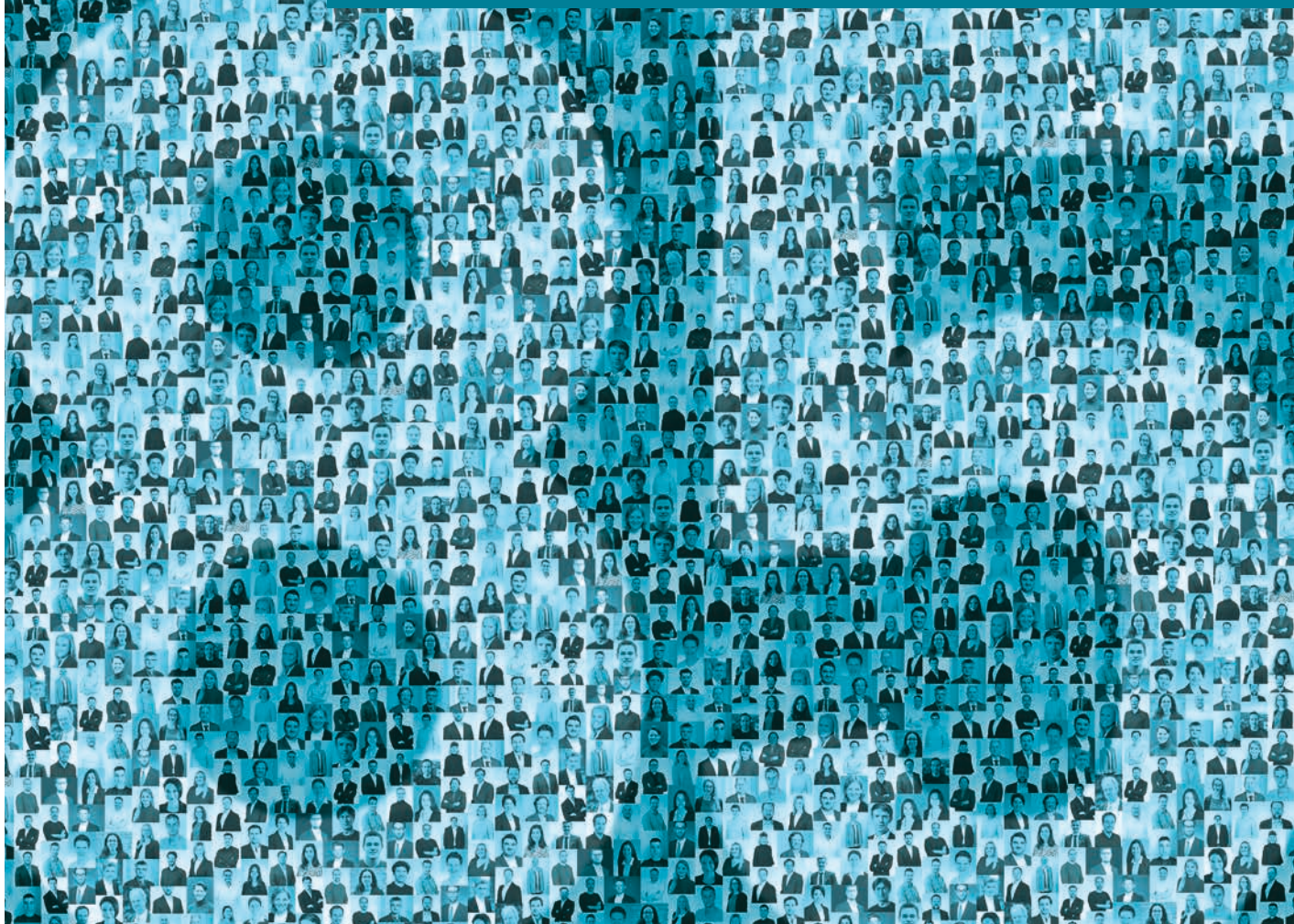ETH zürich   KOF

Annual Report 2023

"85 years of evidence-based economic research for Switzerland"

May 2024

"Our research is based on facts and data, not on value judgements"

Jan-Egbert Sturm and Hans Gersbach look back on 2023 and 85 years of KOF. They explain in this interview how the institute has been reconfigured and what contribution it plans to make to the Swiss economy in future.

KOF's directors Professor Hans Gersbach (left) and Professor Jan-Egbert Sturm. (Photo: André Springer)

Professor Jan-Egbert Sturm during the interview. (Photo: André Springer)

Last year was marked by many geopolitical tensions such as the wars in Ukraine and the Middle East, while in Switzerland it was also characterised by the takeover of the big bank Credit Suisse (CS) and by issues such as labour shortages. How did all of this impact on the Swiss economy?

Jan-Egbert Sturm: At the beginning of the winter of 2022/23 there were serious fears that we might run out of gas and oil and that we could plunge into an energy crisis. That did not happen to the extent that we had expected – partly owing to the mild winter. 2023 therefore got off to a positive start compared with our forecasts. However, we had hoped for a slightly stronger recovery than the one that actually materialised. Then came UBS's acquisition of Credit Suisse, and the headwinds from abroad increased over the course of the year. The second half of the year proved to be a real challenge for the export-driven manufacturing sector because of the weak international economy. And during the last winter half-year, at least, this industry found itself in recession.

Hans Gersbach: 2023 once again made us all very much aware of the geopolitical risks to international trade in goods and services – including those facing Switzerland. And this makes it necessary for Swiss politicians – as well as the private sector – to devise strategies that render the Swiss economy more resilient to such risks. The collapse of Credit Suisse triggered a negative reputational shock around the world and meant that the competitive situation in banking services – especially those for firms – deteriorated. And it again raised the old question of whether a systemically important bank that encounters extreme difficulties can be resolved or restructured without causing any major international disruption.

What role or function does KOF perform when such events occur? Has this changed over the past 85 years? How has the institute as a whole evolved over the course of its history?

Jan-Egbert Sturm: KOF's job is to monitor and analyse the Swiss economy and, on this basis, to work out where it might be heading. This mission has not changed over the years. However, the role of data has become more important and we have become more research-driven. KOF is evolving in line with society.

Hans Gersbach: KOF provides both analysis and information for decision-makers on all economic policy issues. I think that two questions in particular have now moved centre stage. The first is whether we need to thoroughly rethink the issue of banking regulation and the problem of institutions that are 'too big to fail'. I believe we have contributed some valuable ideas and input on this matter. And the second is the question of resilience. We suddenly recognised the urgent need

> "Developments in 2023 made it necessary for politicians and firms to devise strategies that render the Swiss economy more resilient."
>
> Hans Gersbach

> "KOF's job is to monitor and analyse the Swiss economy. This mission has not changed over the years."
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> Jan-Egbert Sturm

much has already been achieved here. We have to be careful not to always see AI purely as a substitute for work; it can also complement it. Academic studies clearly show that the digital revolution of the last 20 or 30 years has caused processes to be automated. These were processes that primarily affected the middle classes. Computers now perform many jobs previously done by highly-educated workers such as accountants. This has led to a certain amount of polarisation and even inequality, as Hans Gersbach has already mentioned. The new technology boom is much more general and will not necessarily have a

for us to focus on this issue much more than in the past and to investigate just how resilient the Swiss economy is to geopolitical and other risks and how we can use appropriate analysis tools to measure and evaluate this.

There were also encouraging developments in 2023. Advances in artificial intelligence (AI) gave a significant boost to the field of technology, which in turn drove up share prices. Will this also have a noticeable positive impact on the real economy over the next few years? Do you see this as a one-off phenomenon or is it a structural change?

Hans Gersbach: We have seen that artificial intelligence is a technology that impacts on the whole economy rather than just on one sector. This means that it will have a positive effect on productivity going forward. Although the key questions are already being raised, at present they remain unresolved. Will AI improve or simply replace workers' productivity? And, in addition to productivity growth, to what extent might inequality phenomena such as wage differentials be exacerbated? Our education and training system needs to be overhauled in order to meet these challenges. These are among the findings of KOF's research. Given our existing education system, we are concerned that structural change might happen very rapidly in some areas.

Jan-Egbert Sturm: This is a process that has gained momentum very quickly this time. When I talk to experts from business, I am astonished at just how

Professor Hans Gersbach during the interview. (Photo: André Springer)

major impact on income distribution because it will essentially permeate all sectors and might therefore be more equitable in its effect. Structural change always causes social friction. Maybe this time it will be different than in the past.

