Attilio Zanetti, Dr Klaus Wohlrabe, Prof Dominique Foray (Chairman), Dr Peter Schwendener, Prof Martin Brown, (not in the picture: Janwillem C. Acket, Prof Monika Büttler, Prof Georges-Simon Ulrich).

# Key Figures

Human Resources

Publication Output

Funding

Outreach

# Human Resources

	By		Change	
	31.12.2018	31.12.2019	in %	in FTE
<b>Total employees (in full time equivalent [FTE])</b>	<b>79.6</b>	<b>80.2</b>	<b>0.8%</b>	<b>0.6</b>
Temporary scientific positions	55.9	54.9	-1.8%	-1.0
Temporary technical/administrative positions	4.0	4.7	17.5%	0.7
By employment type				
<b>Scientific staff</b>	<b>65.7</b>	<b>63.8</b>	<b>-2.9%</b>	<b>-1.9</b>
Full professors	3.0	3.0	0.0%	0.0
Senior researchers	7.8	9.4	20.5%	1.6
Postdoctoral students	25.1	19.6	-21.9%	-5.5
Doctoral students	24.3	25.6	5.3%	1.3
Trainees	1.0	2.0	100.0%	1.0
Research assistants	4.5	4.2	-6.7%	-0.3
<b>Technical/Administrative positions</b>	<b>13.9</b>	<b>16.4*</b>	<b>18.0%</b>	<b>2.5</b>
Technical and IT staff	5.2	5.2	0.0%	0.0
Administrative staff	7.7	10.2	32.5%	2.5
Trainee	1.0	1.0	0.0%	0.0
By division/chair				
Research Division Macroeconomic Forecasting	10.0	12.0	20.0%	2.0
Research Division Business Tendency Surveys	4.2	4.2	0.0%	0.0
Research Division Data Science and Macroeconometric Methods	3.0	3.0		0.0
Research Division Public Economics	2.0	1.0	-50.0%	-1.0
Research Division Innovation Economics	6.4	6.4	0.0%	0.0
Research Division Education Systems	9.8	10.6	8.2%	0.8
Chair Applied Macroeconomics	10.5	10.5	0.0%	0.0
Chair Applied Economics: Innovation and Internationalisation	10.6	7.8	-26.4%	-2.8
Chair Public Economics	8.0	6.8	-15.0%	-1.2
Administration and Support	15.1	17.9	18.5%	2.8

\* Temporary increase due to maternity leave

## Appointments at other universities:

Federica Liberini: Assistant Professor at the University of Bath, Research Associate at the University of Warwick, United Kingdom.

Antonio Russo: Assistant Professor at the Loughborough University, United Kingdom.

Jaqueson K. Galimberti: Senior Lecturer at the Auckland University of Technology, Australia.



# Publication Output

## Number of Publications

	Articles in Refereed Journals	Articles in Other Journals and Blogs	Books and Articles in Books	KOF Working Papers	Other Working Paper Series	KOF Analyses	KOF Studies	KOF Dissertation Series	News-paper Articles/ Interviews	Academic Presentations	Non-Academic Presentations	KOF Bulletin
<b>Total*</b>	<b>22</b>	<b>24</b>	<b>8</b>	<b>21</b>	<b>10</b>	<b>12</b>	<b>22</b>	<b>1</b>	<b>4</b>	<b>98</b>	<b>63</b>	<b>50</b>

\*Publications are assigned to the division affiliation of the author(s).

