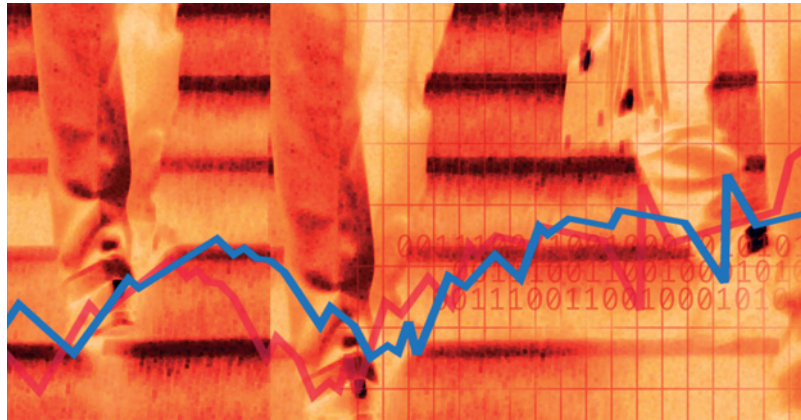


Annual Report 2015



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ifo Institute

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at the University of Munich

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The Goals and Tasks of the Ifo Institute

Since its foundation in January 1949 Ifo has provided both information and research, hence its name Ifo = **I**nformation and **F**orschung (research). Its legal form is that of a registered, non-profit association. The Ifo Institute is one of Europe's leading economic research institutes and is also the most frequently cited institute in the media. A cooperation agreement links Ifo closely with the University of Munich (LMU), and in 2002 Ifo was officially proclaimed an "Institute at the University of Munich".

The Center for Economic Studies (CES) of the LMU, the Ifo Institute and the Munich Society for the Promotion of Economics – CESifo GmbH pool their resources within the CESifo Group to form an international research alliance. The group aims to enrich the public debate based on excellent theoretical and empirical economics research, to support economic policy-making decisions with high-quality policy advice, and to provide the public with highly-regarded economic information like the Ifo Business Climate Index. The research activities of the CESifo Group are closely related to extensive contributions in terms of teaching and promoting junior economists, which involves close cooperation between the Ifo Institute and the LMU. At the heart of the CESifo Group is the CESifo researcher network, which consists of former CES guest researchers.

As a member of the Leibniz Association the Ifo Institute is an institution that receives public funding from the federal and state governments on the basis of Article 91b of the German Constitution. On 1 September 2011 the name of the Ifo Institute was modified by means of a change to its Articles of Association. Since then its official name has been: Ifo Institute – Leibniz Institute for Economic Research at the University of Munich.

Ifo is an independent institution that makes its services available to all groups of society regardless of their political orientation. It is a European think tank that serves as a bridge between academic research and practical politics. It concentrates on **applied, policy-oriented economic research** with the goal of achieving greater stability, growth and societal cohesion. The research of the Ifo Institute increasingly deals with European and global issues. It strives to

meet the highest academic standards and contributes to policy advice and the economic-policy debate. It is committed to providing services for research and the general public. In addition, Ifo intensively promotes junior researchers in economics.

Research at the Ifo Institute is guided by setting socially recognised goals. These targets include maintaining the performance levels of the social market economy, rising to the demographic challenges ahead, ensuring the stability of the economy and the financial system, surviving global competition against a background of growing technological change and protecting the environment.

Like all other Leibniz institutions, the Ifo Institute is subject to tough evaluations that are conducted once every seven years by the Leibniz Association Senate. As in past evaluations, the Ifo Institute also performed excellently in its latest evaluation, which was completed with the Statement of the Leibniz Association dated 17 July 2013.

In this statement the Leibniz Senate established that the Ifo Institute had very successfully achieved its mandate of conducting: "applied policy-oriented economic research, providing research results, data and information to interested individuals from academia, business, politics and the general public." It found that the Ifo Institute makes: "significant research contributions that are internationally recognised and acts as an important bridge between academic research and policy advisory work [...] The amount of research, service and advisory work done has developed excellently. The Ifo Institute is now one of Europe's leading economic research institutes."

The Leibniz Senate and the international group of experts commissioned by it attest the institute's excellent performance at all levels and in all fields of work – from research and policy advisory work to services, the promotion of junior researchers and infrastructure. The work done in the Ifo Institute's eight research departments was evaluated as very good overall, and as excellent in some cases. The quantity and quality of the institute's publications has improved further since the last evaluation and is now excellent.

Goal of economic stability informs Ifo's research

Leibniz Senate describes Ifo as a leading economic research institute

Ifo's 8 research centers – Public Finance and Political Economy, Labour Market Research and Family Economics, The Economics of Education, Industrial Organisation and New Technologies, Energy, Climate and Exhaustible Resources, International Economics, International Institutional Comparisons and Migration Research and Business Cycle analysis and Surveys – cover research topics that are also highly relevant for policy advice. The Ifo Dresden branch, founded in 1993, works in areas that are of special interest to the Free State of Saxony, from which it receives its funding.

In its international activities the Ifo Institute cooperates very closely with CESifo GmbH and the CESifo researcher network supervised by the latter. As the Leibniz Senate confirmed in its Statement of 17 July 2013, CESifo GmbH has an important role to play in the cooperation between the Ifo Institute and the Center for Economic Studies (CES) at the LMU. The cooperation with CESifo is an important element in the international profile of the scientific research conducted by Ifo and the LMU.

Ifo's junior research staff also benefit tremendously from the network effects within the CESifo Group. Ifo employs 40 doctoral students, most of which participate in the institute's graduate programme and are also members of the Munich Graduate School of Economics (MGSE) at the University of Munich. Ifo's doctoral programme is particularly attractive thanks to the fact that it combines academic research with the institute's practical, policy-orientation.

The scientific research carried out at the Ifo Institute is subject to the "Rules of good scientific practice" drafted by the German Research Foundation (DFG), as well as to the gender equality standards established by it. The Ifo Institute is seeking to gradually address the existing under-representation of women among its researchers through its particularly intensive support of young female academics.

Politics and the general public benefit from the close link between the Ifo Institute and the university, as this link reinforces the institute's academic performance and first-class research is the foundation for the policy work that the institute sees as its core task.

The report (2013) of the Leibniz Senate group of experts states: "As part of its policy advisory work, Ifo participates very actively in public debates over the best economic policy ideas and concepts. With its research results and policy recommendations, it is helping to develop reform ideas and make Germany fit for the future." Ifo's policy work is also reflected in a large number of expert reports commissioned by public and private sector clients on topical economic policy issues. Ifo was among the institutes to submit a successful bid for the joint economic forecast tender, issued for the first time at a European level in 2007; and bid successfully again in the 2010 and 2013 tenders. The Ifo Institute also makes its expertise available to the public sector institutions of other countries – especially in those states that do not belong to the OECD.

In addition to its research and policy advice, the Ifo Institute also provides the public with data, information and other services. This takes place especially in connection with its project-related and its regular surveys of national and international business. Every month, the Ifo Business Climate Index, an established leading indicator of the business cycle derived from the Ifo Business Survey, is awaited with great anticipation by the media, investors, and business leaders. The results of the Ifo World Economic Survey, the Institute's quarterly poll of international economic activity in 120 countries, are published in the CESifo World Economic Survey, a journal launched in 2002. Since its launch in 1999, the Database for Institutional Comparisons in Europe (DICE), which currently contains around 3,800 tables, graphs and short reports, has grown significantly and enriched the range of services provided by the Ifo Institute. Since the beginning of 2003 the results of these institutionally oriented studies and comparative presentations of institutional regulations have been published in the quarterly journal, *CESifo DICE Report*.

Ifo also offers a broad range of services via the internet, which are available in German and English, and publishes several journals and book series. International publications, together with other activities conducted by the CESifo Group, are becoming increasingly important.

CESifo raises Ifo's international profile

Ifo addresses the under-representation of female academics

Every year the CESifo Group organises a number of international conferences at the Ifo Institute, and has become the third largest research network in economics worldwide with over 1,200 researchers in 41 countries. The CESifo Working Papers written by members of this research network again took top places among all economic research institutions in a worldwide comparison of downloads from the website of the Social Science Research Network.

Ifo's work is characterised by its cooperation with universities and renowned researchers in Germany and abroad. Its cooperation with the University of Munich occupies a special place in Ifo's work. Ifo and the LMU jointly created the "Economics & Business Data Center" (EBDC), whose main task is to supply a continuously updated data set of German companies to feed new areas of research in economics and business administration. The EBDC provides researchers with corporate data, a combination of Ifo survey data and other corporate data sources, and is the main contact and coordinator for scientific databases at the enterprise level. In December 2013 a Research Data Center branch of the Bavarian Federal Statistics Office was opened in the EBDC. Researchers can now access federal statistics survey data on the EBDC premises.

Another expression of the close cooperation between Ifo and LMU is the joint appointment of department head positions at the Ifo Institute. This applies not only to the president, but also to all Ifo directors of the research centers. A total of eight endowed professorships are available to this end. In addition to these jointly appointed professors, other Ifo Institute researchers are also active in terms of teaching, in some cases as visiting professors with fixed-term tenures.

Cooperation with other partners – in particular the Universities of Augsburg, Dresden, Konstanz, Münster, Passau, Regensburg – enriches the work of the Institute. In addition, the Ifo Institute conducts research in collaboration with a great number of economists from university and non-university entities. This has resulted in informal international research networks in the individual Ifo departments and for the Institute as a whole, including CIRET (Centre

for International Research on Economic Tendency Surveys), the EENEE (European Expert Network of Educational Economists) and EUROCONSTRUCT.

The Ifo Institute cooperates closely with external economists and other established experts to assure the quality of its research. This particularly applies to its 52 research professors and 6 research affiliates, research associates and senior research associates (status: 31 December 2015) and to nearly 50 guest professors annually from all over the world, with whom Ifo researchers collaborate on joint projects. The Scientific Advisory Board and the User Advisory Board play a particularly important role. Both bodies assist the Institute in its planning, as well as evaluating its performance, and therefore help to maintain the scientific quality of the Ifo Institute's services. The Ifo Institute is very grateful to the external researchers who are involved in the CESifo Group and members of its advisory bodies.

Ifo cooperates closely with external economists



Report of the Executive Board

An era draws to a close: 2015 was the last full calendar year of Prof. Hans-Werner Sinn's presidency of the Ifo Institute, which ended on 31st March 2016, as did his chair at the University of Munich and his directorship of the Center of Economic Studies (CES) due to Prof. Sinn's retirement. By the time he turned 68 Sinn had served the Ifo Institute for 17 years, CESifo GmbH for 25 years and had been a professor at the economics faculty of the University of Munich for 32 years. Sinn taught at various faculties in Germany and abroad for 83 semesters. On 22nd January 2016 Sinn's retirement was marked by an international scientific symposium and a special ceremony in the Great Hall of the University of Munich, as well as a gala dinner in the Kaisersaal of the Residenz. The farewell ceremony was attended by a large number of politicians, leading business figures and academics from all over the world. Speakers at the event included German Federal Minister Schäuble, Bavarian Minister President Seehofer, Bavarian State Minister Aigner and Bundesbank President Weidmann, as well as academics from Israel, the USA and Europe. Several Nobel prize winners and many of Sinn's contemporaries paid tribute to his achievements in a book published by Gabriel Felbermayr, Meinhard Knoche and Ludger Wößmann entitled: "Hans-Werner Sinn and 25 Years of German Economic Policy" (Hanser Verlag, 2016), which was presented to Sinn on 22 January 2016 at the end of the ceremony. Sinn will remain active at the Ifo Institute as a retired professor.

The search for Sinn's successor via a joint appointment procedure conducted by the University of Munich and the Ifo Institute was successfully completed during the reporting year. To this end, the Ifo Institute's Administrative Council took the initiative back as early as 2014 by charging a coordination group, led by its Chairman Peter-Alexander Wacker, with the task of preparing the official appointment and/or selection procedure for the future president in compliance with German civil service regulations; and in particular to identify potential successors to Prof. Sinn. The University of Munich's Presidential Board also set up a high-ranking, international selection committee to find a successor for Prof. Sinn. In its meeting on 20 May 2015 Ifo's Administrative Council designated

Prof. Clemens Fuest as the new President of the Ifo Institute with effect as of 1 April 2016. Ifo's new President will also take over the chair for Economics and Public Finance at the economics faculty of the University of Munich, previously held by Prof. Sinn, as well as the presidency of CESifo GmbH, which coordinates one of the world's largest international networks of economists.

Mr Wacker publicly announced the Administrative Council's decision at the 2015 Ifo Annual Meeting. According to Mr Wacker, Prof. Fuest: "an excellent and internationally very well-connected economist and economic policy thought leader, is the ideal person to succeed Prof. Hans-Werner Sinn as President of the Ifo Institute". The Deputy Bavarian Minister President and State Minister Ilse Aigner congratulated the Ifo Institute on its choice of new President: "In Prof. Clemens Fuest the Ifo Institute has found a worthy successor to Prof. Hans-Werner Sinn, under whose leadership the Ifo Institute became one of Europe's leading think tanks in the field of economics. The appointment of Prof. Fuest as Ifo President will further reinforce Munich's position as an international hub for the discussion of economics and economic policy."

At the Annual Meeting the Advisory Council Chairman also stated that Ifo Executive Board Member Prof. Meinhard Knoche had agreed, at the request of the Administrative Council and funding bodies, to extend his term-in-office beyond the legal retirement age. According to the resolution passed by the Administrative Council, Meinhard Knoche will remain a member of Ifo's Executive Board and extend his term of office beyond the legal retirement age. In line with the Advisory Council's resolution, Meinhard Knoche will remain an Executive Board member until 31 August 2017. This will ensure a smooth transition for the Ifo Institute's new President.

There were no changes to Ifo's research department heads in 2015. Interim Directors continued to lead the Ifo Centers for Industrial Organisation and New Technologies, as well as for Business Cycle Analysis and Surveys in 2015, whose previous

Prof. Sinn retires

Prof. Fuest appointed
as successor

heads resigned in 2014. This will enable the new Ifo President to have a say in the appointment of these two positions. The procedures for jointly appointing new department heads for the Ifo Centers for Industrial Organisation and New Technologies, and Business Cycle Analysis and Surveys, which are both linked to chairs at the University of Munich, have now been launched. The aim is to permanently fill both department head positions by the winter term of 2016.

Leading academics from the Ifo Institute receive offers from domestic and foreign universities every year. In 2015 Prof. Oliver Falck, Interim Director of the Ifo Center for Industrial Organisation and New Technologies, refused an offer from the Christian Albrecht University of Kiel. Dr. Steffen Henzel, a researcher at the Ifo Center for Business Cycle Analysis and Surveys, accepted an offer from the Hochschule für angewandte Wissenschaften in Munich.

The Scientific Advisory Council continued its ongoing evaluation of the Ifo Institute and assessed the performance and development outlook of four research departments within the Ifo Institute. The council plans to conclude its evaluation of the second half of Ifo's eight research departments in 2017.

Now let us consider the results achieved in research, the promotion of junior economists, policy advisory work and academic services in 2015 in greater detail.

Research and the Promotion of Junior Economists

The Leibniz Association continues to measure the performance of its institutes by the **excellence** of their research results and their **relevance** to political and social developments. That is why the **quality of its scientific research** is crucial to the Ifo Institute. The latter is mainly evaluated using articles published by Ifo researchers in international, peer-reviewed journals.

The number of articles published by Ifo researchers in **international, peer-reviewed journals** remains very high.

Table I: Publications in Peer-Reviewed Journals from 2005 to 2015

	2005 ^a	2006 ^a	2007 ^a	2008 ^a	2009 ^a	2010 ^a	2011 ^a	2012 ^a	2013 ^a	2014 ^a	2015 ^b
Articles in peer-reviewed journals	52	33	60	81	53	44	55	68	63	57	83 (56)
Of which are in categories A+ to B (as of 2009)					15	19	24	31	32	22	41 (28)

^aArticles published in 2015. ^bArticles published or accepted for publication in 2015 (published articles in brackets).

The slight decline in the number of articles published in peer-reviewed journals is due to the fact that the number of researchers employed at the Ifo Institute fell slightly in the 2012–2015 period.

Moreover, the number of articles published in peer-reviewed journals is not the only criteria for measuring publication success. The second criterion is the degree to which researchers succeed in publishing in high-ranking journals. Table I shows that a high share of articles was once again accepted for publication in peer-reviewed journals in the categories A+ to B. In 2015 28 out of 56 articles, or exactly half of all articles appeared in high-ranking journals.

Several of these articles were accepted for publication by category A journals, including:

- Volker Meier, Helmut Rainer, “Pigou Meets Ramsey: Gender-Based Taxation with Non-Cooperative Couples”, in: *European Economic Review*;
- Rahel Aichele, Gabriel Felbermayr, “Kyoto and Carbon Leakage”, in: *Review of Economics and Statistics*;
- Volker Meier (with I. Schiopu), “Optimal Higher Education Enrollment & Productivity Externalities”, in: *Journal of Public Economics*;
- Panu Poutvaara (with M. Elinder, H. Jordahl), “Promises, Policies & Pocketbook Voting”, in: *European Economic Review*;
- Simon Wiederhold, Ludger Wößmann (with E. A. Hanushek, G. Schwerdt), “Returns to Skills around the World”, in: *European Economic Review*;
- Suphi Sen, “Corporate Governance, Environmental Regulations, and Technological Change”, in: *European Economic Review*;

Publications in
high-ranking journals

- Gabriel Felbermayr (together with B. Jung, M. Larch), “The Welfare Consequences of Import Tariffs: A Quantitative Perspective”, in: *Journal of International Economics*;
- Helmut Rainer (with D. Anderberg, J. Wadsworth, T. Wilson), “Unemployment & Domestic Violence”, in: *Economic Journal* (to be published);
- Martin Schlotter (with S. Bauernschuster), “Public Child Care and Mothers’ Labour Supply”, in: *Journal of Public Economics*;
- Johannes Steinbrecher (with M. Efung, H. Hau, P. Kampkötter), “Incentive Pay & Bank Risk-Taking”, in: *Journal of International Economics*;
- Christa Hainz, Ludger Wößmann (with S. Becker, K. Boeckh), “The Empire is Dead, Long Live the Empire!”, in: *Economic Journal* (to be published);
- Timo Hener, Helmut Rainer (with S. Bauernschuster), “Children of a (Policy) Revolution: The Introduction of Universal Child Care and its Effects on Fertility”, *Journal of the European Economic Association* (to be published);
- Erik Hornung, “Railroads and growth in Prussia”, *Journal of the European Economic Association*;

The rising number of publications in high-ranking journals clearly shows the progress made by the Ifo Institute since the changeover in its Executive Board in the 1990s. Prior to this date such publications by Ifo Institute researchers were practically non-existent.