If we now look at 2023 in isolation, the introduction of rules of procedure and the new senior management structure consisting of two directors were among the most important changes for KOF. How do you now look back on last year, Hans Gersbach?

Hans Gersbach: I was very well received at KOF and was quickly able to start working effectively. We have found a good working arrangement in terms of how we coordinate, communicate and share tasks with each other. You can see that there are many projects and operations ongoing at KOF, and there is loads of expertise available there, which means that you can achieve quite a lot.

The KOF Lab has also been created in this context. What is its function?

Hans Gersbach: The KOF Lab is, in effect, intended to realise three ideas. First, we want to road-test new economic approaches and analysis to see whether they enable us to perform our nationally important tasks even better and more comprehensively. Second, young researchers will have the opportunity to raise their profile within their own section, to develop their careers and to contribute their own ideas. The Lab therefore acts like an incubator. And, third, if all goes well then it is designed to provide a springboard for a

It goes without saying that individuals' own interests play a role in selecting the topics that they would like to work on.

Let's look now at 2024: what are some of the concrete plans and topics for this year?

Hans Gersbach: At the beginning of this year we compiled a study on the challenges facing Switzerland's system of innovation. We are also working on a study on the resilience of the Swiss economy to identify, for example, how we are affected by geopolitical risks and where we need to be concerned and where we

> "There is loads of expertise available at KOF, which means that you can achieve quite a lot."
>
> Hans Gersbach

permanent position at KOF. The Lab is now fully operational with four sections, although this may change. It is a flexible incubator.

Today's young generation is said to be highly political. Do you see that with young researchers in your field? Is that still consistent with your role as researchers, or should the two be kept separate?

Jan-Egbert Sturm: I think we should try, as far as possible, to separate the two. As researchers, we must not allow ourselves to be influenced by things that are subjective or on which opinions may simply differ. Our work must be driven by data and research. When KOF makes public statements, its academic neutrality is always guaranteed. Our research is based on facts and data, not on value judgements. That does not mean, however, that we are always neutral: researchers may – out of a certain desire to optimise a given situation – indicate what, in their 'opinion', is relevant or less relevant. In doing so, they must know what they wish to optimise and what their objective is. They can then say what the costs and consequences of plan A and plan B are. It is not the job of researchers to get involved in politics. Hans Gersbach: Our ambition is to be an independent and honest academic intermediary for all decision-makers. And if value judgements are made occasionally, they must be clearly indicated as such.

do not. We are currently evaluating which model we will be using for our medium-term forecasts and scenarios. We plan to develop an initial version this year. We will then be making a contribution to the subject of banking regulation, where the finance ministry will be publishing a further report. We have also produced a strategic plan consisting of seven key thematic issues, which we will begin to implement in 2024.[1]

> "Our academic neutrality is always guaranteed."
>
> Jan-Egbert Sturm

Jan-Egbert Sturm: We are constantly adjusting our economic models, and we have been working hard on new models in recent years. These are now being used. We are currently working on how we publish our forecasts. I expect to see some changes here. Our entire publication strategy will no longer be as it has been in the past. Much is already under way and will require a fair amount of time and money. ∎

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[1] You can read more about these key strategic issues in the chapter entitled 'Our institute' (page 19).

Review

Research highlights

Surveys and forecasts are part of our DNA
In 2023 we celebrated KOF's 85th anniversary. This occasion marked 85 years of evidence-based economic research at the heart of the business community. A key plank of our activities ever since KOF was founded in 1938 is our Business Tendency Surveys. With more than 11,000 firms participating in these surveys, KOF has one of the largest voluntary panels in Switzerland. As such questionnaires are also relevant for research purposes, a team from KOF, EPFL and the University of Lausanne began to set up a panel of firms for research surveys. This project is being funded by the MTEC Foundation and the E4S Foundation.

The first survey has already been conducted and asked participants how important energy costs are for decision-makers in Switzerland. The survey revealed that some firms are heavily reliant on energy prices and that most businesses are highly interested in the associated costs. As energy price changes vary from one firm to another, the promotion of a fairly priced energy cost insurance scheme might be one option.

We focus not only on constantly supporting such panels but also on enhancing the quality of data in our Business Tendency Surveys. We are continually improving the quality of this data as well as the way in which data is supplied to respondents, institutions and clients. Since last year, for example, we have been providing customers with the responses to some questions in the manufacturing sector once a month instead of quarterly as in the past. This data includes firms' expectations about their exports, sales prices or the overall performance of their business. This ensures that our Business Tendency Surveys give an even more accurate picture of the economic situation.

However, KOF does not only conduct surveys on the economic situation. Further significant questionnaires are its surveys on firms' investment plans and innovation activities. The semi-annual Investment Survey has been expanded to include questions on aspects of climate change and the effects of the weather. This is modelled on the European Investment Bank, which asks similar questions in its annual investment survey. These questions were first included in the spring survey of 2023 and the findings were placed in a European context. Last year saw the launch of a new wave of questionnaires as part of KOF's Innovation Survey, which is conducted every two years on behalf of Switzerland's State Secretariat for Education, Research and Innovation (SERI). As innovation is the driver of economic growth and requires the right conditions, this survey has formed one of the bases for political decision-making since the 1990s. The findings of the latest surveys will be published in the autumn of 2024.

The KOF Business Tendency Surveys are still a key part of our DNA today. (Photo: KOF / N. Koch)

New models used to estimate the performance of the Swiss economy
In addition to surveys, forecasts form the second key plank of KOF's activities. High-quality estimates and forecasts are essential to enable policymakers in the fields of politics, business and society to make rational and sound decisions. KOMA, a new macro-model, was recently developed to forecast the Swiss and international economies. Central banks

and forecasting institutions often still use large macro-models. Macro-models' 'simple' structure compared with other models enables them to interpret findings in a straightforward way. KOMA uses Bayesian estimation methods, which are tailored to these models. This makes forecasting uncertainty easier and more intuitive. In addition, it enables prior knowledge to be included gradually and more formally. The forecasting team also programmed an package in the computer language R that will soon be available. As part of these changes the reporting process was updated and expanded to include dynamic charts and tables (to the website).

KOF's range of models will be expanded to include a quantitative dynamic stochastic general equilibrium (DSGE) model in the next few years. This project has two objectives. First, its existing forecasting infrastructure will be further improved and supplemented. And, second, the model will enable KOF to analyse medium- and long-term economic scenarios. Recent years have been characterised by shocks such as the pandemic, economic turmoil, geopolitical conflict and war. It is crucial for any economy to be resilient to such events. In order to ensure that this is the case for Switzerland, a research team began to develop a state-of-the-art trade model. This model will help to inform the Swiss public and policymakers about the hypothetical impact of unprecedented scenarios such as climate shocks and new trade wars, which would be difficult to assess using the existing data alone.

Switzerland's Federal Finance Administration (FFA) is keen to analyse its internal data and to use it in order to produce timely and consistent estimates and forecasts. For this purpose it requires proprietary tools and models that are gradually introduced. KOF is working closely with the FFA to develop these models.

To this end, various mixed-frequency models, a large Bayesian vector autoregression (BVAR) model and a structural equation model have been developed and then implemented at the FFA. These methods are used for the FFA's conditional forecasting in order to predict the country's budget deficits among other things.

It is important to have not just long-term forecasts, which capture structural changes in the economy and society, but also to make timely, short-term estimates and forecasts, which can identify and quantify economic turning-points at an early stage. One of these projects is KOF's Nowcasting Lab, which is a real-time testing platform for forecasting current-quarter gross domestic product (GDP) in various countries by using prematurely available and higher-frequency data. These models are updated daily based on large quantities of data and are published online. A multi-frequency echo state network forecasting model was integrated on the platform. The Nowcasting Lab also works constantly to expand its collaborations. In 2023 it signed a letter of comfort with Switzerland's State Secretariat for Economic Affairs (SECO) and entered into partnerships with researchers at the University of St Gallen and the University of Manchester.

Human and machine: in addition to simplifying our day-to-day work, AI such as ChatGPT is also a research topic.
(Image: KOF / N. Koch, generated using AI)

**Digital technology and innovation
in the Swiss economy**

Chat GPT gave a further boost to artificial intelligence (AI) and made it available to a broad user segment. Although AI has already been used for some time in research, it is also the subject of research projects. There are currently attempts to estimate the impact that regional AI research has on the respective industrial activity in the United States. This approach considers the role of geographical proximity and includes data on academic publications and industrial patents.