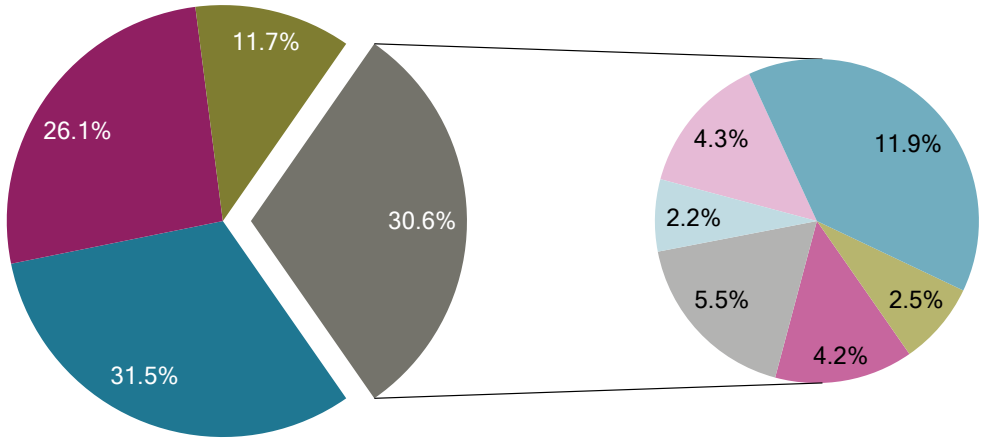
## Number of Authors

	Articles in Refereed Journals	Articles in Other Journals and Blogs	Books and Articles in Books	KOF Working Papers	Other Working Paper Series	KOF Analyses	KOF Studies	KOF Dissertation Series	News-paper Articles/ Interviews	Academic Presentations	Non-Academic Presentations	KOF Bulletin
<b>FBP<sup>1</sup></b>	5	2	2	4	0	6	9	0	1	20	1	16
<b>FBU<sup>2</sup></b>	0	3	0	1	1	5	0	0	1	0	0	9
<b>FBF<sup>3</sup></b>	0	0	0	0	0	0	2	0	0	0	0	0
<b>FBI<sup>4</sup></b>	5	3	0	3	0	1	4	0	2	10	7	7
<b>FBB<sup>5</sup></b>	2	6	3	7	4	1	9	0	1	37	23	7
<b>FBD<sup>6</sup></b>	0	1	1	2	0	4	0	0	0	0	0	1
<b>LSE<sup>7</sup></b>	3	6	1	1	0	2	0	0	1	7	0	5
<b>LSS<sup>8</sup></b>	5	5	0	3	0	0	1	0	0	25	32	3
<b>LSK<sup>9</sup></b>	2	0	1	1	5	1	2	1	0	0	0	0
<b>ZDB<sup>10</sup></b>	0	0	0	1	0	2	0	0	0	0	0	2

- 1) Research Division Macroeconomic Forecasting
- 2) Research Division Business Tendency Surveys
- 3) Research Division Public Economics
- 4) Research Division Innovation Economics
- 5) Research Division Education Systems
- 6) Research Division Data Science
- 7) Chair of Applied Economics: Innovation and Internationalisation
- 8) Chair of Applied Macroeconomics
- 9) Chair of Public Economics
- 10) Administration and Support

# Funding

Funding of KOF and Chairs divided by source (in per cent)



- ETH Zurich - KOF
- ETH Zurich - Chairs
- SGK Foundation and alike
- Third-party funding

- Non-gov. projects
- Government projects
- Surveys
- Miscellaneous
- SNSF and academic research
- Data services

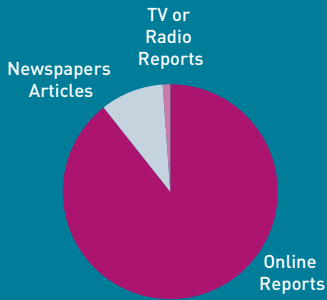
The institute is two-thirds financed by the ETH and the SGK Society for Economic Research (SGK), and thus has a foothold in both science and economy. The rest is generated from third-party funds (SNF-projects, mandates, expertise).

This three pillar based financing allows us to be a politically and financially independent economic research institute that has the finger on the pulse of the economic development in Switzerland and can offer evidence-based research for economic policy issues.

# Outreach

## KOF Media Coverage 2019

### Distribution according to media type



**KOF was featured in:**  
4023 Online Reports  
429 Newspapers Articles  
51 TV or Radio Reports

**Top 5 Print**  
SDA (Ger. + Fr. + It.) (139)  
Neue Zürcher Zeitung (25)  
Corriere Del Ticino (21)  
Tages Anzeiger (18)  
Luzerner Zeitung (15)

**Top 3 TV**  
SRF Tagesschau Main Edition (6)  
SRF Börse (5)  
Telegiornale sera (3)

### Requests for KOF Expert Opinions Trendtopics in 2019

Labour Market  
KOF Economic Barometer  
Innovation  
Tourism Forecast  
Healthcare Forecast