The Ifo Institute’s flagship scientific publications also include publications in a book series published by MIT Press. These “**tandem projects**” are typically co-written books by researchers from the Ifo Institute or the Center for Economic Studies and members of the CESifo researcher network. The aim of this CESifo Book Series is to offer an overview of the latest developments in research in an area that is relevant to the current policy debate. “The Knowledge Capital of Nations”, co-authored by Ludger Wößmann, Director of the Ifo Center for the Economics of Education and Ifo research professor Eric Hanushek, Stanford University, was published in this series in 2015. This monography, which attracted a great deal of attention internationally, shows that the long-term growth of economies is

directly linked to the competences of its people, or a nation’s “knowledge capital”. Economic policy aimed at securing long-term prosperity therefore primarily has to improve the education level of a nation’s population. Since the last changeover of the Executive Board back in the 1990s eleven monographies from such tandem projects have been published by the MIT Press.

Prof. Sinn also wrote a highly-regarded academic monography in 2015 entitled “Der Euro: Von der Friedensidee zum Zankapfel” (“The Euro: From Peace Project to Bone of Contention”) published by the Hanser Verlag. This is a translation of: “The Euro Trap. On Bursting Bubbles, Budgets and Beliefs,” published in English by the Oxford University Press in 2014. This book explores the roots of the European crisis and the ECB’s role of a bailout authority that significantly oversteps its mandate by burdening the Eurozone’s taxpayers with huge liabilities without the approval of its parliaments. In addition to a number of smaller monographies during his time at the Ifo Institute, Prof. Sinn authored four larger academic monographies on different topics. These books were not only published in German, but were also published in English by international academic publishers with peer-review systems, and in some cases in other countries too (Can Germany Be Saved, The Green Paradox, Casino Capitalism, The Euro Trap.)

The Ifo Institute’s academic monographies published by the MIT Press also include the CESifo Seminar Series. This series features the results of joint projects with CESifo researchers and acknowledged external experts, which numbered five books in 2015. A total of 48 books have been published since the launch of the series on 2003.

An important preliminary stage to the publication of articles in international, peer-reviewed journals is **presentations at international conferences with a peer review procedure**. At such conferences researchers receive feedback on their paper from international specialist colleagues that they can use in the subsequent publication process. In 2015 Ifo researchers gave 146 such conference speeches. Prior to the changeover in President in 1999 there were practically no such presentations in the Ifo Institute.

The publication successes enjoyed by Ifo researchers are also reflected in the **scientific rankings of the RePEc Network** (RePEc – Research Papers in Economics) and in the ranking of economists by the Handelsblatt.

In the **RePEc ranking** of international scientific citations of institutes based in Germany, Munich-based economists once again occupied top rankings in recent months. In February 2016, the last reporting month for which data is available before the end of Prof. Sinn's term in office, the Ifo Institute was ranked above all other German economics research institutes and faculties, and was just ahead of the far bigger DIW in Berlin. In the RePEc ranking of institutes based in Germany only the ECB's research department, the IZA Network and the CESifo network, which mainly consists of foreign researchers, ranked ahead of the Ifo Institute. This information once again shows that the Ifo Institute scaled the heights of economics research in Germany under Prof. Sinn's presidency.

Table 2: Economic Research Institutes and Economics Faculties in the RePEc-Ranking in February 2016

Ranking	Institution	Average Ranking
1	Ifo Institute, Munich*	4.45
1	DIW, Berlin*	4.45
3	LMU, Munich	5.59
4	University of Frankfurt/Main	7.18
5	University of Bonn	7.84
6	ZEW, Mannheim	8.84
7	Economics Faculty, University of Mannheim	9.46
8	Deutsche Bundesbank	10.89
9	Economics department, University of Constance	11.44
10	IfW, Kiel	12.13
16	RWI, Essen	23.22
30	IWH, Halle	40.69

*Although the DIW has the same average ranking as the Ifo Institute after rounding off, it is listed below the Ifo Institute in the RePEc.

In the corresponding RePEc ranking of scientific citations of individual researchers Ifo researchers also ranked very highly. Hans-Werner Sinn was ranked first among German economists and Ludger Wöß-

mann was ranked seventh in the top ten. Four other Ifo department heads also feature in the top 150 economists in this rating (see Table 3) namely *Gabriel Felbermayr* (31), *Niklas Potrafke* (78), *Panu Poutvaara* (79), and *Oliver Falck* (92).

Table 3: Individual Researchers Active at German Research Institutes and Faculties in the RePEc Ranking of February 2016 (up to rank 150)

Ranking	Person*	Institution	Average ranking
1	Hans-Werner Sinn	Ifo Institute	4.16
2	Klaus M. Schmidt	LMU	4.49
3	Urs Fischbacher	University of Constance	5.25
4	Armin Falk	University of Bonn	6.23
5	Klaus Zimmermann	IZA, University of Bonn	7.27
6	Marcel Fratzscher	DIW, Berlin	7.93
7	Ludger Wößmann	Ifo Institute	7.96
8	Martin Hellwig	MPI, Bonn	8.13
9	Roman Inderst	University of Frankfurt/Main	11.98
10	Axel Dreher	University of Göttingen	13.03
23	Dennis Snower	IfW, Kiel	26.77
29	Clemens Fuest	ZEW, Mannheim	35.67
30	Christoph M. Schmidt	RWI, Essen	37.34
31	<i>Gabriel Felbermayr</i>	<i>Ifo Institute</i>	37.71
34	Reint E. Gropp	IWH, Halle	39.84
78	<i>Niklas Potrafke</i>	<i>Ifo Institute</i>	94.08
79	<i>Panu Poutvaara</i>	<i>Ifo Institute</i>	94.09
92	<i>Oliver Falck</i>	<i>Ifo Institute</i>	108.34
145	<i>Timo Wollmershäuser</i>	<i>Ifo Institute</i>	176.14

***Bold:** Presidents of the respective economics institutes, *Italics:* Department heads at the Ifo Institute (Status: February 2016).

The **Handelsblatt-Ranking**, which is not based on citations, but on publications in peer-reviewed journals (excluding anthologies and monographies), did not only cover economics research institutes in 2015, but also featured universities. In the 2015 ranking of economics faculties in German-speaking countries cited most frequently in peer-reviewed journals, the University of Munich topped the ranking for the first time. "At no other university in Germany, Austria or Switzerland did economists publish so many relevant specialist articles as at the University of Munich", reported the Handelsblatt. The universities of Bonn and Zurich ranked second and third. The Ifo Institute made a major contribution to this success since its department heads and other Ifo researchers hold chairs and interim professorships at the University of Munich and are thus members of the university's economics faculty, meaning that their academic output benefits the faculty. Academics from the Ifo Institute achieved excellent individual results in the 2015

LMU tops ranking for the first time

Handelsblatt Ranking: in the category “Life’s work” Hans-Werner Sinn was ranked tenth. In the category of best research achievements over the last five years Niklas Potrafke ranked 17, Gabriel Felbermayr ranked 26 and Ludger Wößmann ranked 57. In the ranking of leading economists under the age of 40 Gabriel Felbermayr (fourth place) and Niklas Potrafke (fifth place) featured among the top performers.

The publication performance of Ifo researchers also depends on its successful **acquisition of research projects** awarded by **competitive tender**. Third-party funding obtained in this way creates greater leeway for basic theoretical research and, at the same time, makes it possible to analyse basic policy-oriented questions. This particularly applies to research funding supplied by the German Research Association and to grants provided by the Leibniz Association via competitive tenders. The Ifo Institute was once again very successful in terms of Leibniz tenders in 2015. The Ifo Center for Labour Market Research and Family Economics started work on the Leibniz project entitled: “Economic uncertainty and the family” (EcUFam) in 2015. Moreover, in the 2016 Leibniz competitive tendering procedure the Leibniz Senate approved a tender by the Ifo Center for International Economics entitled: “QuanTAGG – Quantitative Tools for the Analysis of Global Governance Issues”. The same applies to the project by the Potsdam Institute for Climate Impact Research (PIK), in which the Ifo Center for International Economics is involved as a cooperation partner.

Ifo’s strong support of trips to international expert conferences with peer-review procedures (described in this report) and its acquisition of research funding via competitive tenders form the cornerstones of the Ifo Institute’s strategy to provide **ideal framework conditions for research** and advanced scientific qualification. A second central pillar of this strategy is the international cooperation and networking of its researchers. This is primarily achieved by involving guest researchers and research professors in the Ifo Institute’s work. There were 43 guest researcher stays at the Ifo Institute in 2015. Benjamin Born (University of Bonn), Marc-Andreas Müandler (University of California, San Diego) and Wolfgang Keller (University of Colorado, Boulder) also became new re-

search professors, bringing the total of 52 external researchers involved with the Ifo Institute up to 52 on 31 December 2015.

Another increasingly important component of international networking is systematic support for **research stays by Ifo researchers**, especially abroad. In 2015 these research stays primarily took place at the following top universities in the USA and Canada: University of Berkeley (2), Harvard University (1), New York University (1), Irvine and Davis University (1), University of California Davis (2), Mc Gill University (1), Simon Fraser University (1). Guest research stays also took place at several European universities (London School of Economics, University of Oxford, University College London, Universities in Brescia, Amsterdam, Uppsala, Lausanne, Prague, Bayreuth, Augsburg, Regensburg and Freiberg). The VATT Institute for Economic Research, the Institutet för Näringslivsforskning and the CEPII Paris also hosted guest research stays. Such visits significantly improve the scientific performance of Ifo’s research departments, since researchers given a leave of absence generally use it to consolidate their academic expertise and pave the way for new joint projects with co-authors.

The large number of expert events organised by the CESifo Group itself also creates the ideal conditions for Ifo researchers to cooperate and network with economists from around the world. In 2015 the CESifo Group organised 23 **international scientific conferences**, which were largely held in the conference rooms of the Ifo Institute. In addition to these events, the annual Venice Summer Institute jointly organised with Venice International University also took place in 2015. The event featured workshops on: “The Economics of Entrepreneurship: Bringing Entrepreneurship Back into Economics”, “Rethinking the Need for a Fiscal Union in the Eurozone”, “New Developments in Global Sourcing”, “The World Trade Organization and Economic Development” and “International Currency Exposure”. These conferences and workshops mainly aim to promote scientific exchanges between the members of the CESifo researcher network, but also offer Ifo researchers the opportunity to exchange academic ideas, especially with the members of the CESifo research network. This network expanded to

Ifo proves successful with Leibniz tenders

Focus on international cooperation and networking

include 1,219 members from 41 countries by the end of 2015. It is the biggest and most successful network of its kind worldwide.

One of the framework conditions that promotes the ongoing development of Ifo researchers in academic terms is the opportunity to take up **interim professorships, guest professorships and other teaching activities**, especially at universities with which the Ifo Institute has links via cooperation contracts. Oliver Falck, Christian Holzner, Volker Meier and Timo Wollmershäuser also held temporary professorships at the University of Munich in 2015. Christa Hainz accepted a guest professorship at the University of Augsburg and Francesco Cinnirella took an interim professorship at the University of Bayreuth. In addition, Ifo researchers gave 93 classes representing a total of 192 hours per week each semester, as well as supervising 71 doctoral, bachelor and master theses, 60 dissertations and 20 post-doctoral habilitations.

Research is closely linked to the **promotion of junior economists**, which has constituted a core area of the Ifo Institute's academic reorientation since the completion of its partial restructuring in 2002. This is a task of wider importance, since only a few Ifo doctoral students have the opportunity to continue their academic career at Ifo after completing their doctorate. The Ifo Institute was able to employ such a high number of doctoral students in the reporting year (46 on the reference date of 31 December 2015) thanks to generous third-party funding obtained via its successful scientific tendering. Sponsors who financed Ifo doctoral student positions in 2015 included Deutsche Telekom, the Kern Family Foundation, the European Union, the Federal Ministry for Education and Research, the Leibniz Association and the German Research Association

Overall a total of 9 doctoral students completed their theses over the course of 2015: Christian Grimme, Atanas Hristov, Juha Itkonen, Ilpo Kauppinen, Robert Lehmann, Markus Reischmann, Jens Ruhose, Johannes Steinbrecher and Christian Thater.

As part of the Ifo Institute's 66th Annual Meeting several prizes were awarded. The Society for the Promotion of Economic Research (Friends of the Ifo Institute)

awarded a prize for outstanding academic achievement in the field of empirical economics research to Oliver Falck, Interim Director of the Ifo Center for Industrial Economics and New Technologies, for his article published in 2014 in the *American Economic Review* entitled: "E-lections: Voting Behaviour and the Internet", co-authored with Stephan Heblich and Robert Gold. Instead of the prizes usually awarded by the Ifo Institute for special achievements in managing commissioned projects, four prizes for special achievement were awarded. The first prize went to Horst Penzkofer, a researcher at the Ifo Center for Industrial Organisation and New Technologies, for his numerous expert reports on the impact of trade fairs commissioned by the German *Messewirtschaft*. The second special prize went to the project team consisting of Prof. Ludger Wößmann, Ulrike Baldi-Cohrs, Marc Piopiunik, Jens Ruhose and Ruth Maria Schüler from the Ifo Center for the Economics of Education for their continuous supervision of the "European Expert Network on the Economics of Education" (EENEE) since 2003 on behalf of the European Commission. Another team prize was awarded to all members of the CESifo GmbH team for their valuable support in organising prestigious international events over the past 16 years. The fourth special prize went to the former doctoral student Erik Hornung for his paper: "Immigration and the Diffusion of Technology: The Huguenot Diaspora in Prussia", which was published in the *American Economic Review* 104(1), 2014.

The magazine *Capital* also featured Niklas Potrafke, Director of the Ifo Center for Public Finance and Political Economy in its "Young Elite" ranking for the second year in succession.

Contributions to Policy Advice and the Policy Debate

The Ifo Institute conducts policy-oriented scientific research with a view to delivering contributions aimed at solving economic problems. It also aims to reinforce the foundations on which politicians and business leaders base their decisions on the one hand; and to improve the quality of information available to members of the general public interested in economic policy on the other. The Ifo Institute was once again heavily involved in policy advice and the policy debate in 2015.

Four awards for special achievement

Doctoral student picks up prize

Commissioned reports in 2015

This partly took the form of Ifo producing a number of **commissioned expert reports**. The results of these reports were not only presented to the clients that commissioned them, but – like all other Ifo Institute publications – they were also presented to the public via conferences and publications. The projects are documented in the department sections of this year’s annual report. The following list features just a few examples of commissioned reports that paved the way for policy advisory work in 2015:

- 20 years of Austria in the EU – challenges and blueprints for action in the future (Federal Ministry for Scientific Research and Economics of the Republic of Austria)
- Short and long-term policy requirements to achieve sustainable economic and employment growth in Croatia (Croatian Statehood Foundation, Zagreb)
- The impact of the demographic transformation on Germany as an immigration country (Friedrich Ebert Foundation)
- The employment effects of legal thresholds on French and German companies (French government)
- The impact of demographic developments on the eastern German residential real estate market (German Federal Ministry for Economic Affairs and Energy)
- New trade rules for China? Opportunities and risks for the EU (European Parliament)
- Establishment of the net employment effect arising from a change in the rules on foreign export supplies in the German government’s export credit guarantees
- The implications of market liberalisation of foreign trade for business, growth and employment in Germany (German Federal Ministry for Education and Research)

Moreover, the Ifo Institute highlighted key issues in the policy debate with numerous **publications**. The book written by Hans-Werner Sinn and published by the Hanser Verlag entitled: “Der Euro: Von der Friedensidee zum Zankapfel” attracted just as much public attention as his “Ifo Viewpoints”, which are brief commentaries on topical issues. In 2015 these viewpoints covered the following topics: “The Case for Capital

Controls”, “Europe’s Shadow Budget”, “Why the Taxpayer is on the Hook”, “Europe’s Easy Money Endgame”, “Stop the Splinter Unions”, “Why the ECB QE May not Mean a Safe Retirement”, “Varoufakis’s Great Game”, “Carte Blanche for ECB Gives Cause for Concern”, “Why “Grexit” Could Be Good for Greece” and “Do Not Perpetuate the Dutch Disease in Europe: Lessons from German Reunification for a European Fiscal Union”. The article by Hans-Werner Sinn entitled: “The Greek Tragedy”, which was published as a special issue of both the *ifo Schnelldienst* (in German) and of the *CESifo Forum* (in English) attracted a great deal of attention both nationwide and internationally.

During his term in office at the Ifo Institute Prof. Sinn wrote 17 **smaller monographies** on topical economic policy issues, which were primarily published as **special issues** of *ifo Schnelldienst* and *CESifo Forum*. They helped to enrich the public debate with factual information from academia. The last of these monographies was the study entitled: “The Greek Tragedy”, which was published during the Greece crisis in 2015 and attracted a great deal of national and international attention.

The **European Economic Advisory Group** at CESifo (EEAG), a body of experts supported by CESifo that assesses economic developments in Europe, looked at the situation in the Eurozone in its annual report. The report published in February 2015 entitled: “Blurring the borders” also looked at the topics of migration in Europe and European energy supply. The 14th EEAG report shows how the welfare state’s distorting effect on migration can be avoided without endangering freedom of movement; and outlines a forward-looking European energy policy that is based on market economy principles, takes global warming into account and can still react to geopolitical risks. In 2015 the EEAG consisted of six economists from five countries and was chaired by John Driffill from Birkbeck College, University of London. The group was founded in 2001 by Prof. Sinn, who has played an active part in every report produced since.

Articles published in the **Ifo Institute’s periodica** are regularly cited in the public debate. In 2015 Ifo published 24 issues of the *ifo Schnelldienst*, and a special is-

Ifo publications cover key policy issues

sue of the *ifo Schnell dienst*, twelve issues of *ifo Konjunkturperspektiven*, six issues of *ifo Dresden berichtet*, as well as four issues of *CESifo Forum*, and a special issue of *CESifo Forum*, four *CESifo DICE Report* and *CESifo World Economic Survey* respectively. Three *ifo Forschungsberichte* and three *ifo Dresden Studien* and six *ifo Beiträge zur Wirtschaftsforschung* were published as monographies, while 14 issues appeared in the *Ifo Working Papers* series. Moreover, the Ifo Institute also produces the scientific quarterly *CESifo Economic Studies*, which is published by the Oxford University Press. In addition, 539 issues appeared in the CESifo supervised series *CESifo Working Papers*. This series features articles by members of the CESifo research network.