Between 2000 and 2016 there was a sharp decline in the proportion of firms actively engaged in research and development (R&D) in Switzerland. In the Netherlands, by contrast, this percentage increased. Moreover, the two countries achieve similar productivity growth. An international cooperation project between KOF and the University of Amsterdam analysed potential reasons for these differing trends and their impact on productivity growth. A comparison between Switzerland and the Netherlands shows that, in Switzerland, R&D costs increasingly influenced whether firms conducted R&D. In the Netherlands, on the other hand, R&D costs were only a minor consideration owing to the measures taken to support R&D there. In-depth analysis based on a structural equilibrium model shows, however, that reducing R&D costs is far less important for productivity growth than strengthening firms' ability to innovate and increasing their capacity to absorb external knowledge (e.g. through R&D collaborations). R&D support measures should therefore focus on the last two factors mentioned.

Labour market monitoring and labour shortages throughout the Swiss economy

KOF is conducting a project entitled 'What Workers Want: Determinants and Implications of Job Search Strategies on an Online Job Platform' as part of the 'Digital Transformation' national research programme (NFP 77) under the auspices of the Swiss National Fund (SNF). A sub-project is investigating under what conditions unemployed jobseekers consider changing professions and under what conditions employers are willing to recruit such individuals changing professions. This project uses new kinds of online klick data from jobseekers and employers on a public recruitment platform. Having conducted their analysis, the researchers developed a new type of metric to measure the 'proximity' of two professions. This involves using text analysis tools to gauge to what extent the skills requested in job advertisements match the activities mentioned.

An experiment conducted on several Swiss online recruitment platforms as part of a further international NFP collaboration project is examining the question of how jobseekers react to information on the pay and fringe benefits offered by firms. The main point of interest here is to gain a better understanding of what importance jobseekers attach to fringe benefits such as working from home, a canteen, a creche or a company car compared with the level of pay.

The issue of labour shortages remains significant. Addressing this problem will require new approaches and rethinking existing barriers. One of these barriers is how to integrate refugees into the labour market. A study jointly conducted by researchers from KOF and the Immigration Policy Lab at ETH Zurich shows that restricting refugees' employment opportunities reduces their likelihood of finding a job and even depresses their wages over the long term. This imposes considerable costs on both the refugees themselves and the countries receiving them.

Another project that examines the issue of promoting skills in science, technology, engineering and maths (STEM) addresses the shortage of labour at an early stage. The 'Edumap' project examines whether events aimed at promoting the study of STEM subjects – such as short presentations by speakers from STEM professions – may be an effective way of increasing the number of young people choosing to study STEM subjects at university. This involved evaluating two large-scale series of events designed to promote the teaching of STEM subjects in Swiss secondary schools. These events were the 'ETH unterwegs' (ETH on the road) series organised by ETH Zurich and the 'Tecdays' run by the Swiss Academy of Engineering Sciences (SATW). The overall impact of 173 events held at 82 schools with over 80,000 pupils and more than 1,500 speakers was analysed. Evaluations using comprehensive administrative data on students' choices show that both events have helped to increase the numbers of young people studying STEM subjects at Swiss universities (including ETH), and this is especially true of female students. KOF is now investigating what characteristics are typical of event speakers who are particularly successful representatives of STEM subjects. ∎

Skilled-labour shortages and migration: what are the challenges and potential solutions? 'On the Move' experts discussed this topic at ETH Zurich at the invitation of KOF and the NCCRs. On the right: Hans Gersbach, KOF's co-director. (Photo: KOF / T. Domjahn)

Externally-funded projects

After the volume of externally-funded projects had declined during and in the immediate aftermath of the COVID-19 pandemic, KOF managed to acquire a large number of such projects in 2023. However, the number of projects also rose owing to the establishment of the KOF Lab, which acts as an incubator for new projects that are not internally funded. Acquiring external funding is especially important for research projects, which are often conducted in collaboration or in conjunction with researchers working either in other parts of ETH or externally. KOF's basic funding is provided by ETH Zurich and the Swiss Society for Economic Research (SGK). The implementation of large-scale research projects in particular, however, relies on the availability of external funding. A list of all new, ongoing and completed externally-funded projects can be found in the Annex, while this section focuses on individual, recently-acquired projects. These projects include three conducted under the auspices of the Swiss National Fund (SNF): 'Boosting refugee integration through psychological intervention' in collaboration with the Immigration Policy Lab at ETH Zurich and the University of Zurich; 'Identifying and overcoming barri-

ers in accessing welfare programs: direct, spillover and downstream effects in a large-scale field study'; and 'Intergenerational mobility: multi-dimensional patterns, determinants, and effects on beliefs'. Further projects include a collaboration entitled 'Wirkungsevaluation des Modellversuchs ‹Ressourcenorientierte Betreuung und Sozialarbeit in der Untersuchungshaft›' (Impact assessment of the model experiment "resource-based support and social work in custody") together with the University of Zurich, which is being funded by the cantons of Zurich and Bern. This topic is also covered by a further collaborative research project run by the NOMIS Foundation and the University of Zurich and entitled 'The effects of short-term incarceration'. Researchers from KOF are also working on a project entitled 'Durchführung von drei Studien zu möglichen Auswirkungen der Legalisierung von Cannabis' (Conducting three studies on the potential effects of legalising cannabis). KOF will also collaborate with Bern University of Applied Sciences (BFH) to update the status report on Switzerland's circular economy. ∎

Publications

The publication of papers – especially in peer-reviewed journals – is an indicator of the quality of academic research. The researchers at KOF successfully published their empirical research in academic journals, KOF series and other prestigious working-papers series.

In 2023, a total of 37 articles were published by KOF employees in peer-reviewed journals, 12 more than in 2022. For example, an article entitled 'Price setting on the two sides of the Atlantic – Evidence from supermarket scanner data' by Pascal Seiler and his co-authors appeared in the Journal of Monetary Economics, while a paper entitled 'Financial Intermediation, Capital Accumulation, and Crisis Recovery' by Hans Gersbach and his co-authors was published in the Review of Finance. Gersbach & Co. published a further article entitled 'Electoral Competition with Costly Policy Changes: A Dynamic Perspective' in the Journal of Economic Theory. A study entitled 'Closing the gender gap in academia? Evidence from an affirmative action program' by Jan-Egbert Sturm and his co-authors appeared in the same category of journal ('Research Policy'). The European Economic Review simultaneously published two articles involving KOF researchers. The first was a paper entitled 'Measuring macroeconomic uncertainty: A cross-country analysis' by Samad Sarferaz

and his co-author, while the second was an article by Michael König & co. entitled 'Endogenous technology cycles in dynamic R&D networks'. In addition, Martin Wörter and his co-authors published a paper entitled 'In search of markets and technology: the role of cross-border knowledge for domestic productivity' in 'Industrial and Corporate Change', while Michael Siegenthaler and his co-author published an article entitled 'Train drain? Access to foreign workers and firms' provision of training' in the journal 'Labour Economics'. Furthermore, some papers were accepted by prestigious journals such as the 'American Economic Review' and will be published over the next few years.

Further evidence of the quality of research is its acceptance at academic conferences. KOF researchers gave a total of 37 presentations at academic conferences in 2023, which was considerably more presentations than in 2022. Many conferences are now being held regularly again after having been suspended during the COVID-19 pandemic. ∎

Supporting young research staff

The KOF dissertations completed in 2023. (Photo: KOF / N. Koch)

KOF attaches great importance to providing young economists with methodically rigorous training that focuses on empirical applications. 14.5 PhD students and four post-docs (in full-time equivalent [FTE] terms) were employed at KOF in 2023. This was 0.9 more (in FTEs) than in 2022. A total of four researchers successfully completed their doctorates last year. All of them remained at KOF in 2023. Overall, there was little fluctuation among the young scientists in 2023. Only Johannes Dahlke, a post-doc in the field of innovation economics, left KOF to take up a new position at a European university.

The dissertation submitted by Marc Anderes centred on an investigation of shocks. In this thesis he analysed different types of shocks, using various microeconomic and macroeconomic investigation methods, depending on the kind of shock being examined. His investigations cover a wide range of topcs and include real-estate demand shocks and their dynamic impact on macroeconomic components and households; estimates of a 'true' output gap; the effects of the European Central Bank's (ECB) communication shocks on the direction of monetary policy and on experts' expectations regarding key macroeconomic variables; and the impact of the COVID-19 pandemic shock on the Swiss population's mental health.