# Glossary

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ACTER	Association for Carrier and Technical Education Research
AFMP	Agreement on the free movement of persons
AIECE	Association of European Conjuncture Institutes
AKAD	The Swiss Education Institute
API	Application Programming Interface
BAUPAU	Construction Industry Production, Orders and Turnover Statistics
BIS	Bank for International Settlements
BRDE	Regional Development Bank of the Extreme South
CCIS	Chamber of Commerce and Industry Serbia
CDM	College of Management of Technology, EPFL
CEMETS	Center on the Economics and Management of Education and Training Systems
CEMI	Chair of Economics and Management of Innovation
CESifo	Center for Economic Studies at ifo Institute, Munich
CIEB	Center on International Education Benchmarking
CIRET	Centre for Economic Research on Economic Tendency Surveys
CSF	Congressi Stefano Franscini
CTI	Commission of Technology and Innovation
CTR III	3rd Corporate Tax Reform
D-GESS	Department of Humanities, Social and Political Science, ETH Zurich
DGGO	Deutsche Gesellschaft für Gesundheitsökonomie
D-MTEC	Department of Management, Technology and Economics, ETH Zürich
EALE	European Association of Labour Economists
EAYE	European Association of Young Economists
EBITDA	Earnings before Interests, Taxes, Depreciation and Amortisation
ECB	European Central Bank
EEAG	European Economic Advisory Group
ELP	Earn and Learn Programme
EPFL	École polytechnique fédérale de Lausanne
EPO	European Patent Office
ESI	Economic Sentiment Indicator
Eurostat	European Statistical Office
EZEO	Eurozone Economic Outlook
FGV	Getulio Vargas Foundation
FHNW	University of Applied Sciences and Arts Northwestern Switzerland, School of Applied Psychology
FOPH	Federal Office of Public Health
FSO	Federal Statistical Office
GDP	Gross Domestic Product
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
HFW	Höhere Fachschulen für Wirtschaft
HFW-RLP association	Trägerschaft Rahmenlehrplan der Höhere Fachschulen für Wirtschaft
IAL	Institute for Adult Learning
ICT	Information and communication technologies

ifo	ifo Institute, Munich / Leibniz Institute for Economic Research at the University of Munich
IIF	International Institute of Forecasters
IIPF	International Institute of Public Finance
INDPAU	NOGA-Codes for the Industry Production, Orders and Turnover Statistics
IP	Intellectual Property
ISSP	Montenegrin Institute for Strategic Studies and Prognoses
JBCMA	Journal of Business Cycle Measurement and Analysis
JBCR	Journal of Business Cycle Research
KOF EELI	KOF Education-Employment Linkage Index
KOSMOS	KOF Survey Management Operational System
LSE	London School of Economics and Politics
MNE	Multinational Enterprise
NADEL	Center for Development and Cooperation, ETH Zurich
NOGA	General Classification of Economic Activities
NRP	National Research Programme
OECD	Organisation for Economic Co-operation and Development
pharmaSuisse	Association of Swiss pharmacies
RePEc	Research Papers in Economics
R&D	Research & Development
SAFE	Survey on the Access to Finance of Enterprises
SCOPE	Scientific co-operation between Eastern Europe and Switzerland
SDC	Swiss Agency for Development and Cooperation
SECO	State Secretariat for Economic Affairs
SERI	State Secretariat for Education, Research and Innovation
SGK	SGK Society for Economic Research
SMEs	Small and medium-sized Enterprises
SMYE	Spring Meeting of Young Economists
SNA	System of National Accounts
SNB	Swiss National Bank
SNSF	Swiss National Science Foundation
SQS	Swiss Association for Quality and Management Systems
SRF	Swiss National Radio and TV
SSES	Swiss Society of Economics and Statistics
TTIP-ITN	Transatlantic Trade and Investment Partnership – International Training Network
TVET	Vocational Education and Training Systems
UN	United Nations
UN ESCWA	United Nations Economic and Social Commission for Western Asia
UNU-WIDER	United Nations University World Institute for Development Economics Research
UZH	University of Zurich
VET	Vocational Education and Training
VPET	Vocational and Professional Education and Training
VGUA	Association of the Group of Independent Pharmacists
Wifo	Austrian Institute of Economic Research
WSE	Warsaw School of Economics
YITP	Young Investigator Training Program
YSEM	Young Swiss Economists Meeting
ZEW	Centre for European Economic Research, Germany



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