In 2015 three Ifo researchers were appointed to public bodies: Prof. Helmut Rainer, Director of the Ifo Center for Labour Market Research and Family Economics, was appointed a member of the expert commission for the German Federal government's second report on equality. The commission is supposed to identify the policy measures that can be taken to ensure a level playing field for men and women both in the workplace and in the home.

The Bavarian State Government appointed Prof. Karen Pittel, Director of the Ifo Center for Energy, Climate and Exhaustible Resources, as a member of the Bavarian Climate Council. The body aims to provide important impulses for the future orientation of the country's climate policy. Karen Pittel's nomination to the climate council was designed to strengthen the climate council's economic competences.

Finally, Prof. Joachim Ragnitz, Deputy Managing Director of the Dresden Branch of the Ifo, was appointed as academic representative for the government of the Free State of Saxony on the Commission to evaluate expenditure, personnel resources and equipment in Saxony.

The Ifo Institute also enriched the economic policy debate with its **events** in 2015. It is worth highlighting the **Ifo Annual Meeting**, which – as in previous years – was organized in cooperation with the University of Munich in its Great Hall. Sigmar Gabriel,

German Federal Minister for Economic Affairs and Energy, was the keynote speaker and gave a speech on: "Economic policy and policy advice in the wake of German reunification." His speech was followed by a discussion with Prof. Sinn chaired by Marc Beise, Chief Economics Editor of the *Süddeutsche Zeitung*, which focused on: "Economic policy and policy advice: a dialogue." In the debate that followed Hans-Werner Sinn discussed basic issues of economic policy and policy advice in Germany with Prof. Harold James, Princeton University, former Minister President Prof. Georg Milbradt, as well as the former Chairman of the German Council of Economic Experts Prof. Wolfgang Wiegand.

On the day before the **Ifo Annual Meeting** the economics faculty of the University of Munich and the Ifo Institute jointly organised a symposium entitled: "Developments in economic policy in the Federal Republic of Germany." This symposium was held in honour of Prof. Hans Möller, who would have celebrated his 100th birthday in 2015. Möller was Hans-Werner Sinn's predecessor at the University of Munich's economics faculty and his work focused on the theory of economic policy and practical policy advisory work. The welcoming speech was given by Prof. J.-Matthias Graf von der Schulenburg. The keynote speeches were given by Prof. Knut Borchardt, Professor (emeritus) of economic history and economics at the University of Munich and Prof. Claudia M. Buch, Vice-President of the Deutsche Bundesbank. Prof. Sinn, who gave his inaugural lecture 30 years previously to the very day, gave the laudatory speech.

Another highlight was the **Munich Economic Summit**, which took place for the 14th time in 2015. The event was jointly organised by the CESifo Group together with the BMW Foundation Herbert Quandt and was supported by leading European newspaper publishers and companies. This event brings personalities from the academic world and decision-makers from business and politics together to discuss key issues of economic development in Europe and the world. As part of the 2015 summit entitled: "Competitiveness and Innovation: The Quest for Best" three core questions were analysed: what have been the positive and negative experiences on the path to European com-

Symposium held for Hans Möller

petitiveness? How can Europe strengthen its culture of innovation in business and society? How can businesses, the state, society and the individual, cooperate best to promote both economic competitiveness and social innovation? The speakers at the summit included the French Prime Minister Manuel Valls, Vice-President of the EU Commission in Brussels Valdis Dombrovskis and Günther H. Oettinger, EU Commissioner for the Digital Economy and Society, and Ifo's President, who, as usual, gave the introductory speech at the event.

A total of 18 **"Munich Seminars"** were held in 2015. The seminars have been jointly organised by CESifo and the *Süddeutsche Zeitung* since 2001. These seminars – chaired by Prof. Sinn and Marc Beise (previously Nikolaus Piper) from the *Süddeutsche Zeitung* – offered renowned speakers from business, academia and politics an opportunity to speak on topical economic issues, which also attracted a great deal of media attention. It is particularly worth highlighting the seminar by Jens Weidmann, President of the Deutsche Bundesbank, entitled: "On the role of financial stability for monetary policy," as well as the special Munich Seminar organised in cooperation with the Carl Hanser Verlag featuring the former Greek Finance Minister Professor Yanis Varoufakis. Yanis Varoufakis spoke on the situation in Greece and the future of Europe. Hans-Werner Sinn also gave a speech that was followed by a discussion. Extensive reports on all of the speeches were published in the *Süddeutsche Zeitung*.

To stimulate a high-level discussion of the energy turnaround's implications for Germany as a business location, the Council of Experts for Environmental Issues and the Ifo Institute jointly organised the symposium entitled: "The energy turnaround and its implications for Germany as a business location", which was held on 13 May 2015 in the Bavarian Representation in Berlin. The symposium focused on the question of whether the energy turnaround will burden Germany as a business location; or whether it, quite on the contrary, will trigger a third industrial revolution? How can the German energy turnaround be designed in an efficient and "industry-compatible" way and can it be economi-

cally justified? Are the special and exceptional regulations for energy-intensive industries designed in such a way as to ensure competitiveness and create incentives for innovation?

Over the course of 2015 the Ifo Institute invited politicians from Berlin to two **"parliamentary breakfasts"** in the Bavarian Representation in Berlin. These breakfast events were launched in 2014 at the initiative of the former SPD (democrat) party member Ludwig Stiegler. At the breakfasts Hans-Werner Sinn discussed demographic trends and migration in the welfare state with German members of parliament.

The Ifo Institute organised two events to commemorate the **25th anniversary of German reunification**: Ifo Dresden and the Akademie für politische Bildung Tutzing organised a seminar lasting several days in September 2015, which primarily looked at the domestic and foreign policy implications of German reunification, as well as current social phenomena in Eastern Germany. A symposium organised by Ifo Dresden and held in Dresden in October 2015 also attracted a great deal of public attention.

The Bavarian Chamber of Crafts and Industry and the Ifo Institute once again organised a joint symposium last year. The topic of the 2015 event was "Immigration and securing skilled personnel – potential and the need for action". The **"Ifo Industry Colloquium"**, organised in cooperation with the Chamber of Commerce and Industry for Munich and Upper Bavaria, which focuses on analysing current economic events, was one of the highlights in 2015. Further details of the colloquium are available in the section on the Ifo Center for Industrial Organisation and New Technologies.

On 5 November 2015 the Ifo Institute and the European Union's Committee of the Regions organised the **"Ifo Brussels International Economic Forum – BRIEF"** for the eighth year in succession. The title of the conference, chaired by Prof. Sin and General Secretary of the Committee of the Regions Jiří Buriánek was: "Is Europe back on a Growth Track with its Energy Union and in Promoting Innovation?"

High-profile speakers attended 2015 Summit

Ifo co-organises energy turnaround event

Hans-Werner Sinn's traditional public lecture given shortly before the Christmas holidays once again attracted an audience of hundreds to the LMU's Große Aula, meaning that some guests had to be accommodated in a neighbouring lecture hall where the lecture was broadcast live. Sinn's final lecture was entitled: "A review of half a century". Beginning with the fall of the Wall, whose construction Sinn opposed at the age of 13, he reviewed key events in German and European economic history. He closed his lecture by differentiating between the consumptive and investment phases of economic policy, and between politicians' responsibility ethics and ideological ethics.

Media resonance is a key indicator of the relevance of Ifo's work for politics and society. According to Media Tenor, Ifo was the most frequently cited economics research institute in the reporting year and Hans-Werner Sinn was the most frequently cited German economist, not only by other academics, as mentioned above, but also by the media.

Ifo researchers achieved very good results in terms of both their research and media resonance in the **2015 Frankfurter Allgemeine Zeitung (FAZ) Ranking of the most influential economists** active at universities and research institutes. Hans-Werner Sinn once again ranked as Germany's most influential economist in the FAZ Ranking after topping the ranking in 2014 (cf. Table 4). According to the German daily: "No other economics researcher has such a huge overall impact in the media, politics and research." As shown by Table 4, other Ifo researchers were also excellently placed in the 2015 FAZ Ranking.

In January 2015 a **campaign to discredit Hans-Werner Sinn** was waged in the German business daily Handelsblatt. Three leading figures from the DIW were involved in the campaign: Bert Rürup (Chairman of the DIW's Board of Trustees), Marcel Fratzscher (President of the DIW) and Claudia Kemfert (DIW department head). The Handelsblatt devoted a total of 13 pages to the topic, including its cover featuring the headline: "The False Prophet." However, this initiative triggered a wave of harsh responses from academics and journalists who defended Sinn, which were primarily published in the Frankfurter Allgemeine

Zeitung and Die Welt. Both of the former chairmen of the German Council of Experts Wolfgang Franz and Wolfgang Wiegard co-authored an article that attracted a great deal of attention. They described Sinn in the Frankfurter Allgemeine Zeitung as the: "most innovative and influential economist that Germany has seen in the last two or three decades."

Table 4: Economic Research Institutes/Faculties in FAZ Ranking for 2015

Ranking	Institution	Points
1	Hans-Werner Sinn	517
15	Ludger Wößmann	75
26	Gabriel Felbermayr	37
34	Niklas Potrafke	27
48	Klaus Wohlrabe	19
51	Joachim Ragnitz	19
56	Timo Wollmershäuser	16
98	Steffen Henzel	5

Aware of this campaign and in spite of it, the German Association of University Professors and Lecturers (DHV in German) elected Prof. Hans-Werner as "University Professor of the Year". DHV President, Professor Dr. Bernhard Kempen, explained the decision as follows: "Our colleague Mr Sinn is an academic who serves rationality alone and does not bow to political preferences. As Germany's most frequently cited economist, he is an opinion-maker in the political debate."

Scientific Services

The Ifo Institute is not only a service provider for academics, but also provides social groups interested in economic questions with economic data and other information on current economic policy developments, as well as offering objective orientation in economic policy issues.

Like last year, a survey was also conducted with a view to publishing the **Ifo Education Barometer**. The basis of the second Ifo Education Barometer was an opinion poll of 4,203 survey participants conducted in May 2015, who constitute a representative sample of the adult population in Germany.

The Economic & Business Data Center (EBDC) successfully extended its databases and service offerings in 2015. This primarily applied to the newly established EBDC archive in 2014, with which internal and external researchers can safely store their research data that serve as the basis for published research results. This archive was further expanded in 2015.

The **Database for Institutional Comparisons in Europe (DICE)** also remained very popular in 2015. It currently features almost 3,800 entries in the following thematic areas: company sector and financial markets, education and innovation, energy and the environment, infrastructure, labour market and migration, public sector, social policy and social values. The interactive graphic application *Visual Storytelling* was extended to cover additional areas of regulation. New videos ("How to get the best out of the DICE Database" and "Learn the basics of DICE Visual Storytelling") explain how the database works to facilitate the country-comparative analysis of institutional regulations, statutory stipulations and their application by users.

Ifo's range of academically-based services was expanded by two products in the reporting year: the aim of the **Ifo Migration Monitor** developed by the Ifo Center for International Institutional Comparison and Migration Research and available via the internet portal of the CESifo Group is to provide up-to-date information on both regular immigration flows and asylum seekers in the European Union. In addition, the Ifo Center for International Economics built up the **Ifo GAME** database (**G**eological and **M**eteorological **E**vents) and also integrated it into Ifo's website. The database contains microdata from 1970 to 2014, especially information on geological and meteorological events like earthquakes, eruptions, storms, extreme temperatures, floods and droughts, and thus offers a unique dataset for economic analysis.

The signature of a cooperation agreement between the Bayerische Rundfunk (BR), the Deutsche Journalistenschule (DJS) and the Ifo Institute formed the legal basis for a close cooperation between these institutions **to promote further journalistic training**. The focus of this cooperation is the newly introduced se-

ries of events entitled the: "Ifo Workshops for Quality Journalism." Building on the experience of the pilot workshop successfully conducted in November 2014, the first event in this series was held in November 2015. There are plans to enhance it in the years ahead with further special training offerings for journalists.

The importance of the internet and web-based and social media in the provision of economic information is growing constantly. The Ifo Institute has been monitoring this development for years and is constantly adapting its use of the media on an ongoing basis. The CESifo Group is a pioneer in supplying self-produced video recordings that can be viewed by interested members of the general public both via the media library, which is part of the CESifo Group website, and via YouTube. The livestreaming of events via the internet saw strong growth in 2015. This is now not only happening thanks to the CESifo Group's own website, but also via embedding live players in other websites. The Ifo Institute has also been present on the **social networks Xing and LinkedIn** since 2015 to promote the global networking of Ifo staff and former Ifo Institute staff with guest and associate researchers. It also uses social networks to regularly inform the public of new jobs at the institute and further possibilities for academic cooperation.

Development of the Ifo Institute as an Organisation

Beyond optimising its use of digital media, the Ifo Institute wishes to systematically expand its conceptual and methodical foundations of knowledge transfer – and especially its products, processes and instruments – in order to use the Ifo Institute's expertise and its working results for the benefit of socially relevant groups even more intensively than to date. Above all, Ifo aims to tap new knowledge transfer potential and, against the background of rapid changes in communication technology and the changing communication behaviour, to adapt the transfer of the CESifo Group's expertise and working results to the new framework conditions.

To this end, a knowledge transfer concept oriented towards the Ifo Institute's future challenges will be developed as part of a project entitled: "The devel-

Visual Storytelling
extended

Ifo launches new database

opment, implementation and professionalisation of knowledge transfer concepts" funded by the German Federal Ministry for Education and Research for the time period from June 2015 to May 2018. With the support of external partners, the effectiveness and efficiency of the Ifo Institute's knowledge transfer will be systematically lifted to a new level. The first stage of the project will establish the transfer services that are already implemented. This review will be followed by an analysis of the strengths and weaknesses of existing transfer services. The next step will be to identify additional information requirements on the part of socially relevant groups and to determine potential for improvement and realise this potential using selected tools. Project work will focus on the target groups of politics/public administration, business, training/education, science/research, mass media (including the promotion of journalistic education and further training) and the general public. In addition to the usage analysis, focal points of project work in 2015 were the development of concrete measures, especially for knowledge transfer to schools and strengthening cooperation with the media.

In 2015 the Ifo Institute continued to work on increasing its attractiveness as an employer for policy-oriented research economists in order to attract outstanding researchers from Germany and abroad and to ensure their loyalty to Ifo. This was also part of its drive to gradually increase the number of foreign researchers, or German researchers who hold a position abroad or studied there, which totalled 24 Ifo researchers on the reference date of 31 December 2015 (2014: 21). In other words, on the date cited above, 24% (2014: 22.1%) of scientific staff were foreigners or Germans who worked or studied at a foreign university prior to joining Ifo.

Creating an ideal environment for top research involves intensive **scientific further qualification**. The development of this qualification was presented in the context of research. The fact that Ifo researchers were able to make several foreign research stays in 2015, particularly at top US universities, was extremely important. Further key focus points once again included speeches at international, peer-reviewed events (146), to which Ifo researchers were

invited, as well as the participation in summer schools, which enabled several Ifo doctoral students to deepen the expertise required for their further qualification. Doctoral students also have the opportunity to participate in accompanying training measures.

An intensive continuous learning programme was implemented in the **non-scientific** field. A total of 166 advanced training measures were approved last year, 132 of which were carried out within the year. Experience shows that a large share of the training measures requested tend to be IT-related, whereby the focus is on training courses to satisfy the requirements of individual staff members. In addition, there were also courses for doctoral students and young economists on self-assertion and conflict resolution, as well as communication and presentation training in the reporting year. This programme was complemented by individual courses that covered the challenges created by individual roles.

Advanced training measures

The concentration of the whole organisation of the Ifo Institute on excellence in all areas of the Institute is the basic philosophy of Ifo's management system, which is certified according to DIN ISO 9001 and whose functionality is audited annually by external auditors in so-called surveillance audits. In the surveillance audit conducted in March 2015 the external auditors praised Ifo's management system as exemplary for a non-university research institution.

A special feature of this certified quality management system is that it includes the **gender equality policy** of the Ifo Institute and the rules of this policy. Compliance with these rules was tested in the context of an external audit and fully approved. In the reporting year efforts to shape working conditions in the Ifo Institute with a view to achieving a more balanced gender structure among academic staff paid off. The share of female doctoral students rose to almost half (2015: 47.8%; previous year 37.5%; respective reference dates: 31 December).

Ifo achieves better gender balance

Personnel capacity expanded compared to 2014: on the reference date of 31 December 2015 the total number of staff employed by Ifo rose by 7 to 197. This increase was primarily due to the recruitment

of additional doctoral students. The total number of academic staff employed in the research departments (researchers, doctoral students and experts) rose by four. Two extra employees were recruited in the area of infrastructure.

Although the number of researchers in the research departments fell by one person, five doctoral students joined them by the reference date of 31 December 2015. The number of specialists remained stable at 21 persons. As in 2014, 20 clerks and assistants were employed in the research departments. The Ifo Institute employed a total of 53 staff in its infrastructure on the reference date cited above, of which twelve had management responsibilities (and a remuneration level of TV-L E 13 and upwards). As on the same reference date in 2014, three trainees were employed by the institute.

Developments in finances in the reporting year are presented in detail in the Financial Development Section. Here are the key points: the Ifo Institute's financial situation remains solid. The Institute posted an annual surplus of 187 thousand euros in 2015. This sum will be channelled into earmarked reserves, increased the reserves to 2,069 thousand euros by 31 December 2015. As part of joint research funding by the German federal government and the Länder according to article 91b of German constitutional

law, the Ifo Institute received public funding totalling 10,493 thousand euros in the reporting year. Of this sum 10,178 thousand euros was spent on ongoing costs and 315 thousand euros was used for investments. The Ifo Institute also had a reserve of 500,000 thousand euros, which was carried forward from the previous year. Thanks to savings, especially in the area of personnel costs, and to high revenues from commissioned projects, the institute was able to set aside 850,000 euros in public funding as a reserve carried forward to 2016.

The services provided by the Ifo Institute in its various areas of activity – research, policy advisory work, promotion of junior economists, service and infrastructure – further reinforced its position as one of Europe's leading think-tanks. The Executive Board would like to thank all of Ifo's staff and the members of its various bodies and councils for their competent and unflagging commitment to the institute in recent years. Their contribution has driven Ifo's development, helping to make the institute what it is today.