Sina Streicher's dissertation examines macroeconomic dynamics as well as monetary and government policies in Europe. She investigates the effects of the European Central Bank's (ECB) communication on the direction of monetary policy and on experts' expectations regarding key macroeconomic variables. She also estimates macroeconomic shocks at the level of European monetary union (EMU) and determines their impact on the member states and their production sectors. In addition, however, Streicher has developed the 'RGAP' R package, which enables potential output and the output gap to be estimated based on a production function approach proposed by the European Commission. She has also developed a multivariate Bayesian state-space model in order to determine potential output and the output gap consistent with the growth of the underlying production sectors as well as inflation and the labour market. Furthermore, Streicher examines the interaction between non-pharmaceutical containment measures, human behaviour and the spread of COVID-19 in Switzerland.

Philipp Baumann's dissertation makes innovative contributions in the fields of macroeconometrics, statistics and machine learning in the form of five research articles. The first chapter uses the targeted maximum-likelihood estimate to investigate the effect that central bank independence has on inflation without finding com-

pelling evidence for the hypothesis that it reduces inflation. The second chapter uses additive mixed models and boosting algorithms to analyse the determinants of inflation, with energy prices and demographic trends being identified as key factors. The third chapter introduces autoregressive transformation models (ATMs) for precise probabilistic time-series forecasts. The fourth chapter uses deep learning to estimate conditional transformation models, which enables a semi-parametric approach to be used to model the cumulative distribution function. The fifth chapter uses deep learning to expand the ATMs in order to improve the predictive power and interpretability of probabilistic forecasts. The dissertation emphasises the importance of suitable statistical and machine learning methods to meet the challenges posed by complex macroeconomic data.

Sebastian Heinrich's dissertation examines various aspects of artificial intelligence (AI) from an economic perspective. Recent advances in computer algorithms, data availability and computing power have enabled machine learning and deep learning techniques to be widely applied across both industry and academia. Heinrich investigates this duality. First, he examines the spread of AI- and ICT-related knowledge and its broader economic effects. And, second, he analyses new approaches to developing indicators for the social and economic sciences in the wider sense using big data and machine learning techniques.

The seminar series regularly held at KOF provide PhD students and post-docs with the opportunity to present their work, discuss it and familiarise themselves with external researchers' projects. This enables them to refine their own methods and learn about other fields of research within economics. In addition, KOF once again organised the Young Swiss Economists Meeting of the Swiss Society of Economics and Statistics in 2023. This conference provides an excellent opportunity for young economists to interact with other researchers from across Switzerland. ■

Visiting researchers

The exchange of ideas with other researchers from around the world is essential. An institute such as KOF, which is small by international standards, can only conduct many of its research projects because they are run as collaborations with researchers both in Switzerland and abroad. Visiting researchers in 2023 were Giovanni Ballarin from the University of Mannheim, Andreas Dibiasi from the Free University of Bozen-Bolzano, Vera Eichenauer from Germany's Federal Ministry of Finance and KOF Research Fellow, Camilo Gómez Molina from Colombia's central bank, Regina Pleninger from the World Bank and KOF Research Fellow, Johannes Rauch from the School of Business and Economics at the University of Amsterdam and Dan-Olof Roth from the Swedish Institute for Social Research (SOFI) at the University of Stockholm.

Pascal Seiler, a PhD student working in KOF's Business Tendency Surveys research division, had the opportunity to deepen his research at the European Central Bank (ECB) in Frankfurt. Michael König, a post-doc working in the Innovation Economics research division, was a visiting researcher at the Institute for New Economic Thinking at the University of Oxford, and KOF's co-director Jan-Egbert Sturm was a visiting researcher at the University of Groningen. ■

Prizes and awards

Mathias Beck won the 2023 Best Reviewer Award from the Industry and Innovation journal at the DRUID conference, which is one of the most prominent academic conferences in the field of innovation. This academic journal is one of the leaders in the areas of innovation and industry. Mathias Beck works in KOF's Innovation Economics research division.

Mathias Beck won the 2023 Best Reviewer Award from the Industry and Innovation journal.

A further researcher from this field also received an award. Johannes Dahlke won the DeSanctis Award for his research (to the paper) into the question of how AI technology has impacted on the knowledge work of professional chess grandmasters. As one of the first professions to engage in knowledge work, professional chess players perfectly illustrate what the latest research has predicted as a shift away from the substitution paradigm and towards a more interactive way of integrating AI technology into knowledge-intensive working environments. The DeSanctis Award was presented to Johannes Dahlke at the annual conference

of the Academy of Management (AOM) in Boston. Numbering more than 10,000 attendees, this is the world's largest and most prestigious conference in the field of management research.

Daniel Kopp, who works in the Swiss Labour Market research division, won the SIAF Award, which carries a prize of 10,000 Swiss francs, for his dissertation entitled 'Essays on Recruitment and Layoffs in the Swiss Labor Market'. This prize, which is awarded by the Swiss Institute of International Studies (SIAF), is sponsored by the firm Ernst & Young AG. This accolade is conferred once a year on an outstanding PhD thesis from the University of Zurich or ETH Zurich for making an academic contribution to our understanding of political, economic, social and cultural relations in a globalised world.

Daniel Kopp (in the middle) holding the 2023 SIAF Award and dissertation prize. (Photo: Michele Limina)

In addition to winning a prize in 2023, Daniel Kopp became a Research Affiliate at the Institute for Labor Economics (IZA) in Bonn, Germany. Martin Wörter, who heads the Innovation Economics research division, was appointed a Research Associate at the ZEW – Leibniz Centre for European Economic Research in Mannheim, Germany. ∎

The DeSanctis Award was presented to Johannes Dahlke (on the right). (Photo: AOM)

Events

The events held by the institute in 2023 covered a broad spectrum of topical issues ranging from innovative trends in the Swiss economy and the challenges posed by global geopolitics to sustainable investment and how to deal with climate change.

The KOF Wirtschaftsforum held on 24 March 2023 saw experts presenting the latest innovative trends in the Swiss economy based on KOF's Innovation Survey. They also discussed the findings of a study into the new innovation models being used by Swiss small and medium-sized enterprises (SMEs) and how these firms are reacting to the latest megatrends. In addition, the entrepreneurs Cornelia Stengel and Léonard Badet provided an insight into the innovation models used by their businesses.

The war in Ukraine has caused geopolitical turmoil. The confrontation between Russia and the West is bringing back memories of the Cold War. The tensions between China and the United States have also intensified. Speakers at the 'Beyond the Borders' event held on 26 May discussed Europe's role in the concert of great powers.

The first event to take place after the summer vacation was the KOF Wirtschaftsforum, which explored the topic of sustainable investment and how firms can tackle climate change. Nora Ernst, Pascal Seiler and Jörg Schläpfer debated the question of where Swiss firms are on this, what climate change is costing them, and what the challenges and opportunities offered by climate change are.

On 27 September we welcomed around 120 guests to our annual forecasting conference. Professor Reto Föllmi, University of St Gallen, Professor Jan-Egbert Sturm, KOF Swiss Economic Institute, Dr Sibylle Wälty, ETH Zurich, and Dr Boris Zürcher, Labour Directorate, Swiss State Secretariat for Economic Affairs (SECO), discussed how Switzerland can exploit growth opportunities while, at the same time, devising sustainable strategies to meet the challenges of a growing population.

The last KOF Wirtschaftsforum of 2023 was held in November. Fabio Canetg moderated this event, which took place in the Audi Max lecture hall at ETH Zurich. The main topics on the agenda were inflation, rising rents and energy prices, and the forthcoming pay negotiations. Professor Sarah Lein, Professor Daniel Kaufmann and Dr Alexander Rathke helped to make this event such a success through their lectures and participation in the panel discussion.

The year was rounded off by the institute's virtual 'Beyond the Borders' event, which examined the issue of long-term interest-rate forecasting and its significant impact on firms' costs. Professor Jan-Egbert Sturm gave a lecture on the long-term outlook for interest rates. Professor Simon Evenett and Dr Charlotta Groth offered a supplementary perspective by investigating the impact that interest rates have on businesses and financial markets and by considering the latter's effects on firms and investment strategies. ∎

'A Switzerland of 10 million people: challenges and opportunities for jobs, housing and the economy'; this was the topic being discussed by experts at KOF's forecasting conference held in UBS's Grünenhof conference centre. Moderator Reto Lipp can be seen on the left of the stage at the front. (Photo: André Springer)
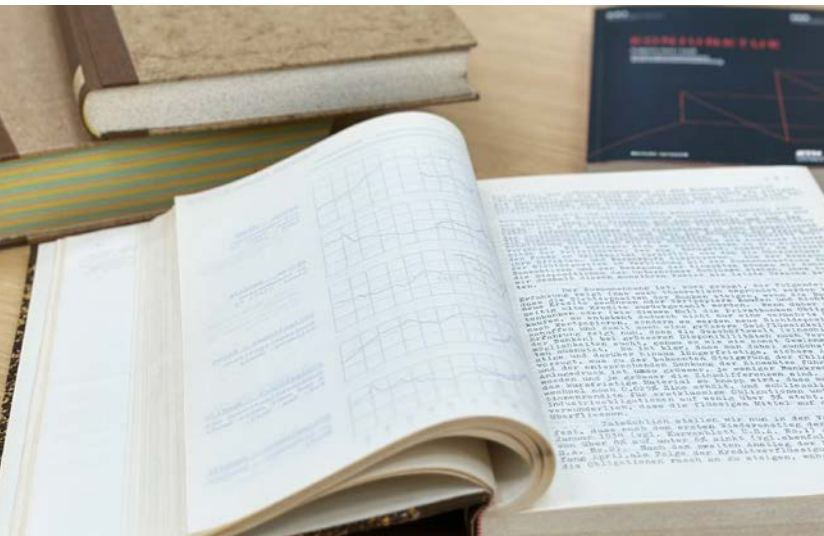
Forecasting yesterday, today and tomorrow

When the young econometrician Yngve Abrahamsen – now 66 years old – produced his first economic models for Switzerland at the University of St Gallen (HSG) in the early 1980s, punch cards had only recently disappeared from the workplace. He had to wait the entire night for the mainframe computer in Zurich to output its calculations.

Abrahamsen moved to KOF in 1996 and saw first-hand how, over the course of his long career at ETH Zurich, the methods used to calculate economic forecasts were continually refined – partly thanks to increasing computing power.

Yngve Abrahamsen.
(Photo: KOF / T. Domjahn)

Macroeconomic models had actually been used since as far back as 1974 to produce forecasts of the Swiss economy. But whereas expertise, intuition, experience, economic policy convictions and gut instinct still played a key role as part of the heuristic methods used in the early years, the model approach became increasingly driven by modern modelling techniques and statistical methods over the years and decades. The aim was to establish the perception of KOF as an empirical economic research institute that was independent of any vested interests.

That does not mean, however, that models can now replace humans, as every model has its limitations. "We should not blindly trust models", says Abrahamsen. Human expertise, he points out, is essential – even in the age of artificial intelligence (AI). Common sense helps to exclude spurious correlations, according to Abrahamsen, who was closely involved in the development and refinement of KOF's so-called 'macro-model' in his capacity as head of the Swiss Macroeconomic Forecasting section for more than two decades from 2002 until his retirement in 2023. A total of 635 variables were most recently input into KOF's macro-model. 328 variables were calculated for the Swiss and international economies, 50 of them using stochastic equations.

The buzzword now is 'model pluralism'
Nowadays, several models are used simultaneously to produce quarterly economic forecasts. A change of generations – Dr Samad Sarferaz (45 years old) and Dr Alexander Rathke (46 years old) have borne the main responsibility for forecasting since 2023 – has brought with it a new generation of models.

"We like to talk of 'model diversity' or 'model pluralism'", explains Samad Sarferaz, co-head of the Macroeconomic Forecasting and Data Science research division. Four or five models run simultaneously during the forecasting process. "Each of them has its own strengths and weaknesses", adds Sarferaz. One forecasting model – Bayes-

ian VAR – was specially adapted and implemented by him and Alexander Rathke to be used at KOF and learns, for example, from its own forecasting errors. However, he explains, these learning processes are often opaque to researchers. Everything is somehow dependent on everything else. "It's almost like a black box", says Sarferaz.

When classic macro-models are used, economic theory plays a much bigger role, there is a clearly defined relationship between variables, and researchers know where their results come from. However, these models are limited in their ability to learn from data and do not possess the flexibility of modern, data-driven approaches.

Human, model and machine
"The models are appropriate to varying degrees, depending on what we want to forecast. As in any toolbox, not every screwdriver is suitable for every screw", explains Alexander Rathke, head of the

Samad Sarferaz (left) and Alexander Rathke. (Photo: KOF / T. Domjahn)
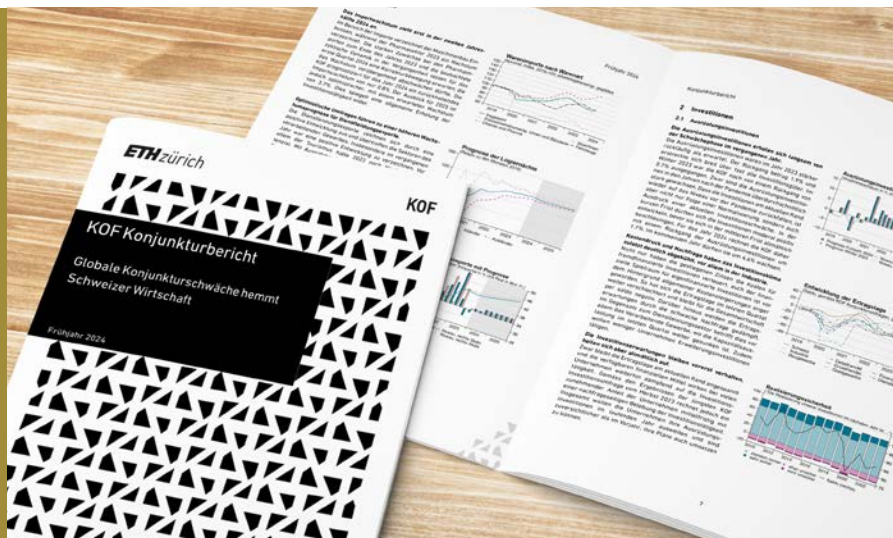
Swiss Macroeconomic Forecasting section since last year. Like his predecessor Yngve Abrahamsen, Rathke also believes that humans are an irreplaceable factor. "It may happen that, owing to one-off factors, certain knowledge is not included in the model. The technical experts can then fine-tune that", he adds. Moreover, an economic forecast relies not only on a numerical value but also on a consistent backstory, according to Rathke, and humans are still much better at this kind of interpretation than machines are.

KOF combines the factors 'human, model and machine' as part of a lengthy, sophisticated process. "In Switzerland this is unique in terms of its depth and breadth", explains Rathke. Approximately 20 experts are involved in producing such a forecast.

The KOMA macro-model recently developed at KOF enables not only precise economic forecasts to be made but also improves the representation of uncertainty, adds Sarferaz. "The model's output also immediately produces an uncertainty calculation. Now it no longer needs to be computed retrospectively." This can convey to readers of the economic report an impression of the forecast's accuracy.

Empiricism rather than ideology
Totally precise forecasting is the exception rather than the rule and is not the objective anyway, according to Sarferaz. "Forecasts provide guidance and are comparable to a weather report. Even if they are not always 100 per cent accurate, they are useful for planning purposes", he explains.

Like Abrahamsen, Sarferaz also believes it is an advantage that the data-based model approach largely conceals any economic policy views. "Our thinking is empirically driven. We do not belong to any ideological group. We have to be philosophically flexible in order to learn from the data."

Signal versus noise
However, it is not always necessarily better to have more data. "We always have to ask ourselves how much signal and how much noise additional data create. If they only create more noise, additional data do more harm than good", explains Rathke. Abrahamsen agrees. "Data quality is more important than data quantity".

Asked about his hobby, the passionate sailor explains what this sport shares in common with economic forecasting. "When sailing, you always have to consider environmental conditions such as the weather. Only if you analyse the data thoroughly can you navigate the boat safely." He believes that economic forecasting is similar. "Good

forecasters need to keep up to speed both in terms of data and methods as well as with respect to political and economic policy debates", adds Abrahamsen.

Large language models and big data: proprietary AI tools as a vision for the future
And what does the future hold for KOF's economic forecasting? Jan-Egbert Sturm and Hans Gersbach, KOF's two directors, have a clear vision in this respect. "We hope that the growing use of artificial intelligence to analyse data, to carry out programming and to write texts will enable us to produce economic forecasts even better and more quickly", they say – before making an important caveat. "It would be wrong to automate the use of AI. We still need to verify its output", explains Hans Gersbach.