We are sure that the Ifo Institute will continue along this path under the presidency of Prof. Clemens Fuest and wish him every success for the future.

Munich, March 2016

The Executive Board



Hans-Werner Sinn

Prof. Dr. Dr. h.c. mult. Hans-Werner Sinn (President)



Meinhard Knoche

Prof. Meinhard Knoche

Research and Service Departments



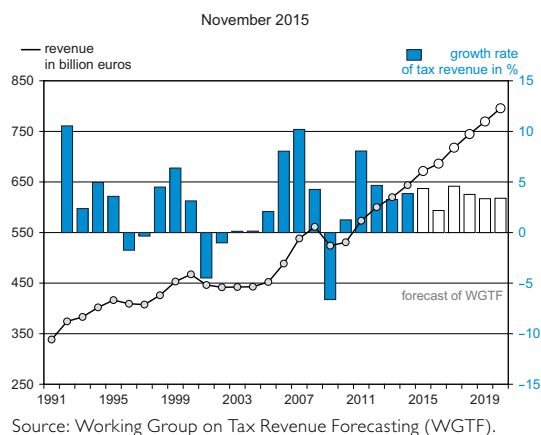
Ifo Center for Public Finance and Political Economy

The research activities of the Ifo Center for Public Finance and Political Economy focus on fiscal policy, the development of public budgets under conditions of high mobility at national and local levels and political economy. Its research includes model-based and empirical analyses, including an examination of international experiences. More specifically, the department focuses on public debt in Germany and Europe, the assessment of fiscal and taxation policy, fiscal federalism and local finances. There is a special emphasis on the motives behind policy decision-makers' actions from a public choice and political economics point of view.

The federal budget is analysed within the framework of short-term developments, as well as with regard to its long-term sustainability and trends in public debt. In the wake of the global public debt crisis, the department is increasingly involved in sustainability analyses. Against this background its research contributes to public debate over the reform of the German taxation and transfer system by providing commentary and scientific analyses.

As a member of the working group on tax revenue estimates at the Federal Ministry of Finance, the Ifo Institute contributes its expertise to the official forecasts of German tax revenues. This work is based on economic forecasts drawn up on a regular basis, which, in turn, are based on survey data collected by the Ifo Institute and complementary data from official statistics. By participating in the bi-annual joint forecast prepared by selected economic research institutes, as well as in the report of the European Economic Advisory Group at CESifo (EEAG), the department contributes to the analysis and forecasting of public finances in Germany, Western Europe and the world. Its analysis of budgetary trends is flanked by research on forecasting fiscal policy and the impact of budgetary rules on the development of public spending.

Tax Revenue Forecast



Projects Completed in 2015

Short- and Long-Term Policy Requirements to Strengthen Sustainable Growth and Employment in Croatia

M. Reischmann, M. Riem for the Croatian Statehood Foundation, September 2014 to December 2015.

The department's part of the project focused on public debt and the sustainability of fiscal policy. Generally, weaknesses in the respective areas were identified and analysed, which subsequently enabled the formulation of concrete policy advice. Public debt in Croatia soared after the outbreak of the financial crisis in 2009 and two thirds of public debt is denominated in euros. Large contingent liabilities stem from government guarantees for public enterprises. Decreasing revenues due to low economic activity and higher expenditure have resulted in large government deficits in recent years. Government spending on social security benefits (mainly the pension and health system) and public employee salaries in particular are endangering the sustainability of the government budget. This project identified saving potential on the expenditure side, elaborated strategies to increase revenues, and provided a detailed overview of Croatia's public debt structure.

Croatia's public debt soared in 2009

How Much Do Large Family Firms Contribute to German Tax Revenues?

N. Potrafke, B. Kauder, M. Krause, M. Reischmann, C. Schinke in cooperation with Ifo research professor T. Büttner, University of Erlangen-Nürnberg, W. Scheffler, University of Erlangen-Nürnberg, for the Stiftung Familienunternehmen, June 2015 to December 2015.

This project estimated how much Germany's 500 largest family firms contribute to German tax revenues. It investigated the amount of taxes on profits paid by the 500 largest German family firms between 2008 and 2013. Taxes on profits include business tax, corporate tax, income tax, capital returns tax and the solidarity surcharge. The taxes paid are disclosed in firms' profit and loss statements. Data was consolidated at the corporate level, taxes paid abroad were deducted and the income tax paid by partners of non-incorporated firms was estimated based on a new survey of such companies.

IMPULS-Stiftung: Frame Conditions for More Capital Investment?

N. Potrafke, B. Kauder, M. Krause, M. Riem in cooperation with Ifo research professor T. Büttner, University of Erlangen-Nürnberg, A. Hönig, University of Erlangen-Nürnberg, for the IMPULS-Stiftung, January 2015 to October 2015.

This project looked at the factors influencing private investment in Germany and identifies constraints on private investment stemming from framework conditions defined by the German government. The main part of the study consists of an empirical analysis of how these framework conditions affect corporate investment. Based on our empirical results, we examined potential economic policy measures and derived concrete economic policy recommendations to improve the investment climate in Germany. This research was based on a new, firm-level dataset, exclusively available at the Ifo Institute, which combines the financial accounts of German companies with data from Ifo's Investment Surveys. Building on a theoretical analysis of investment decisions, the relation between investments, the cost of capital (especially taxes), labour costs, capital market con-

straints, a firm's business situation and expectations and various other investment climate indicators was empirically tested.

Empirical Studies on Public Debt and Fiscal Transfers

M. Reischmann, completed doctoral project, publication of results in *Journal of Comparative Economics* (forthcoming); *Journal of Money, Credit and Banking*, 2015; *Economic Modelling*, 2014; *Perspektiven der Wirtschaftspolitik*, 2014.

This doctoral project consisted of research into public debt and fiscal transfers. It examined whether the fiscal policies pursued by the US and German state governments are sustainable, and showed that the results of fiscal sustainability tests depend on whether fiscal transfers are taken into account. By exploiting a new dataset on the municipal fiscal equalization scheme in a German state, this research explored whether the municipalities' voting behaviour in state elections influenced discretionary grants by the federal state to municipalities. Governments can use "creative accounting" measures to hide deficits and sugarcoat the budget balance. This project described instances of creative accounting in OECD countries and examined whether electoral motives influenced the latter. In Germany, governments can hide borrowing by creating off-budget special funds. This project discussed the extent to which the new German debt brake limits and the borrowing of special funds explain how the debt brake can be circumvented.

Current Projects

Tax Revenue Forecast/Income Tax II

C. Breuer in cooperation with H. Gebhardt, Rheinisch-Westfälisches Institut für Wirtschaftsforschung (RWI), Essen, Kristina van Deuverden, German Institute for Economic Research (DIW), Berlin, J. Boysen-Hogrefe, Kiel Institute for the World Economy (IfW), Kiel, Götz Zeddes, Halle Institute for Economic Research (IWH), Halle, for the German Federal Ministry of Finance, November 2015 to March 2016.

Focus on family firms' taxes

Policy proposals to boost investment

Property and entrepreneurial income in Germany's national accounts are used as an indicator for assessed income tax. On behalf of the German Ministry of Finance a brief report was drafted as part of the research project fe 16/13 that explored various methodical procedures for empirically estimating the revenue elasticity of assessed income tax compared to property and entrepreneurial income and presented initial results. The short study analysed only individual aspects and the methodical approaches could not be interconnected. In this follow-up study a more comprehensive methodical and empirical analysis will be conducted to deduce the revenue elasticity of assessed income tax compared to property and entrepreneurial income that interlocks the various methodical approaches, and specifically provides a reliable identification of lag structures.

The first part of the research project more closely examines the property and entrepreneurial income as the basis for the projection indicator for assessed income tax by the Working Group on Tax Revenue Forecasting. The study investigates the difference between property and entrepreneurial income of the income tax statistics and the German national accounts.

The second to the fourth part of the research project analyses the relationship between assessed income tax and property and entrepreneurial income. The research project fe 16/13 already showed that ad hoc short-term models based on receipt figures or payment statistics can deliver good forecasting results compared to the usual practice of estimating receipts. Additional modelling work could offer a systematic advantage. Accordingly the second part of the research project will develop further short-term models.

It follows that the third part of this study uses econometric models to investigate the relationship between property and entrepreneurial income and income tax revenues that take this criticism on board. The main aim will be to determine a reliable lag structure based on existing or additional approaches. The fourth part of the study will be an empirical analysis on the revenue elasticity using the RWI in-

come tax microsimulation model, which checks and, if necessary, improves upon many aspects of the procedure adopted in research project fe 16/13. Finally, the results will be compiled and analysed in terms of increasing the accuracy of tax revenue forecasting to see whether a better projection rule for income tax revenue can be formulated.

Economic Effectiveness of Economic Stimulus Packages in 2008 and 2009

N. Potrafke, T.O. Berg, A. Hristov, B. Kauder, M. Reichmann, M. Riem, C. Schinke for the Fritz Thyssen Foundation, July 2013 to July 2016.

The Ifo Center for Public Finance and Political Economy in cooperation with the Ifo Center for Business Cycle Analysis and Surveys is examining the economic effectiveness of the economic stimulus packages in Germany in the years 2008 and 2009. The German government launched two important economy stimulus packages to counteract the negative influence of the strongest recession since 1950. This project aims to identify the effects of these fiscal policy measures on the German economy.

This research is structured in two pillars: the first pillar examines how fiscal policy measures influence the German business cycle and discusses the role of business confidence as a transmission channel for fiscal policy measures. The second pillar examines the effectiveness of fiscal aid for additional investment in German municipalities and states. It also investigates whether state governments strategically influence fiscal forecasts before elections.

Economic Policy, Public Finance and Firm Behaviour

M. Riem, ongoing doctoral project.

This doctoral project analyses various issues in the realm of public finance, political economy and firm behaviour. Special emphasis lies on empirical studies investigating the relationship between the economic-political framework and firm behaviour. Studies include in-depth analyses of inheritance and gift flows, the interaction of politics and economics and how partisanship influences economic policy advice.

[Improving tax revenue forecasting](#)

[How fiscal policy measures impact the economy](#)

Public Finance, Political Economy, and Inequality

C. Schinke, ongoing doctoral project.

This project deals with various issues in the realm of empirical public finance and political economy. Special emphasis lies on investigating the determinants of income/wealth inequality. Studies include in-depth analyses of inheritance and gift flows, whether partisanship influences income inequality, how partisanship influences economic policy advice, etc.

Public Finance, Political Economy and Fiscal Federalism

M. Krause, ongoing doctoral project.

This doctoral project combines research topics from the areas of public finance and political economy. More specifically, it analyses fiscal federalism schemes at local and municipal levels and possible reforms of current regulations. The project also examines the political determinants that influence the budget composition of the German states.

Political Economy, Financial Markets, Monetary Policy

K. Jäger, ongoing doctoral project.

This doctoral project deals with the intersection of political economy and monetary policy. Amongst other things, the dissertation aims to investigate how the deregulation of banking reserve requirements contributes to monetary stability, and to reveal the political-institutional origins of foreign reserve accumulation that has taken place since the Asian Financial Crisis.

Ifo Center for Labour Market Research and Family Economics

The Center's research focus is on labour market and family economics. Basic questions of the social welfare state, the labour market and demographic change are key fields of societal action and pose major challenges to policymakers. Thanks to demographic change – the ageing and shrinking of the (active) population – tomorrow's labour market and social security system will inevitably look different to today's. Demand for qualified staff will continue to grow and ensuring that more women, seniors and immigrants participate in the labour market will be crucial to meeting that demand. Family-friendly and age-appropriate jobs will play an ever greater role in the future, with a special focus on the compatibility of family and jobs. Policy drafts in these areas heavily influence decision-making by households, families and individuals. The impact of macroeconomic developments on family-relevant decisions is also of particular interest. To better understand the interplay of family-relevant decisions and policy measures, framework conditions in labour markets and macroeconomic developments, the center's researchers examine a broad spectrum of application oriented topics from the labour and family economics markets.

The center attaches great importance to combining theoretical analysis with microeconomic validation. Policymakers are often interested in how certain policy measures causally affect previously defined target variables. In terms of methodology, another focus of the center is therefore micro-economic evaluation studies, whereby the causal effects of social, family and labour market policy measures on the interface of family and labour market economics are identified using quasi-experimental methods. This not only provides policy decision-makers with valuable information on the effects of policy measures, but the methods used to obtain this information are also at the cutting edge of empirical labour market research.

In the field of **labour market economics** a research group focuses on the theoretical analysis of search and matching processes in labour markets, with a focus on frictions and institutions. This research investigates the impact of frictions and institutions on the rate of unemployment, its duration, wage distribution,

the formulation of staffing policy and international trade. Search and matching models are mainly used to model labour market frictions. The center also conducts research into questions of optimal income taxation.

Its labour market research also focuses on the economic aspects of migration and integration issues. The department investigates the determinants of the successful economic and social integration of migrants, the impact of immigration on employment and wage distribution, as well as the effects of globalisation on employment and equal pay.

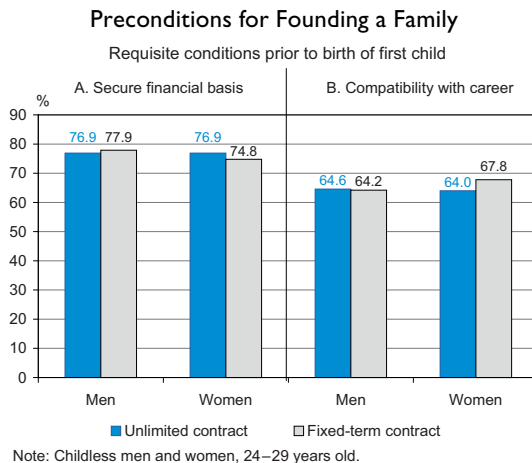
Within its main research area of **family economics**, the centre focuses on the effects of selected social and family policy instruments on families. Family policy measures can have a wide and varied range of effects on families. They set different incentives and influence the decisions and attitudes of families in different ways. Research into family economics mainly concerns the effects of family policy measures on the compatibility of family life and a career, on fertility decisions by couples and on the development of children.

In the area of family and career compatibility, the center's research examines parents' decisions over whether to accept jobs. Their reactions depend on the type of family policy measure considered. If the measure in question is infrastructural – such as the expansion of publicly-funded childcare for toddlers, for example – parents, and primarily mothers, tend to react by working longer hours. If, on the other hand, higher monetary benefits are paid to families, mothers tend to work less. Alternative treatments of families in income law also provide different incentives to work. Another key research area assesses the impact of policy measures to improve the compatibility of family and a career on child development.

Against a background of **demographic change**, the department analyses the impact of infrastructural and monetary state family benefits on parental fertility decisions. In this context research also explores the implications of economic uncertainty – stemming from limited employment contracts – on decisions by young couples to start a family.

Focus on economic and social integration of migrants

Policy measures to improve family and career compatibility



Source: Pairfam 2009; calculations by the Ifo Institute.

In its family economics research the centre also explores the causes and consequences of marital and familial instability. Economic factors influencing divorce rates are taken into consideration, the impact of their parents' separation on children is examined, and the policy mechanisms for influencing the stability of marital relations are evaluated. Moreover, attitudes to the role of women in family and professional life and with regard to the division of work within families are investigated. Further analysis looks at the impact of changes on unemployment rates and the frequency of domestic violence against women.

Projects Completed in 2015

Uncertainty in the Labour Market: How Does Fixed-term Employment Affect the Fertility and Mental Health of Younger People?

N. Danzer, W. Auer for the Institute for Structural Research, August 2014 to February 2015.

Starting a career with a limited-term contract has unintended consequences for young professionals: limited-term employment and the inherent economic uncertainty that it entails has negative effects on family formation and the mental health conditions of the individuals concerned. Empirical analyses based on the German Socio-Economic Panel (SOEP) from 1996 to 2012 show a negative relationship between limited-

term employment and fertility, as well as negative impact on mental health. Women who start their career with a limited-term contract tend to postpone entering motherhood. Ten years after labour market entry these women tend to have fewer children than those who start their career with a permanent contract. This pattern is particularly pronounced for women without a university degree. However, if men enter the labour market with a temporary job, neither their family planning nor their mental health status is affected. Thus, men deal far better with the pressure and uncertainty induced by a temporary first job. A potential explanation for these findings is the increased likelihood of repeated spells in temporary employment if a woman starts her career with a limited-term contract. This negative path dependence implies high levels of stress and uncertainty; and ultimately impedes family formation and reduces mental well-being.

Current Projects

Economic Uncertainty and the Family (EcUFam)

N. Danzer, H. Rainer, B. Schulz, W. Auer, T. Hener supported by the Leibniz Association, July 2015 to June 2018.

Can changes in fertility decisions by couples be attributed to demand-induced changes in labour market opportunities? Are people more likely to marry in recessions or in booms? Does youth unemployment affect intergenerational relations? To improve our understanding of the relationship between business cycles and family-related decisions in Europe, Ifo establishes the working group EcUFam (Economic Uncertainty and the Family). Research on the extent and importance of economic uncertainty as induced by poor macroeconomic conditions for key family outcomes including fertility, marriage and divorce, intergenerational relationships, gender-role attitudes and infant health will be conducted deploying a variety of methods and datasets. The working group is located at Ifo, but both the scope of its research as well as its scientific network will be European, with project partners and supporting institutions in Italy, Sweden and the United Kingdom.

Monetary and non-monetary benefits of a doctoral degree

H. Rainer, W. Auer, A. Fichtl, T. Hener, M. Piopiunik, funded by Institute for Innovation and Technology, Berlin, June 2015 to January 2016.

Education pays off. Higher education entails higher income and lower unemployment risk for individuals. Moreover, non-monetary benefits like higher life or job satisfaction as well as positive returns for society may be generated by investments in postgraduate education. Benefits for society include increases in welfare levels in terms of stronger social cohesion or greater political participation, for example. The study focuses on doctoral students and analyses their monetary and non-monetary returns on an individual basis and for society in general.

Firstly, this feasibility study delivers a review of the research findings of both international and national empirical studies on the returns on a doctoral degree. It analyses the empirical methods applied and the data sources exploited. Secondly, the German datasets available are evaluated regarding their information, sample sizes, and representativeness. Finally, we outline a modelling approach to quantify the monetary and non-monetary returns on a doctoral degree for individuals and for the society.