"Every economic crisis and every economic scenario has its particular characteristics and is not exactly the same as in the past. In such situations it is therefore not possible purely to use data from the past; you also have to draw on human expertise so that you include knowledge that is not yet contained in the data", adds Jan-Egbert Sturm. He sees it as a strength of KOF's forecasting that several rounds of discussions yield expertise that the computer world is still unable to deliver. During the COVID-19 pandemic, for example, previously tried-and-tested models suddenly did not function properly any more, so KOF had to rely more on scenarios and experts at this time.

KOF plans to use artificial intelligence to develop its own tools in future. It has already launched its first project in collaboration with the AI Center at ETH Zurich. "At the heart of this project are so-called large language models, which function like neural networks and can be trained using huge amounts of data so they can help us analyse economic scenarios", explains Hans Gersbach. ∎

Our institute

Employees attending the retreat held at ETH Zurich's Villa Hatt on 19 January 2023. (Photo: ETH Zürich)

Last year was a fairly eventful one at KOF. These changes were triggered by the introduction of rules of procedure for the institute. KOF's operations had previously been governed by an agreement between the Swiss Society for Economic Research (SGK) and ETH Zurich. The adoption of the new rules of procedure also meant the introduction of an Enlarged Directorate as well as a new senior management structure consisting of two directors. Other areas such as KOF's General Assembly and the various approximate remits were also defined.

The implementation of the rules of procedure throughout the organisational structure and the institute's strategic development over the coming years were the main topics discussed at a retreat attended by the members of both the Directorate and the Enlarged Directorate as well as the section heads and team leaders at the beginning of the year.

Key strategic issues for the future
The retreat held at the beginning of the year gave rise to seven key strategic issues, which were defined over the course of 2023 and which the institute plans to build on over the coming years. These points were also approved by the strategic committees and by the heads of the MTEC department, of which KOF forms part. These seven points cover the following:

- Deepen and expand the Business Tendency Surveys
- Renew KOF's macro-model for the Swiss economy and its international relations
- Develop new tools to use in short- and medium-term scenarios for the Swiss economy
- Deepen investigation and analysis of the Swiss labour market
- Devise methods of measuring, analysing and improving the Swiss economy's resilience to shocks
- Monitor Swiss innovation and competitiveness in leading technologies
- Develop a centre of competence for economic data

New research divisions at KOF

Another organisational change was the introduction of the KOF Lab. This research division is designed to test new economic approaches and models and acts as an incubator for research projects that researchers contribute and for which considerable potential is identified. The Lab was launched in mid-2023 and currently consists of four sections:

- Public and Social Policy Design, led by Dr Andreas Beerli
- Research Software Engineering and Economic Data (RSEED), led by Dr Matthias Bannert
- Medium and Long-Term Scenarios, led by Dr Kieran Walsh
- Inequality and Public Economics, led by Dr Isabel Martínez

Andreas Beerli.
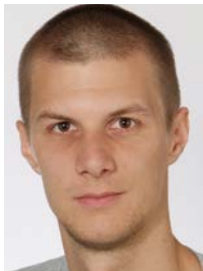
Matthias Bannert.

Kieran Walsh.

Isabel Martínez.

A further organisational change was the merger of the research divisions 'Macroeconomic Forecasting' and 'Data Science & Macroeconometric Methods' to create the new research division 'Macroeconomic Forecasting & Data Science'. This research division will initially be jointly led by Professor Michael Graff – until he retires at the end of May 2024 – and Dr Samad Sarferaz. Dr Sarferaz will then be the sole head of this division from June 2024 onwards. This division comprises the sections covering the Swiss and international economies as well as the methods section. The latter will pursue the development of short-term models.

Michael Graff.

Samad Sarferaz.

Small institute achieving high productivity

There were changes in the numbers of employees primarily in the research divisions and in the Chair of Applied Macroeconomics led by Professor Jan-Egbert Sturm. Members of staff from the research divisions and the Chair of Applied Macroeconomics moved to the new KOF Lab. KOF had a total of 52.1 employees measured in terms of full-time equivalents in 2023 (up by 5.6 compared with 2022). KOF is relatively small compared with other economic research institutes in German-speaking countries, as shown by the table of a multi-institute comparison based on research monitoring in 2023. This comparison lists the various institutes based on the number of affiliated and monitored authors, the calculation of their publications in academic journals including the journal's weighting, and the number of publications. Measured in terms of the average number of publications per author and the number of points measured in terms of the number of authors employed at an institute, KOF is

relatively productive in this comparison and managed to maintain its position in the top two compared with the most recent ranking in 2021. However, this achievement was only possible because all parts of the institute worked closely together. To this end, new strategies and projects are developed not only by the research divisions but also by the support functions of IT, administration and communications.

IT: journeying towards a Kubernetes world
The IT team working at KOF is preparing for a transformation into a Kubernetes world. This means changing how the team develops and manages its applications. This major project offers an opportunity to use applications in a more flexible and coordinated way. Similar to a good conductor leading an orchestra, Kubernetes coordinates the various parts of an application and ensures that everything works smoothly. This enables the team to adapt more agilely, efficiently and swiftly to the changing requirements. The applications orchestrated by Kubernetes are portable and can be seamlessly executed on various cloud platforms and data centres. This means that applications can run consistently in various environments. This might also ensure that resources are used more efficiently.

Administration: evaluations monthly instead of quarterly or annually
KOF's financial reporting system was rigorously developed and refined last year to enable it to switch from annual to monthly reporting based on a wide range of evaluations. This involved defining and successfully implementing the necessary foundations. The definition and implementation of these foundations form the backbone of a more efficient and precise financial management system and an improved planning process because the institute now possesses more specific data with which to budget and make strategic financial decisions. This is especially important as the institute has to comply with ETH's cost-cutting requirements.

Comparison of institutes in terms of number of publications and authors

Research institute	Country	Publications	Points	Authors	Av. publications	Av. points
Max-Planck-Institute / Bonn	DE	305	9	17	17.9	0.5
KOF	**CH**	**216**	**10**	**18**	**12.0**	**0.5**
Bank for International Settlements (BIS)	CH	765	34	76	10.1	0.4
IWH Halle	DE	565	17	40	14.1	0.4
European Central Bank (ECB)	DE	971	57	169	5.7	0.3
IZA Bonn	DE	427	8	31	13.8	0.3
ZEW Mannheim	DE	600	17	68	8.8	0.3
DIW Berlin	DE	2126	21	83	25.6	0.3
Kiel Institute for the World Economy (IfW)	DE	803	15	63	12.7	0.2
RWI – Leibniz Institute for Economic Research	DE	785	11	50	15.7	0.2
Deutsche Bundesbank	DE	913	40	199	4.6	0.2
The Macroeconomic Policy Institute (IMK)	DE	155	3	15	10.3	0.2
Ifo Institute Munich	DE	1663	11	67	24.8	0.2
WIFO Vienna	AT	1634	11	71	23.0	0.1
IAB Nuremberg	DE	1152	22	155	7.4	0.1
Swiss National Bank (SNB)	CH	237	10	69	3.4	0.1
IAMO Halle	DE	140	2	18	7.8	0.1
Austrian Nationalbank OeNB	AT	479	5	60	8.0	0.1
Institute for Advanced Studies (IHS)	AT	240	3	31	7.7	0.1