Optimal Immigration Policies in Europe: From Conflicting Interests to Mutual Gains

H. Rainer, J. Saurer, supported by the Leibniz Association, January 2012 to December 2015, publication of partial results in *CEsifo Working Paper* Nr. 4959, 2014.

The Ifo Center of Excellence for Migration and Integration Research (CEMIR) combines expert and specialist knowledge from various research institutes, several countries and different economic fields (see chapter on International Institutional Comparisons and Migration Research). In the framework of CEMIR the Ifo Center for Labour Market Research and Family Economics mainly focuses on the impact of immigration on employment and investigates the determinants of the successful economic and social integration of immigrants.

Essays on Family and Labour Economics

N. Danzer, ongoing habilitation project, publication of partial results in *Ifo Working Paper* No. 169, 2013; No. 190, 2014; *CEsifo Working Paper* No. 4488, 2013; No. 4855, 2014.

Demographic change constitutes a major challenge for the labour market and the social security system. This habilitation project explores the interactions between labour market and demographic developments. On the one hand the project investigates the importance of different forms of economic uncertainty (atypical employment, unemployment and the risk of unemployment over the course of an economic cycle) in couples' decisions regarding the size of their family. In this context different potential impact channels are also analysed more closely. On the other hand, the project also looks at the question of how far policy reforms designed to support the compatibility of a family and a career and to reduce job insecurities directly impact not only labour market decisions by parents, but also indirectly influence the development of children.

The Economics of Labour Markets and the Family

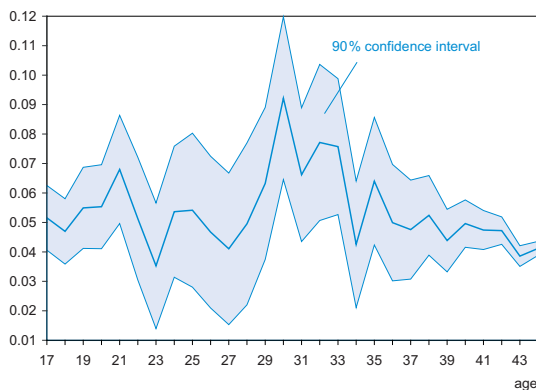
T. Hener, ongoing habilitation project, publication of partial results in *CEsifo Working Paper* No. 4776, 2014; No. 5313, 2015; *ifo Schnelldienst* 67(10), 2014; 67(24), 2014; *CEsifo DICE Report* 12(1), 2014; *Journal of the European Economic Association*, forthcoming; *Journal of the Royal Statistical Society: Series A*, forthcoming; *Review of Economics of the Household*, forthcoming.

Decisions made by households, families and individuals are pivotal to demographic development issues like ageing societies and low birth rates. This habilitation project is concerned with the interplay of family and labour market policies, macroeconomic development and microeconomic decisions. The project uses a life-cycle perspective to create a complete picture. Sub-projects investigate the interplay of assortative matching in marriage markets and education using international micro data. It also weighs the importance of family and labour market policies in the decision to start a family. The early life circumstances of children form the focus of studies on the impact of macroeconomic shocks and early childhood education.

Relations between the labour market and demographics

Focus on interplay of family and labour market policies

Effects of Day Nursery Rates on Birth Rates Per Year of Mother's Age



Regression results from fixed-effects model per year of mother's age, taking into account the control variables in the base regression.

Source: German State Statistics Offices, German Federal Statistics Office; calculations by the Ifo Institute.

Public Finance, Globalisation and Labour Markets

C. Holzner, ongoing habilitation project, publication of partial results in *Journal of Macroeconomics*, 2010; *CESifo Economic Studies*, 2010; *Zeitschrift für ArbeitsmarktForschung* 46 (2), 2013. *CESifo Working Paper* No. 3597, 2011; No. 3522, 2011; No. 3472, 2011; No. 5275, 2015; No. 5245, 2015.

Labour markets are not perfectly competitive, but are governed by all kinds of frictions. Search and matching theory therefore concentrates on information imperfections and associated mobility frictions. The habilitation project aims to understand the freedom enjoyed by firms in designing labour contracts, the influence of different wage mechanisms, and the impact of trade liberalization in an imperfect labour market. The existence of frictions can also justify government intervention in the labour market. The project therefore also looks at how far the current income tax system can be justified by labour market frictions.

Essays on the Economics of Migration

J. Saurer, ongoing doctoral project, publication of partial results in *CESifo Working Paper* No. 4959, 2014.

In the framework of a doctoral project two different aspects of migration are investigated at a microeconomic level. On the one hand, the project

investigates the effect of the sudden growth in an ethnic group on both the labour market situation of local inhabitants and on their electoral behaviour. On the other hand, the doctoral project looks at the integration behaviour of migrants. The use of almost experimental identification strategies should make it possible to reveal real causal relations. The analyses are based on micro data sets like Mikrozensus, SOEP, ALLBUS and NEPS.

Essays on Assortative Matching in Labour and Marriage Markets

B. Schulz, ongoing doctoral project, publication of partial results in *Ifo Working Paper* No. 199, 2015.

This dissertation project analyses labor and marriage market models with search frictions and two sided heterogeneity both theoretically and empirically. The focus lies on assortative matching, that is, the existence of an optimal matching partner driven by complementarities in production, which has important implications both for the stationary equilibrium and the model's dynamics. A labour market model with assortative matching can explain certain empirical regularities in the labour market more effectively than models with representative agents. The empirical part of the dissertation examines the prevalence of complementarities and assortative matching in the labour market using structural econometrics and register data. Additionally, a comparable model with heterogeneous agents is constructed for the marriage market. It allows for the analysis of fluctuating marriage and divorce rates in the light of economic uncertainty.

Essays on Economic Uncertainty and the Family

F. Siuda, ongoing doctoral project, since 1 October 2015, in the framework of the project "Economic Uncertainty and the Family" (EcUFam), supported by the Leibniz Association, July 2015 to June 2018.

Essays on Economic Uncertainty and the Family

P. Reich, ongoing doctoral project, since 1 September 2015, in the framework of the project "Economic Uncertainty and the Family" (EcUFam), supported by the Leibniz Association, July 2015 to June 2018.

Ifo Center for the Economics of Education

Modern growth economics identifies the generation of knowledge as a primary determinant of long-term economic growth. Knowledge generation includes both the development of individual competencies and the generation of new knowledge that advances the world's technological frontiers. However, little can be learned from such general macroeconomic insights for concrete policy-making at the micro level. The research programme followed by the Ifo Center for the Economics of Education therefore asks which kind of knowledge matters most for prosperity, what determines knowledge generation, and what kind of policy can contribute to promoting the generation of knowledge? The center thus analyses how education policies can advance the knowledge base of highly-qualified future workers and the innovative capacity of the economy. To understand which policies work, the center primarily employs microeconomic methods that allow for quasi-experimental evaluation – techniques that are increasingly proving indispensable in a wide variety of contexts, but are rarely used in this crucial area in Germany.

Education systems generate the human capital of a well-educated workforce that is of crucial importance for the global competitiveness of modern economies exposed to an ever-changing world. In the long run, only continuous advances in knowledge allow economies to escape worldwide low-wage competition. Moreover, education is a crucial determinant of equity and participation in society. By investigating which policies influence the development of human capital, the Ifo Center for the Economics of Education explores public policies for growth and cohesion in a changing world. Specifically, the center's research is structured into four areas that address political and other determinants of education on the one hand and its effects on individual and societal prosperity on the other.

Education and Individual Outcomes: Labour Markets and Lifecycles

The first research area analyses the importance of education for individual opportunities in the labour market and in everyday life, focusing on individuals and their employment lifecycles. It studies the role of competencies and skills for individual employability

and social participation in a society that is evolving at an increasingly rapid pace. In 2015, as part of an FP7 project funded by the European Commission, the center used international data on adult competencies to estimate the financial returns on skills, or the labour-market rewards for higher competencies in the form of higher earnings. Moreover, the center started a research project on the importance of school-leaving grades to the hiring decisions of firms based on a survey of human resource managers. It also focuses on the dual vocational education system, a key pillar of human capital formation in German-speaking countries, combined with the relative importance of vocational and general education for productivity. Furthermore, the center investigates the opportunities and limitations of adult education, training and life-long learning.

Education and Long-Term Development: Economic Growth and Prosperity

Beyond its individual impact, education is also crucial to the prosperity of society at large and economic development in the long run. One focus in this area is on the role that education in the form of the results of international achievement tests plays for economic growth and social cohesion today. Another focus is on a historical perspective, looking at questions like, for example, how the diffusion of education before and during industrialization changed historical development. In addition, the historical perspective is combined with the modern perspective by assessing the long-term effects of historical circumstances on economic development today. This year, a project financed by the Kern Family Foundation analysed the role of human capital in determining differences in economic development across US states.

Determinants of Education: Culture, Resources and Institutions

Given the central importance of education for the prosperity of individuals and societies, the third research area studies the determinants of educational performance. A particular focus is placed on three groups of determinants: families, values, and norms (culture), resources spent on education, and the institutional framework of the education system. The research that analyses these determinants often draws

[Assessing the financial returns on skills](#)

[Education and prosperity: a historical perspective](#)

on rich micro data from various international student achievement tests. In 2015, the center contributed to the National Education Panel (NEPS) which collects longitudinal data on education processes in Germany. Current research also focuses on such topics as the integration of children with migration backgrounds in the education system, the effectiveness of teachers, and e-learning.

Governance of Education: Efficiency and Equity

The fourth research area focuses on how political governance of education systems affects educational success and equity. Central elements of the governance of education systems studied in this area include autonomy, exam systems, competition, and tracking. The area also studies the feasibility of governance structure reforms and their acceptability among the population. In 2015, the results of the first Ifo Education Barometer were presented – an opinion survey on education policy in Germany conducted by the center and funded by the Leibniz Association under its competitive funding scheme. Furthermore, the center coordinates the European Expert Network on Economics of Education (EENEE), a Europe-wide think tank funded by the European Commission. Ultimately, the evaluation of policies with (quasi-) experimental methods aims to bring evidence-based policy advice into the political decision-making process.

Projects Completed in 2015

LLLight'in'Europe: Lifelong Learning, Innovation, Growth & Human Capital Tracks in Europe

S. Wiederhold, L. Wößmann, part of a consortium funded by the European Union under the FP7 framework programme, October 2012 to September 2015, publication of results in *European Economic Review* 73, 2015 (also published as: *NBER Working Paper* No. 19762, 2013); four Analytical Reports for the European Commission in 2015; *methods data analyses – Journal for Quantitative Methods and Survey Methodology* 8(2), 2014; *ifo Schnelldienst* 66 (22), 2013; *DSW Journal* 8(4), 2013; *dis.kurs* 20(4), 2013; *Freie Bildung und Erziehung* 90(1), 2014.

Education is an important foundation for competitiveness in the labour market. Since this is not only true for generations of future workers who are still in school, but also for those who are in their 30s, 40s and 50s today, lifelong learning is essential to continued employability. However, little was known about the skills that adults actually have and how these affect – at the individual level – wages, job mobility, and the risk of unemployment as well as – at the macro level – an economy's innovativeness and growth prospects. This project attempted to shed light on these questions.

To answer these questions, the project drew heavily on the Programme for the International Assessment of Adult Competencies (PIAAC) survey conducted by the OECD in 24 countries. PIAAC was designed to measure key information processing skills that individuals need to advance in their jobs and participate in society. Simon Wiederhold and Ludger Woessmann, in cooperation with the Ifo Research Professors Eric A. Hanushek (Stanford University) and Guido Schwerdt (University of Konstanz), measured how labour markets reward skills. They estimated the returns to skills as the increase in hourly wages when skills increase by one out of five proficiency levels in PIAAC. The results showed that higher cognitive skills are systematically related to higher wages in all countries. The effect size of the returns is economically important: on average, an increase in numeracy skills by one out of five proficiency levels in PIAAC is associated with an increase in wages by 18 percent across countries. But perhaps the most striking finding from the international analysis was the substantial variation in returns to skills across countries. Estimated returns to skills in the countries with the highest returns (the United States, Ireland, and Germany) were roughly twice as large as in the countries with the lowest returns (Sweden, the Czech Republic, and Norway). Eight countries, including all Nordic countries, had returns between 12 and 15 percent, whereas six countries were above 21 percent with the largest return being 28 percent in the United States.

Other LLLight'in'Europe research dealt with the measurement of skill mismatch between occupations. Together with Anja Perry (GESIS Mannheim) und Daniela Ackermann-Piek (GESIS Mannheim und University of Mannheim), Simon Wiederhold used in-

Results of first
Ifo Education Barometer
published

dividual skill data from the PIAAC survey to improve existing measures of skill mismatch, which are typically based on self-reports.

In joint work with Ljubica Nedelkoska and Frank Nefke (both Harvard University), Simon Wiederhold investigated the role of skills in explaining the costs of job displacement. The authors found that displacement increases occupational switching and skill mismatch, primarily because displaced workers move to less skill-demanding occupations. The negative earning effects associated with displacement were mostly driven by these moves, while workers moving to more skill-demanding occupations had similar earning losses as stayers.

LLLight'in'Europe also offered a comprehensive, open online course (MOOC) entitled "Solution and Innovation Skills." With this online-course, the partner universities took up the topic of innovation and participants learned how to develop and implement new ideas. Besides the Ifo institute, researchers from such institutions as the Harvard Business School, the MIT Media Lab, the Harvard Kennedy School, and the University of Luxembourg helped to develop the course.

The main project results delivered by the Ifo Institute were published in four Analytical Reports, which can be accessed on the LLLight'in'Europe website (www.lllightineurope.com). All results from the project were discussed with policy-makers, practitioners, and researchers at the LLLight'in'Europe Final Conference held in September 2015 in Brussels.

US State Human Capital

L. Wößmann, J. Ruhose, S. Link, M. Piopiunik, G. Schwerdt in cooperation with Ifo research professor E. Hanushek, Stanford University, for the Kern Family Foundation, September 2012 to April 2015. main part of the project published as *NBER Working Paper* No. 21295, 2015.

States unquestioningly believe that developing the achievement and skills of their youngsters is a top policymaking priority, but existing evidence on the economic implications of improving education for states lacks clarity. The project team evaluated not

only how important human capital is in explaining income differences across states, but also what evidence says about the gains that can be expected from improved schools.

This project developed new estimates of the human capital stock of workers in each state. These estimates, which combine school attainment and achievement for workers, formed the basis of an investigation into how human capital affects aggregate state income and income growth.

Developing the combined measures of human capital is difficult. While information on the school attainment of the labour force is readily available from census data, details of its achievements are not. Regular student testing in each state gives information on workers who live in the same state in which they were educated, but this information is insufficient due to extensive migration across states and significant immigration from abroad. Moreover, past analysis suggests that both internal migration and international immigration are highly selective. Understanding the state distribution of skills can be investigated by tracing workers back to their place of education. This research integrated information on the quality of education in the state or country of schooling with the distribution of workers in the labour market of each state in order to estimate the quality of workers. Considering varied migration patterns by level of education also made it possible to control for the selectivity of migration.

The first component of the analysis pursued an accounting exercise to understand how much of the very large difference in incomes of states can be explained by human capital differences as opposed to other factors like capital stocks. The basic idea was to use existing research into how various inputs affected outcomes and income in order to estimate the impact of different factors on the incomes of states. We used the new human capital measures in such development accounting analyses calibrated with standard production parameters. Our findings revealed that differences in human capital account for 20–35 percent of the current variation in per-capita GDP among states, with roughly even contributions by school at-

Effects of human capital on state income and its growth

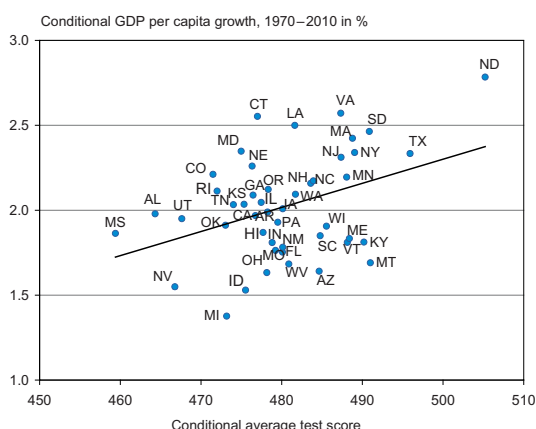
Human capital differences and GDP

Focus on educational reforms

tainment and cognitive skills. In some ways this figure was surprisingly high, because both labour and capital are free to move across states – and thus to tend to equalize rewards to workers of different skills. Similar results emerged from growth accounting analyses. In this related analysis, we investigated how much of the growth in income seen in the United States came from human capital. Looking at growth between 1970 and 2007, we found that human capital improvements explained a similar portion of the growth as in the prior analysis of state income differences.

The second major component of the work was its consideration of the implications for educational reform. To this end, we first estimated models of state economic growth that parallel cross-country growth models. This estimation built on the development of measures of the human capital stock from the prior accounting analysis. The cross-state growth models were virtually identical to the results from the cross-country growth models. As a result, we were able to rely on the extensive analysis of causality from the international analyses to support the use of these models for projecting the economic impact of school reform.

Test Scores and Economic Growth across US States



Notes: Added-variable plot of a regression of the average annual rate of growth (in percent) of real GDP per capita in 1970–2010 on the initial level of (log) real GDP per capita in 1970, average test scores adjusted for interstate migrants by education and for international migrants by the 90th percentile in country of birth in 1970, average years of schooling in 1970, and (log) real physical capital per worker in 1970 (mean of the unconditional variables added to each axis).

Source: E. Hanushek, J. Ruhose and L. Wößmann, Economic Gains for US States from Educational Reform, 2015, mimeo.

The cross-state growth models provided a clear picture of the importance of school improvement for economic outcomes. As seen in Figure I, enhanced student achievement yields gains in state economic growth – and the impact is quite substantial.

We considered a range of improvement policies and then estimated the economic impact of each measure for the state in question. The various scenarios included:

- Increasing average achievement by ¼ standard deviation.
- Bringing each state up to the best state (Minnesota).
- Bringing each state up to the best in the geographic division.
- Bringing all students in a state up to the NAEP basic level.
- Scenario I with single state improvement.

Calculating the economic impact was straightforward. We were able to estimate the expected growth of a state into the future with the current level of skills of workers, and this path was compared to the path that would be achieved with better schools (according to the previous scenarios). The estimated impact used the previously estimated state growth models and projects GDP per capita. GDP gains were subsequently discounted, so that near term gains were given more weight than gains in the more distant future.

The economic impact varied considerably, based on differences in the current economic and human capital positions of each state. For example, gains in economic outcomes from bringing all students up to basic skills were relatively low in North Dakota and Massachusetts, where the fewest low-performing students are currently found, and rather high in Alabama and California, where the greatest number of low-performing students are found. But even in North Dakota and Massachusetts, the present value of gains (over the lifetime of somebody born today) would amount to 70 percent of current state GDP. For the states farthest from having all at basic levels, it would amount to over three times their current state GDP.

The conclusion is that there are enormous economic gains to be had from improvement of schools. The largest gains come from a coordinated improvement in performance – since states are all linked by flows of people over time. But even ignoring the impact of migration, it is clear that each state can promote a better economic future for its citizens through educational reform.

Microeconomic Analyses of the Economic Consequences of Selective Migration

J. Ruhose, completed doctoral project, publications as *ifo Beitrag zur Wirtschaftsforschung* No. 61, Ifo Institute, Munich 2015, and of partial results in *CESifo Working Paper* No. 4992, 2014; No. 5248, 2015; No. 5303, 2015.

This dissertation aimed to deepen understanding of migrants' performance in host societies and their impact on native citizens. Given the large increase in the migrant population of many developed countries, it is important to know both how migrants integrate into host countries and how immigration affects natives. This thesis began by documenting that migration is a highly selective process and that selective migration has important implications for labour force quality.

The main part of the doctoral project consisted of four self-contained studies. The first study quantified non-pecuniary migration costs incurred due to selective migration along cultural traits within Germany. This project proxied cultural distance between German counties with their historical dialect distance. This information was merged with administrative social security panel data to calculate the wage that is demanded for moving to a culturally different county. The results gave a lower-boundary estimate of psychic migration costs, which are economically substantial. That shows that internal migrants in Germany need to be compensated for overcoming cultural barriers in migration.

The second study focused on the school system as a tool for integrating migrants. It is documented that comprehensive schooling, or the abolition of early between-school tracking based on ability, might not be an appropriate way to foster the integration of migrants. However, children from the least integrated

families, namely those families that do not speak the language of the testing country at home, are disadvantaged in early tracking systems. This project pooled all available international achievement tests (PISA, TIMSS, and PIRLS) and compared the migrant-native achievement gap in test scores between primary and secondary schools. The identification strategy made use of the fact that no country has tracked students in primary schools and that some countries have tracked students in secondary schools.

The third and the fourth studies covered the effect of immigration on the host societies along two dimensions: native income mobility and crime. The third study looked at the impact of immigration on the intergenerational income mobility of natives in US metropolitan areas. A priori, it was unclear whether immigration should increase or decrease the importance of socioeconomic background to the success of native children. The study documented that the presence of migrants mitigates the importance of family background by nudging children to invest more in education, which provides them with the wherewithal to choose occupations that are complementary to the skills and occupations of migrants.

The fourth study investigated the impact of immigration on crime. To explore this relationship for Germany, we looked at the inflow of ethnic German immigrants after the fall of the Iron Curtain. Using the administrative allocation of ethnic Germans across German Länder as a quasi-natural experiment, we found that ethnic Germans substantially increased crime rates in their assigned counties, whereas the current perception in the literature is that the average migrant does not substantially increase crime. However, by looking at a group of immigrants with low occupational and language skills, but who were granted immediate citizenship upon arrival in Germany, we found that migrants can increase the crime rate substantially. Our research also revealed that pre-existing regional economic conditions matter in the migrant-crime relationship. Here we found, for instance that counties with low unemployment rates prior to the assignment of ethnic Germans did not experience an increase in crime. Thus, integrating migrants quickly into the labour market is a good crime prevention strategy.

[How immigration affects host societies](#)

[Relations between migrants and crime](#)

Current Projects

The Political Economy of Education Policy: Insights from a Public Opinion Survey

L. Wößmann, P. Lergetporer, F. Kugler, L. Oestreich, K. Werner, funded by the Leibniz Association, January 2014 to December 2017, publication of first results in *ifo Schnelldienst* 67(18), 2014, *ifo Schnelldienst* 68(17), 2015; *Harvard Kennedy School PEPG Working Paper* No. 15-02, 2015

Empirical research has produced many insights into how education policies could be altered to improve educational outcomes. But political actors are frequently reluctant to carry out reforms supported by high-quality research. One important reason for this discrepancy between evidence and action could be that political actors are responsive to the opinions of voters and of well-organised interest groups. A sound grasp of the electorate's opinions on education policy and its malleability, through information campaigns, for example is therefore crucial to understanding education policies and outcomes.

The aim of this project is to better understand the public opinion on a broad range of topics in education policy. We conduct therefore, conduct three waves of a representative opinion survey of the adult German population on education policy each year from 2014 to 2016. In order to study the causal effect of information provision on public opinion, we administer "survey experiments" in which a randomly selected subgroup of respondents is provided with certain pieces of information before answering a question common to all respondents. Comparing the answers of both subgroups allows us to quantify the causal effect of the respective information on public opinion. The second survey wave was conducted in May 2015 and focused on parents of children of compulsory school age. In order to make representative statements about the opinion of parents, we also sampled over 1,000 parents of children aged 6 to fifteen years on top of the representative master sample of more than 3,000 respondents.

The results show a remarkable willingness to reform the educational system among the German public.

The German population, for instance, supports the introduction of free pre-school education, of compulsory quality standards in preschool, of nationwide standardised tests in Math and German for certain school grades, of nationwide compulsory quality standards in pre-school, and of standardised nationwide final examinations for all school types. Furthermore, the German public generally supports the introduction of all-day schools. Importantly, however, a survey experiment shows that public support depends on the length of the schooldays. The majorities of respondents in those random subgroups who were asked about the introduction of all-day schools until 3 pm respectively 4 pm support this policy proposal (61 and 56 percent). In contrast, only a plurality of respondents (47 percent) in another random group supports all-day schools until 5 pm. Furthermore, the majority of respondents supports the abolition of the *Betreuungsgeld* (a subsidy paid to parents who do not take advantage of public child care), free primary school choice for parents and a lifting the constitutional prohibition of cooperation between the federal government and the federal states in the field of education. Interestingly, the opinion of parents on education policies resembles the opinion of the rest of the German public on most issues.

Close cooperation with the "Program on Education Policy and Governance" (PEPG) at Harvard University and the University of Bern, which conduct similar surveys in the US and Switzerland, respectively, constitutes another key aspect of the project. In 2015, a first study comparing public opinion in the US and Germany was published.

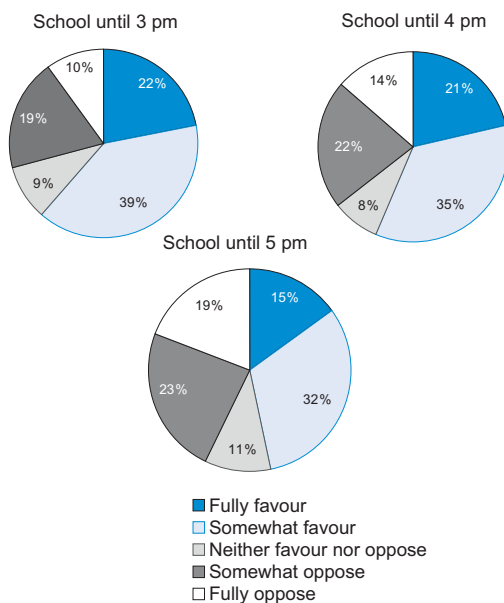
As part of the project, a workshop on "Public Opinion and the Political Economy of Education" was held jointly with PEPG on May 8, 2015 at the Ifo Institute. Additionally, in line with the subject of the project the Ifo Center for the Economics of Education organized the content of this year's Forum on Educational Policy of the Leibniz Education Research Network. The event took place on October 1st, 2015, in Berlin on the subject "Acceptance and realization of educational reforms: How we can exploit potentials in education".

Political resistance to reform

Information and public opinion

Should Germany Introduce Full-time Schools?

Clear majority in favour of full-time schools until 3 or 4 pm – opposition increases for schools until 5 pm



Source: Ifo Education Survey 2015. For more details see *ifo Schnelldienst* 68(17), 2015, 29–50.

European Expert Network on Economics of Education, EENEE

L. Wößmann, R. Schüler, F. Kugler, U. Baldi-Cohrs in cooperation with senior experts from leading European and non-European universities, research institutes and international organisations on behalf of the European Commission, Directorate General Education and Culture, 2013 to 2016.

The European Expert Network on Economics of Education (EENEE) is a network of leading European centres and experts on the economics of education. As an EU Think Tank, the network is sponsored by the European Commission, Directorate-General for Education and Culture (DG EAC) and coordinated by the Ifo Institute. EENEE aims to contribute to the improvement of decision-making and policy development in education and training in Europe by advising the European Commission in the analysis of economic aspects of educational policies and reforms and supporting the dissemination of knowledge on the economics of education in Europe.

EENEE performs the following concrete tasks: preparing analytical reports, writing policy briefs, providing guidance and advice on concrete questions of the Commission in the field of the economics of education that emerge occasionally on an ad-hoc basis, offering support with conferences and meetings on the economics of education, maintaining a website on Economics of Education in Europe (www.education-economics.org), mapping experts and organisations in this area, and providing references to key topics in the economics of education.



EENEE published four analytical reports in the year 2015. Report no. 21 examines how reducing inequality in education and skills can have an impact on economic growth. Report no. 22 analyses how education and training can be used to prevent and combat youth unemployment. Report no. 23 examines whether and how innovations in education can be used to improve skills and employability. Report no. 24 looks at the impact of school size and school consolidations on quality and equity in education. Three additional reports are in progress. One of these reports deals with student

Four EENEE reports published in 2015

debt and different financing schemes in higher education. Another report examines the incentive mechanisms that can be used to hire and keep high-quality teachers. Another report investigates how education can be used as a tool to integrate migrants.

Five Policy Briefs published in 2015

Furthermore, five Policy Briefs summarising important aspects of the economics of education in a concise way were published in 2015. Beside the topics of the mentioned Analytical Reports, one Policy Brief examines whether public procurement can be used to promote apprenticeships. In total, the network has published 19 Policy Briefs.

Exit Exams as a Governance Instrument in the School System: The Importance of School-Leaving Grades for the Hiring Decisions of Firms

L. Wößmann, M. Piopiunik, L. Simon, A. Jacob-Puchalka, F. Kugler, funded by the German Federal Ministry of Education and Research, March 2014 to February 2017.

The results of the previous project “Central Exit Exams as a Governance Instrument in the School System: Labour-Market Effects, Transmission Channels and Effect Heterogeneity” reveal that central exit exams have long-term implications for an individual's success on the labour market. However, the observed positive association between central exit exams and labour-market success, as well as the role played by school-leaving grades in hiring decisions in general, is not yet fully understood. Based on an extensive survey of human resources managers, this project aims to shed light on the general importance of school grades to the hiring decisions of firms, the importance of school-leaving grades to the hiring decisions of firms for apprenticeship positions, the importance of school-leaving grades to hiring decisions when another important productivity signal (e.g. university grade) is subsequently acquired, as well as whether the importance of school-leaving grades to hiring decisions depends on the degree of centrality of school exit exams.

The project is based on an extensive survey of a representative sample of human resources managers in Germany. The first part consists of a randomised experiment, in which HR managers were asked to

choose between two fictitious CVs. Those CVs are randomised with respect to exit exam grades, the federal state in which the exit exam was obtained, and additional characteristics. This allows identifying and quantifying the causal effect of the randomised elements on the probability of being employed. The second part of the inquiry includes a questionnaire on the personal characteristics of HR managers and on the importance of various CV elements for actual hiring decisions. A first pre-test was conducted to test the randomised CVs and the questionnaire before entering the field phase in the next step. Multivariate econometric methods will be used for data analysis. Overall, the project aims to clarify whether, and how strongly, firms take into account the individual elements of school exit degrees in their hiring decisions. This knowledge enables us to draw inferences as to the potential long-run repercussions on the incentive structures in the school system that could be caused by increasingly centralising exit exams.

Acquisition and Utilisation of Adult Skills – A Network for Analysing, Developing and Disseminating PIAAC

L. Wößmann, S. Wiederhold, F. Hampf, part of a consortium headed by GESIS, funded through the Leibniz Competition, February 2015 to January 2018.

The Programme for the International Assessment of Adult Competencies (PIAAC) provides up-to-date information on key adult skills in 24 countries. This data will be used to carry out further research on the acquisition and utilisation of skills. In a first step, the Ifo Center for the Economics of Education – in collaboration with other Leibniz institutes, headed by GESIS – will evaluate existing skill measures in PIAAC and compare them to other available skills measures. In addition, alternative measures will be developed and subsequently tested using data from the German longitudinal PIAAC survey. In a second step, the project aims to improve the understanding of the causal effects of skills on labour-market outcomes using improved identification methods. Furthermore, German PIAAC data will be linked to administrative data of individuals' employment histories. This linking aims to improve future waves of PIAAC background questionnaires in terms of questions of education and

School grades and corporate hiring

employment histories. Finally, the PIAAC data and project results will be communicated to the scientific community and to stakeholders from politics and industry.

National Education Panel (NEPS)

L. Wößmann, N. Obergruber in cooperation with the NEPS Consortium, funded by the Leibniz Institute of Educational Trajectories e.V. (LIfBi) at the University of Bamberg, January 2014 to December 2016.

The objective of the National Education Panel is to collect longitudinal data on the development of skills, education processes, education decisions, and returns to education in formal, non-formal, and informal contexts over the entire lifespan. The NEPS data will be made available to the national and international scientific community in the form of an anonymous Scientific Use File. The data will offer rich analysis potential for various disciplines that examine education and training processes, such as education, psychology, sociology, economics, and demographics, and will create the basis for improved reporting and policy consulting in Germany. The Ifo Center for the Economics of Education has co-responsibility for item development in the pillar of 'returns to education across the life course'. Among other things, a development study was prepared in 2015 to develop items for the transition of children from elementary to lower secondary schools.

Teacher Effectiveness and its Determinants in Germany: A Deepened Analysis

B. Enzi, L. Wößmann, ongoing doctoral project, supported by the German Research Foundation (DFG), first project stage (beginning October 2012) completed in September 2015; follow-up project supported by the German Research Foundation (DFG), October 2015 to September 2018.

Building upon the first funding phase, the project aims to analyse teacher the effectiveness and its determinants based on student-level achievement data from the German National Educational Panel Study (NEPS). A first key goal of the project is to exploit the longitudinal structure of the NEPS data to estimate value-added models of student achieve-

ment that include teacher fixed effects. Based on the estimated distribution of teacher quality, we can quantify the effects of having an "effective" teacher on student achievement. A second key goal of the project is to study the determinants of teacher quality. The NEPS survey information exceeds the information on teacher characteristics typically available in large-scale linked student-teacher datasets. Furthermore, multiple estimation strategies are used to increase reliability of the results teacher effectiveness in Germany and teacher and classroom effects are disentangled.

The Effects of Cultural Diversity on Innovation and Public Provision of Schooling: Evidence from Nineteenth Century Prussia

F. Cinnirella, funded by the German Research Foundation (DFG), February 2015 to January 2017.

There is a growing body of literature that studies the costs and benefits of cultural diversity. On the one hand, cultural diversity may increase productivity due to complementarities in the specialization of different ethnic, linguistic, and religious groups. On the other hand, diversity may lead to lower redistribution and under-provision of public goods due to divergent preferences. This project aims to provide new empirical evidence on the costs and benefits of cultural diversity in the specific setting of nineteenth century Prussia.

The first objective is to investigate the role of cultural diversity in innovation. In particular, we aim to identify the effect of religious diversity on patenting activity. This is the first project that explores this relationship for a period of intense technological progress namely the German industrial revolution. In fact, Prussia constitutes an ideal laboratory for studying the effect of religious diversity on innovative activity. For historical reasons such as the Reformation in the sixteenth century and the Partitions of Poland at the end of the eighteenth century, Prussia is characterised by a pronounced religious and ethnic heterogeneity due to the cohabitation of Protestants, Catholics, and Jews (plus other smaller religious groups). Using census data at the county level on the religious composition of the population in 1816, we can identify exogenous varia-

[Teacher quality and its determinants](#)

[Religious diversity and patenting in 19th century Prussia](#)

tion in religious diversity in 1871 and thus estimate its causal effect on innovative activity. Innovative activity is measured by the number of valuable patents granted to firms and individuals between 1877 and 1890.

The second objective is to shed light on the mechanisms behind the effect of diversity on innovative activity. This is achieved by using data on the religious composition of dozens of industries reported in the Prussian occupational census of 1882. This allows us to understand whether the complementarities between different cultures only have a positive effect on innovative activity for specific industrial sectors. In addition, we will also investigate the existence of spillover effects. In particular, we test whether cultural diversity functioned as a channel for spillover of technological knowledge by analysing the extent to which diversity helped the diffusion of technology across technologically and geographically related industries.

Evaluating the Effectiveness of a Mentoring Programme

L. Wößmann, J. Ruhose, S. Wiederhold, funded by the Commissioner of the Federal Government for Migration, Refugees and Integration, and a consortium of non-profit foundations, June 2015 to March 2020.

Social mobility in Germany is still very low. This is reflected in the fact that children with disadvantaged or migration backgrounds are most likely to visit the lowest academic school track in secondary school (*Hauptschule*). These children often do not make the leap from the *Hauptschule* to qualified work or further schooling. Instead, they are stuck in the transitional system and thus have little chance of upward social mobility. Reasons for the lack of a perspective are inadequate assistance for parents with low income or education levels in school-related work, low school quality, a resulting lack of training maturity, only vague ideas about potential jobs, and lacking detailed knowledge about the German educational system.

Given these problems, mentoring and coaching programmes can be an effective way to improve the future prospects of students from the *Hauptschule*. This project investigates whether one of the largest 1:1 mentoring programmes in Germany has a posi-

tive impact on school grades, social competencies, and the labour market success of students from the *Hauptschule*. The evaluation aims to investigate both the short-term and long-term effects of the programme and uncovers concrete mechanisms behind them to provide generalizable recommendations for the design of mentoring programmes.