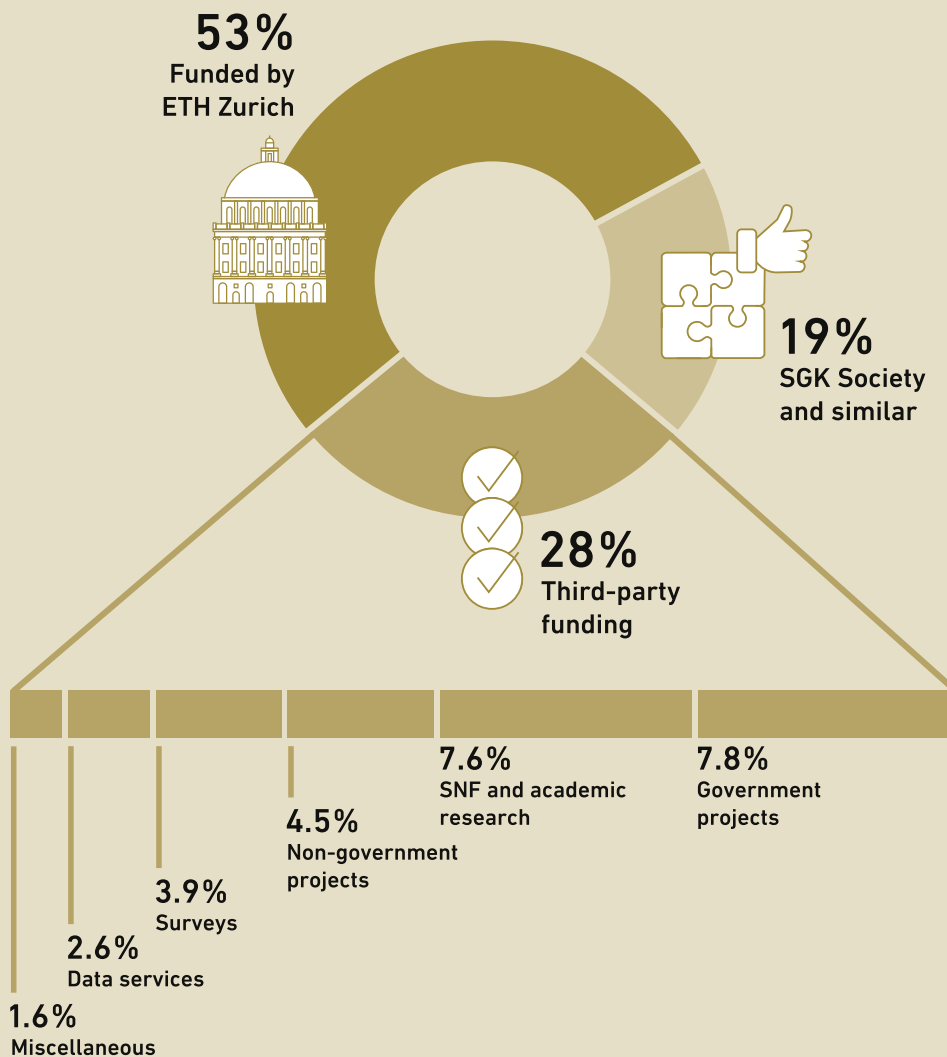Source: research monitoring, 2023

Explanation:
The comparison of institutes is based on the VWL (economics) institute ranking of the Forschungsmonitoring. In the ranking, which was also published in the newspaper Handelsblatt the weights of all publications by all economists employed at an institute at the time of the survey are added up for the years 2014 to 2023. Only institutes based in German-speaking countries (Germany, Austria, Switzerland) are taken into account. The KOF is not considered an independent institute in this ranking due to its full affiliation with ETH Zurich and is therefore not included in the official reporting. All data used to calculate the table is based on data from the research monitoring. The standard ranking of the research monitoring is based on SJR weights, there is a co-author correction, all journals are ranked relative to the top 5 journal, the minimum weight for a journal is 0.025 and the maximum weight is 1, and all journals in the EconLit database are considered. The table shows the number of summed, weighted publications per institute. The column 'Points' shows the calculation of the publications in scientific journals with the weighting of the journal. The 'Author' column shows the number of authors employed at an institute in the German-speaking world at the time of the survey (2023). The columns 'Ø Publications' and 'Ø Points' show the number of average publications per author and the amount of points measured by the number of authors employed at an institute (further information).

Even 85 years after KOF was founded, the Business Tendency Surveys form the basis of its work. In addition to the research divisions the institute's support functions are also involved in ensuring that the necessary calculations are smoothly implemented, scrutinised and made available. This makes it possible to survey a panel of more than 7,000 firms on a monthly and quarterly basis and to achieve current response rates of 60 per cent. Some of the Business Tendency Surveys' questions previously sent to customers in the manufacturing sector once a quarter are now supplied on a monthly basis. These questions ask about firms' expectations in areas such as exports, sales prices and their business in general.

Communications: sharper focus on specific target groups
The Corporate Communications team completed the institute's strategy of refining and refocusing its publications. The main priority is to make KOF's research output accessible to a wider audience in a simple, understandable and targeted format. The number of outlets is being reduced and resources are being focused on a more comprehensive product. This will be made available on various easily accessible platforms and channels in order to appeal to a diverse audience, which will then be able to interpret economic policy issues better and obtain readily understandable information on KOF's research findings. ∎

Funding

53%
Funded by
ETH Zurich

19%
SGK Society
and similar

28%
Third-party
funding

7.6%
SNF and academic
research

7.8%
Government
projects

4.5%
Non-government
projects

3.9%
Surveys

2.6%
Data services

1.6%
Miscellaneous

Organisation

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                              ┌─────────────────┐
                              │    ETH Zurich   │
                              └─────────────────┘
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                              ┌─────────────────┐
                              │     D-MTEC      │
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                      ┌──────────────────────┐                     ┌──────────────┐
│                     │      Strategic       │─────────────────────│ SGK Society  │ │
                      │  Advisory Board *    │                     └──────────────┘
│                     └──────────────────────┘                                       │
                      ┌──────────────────────┐   ┌──────────────────┐
│                     │      Directorate     │───│    Scientific    │               │
                      └──────────────────────┘   │  Advisory Board  │
│  ┌──────────────┐   ┌──────────────────────┐   └──────────────────┘               │
   │   Applied    │   │      Extended        │
│  │Macroeconomics│   │     Directorate      │                                       │
   └──────────────┘   └──────────────────────┘
│  ┌──────────────┐                                                                  │
   │Macroeconomics:│
│  │Innovation and│                                                                  │
   │    Policy    │
│  └──────────────┘                                                                  │
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Applied Macroeconomics

Macroeconomics: Innovation and Policy

Chairs

Research Divisions

Business Tendency Surveys

Macroeconomic Forecasting and Data Science
› Section International Forecasts
› Section Swiss Forecasts
› Section Macroeconometric Methods

Innovation Economics

Swiss Labour Market

KOF Lab
› Section Public and Social Policy Design
› Section Competence Hub for Economic Data
› Section Inequality and Public Economics
› Section Medium- and Longterm Scenarios

Administration and Support

› Information Technology
› Corporate Communications
› Administration
› Survey Support

KOF Swiss Economic Institute

SGK Society: Swiss Society for Economic Research

D-MTEC: Department of Management, Technology and Economics, ETH Zurich

*KOF Strategic   consists of five members representing the SGK (3x), D-MTEC (1x),
Advisory Board: and Swiss universities (1x)

Situation on 31 December 2023

Employees

Research Division Business Tendency Surveys

Dr Klaus
Abberger
(Head of Division)

Nina
Mühlebach

Pascal
Seiler

Stefanie
Siegrist

Research Division Macroeconomic Forecasting and Data Science

Professor
Michael Graff
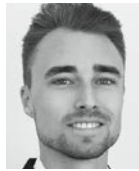(Co-Head of
Division)

Dr Samad
Sarferaz
(Co-Head of
Division,
Head of Section)

Dr Heiner
Mikosch
(Head of Section)

Dr Maurizio
Daniele

Philipp
Kronenberg

Tim
Reinicke

Section International Forecasts

Dr Alexander
Rathke
(Head of Section)

Dr Marc
Anderes

Dr Sina
Streicher

Section Swiss Forecasts

Dr Philipp
Baumann

Laurent
Florin

Alexis
Perakis

Section Macroeconometric Methods

Research Division Innovation Economics

Professor
Martin Wörter
(Head of Division)

Dr Mathias
Beck

Sebastian
Heinrich

Florian
Hulfeld

Dr Michael
König

Dr Andrin
Spescha

Research Division Swiss Labour Market

Dr Michael
Siegenthaler
(Head of Division)

Justus
Bamert

Dr Daniel
Kopp

Kristina
Schüpbach

Research Division KOF Lab

Professor
Hans Gersbach
(Head of Division)

Arthur
Schichl

Dr Andreas
Beerli
(Head of Section)

Arman
Arto

Aljosha
Henkel

Flavia
Hug

Section Public and Social Policy Design

Dr Matthias
Bannert
(Head of Section)

Section Competence Hub for Economic Data

Dr Kieran
Walsh
(Head of Section)

Johann
Fuchs

Section Medium- and Longterm Scenarios

Dr Isabel
Martínez
(Head of Section)

Section Inequality and Public Economics

Administration and Support

Tolga
Coban
(Head of Division,
Team Leader
Information
Technology)

Stéphane
Bisinger

Charles
Clavadetscher

Oliver
Müller

Fabian
Picone

Section Information Technology

Anne
Stücker
(Team Leader)

Vera
Degonda

Dr Thomas
Domjahn

Nicole
Koch

Corinne
Schibli-Lozano

Section Corporate Communications

Sabrina
Humbel
(Team Leader)