Calculation of Returns on Education in Germany

L. Wößmann, J. Ruhose, F. Kugler, funded by Union Investment Privatfonds GmbH, December 2015 to September 2016.

Investment in education pays off. An overwhelming literature that deals with the estimation of returns on education, estimated that the average yield of an additional year of schooling is around 10% higher income. But what are the returns to education for people with different educational pathways? The aim of this project are extensive calculations for returns to education in Germany. For this purpose, the project looks at received earnings and income of persons with different educational and occupational degrees and qualifications (educational pathways). For example, one research question addresses to what extent a university degree yields higher earnings than the completion of vocational education. Additionally, heterogeneities in the returns to education are to be analyzed between men and women, natives and migrants, industry and craft, between different fields of study, and in different German regions. Considering demographic change in particular, the answers to these questions have important implications for retirement, intergenerational redistribution, tax revenues, and the gap between rich and poor. Another aspect of the project is the calculation of an education-specific unemployment rate. Finally, the preceding calculations are used to simulate education-specific pension payment schemes.

Empirical Studies in the Economics of Education

L. Wößmann, various ongoing research projects, recent publications, among others, in MIT Press, 2015; OECD, 2015; *European Economic Review* 73, 2015; *Economic Journal*, forthcoming; *Journal of Human Resources*, forthcoming; *Education Economics*, forthcom-

Diversity and innovation

How mentoring can help
Hauptschule students

ing; *Education Next* 15(2), 2015; *Foreign Affairs*, 2015; *ifo Schnelldienst* 68(10), 2015; *NBER Working Paper* No. 21295, 2015; *CESifo Working Paper* No. 5288, 2015; No. 5266, 2015; reports of the Aktionsrat Bildung and of the Academic Advisory Council of the Federal Ministry of Economics and Energy, as well as contributions to several daily and weekly newspapers.

Numerous ongoing and provisionally completed projects deal with topics of the economics of education. Written together with Ifo Research Professor Eric A. Hanushek of Stanford University, the book “The Knowledge Capital of Nations: Education and the Economics of Growth” was published by MIT Press in 2015. The book shows that long-run economic growth is directly linked to the competencies of the population – the “knowledge capital” of nations. This result is developed with rigorous empirical evidence built on the long-run growth experience of nations. Another joint study with Eric A. Hanushek, published by the OECD in 2015, reports projections of the economic gains of educational reforms. It argues that the primary global development goal should focus on young people achieving basic skills.

In several projects, the extensive micro datasets of various international student achievement tests such as PISA, TIMSS, and PIRLS, as well as the international test of adult competencies PIAAC, are analysed using microeconomic techniques. The goal is to determine what lessons can be drawn from international student tests for educational policies aimed at efficiency and equity and how adult competencies affect employment and income in the labour market. Current studies investigate among others the role of single-parent families, computer use in the classroom, and the information value of central exit exams.

Several historical research projects analyse the Ifo Prussian Economic History Database (IPEHD). One current paper studies the role of social cohesion and religious beliefs in the effect of Protestantism on suicide. Mechanisms of persistence in economic history – the long shadow of history – are also studied, such as the effect of the long-gone Habsburg Empire on trust and corruption in current local bureaucracy in Eastern Europe.

Additional studies analyse the role of vocational education over the lifecycle, the economic case for education, the role of human capital for income differences across U.S. states, and a U.S.-German comparison of public opinion on education policy.

The Accumulation of Human Capital and the Transition from Malthusian Stagnation to Modern Economic Growth

F. Cinnirella, ongoing habilitation project, publication of results in *Journal of Economic Growth*, 2010; *Economics and Human Biology*, 2011; *Cliometrica*, 2012; *European Review of Economic History*, 2013; *Historical Methods*, 2014; *CESifo Working Paper* No. 3603, 2011; No. 3936, 2012; No. 4391, 2013.

There is an increasing body of literature that stresses the importance of human capital for economic growth. The aim of this project is to study the main determinants of education in historical perspective and in particular to analyse the relationship between land distribution and the accumulation of human capital. In the latter project, the interaction between land distribution and labour market institutions and its effect on the accumulation of human capital is also explored.

A companion project studies theoretically and empirically the economic incentives behind the emancipation of labour. The project analyses to what extent the complementarity between physical capital and skills created the incentives to abolish serfdom which, in turn, triggered sustainable investments in human capital. In an additional project for a book chapter, we analyse the relationship between the abolishment of serfdom, the accumulation of human capital, and marriage.

A further part of the habilitation project analyses the relationship between ethnic-linguistic polarization and public education expenditures. This study shows that in counties with divergent preferences on the content of public education, decentralization of education policy leads to lower education expenditure. In particular we find that the coexistence of heterogeneous linguistic groups leads to underprovision of education in form of lower number of schools and of teachers per pupil.

Land distribution
and human capital
accumulation

Human capital and the fertility transition

Further studies analyse the relationship between human capital, innovation, and economic growth using data on patenting activity in Prussia in the 19th century. In particular, one study shows that average human capital and the human capital of a highly-skilled minority have different effects on innovation. We also show that human capital and innovation have separate effects on income and economic growth. Finally, the habilitation project studies the effect of human capital on the fertility transition at the end of the 19th century, which marked the transition from a Malthusian stagnation to modern economic growth. In this respect, a study investigates how English couples from 1540 to 1800 adjusted age at marriage and birth intervals to changes in economic conditions. This part of the project will be complemented by a study on France which was the first country in Europe to experience the fertility transition.

Human Capital Production and Migration

M. Piopiunik, ongoing habilitation project, publication of results in *NBER Working Paper* No. 21393, 2015; *CESifo Working Paper* No. 5303, 2015; No. 5470, 2015.

This habilitation project investigates several determinants of educational achievement. One study shows that differences in the cognitive skills of teachers are one important determinant of the international differences in student performance. For this investigation, country-specific cognitive skills measures of teachers, derived from the individual-level PIAAC data, are combined with student-level PISA data. It also turns out that the cognitive skills of teachers differ tremendously across industrialised countries. Another project investigates whether alternative employment opportunities affect the quality of individuals entering the teaching profession. To this end, business cycle fluctuations at career start were exploited and combined with administrative micro data from the US state of Florida. The results indicate that teachers who entered the profession during a recession are considerably more effective in raising their students' test scores. The results thus suggest that intrinsic motivation seems to be of second-order importance relative to the effects of increasing teacher pay on selection when hiring more effective teachers. Another goal of this habilitation project is to investigate the importance of school-leaving grades for hiring decisions in companies.

Teachers hired in recessions prove more effective

Understanding the Relationship between Skills and Labour-Market Outcomes

S. Wiederhold, ongoing habilitation project, publication of results in, among others *American Economic Journal: Macroeconomics* (forthcoming); *European Economic Review* 73, 2015; methods data analyses – *Journal for Quantitative Methods and Survey Methodology* 8(2), 2014; *NBER Working Paper* No. 20727, 2014; *CESifo Working Paper* No. 5470, 2015.

It has long been reckoned that the population's skills are a key ingredient in knowledge-based economies, which is why the European Union emphasises the development of a skilled workforce. In this habilitation project, we use recently published PIAAC data on adult skills which for the first time allows quantifying how different modern economies value skills. Moreover, the habilitation project attempts to make a contribution in the investigation of causal effects of skills on labour-market outcomes. For instance, any positive relationship between skills and wages may just reflect that higher-paid jobs provide the resources to invest in adult education and training, through which skills develop (reverse causality). To address endogeneity problems, we exploit the extent of the traditional voice-telephony networks, which were upgraded in most countries to provide fast Internet access by means of the so-called DSL technology. The underlying idea is that ICT skills are developed through learning-by-doing for which Internet availability is a precondition.

Another part of this habilitation project deals with the skill mismatch, which is a ubiquitous phenomenon in any economy. At the individual level, every job change involves skill shortages (skills that have not been learnt, but that are relevant at the new job) and skill redundancies (previously acquired skills that do not matter anymore at the new job). Skill mismatches can be caused by the emergence of technological innovations and new organizational strategies. For instance, at the beginning of the 19th century, automatised looms replaced skilled weavers in the textile industry with punched cards and few unskilled workers. More recently, the proliferation of personal computers created an increase in the demand for cognitive, problem-solving skills. These

pervasive changes in the structure of employment also left their mark on the German labour market. A number of recent studies suggest that the available qualifications on the labour market are not a good match for the skills that are demanded by the economy.

Previous research has also highlighted that job displacements can have large and lasting adverse effects on life-time earnings. However, the mechanisms behind these earnings losses are not well understood. This habilitation project attempts to answer the questions: Are displaced workers matched worse than voluntary job switchers? Can skill mismatches explain part of the earnings losses of displaced people? To answer these questions, we use detailed information on the tasks that workers perform in an occupation to represent every occupation by a vector of fundamental skill requirements. We find that displacement increases occupational switching and skill mismatch, primarily because displaced workers move to less skill-demanding occupations. The negative earning effects associated with displacement are mostly driven by these moves, while workers moving to more skill-demanding occupations have similar earning losses as stayers.

The Effects of Information Provision on Policy Preferences – Evidence from Survey Experiments

P. Lergetporer, ongoing habilitation project.

Empirical research has produced many insights on how education policies could be altered to improve student outcomes. But political actors are frequently reluctant to carry out reforms supported by high-quality research. One important reason for this discrepancy between evidence and action could be that political actors are responsive to the opinions of voters and of well-organised interest groups, which might diverge from what is in the public interest more generally. This habilitation project aims to empirically analyse the determinants of public support for education policies. Public opinion is studied by means of representative survey experiments with particular focus on interest groups and the effects of information provision on public preferences.

Labour Markets and the Consequences of Selective Migration

J. Ruhose, ongoing habilitation project, publication of partial results in *IZA Discussion Paper* No. 9164, 2015; *CESifo Working Paper* No. 5453, 2015.

A skilled population is considered a prerequisite for a prospering economy. To this end, an efficient education system, as well as the recruitment of skilled foreigners and their ensuing integration, seems crucial, especially in the light of an ageing society. This habilitation project aims to empirically analyse the determinants of educational outcomes, particularly those of individuals with a migration background. Furthermore, the effects of migration on the labour market are investigated. The aim is specifically to identify causal effects.

Education in History

R. Schüler, ongoing doctoral project.

This dissertation project examines topics in educational economics from a historical perspective. In a first project a historical educational production function is estimated using county-level data of the first Prussian census in 1886. The relationship between educational inputs such as educational expenditures per student, class size and teacher quality and economic development, measured by income tax per capita, is analyzed. In a second project, further Prussian county-level data are used to examine the effect of linguistic fractionalization on the provision of public goods, measured by educational expenditures. In a third project, the effect of a historical schooling regulation which introduced secular school monitoring in Prussian schools, on educational outcomes such as school attendance, the student-teacher ratio, school density, private school attendance, school completion rates and the share of non-German speakers is examined. In a fourth project, data from the Prussian parliamentary elections are used to examine how the increasing share of state expenditures influenced the political decision-making process from 1886 onwards.

Skills and prosperity

Education in Prussia

Economics of Education Policy

K. Werner, ongoing doctoral project.

This doctoral project is an empirical analysis of questions concerning the political economics of education policy. The main question of interest is the effect of political processes on the education system. A first research project, conducted in cooperation with the Program on Education Policy and Governance (PEPG) at Harvard University, collected data to document the opinion of the American and German public regarding the performance of their country's public schools. First results show that schools receive particularly high grades for their ability to cater to the needs of the most able students and students from high-income backgrounds. There are significant differences between countries, as schools in America are assessed even more positively in these respects than schools in Germany. Furthermore, respondents in both countries rate the performance of schools less favourably if they perceive differences in school quality for advantaged and disadvantaged students to be larger. A second research project focuses on the relationship between public opinion on state spending and the information status of the voting-age population in Germany. This shows that a major part of the population underestimates current levels of spending on education. Consistently, providing information on current spending levels leads to a significant decrease in support for future spending increases. Future work will provide additional insight into the interdependencies of public opinion and the political economy of education policy.

Empirical Analysis of Structural Change and Questions on the Economics of Education

N. Obergruber, ongoing doctoral project.

One part of this doctoral project uses microeconomic methods and data from the national educational panel study (NEPS) questions in the field of the economics of education concerning the influence of family background on the development of cognitive and non-cognitive skills in schoolchildren. Additionally, in an economic history setting, it studies structural change in the 19th century German

Empire concerning the influence of agricultural inheritance practices, an informal institution, on economic development. The county-level data set is self-constructed from historical statistics and literature and continuously enhanced. Controlling for observables and using fixed effects and outcome variables such as average farm size for 1895 and 1907, the number of people working in secondary employment, employment in detailed industry occupations, and the number of cities and their population, the project shows that a certain type of inheritance practice (partible inheritance) reduces farm sizes and supports different development of occupation structure.

Essays on the Economics of Education

L. Oestreich, ongoing doctoral project.

Using survey experiments and data from the Ifo Education Survey, this doctoral project offers an empirical analysis of the effects of information provision on the political preferences of the German population on different topics in education policy. A first project studies the public preferences for reducing class-sizes. Information treatments revealing the relative costs of different options to improve school policy reduce support for class-size reductions significantly. This result is in line with empirical research literature which generally suggests that reducing class-sizes is an expensive and largely ineffective policy in order to improve education. Another project examines the role of political party opinions on the preferences of their voters for different education policies. Thereby, conservative voters rely more on their party's opinions than other voters when stating their own preferences.

Essays on the Economics of Education and Labour: Microeconomic Analyses

L. Simon, ongoing doctoral project.

This doctoral project analyses the impact of education and other determinants on labour market outcomes, using microeconomic methods. A first paper looks at how grades, the centrality of exit exams, and other CV characteristics impact employment chances. The data used is being collected in a ran-

Public schools in the USA and Germany

Family background and the development of schoolchildren

domised field experiment among human resource managers. The second project sheds light on a labour market deregulation and its impact on the demand and supply side of labour. More specifically a change in the law regarding the qualification requirement to become self-employed in certain crafts of 2004, which was part of the Agenda 2010 deregulations in Germany, is analysed.



Ifo Center for Industrial Organisation and New Technologies

The Center focuses on three main areas:

- Industrial organisation and industry-level analysis
- New technologies
- Collection of firm-level and industry-level data

The Center's research programme focuses on analysing the determinants and effects of firm behaviour, including internal firm structures and processes. The following questions are of particular interest: how successful are different industries, especially with regard to their innovation abilities? How important are the institutional framework and government policies, such as direct state support, to the success of industries? Are government policies effective in supporting the development and diffusion of new technologies? To answer these questions the Center's research applies state-of-the-art micro-econometric methods to firm and industry-level data, thereby providing cutting-edge analysis that is deeply valuable to practitioners.

Industrial Organisation and Industry-Level Analysis

In the area of industrial organisation, the Center analyses, for example, the effects of industry-specific regulation or the competitive environment within industries on firm behaviour. In 2015, the Center completed two studies in this area: one study, carried out for AI Telekom Austria, aimed to evaluate whether retail markets for access to the fixed-line public telephone network in Austria are still required to be subject to regulation. The other study looked at the Edeka/Tengelmann merger case from a Bavarian perspective (commissioned by the Bavarian State Ministry for Economic Affairs and Media, Energy and Technology). Besides the analysis of policy effects on firm behaviour, the Center also focuses on internal firm activities, such as management practices, employee diversity and personnel strategies. Additionally, the Center regularly studies the competitiveness and macroeconomic importance of individual industries.

Another focus of the Center is industry analysis. Since 1993, a major outlet for this analysis is the semi-annual publication of 100 industry reports commissioned by

DG publishers (Deutscher Genossenschafts-Verlag eG). Beyond this "Branchen special" information system, the Center conducted studies on the economic effects of fairs (e.g., in Leipzig and Friedrichshafen) and on the construction sector within the framework of the EUROCONSTRUCT project in 2015. These industry reports provide the Center with a unique institutional knowledge base that complements its quantitative micro-econometric studies. The Center's industry sector experts also maintain close contacts with firms and industry associations and organise a yearly conference (Ifo Industry Colloquium) to enhance exchanges with practitioners. The Ifo Industry Colloquium was also organised in 2015 in cooperation with the Chamber of Industry and Commerce for Munich and Upper Bavaria and with support from the Bavarian State Ministry for Economic Affairs and Media, Energy and Technology. Finally, the Center prepared the Bavarian Industry Report 2015 for the Bavarian State Ministry for Economic Affairs and Media, Energy and Technology.

New Technologies

In the area of new technologies the Center identifies, describes and analyses technologies of high importance to the various German industries. More specifically, the Center analyses technologies with high spillover effects (so-called general-purpose technologies) and how governments can support the development and application of such general-purpose technologies in order to enhance the technological base for German industry. The Center focuses heavily on information and communication technologies (ICT) as a general-purpose technology. Within the framework of a long-run cooperation, Deutsche Telekom AG sponsors two doctoral positions. The two doctoral students do research in the field of the economics of innovation in telecommunications. The Center also investigates the effects of the institutional framework (such as patent laws, for example) and government policy (like cluster policies) on the innovation activities of firms. This serves to assess the effectiveness of various policies. The Center, for example, is engaged in an international consortium preparing an evaluation and monitoring system for DG Enterprise of the European Commission.

Assessing innovation
success in industry

Industry-specific studies

Collection of Firm-Level Data

The Center's research and policy advice rely on high-quality data, a need that underlies its significant commitment to the collection of original data. Examples of such data collection are the personnel manager survey (supported by Randstad Germany) aimed at gathering data on the quarterly personnel strategies of firms, and the annual innovation survey that the Center has carried out for the past 30 years. The innovation survey asks firms about their innovation activities, their innovation drivers, and the constraints affecting them.

Projects Completed in 2015

Ifo Industry Colloquium 2015

L. Dorffmeister, M. Ebnet, O. Falck, E. Gluch, H.-D. Karl, J. Lachner, G. Nerb, G. Orhan, A. Städtler, R. Stanga, P. Wojciechowski in cooperation with the Chamber of Commerce and Industry for Munich and Upper Bavaria and financially supported by the Bavarian Ministry of Economic Affairs and Media, Energy and Technology, report available in *ifo Schnelldienst* 23(68), 2015.

This year's Ifo Industry Colloquium took place on October 28, 2015 and was once again supported by the Bavarian Ministry of Economic Affairs and Media, Energy and Technology, as well as the Chamber of Commerce and Industry for Munich and Upper Bavaria. Around 200 representatives from business and politics took part. After a welcome speech by Eberhard Sasse, President of the Chamber of Commerce and Industry for Munich and Upper Bavaria, Prof. Hans-Werner Sinn, President of the Ifo Institute gave a presentation on: "The Economic Situation in Germany and the World".