Rebecca
Benatti

Martina
Meili

Section Administration

Gilles
Aubert

Sebastien
Dufournet

Manuel
Willimann

Section Survey Support

Research assistants

Nina
Dorta

Antonia
Freiwald

Minna
Heim

Florian
Horber

Saira
Karlen

Wanja
Meier

Furkan
Oguz

Karin
Pfeifer

Karin
Roth

Sai
Saikrishnan

Merlin
Scherer

Beat
Scherrer

Melanie
Senn

Johannes
Waschk

Andrea
Weber

Human resources

	31.12.2022	31.12.2023	Change in %	Change FTEs
Total employees (full-time equivalents [FTEs])	**46.5**	**52.1**	**12.0**	**5.6**
Temporary research positions	23.0	30.4	32.0	7.4
Temporary technical and administrative positions	2.0	1.6	-20.0	-0.4
By function				
Research staff	**30.9**	**37.3**	**21.0**	**6.4**
Full professors	2.0	2.0	0.0	0.0
Senior research staff	9.2	11.3	23.0	2.1
Postdoctoral students	3.0	4.0	33.0	1.0
Doctoral students	13.6	14.5	7.0	0.9
Trainees	1.0	0.0	-100.0	-1.0
Research assistants	2.1	4.5	112.0	2.4
Technical and administrative staff	**15.6**	**14.8**	**-5.0**	**-0.8**
Technical and IT staff	4.9	5.1	4.0	0.2
Administrative staff	10.7	9.7	-9.0	-1.0
By division				
Research Division Business Tendency Surveys	4.0	4.0	0.0	0.0
Research Division Macroeconomic Forecasting (until 31.3.2023)	9.4	0.0	-100.0	-9.4
Research Division Data Science and Macroeconometric Methods (until 31.3.2023)	6.6	0.0	-100.0	-6.6
Macroeconomic Forecasting and Data Science (from 1.4.2023)	–	12.1	–	12.1
Research Division Innovation Economics	6.2	5.4	-12.0	-0.8
Research Division Swiss Labour Market	4.6	5.6	21.0	1.0
Research Division KOF Lab (from 1.8.2023)	–	7.4	–	7.4
Administration and Support	15.8	17.6	11.0	1.8

Note: For detailed information on the area changes, see page 20.

Official bodies

Swiss Society for Economic Research (SGK)

Stefan Nünlist	Dr Alessandro Bee	Dr Stephan Mumenthaler	Dr Eric Scheidegger	Dr Martin Schlegel	Dr Fabian Schnell	Dr Christian Waldvogel

Chairman

- Stefan Nünlist, Swisscom AG

Members

- Dr Alessandro Bee, UBS AG
- Dr Stephan Mumenthaler, Scienceindustries
- Dr Eric Scheidegger, State Secretariat for Economic Affairs (SECO)
- Dr Martin Schlegel, Swiss National Bank (SNB)
- Dr Fabian Schnell, Office of Economic and Labour Affairs, Canton of Zurich
- Dr Christian Waldvogel, Renaissance Foundation & Management

Responsibilities

In 2023 the society's ordinary General Assembly and SGK's Executive Board meeting were held on 2 June.

The main items on the agenda were membership trends, KOF's strategic development, the design of innovative advertising strategies for acquiring new SGK members, and a successor for the incumbent chairman Ueli Dietiker. Stefan Nünlist was elected as his successor. SGK would like to thank Ueli Dietiker for his prudent and adept chairmanship of the numerous Executive Board meetings and General Assemblies as well as his valuable contributions.

Christian Mähr, UBS AG, stepped down as a member of the Executive Board and was replaced by Dr Alessandro Bee, who also works for UBS AG. As had already been announced in 2022, Dr Fabian Schnell, Office of Economic and Labour Affairs, Canton of Zurich, replaced Mario Senn on the Executive Board. SGK would like to thank Christian Mähr and Mario Senn for their innovative contributions as members of the Executive Board.

The SGK Society had roughly 136 members in 2023. SGK members receive a newsletter containing a link to the quarterly journal KOF Analysen. This publication provides analysis and forecasts of international economic conditions as well as developments and trends in the Swiss economy. Each issue also includes KOF staff members' analysis of the latest research topics. In addition, members received invitations to KOF's annual forecasting conference and to the KOF Wirtschaftsforum organised by SGK three or four times a year.

After having served for four years on SGK's Executive Board, Dr Martin Schlegel is being replaced by Dr Attilio Zanetti, alternate member of the SNB's Governing Board. Dr Fabian Schnell, Office of Economic and Labour Affairs, was recalled as a member of SGK's Executive Board by the Government Council of the Canton of Zurich at the request of the Department for Economic Affairs with effect from January 2024. He is being replaced on the Executive Board by Luc Zobrist, who will be officially elected – together with Dr Attilio Zanetti – at the 87th General Assembly in 2024. ∎

Strategic Advisory Board

Professor Massimo
Filippini

Stefan
Nünlist

Dr Eric
Scheidegger

Dr Attilio
Zanetti

Professor Rainer
Winkelmann

Chairman

• Professor Massimo Filippini, ETH Zurich

Members

• Stefan Nünlist, Swisscom AG

• Dr Eric Scheidegger, State Secretariat for
  Economic Affairs (SECO)

• Dr Attilio Zanetti, Swiss National Bank (SNB)

• Professor Rainer Winkelmann, University of Zurich

Responsibilities

The Strategic Advisory Board was reconstituted with
effect from 1 January 2023 when KOF's new rules of
procedure came into force. It comprises five mem-
bers; one professor from the MTEC department at
ETH Zurich and one from another Swiss university as
well as three members of SGK, at least one of which
must be a representative of the Swiss National Bank
and one from the State Secretariat for Economic
Affairs. The Strategic Advisory Board generally meets
twice a year at the invitation of the Directorate, which
attends these meetings in a consultative capacity.

The Strategic Advisory Board's responsibilities con-
sist of advising KOF's Directorate within the scope
of the MTEC department's strategic focus and func-
tions of national importance. In addition, the Strate-
gic Advisory Board approves KOF's strategy and its
annual academic activity report on behalf of the MTEC
department and SGK.

Since 2023 the Strategic Advisory Board has been
chaired by Professor Massimo Filippini, Director of
the Centre for Energy Policy and Economics (CEPE)
at ETH Zurich. Further members of this board are
Professor Rainer Winkelmann, Department of Eco-
nomics at the University of Zurich; Dr Martin Schlegel,
Vice Chairman of the SNB's Governing Board; Dr Eric
Scheidegger, Deputy Director of SECO; and Stefan
Nünlist, Head of Corporate Communications &
Responsibility at Swisscom AG.

In September 2023, KOF was notified that Dr Martin
Schlegel would be replaced on its Strategic Adviso-
ry Board by Dr Attilio Zanetti, alternate member of
the SNB's Governing Board. KOF would like to thank
Dr Schlegel for the enriching suggestions and for-
ward-looking ideas on KOF's ongoing development
that he has contributed over the challenging but
interesting past four years. ∎

Scientific Advisory Board

Professor Martin Brown	**Dr Oliver Adler**	**Dr Christian Hepenstrick**	**Livio Lugano**	**Professor Dina Pomeranz**	**Dr Peter Schwendener**	**Dr Klaus Wohlrabe**	**Professor Conny Wunsch**

Chairman

• Professor Martin Brown, Study Center Gerzensee

Members

• Dr Oliver Adler, formerly Credit Suisse AG

• Dr Christian Hepenstrick, Swiss National Bank (SNB)

• Livio Lugano, Federal Statistical Office (FSO)

• Professor Dina Pomeranz, University of Zurich

• Dr Peter Schwendener, Federal Finance Administration (FFA)

• Dr Klaus Wohlrabe, CES ifo Group Munich

• Professor Conny Wunsch, University of Basel

Responsibilities

The Academic Advisory Board is a permanent body set up by KOF's Directorate. It helps the Directorate and the heads of the research divisions to perform their functions, thereby ensures independent quality controls and advises KOF on its long-term research and development planning. It also helps to strengthen the contacts between KOF and national and international academic research bodies as well as the relevant economic policy institutions. The Academic Advisory Board generally meets once or twice a year.

Dr Christian Hepenstrick, Swiss National Bank (SNB), joined the Academic Advisory Board in 2023, replacing Dr Matthias Lutz. Dr Lutz's considerable expertise and his commitment as a long-serving member were highly appreciated. ∎

Research Fellows

- Professor Benjamin Balsmeier
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