Afterwards, smaller parallel sessions on "Manufacturing" and "Commerce", as well as on "Construction" and "Services" were held. Experts from companies and sector associations discussed major branch-related structural changes, as well as the Ifo Institute's forecasts for 2016 and 2017. The sessions therefore focussed on the structural changes triggered by increasing digitization.

Oliver Falck, Director of the Ifo Center for "Industrial Organisation and New Technologies" closed the Ifo Industry Colloquium 2015 with his talk on: "Innovation and Technological Change in a Digitalized World".

The speakers that participated in the forums were:

Forum 1 – Industry: Introduction and Moderation: H.-G. Vieweg, Ifo Institute; Experts: M. Ebnet, Ifo Institute, B. Diegner, ZVEI and C. Oetter, VDMA.

Forum 2 – Commerce: Introduction: A. Städtler and G. Orhan, both from Ifo Institute; Moderation: W. Fischer, CityPartner Munich e.V.; Experts: N. Busch-Petersen, Trade Association Berlin-Brandenburg e.V., and E. Stueber, IFH Institute for Trade Research (IFH Institut für Handelsforschung GmbH).

Forum 3 – Construction: Introduction: L. Dorffmeister, Ifo Institute; Moderation: R. Scholl, former Federal Ministry of Transport, Building and Urban Development, Berlin; Experts: K. Freiberg, Vonovia SE and M. Waltersbacher, BBSR.

Forum 4 – Services: Introduction: G. Nerb and P. Wojciechowski, both from Ifo Institute; Moderation: R. Obermeier, Chamber of Commerce and Industry for Munich and Upper Bavaria; Experts: R. Rendl, P3 Group and R. Reyerros-Bienert, R&R/COMH.

The next Ifo Industry Colloquium will once again take place in the conference center of the Chamber of Commerce and Industry for Munich and Upper Bavaria, Munich, on 9 November, 2016.



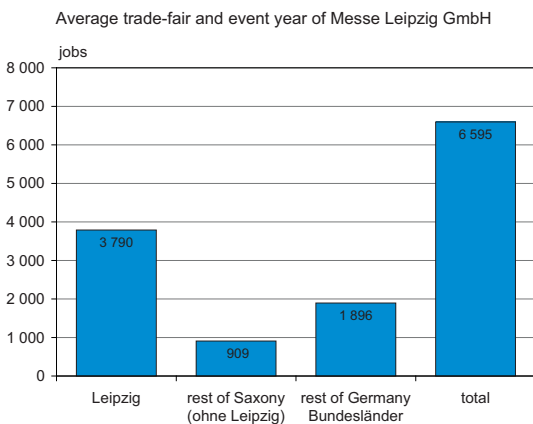
Hans-Werner Sinn, President of the Ifo Institute

The Economic Impact of the Leipzig Trade Fairs and Events

H. Penzkofer for Leipziger Messe GmbH, November 2013 to July 2015, publication in: Annual Report of the Leipziger Messe GmbH 2015.

The total aggregate output resulting from the direct and indirect impact of a typical trade-fair and event year amounts to around EUR 656 million, or approximately 6,600 gainfully employed persons. This project also estimated the resulting tax revenue of the various authorities (City of Leipzig, Saxony and Germany). With the trade-fair and event related output of EUR 656 million, the concomitant tax revenue totalled approximately EUR 121 million.

The Economic Impact of the Leipzig Trade Fairs and Events



Source: Calculations of the Ifo Institute.

The Economic Impact of the Trade Fairs in Friedrichshafen

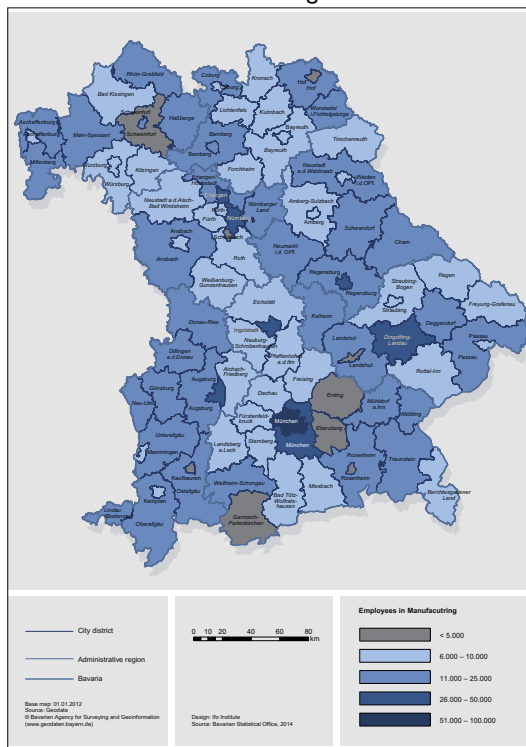
H. Penzkofer for the Messe Friedrichshafen GmbH, May 2014 to December 2015, publication in: Annual Balance Report of the Messe Friedrichshafen GmbH 2016.

The objective of this project was to calculate the expenditure of trade fair participants for a typical trade fair year. It also estimated the direct and indirect impact on the production volume and tax revenues. Based on the production effects, the impact on jobs was calculated for a typical trade fair year. The results of the study will be presented in a few months.

Bavarian Industry Report 2015

T. Strobel, H. Arnold-Rothmaier, O. Falck, M. Ebnert, H. Hofmann, A. Jacob-Puchalska, M. Kocijan, J. Schrickler for the Bavarian Ministry of Economic Affairs and Media, Energy and Technology, April 2105 to May 2015.

Regional Distribution of Employees in Bavarian Manufacturing 2014



Source: Bavarian Industry Report 2015.

The Bavarian Industry Report 2015 provides a comprehensive description of structures and developments in the Bavarian industry in 2014, as well as an outlook for 2015. Both individual sectors and economic structures and overall developments in Bavaria were taken into consideration. The industry report is divided into four parts. In Part I, "The Bavarian industry", industry development in Bavaria is presented and evaluated in terms of its business cycles in 2014 and the first two quarters of 2015. Information on the development of individual sectors follow in Part II "Bavarian industry report", in which indicators and structural features (e.g. employees, turnover) are analysed by sector. In Part III "Government

district profiles', the economic and structural development in the various Bavarian administrative districts are examined in detail. In addition, an industry portfolio for the manufacturing sector is created for each administrative district comparing the localization degree (concentration of the industry in the region as compared to Germany) to employment trends in the sector. Graphical presentations of the regional distribution of employment in manufacturing are also presented by county. Part IV "Internationalization profiles of Bavarian industry" (compiled by IW Consult) completes the report.

Short- and Long-Term Policy Requirements to Strengthen Sustainable Growth and Employment in Croatia

O. Falck, N. Fabritz for Croatian Statehood Foundation, Zagreb, September 2014 to December 2015.

The focus of the part of the project covered by the Ifo Center for Industrial Organisation and New Technologies was on the policy areas of human capital, innovation, and doing business. The Center derived policy recommendations for a dual education system, life-long learning and a competitive innovation strategy in Croatia. Furthermore, the Center looked into eGovernment as a tool to reduce bureaucracy and increase the ease of doing business.

Empirical Evidence on the Substitutability of Fixed-Line Telephone Access in Austria and its Effects on Market Definition

O. Falck, A. Heimisch, J. Koenen, A. Mazat for AI Telekom Austria AG, June 2015 to September 2015.

This report, carried out for AI Telekom Austria, aimed to evaluate whether retail markets for access to the fixed-line public telephone network in Austria are still required to be subject to regulation. The report is motivated by a redefined recommendation, published by the European Commission on October 4, 2014, of relevant product- and service markets of the electronic communication sector that are potentially subject to ex-ante regulation. The commission therein states having no intention of maintaining sector specific regulation. At the same time it asks national authorities to evaluate the need for regulation of those markets at a national level.

Firstly, the report critically evaluates arguments put forward by the regulation authority during the last market-evaluation procedure. Yet, most importantly, the report focuses on an empirical analysis of the firms' and consumers' behaviour between classical access to the fixed-line telephone network and alternative technologies of access via mobile telephony and "Voice-over-Internet" access in order to classify relevant retail markets. In detail, the report examined whether the regional availability of the respective alternative infrastructures leads to higher abandonment of AI Telekom Austria fixed-line telephony access. Results show that the higher the availability of alternative infrastructures, the more frequently Austrian retail customers abandon their fixed-line telephony access. As a result, the study concludes that mobile telephony and "Voice-over-Internet" access realizations should be considered part of the market for access to the fixed-line public telephone network. Finally, the so called "three criteria test" indicates that the discussed markets tend to be competitive. As a result, the report concludes that the need for regulation must be considered critically.

Income Situation of Outpatient Physiotherapists and Ergotherapists in Germany

M. Reinhard, G. Orhan for Spitzenverband der Heilmittelverbände (SHV), July 2015 to November 2015.

Outpatient care for physiotherapy and ergotherapy has been a growing market in Germany for a number of years. Spending on social health insurance (SHI) is on the rise. The supply of therapist's practices has also risen in line with demand. However, most of practice returns are determined by SHI. Thus social law plays an eminent role in running a therapy practice. The law regulates the legal claim of insured persons, as well as the type and extent of the activity of care providers. Therapeutic cure usually requires a medical prescription by a doctor. Even the process of determining the amount of prescriptions is regulated by law.

Price setting, in addition to benefits and the extent of care provisions, is also regulated by social law. Price changes are not necessarily linked with increased performance and cost. In fact, treatment prices can only rise, as the premium revenues of the insurers increase,

Fixed-line telephony
versus alternative technologies

Social law's influence
on operating a therapy
practice

and the revenues are combined with wages. Since wage growth was rather low in the last decade, the question whether therapeutical practices are still sufficiently profitable has arisen. The wages of the therapists employed are also affected, because the profitability of firms determines the level of wages to a large extent.

The aim of the study is to gather information on the financial situation of practices and employees in the physical and occupational care sector. In addition, the levels of profitability and wages are evaluated by means of a reference group approach. The study is carried out on behalf of the German "Spitzenverband der Heilmittelverbände (SHV).

The Relation Between Industry and Services in Terms of Productivity and Value Creation

H.-G. Vieweg, J. Koenen, J. Schricker, T. Strobel for the European Commission, Enterprise and Industry Directorate General, December 2013 to January 2015.

The European Commission awarded a contract to the European Consortium for Sustainable Industrial Policy (ECSIP) within the framework contract awarded in 2012 by the DG Enterprise and Industry with a duration of up to 2016 (see: current projects). The project lead was taken by the Vienna Institute for International Economic Studies, while the Ifo Institute and ECORYS became partners. Ifo's focus was on sectoral analyses and the investigation of the interaction between manufacturing and the services sector from the manufacturers' point of view.

The European Industrial Policy Communication of 2012 sets the goal of bringing the share of manufacturing up to 20% of GDP. Subdued growth potential in the EU is dampening the outlook for manufacturing. On a brighter note, European manufacturing's strong export performance points to some growth opportunities. The service sector is playing a major role in increasing the added value of manufactured products, as products are increasingly being sold with service components. Services and manufacturing have become increasingly intertwined.

The purpose of the study was to understand the mechanisms by which the manufacturing and services

sector complement each other to create higher value products and higher productivity, and to determine what concrete policies need to be put in place to exploit this potential.

Four industries were selected for closer analysis to gain an in-depth understanding of the use of services in manufacturing: the machinery and transport equipment industries – as examples of medium-high- to high-tech industries; and the food and beverages industry and textiles and clothing industry, as examples of low- to medium-tech industries.

Summarising the study's empirical findings, it is clear that there are significant differences in the priority fields for the interaction of manufacturers and service providers. For the high- to medium-tech industries, it turns out that R&D and engineering are fields of close interaction between manufacturers and service providers, which are of pivotal importance for competitiveness and economic performance. Driving factors are the growing complexity and sophistication of products. For the low-tech industries, upstream activities have become more important, while for the textile and clothing industry, supply chain management is the main driver; for the food and clothing industry growing administrative requirements to document proof-of-origin, eco standards etc. are key drivers. Downstream activities have gained a great deal of importance, thanks to internet-based, innovative IT tools, and which is fuelled by manufacturers' renewed efforts to gain better access to consumer markets.

Despite these discrepancies between the two groups of industries, the overall cost shares of business services among the four industries investigated do not differ greatly with regard to levels and their evolution over the period under consideration. For all four industries, performance-enhancing business services are of a similar and growing importance. For non-business services, differences in the amount of services have been identified: low-tech industries show a higher cost share of industrial output caused by transport and distribution services, which is explained by the industries' deliveries into consumer markets.

Wage growth
and profitability in care
sector

Manufacturing
exports create growth
opportunities

Since goods and services markets are becoming more closely linked and business services positively impact the performance of manufacturing and vice versa, further steps towards integration should be undertaken, particularly in areas where barriers still exist. For example, a more ambitious implementation of the EU Services Directive would be a significant step forward in this direction, accompanied by the removal of the remaining regulatory barriers to goods markets, particularly at a national level. In view of the trend towards further specialisation and agglomeration in business services and manufacturing, reinforcing the internal market for both services and goods is likely to become even more important to EU competitiveness in the future.

Naming the Relevant Decision Criteria for an Evaluation of the Request by Tengelmann and Edeka to Merge by Ministerial Permission and the Related Report of the Monopolies Commission from a Bavarian Perspective

M. Ebnet, O. Falck, T. Lohse for the Bavarian State Ministry of Economic Affairs and Media, Energy and Technology: August 2015.

The Federal Cartel Office and the Monopolies Commission have evaluated Edeka and Tengelmann's plans to merge. This brief report names the main arguments made in their evaluations and assesses them from a Bavarian perspective. The report is split into three main parts. In the first part, the central arguments for the (national) sales side of the market are summarised and revisited from a Bavarian perspective. The second part considers the arguments made for the supply side of the market and complements them with empirical results that are particularly important for Bavaria. The final part names all of the potential welfare effects that might be able to counteract the restraints of competition on the sales and supply sides of the market and evaluates their relevance for Bavaria.

Current Projects

Information System "Branchen special"

M. Ebnet, H. Hofmann in cross departmental cooperation with over 20 other Ifo researchers for the DG-Verlag, Wiesbaden, publication in Bundesverband der Deutschen Volksbanken und Raiffeisenbanken (BVR), DG-Verlag, Wiesbaden.

"Branchen special" reports on the 160 most important branches covered by Germany's medium-sized companies. Biannually updated branch reports are published on the following economic sectors: services, agriculture, construction and development, retailing and wholesaling, manufacturing and skilled crafts and trades. The reports contain in-depth analyses and forecasts of branch structure and the current economic situation in a clear, standardised form. More specifically, the reports offer information on supply and demand structures in the consumer goods and services markets, company size and trends towards concentration. Turnover and production forecasts, as well as capacity utilisation and price development monitoring are conducted to evaluate the economic outlook. The economic condition of each branch is assessed using the results from company comparisons, official statistics and an analysis of trends in prices and costs. Moreover, the reports highlight the company policy options, as well as the market positioning and competitiveness of medium-sized companies in a branch. To take economic transformations into account, the selection of industries surveyed is occasionally adjusted to correspond to the changes in importance of individual economic segments.

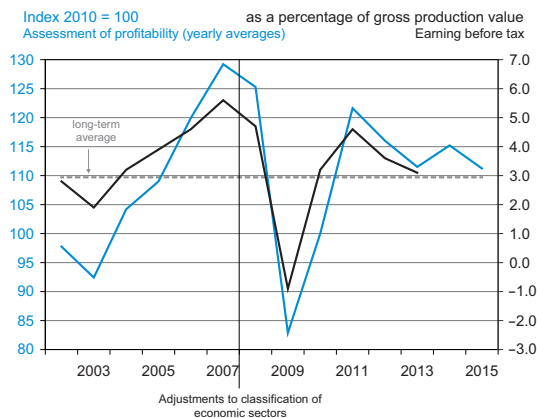
Data from official statistics, as well as from primary and secondary sources, are used as an information base, especially association statistics and the results of surveys conducted by different institutions. The results of the Ifo Business Survey are particularly important, as they enable a well-grounded assessment of the current and future development. One example is the assessment of earnings development by survey participants, which turned out to be a reliable indicator of the current profitability of many manufacturing industries. The total information base is integrated in a condensed preparation of information in text and

[In-depth branch analyses on a biannual basis](#)

[Data sources](#)

tabular form, as well as in graphics. The industry rating featured in every report offers key information on current and future trends in turnover and profits in the industry, as well as the intensity of competition in the industry and its vulnerability to economic cycles at a glance. A list of all of the reports available and their publication dates can be consulted on the Ifo Institute's website (www.cesifo-group.de/branchen-special). Individual reports can be obtained from the Volksbanken und Raiffeisenbanken, while subscriptions are available from the DG-Verlag in Wiesbaden.

Earnings Development in the Mechanical Engineering Sector



Source: Ifo Business Survey; Federal Statistical Office; Cost Structure Survey in Manufacturing Industries; calculations of the Ifo Institute.

Demand-Oriented Innovation Policy

O. Falck, J. Koenen, S. Wiederhold in cooperation with Ernst & Young, Italy, Cambridge Econometrics, England, Capgemini, Netherlands, und SQW, England, for the European Commission, Directorate General Enterprise and Industry, since February 2014.

The goal of this project is to develop a methodological toolbox and present it to the European Commission to enable the evaluation of demand-oriented innovation policies according to state-of-the-art methodology. In an independent work package, Ifo conducted a meta-study analysing existing evaluation studies to determine the various types of policies that are effective under certain conditions. As a basis for this study, a typology of policy measures derived from

the literature was applied. In the further course of this project, an actual demand-oriented innovation policy evaluation toolbox will be developed.

Flyer for the Brussels Conference, 17 Nov. 2015



Ifo Innovation Survey

O. Falck, H. Penzkofer, ongoing project.

Long-term economic growth and competitiveness are characterised by high-tech innovations. True technological breakthroughs, however, are the exception, and progress generally occurs in a series of very small steps. For this reason, it is important to adopt a broad definition of innovation. Technical progress can only be explained if both "radical" and "marginal" innovations are taken into account. This is the approach followed by the Ifo Innovation Survey, which has been conducted on a yearly basis since 1979. The innovation surveys in other OECD countries are carried out on the same conceptual basis.

Based on data from the Ifo Innovation Survey, the Ifo Institute is able to capture the industry- and product-specific innovation activities of companies. The survey results also supply information on the aggregate level for sector, structural and growth analyses. Data on the economic and technological conditions that affect the innovation activities of German industry are also collected.

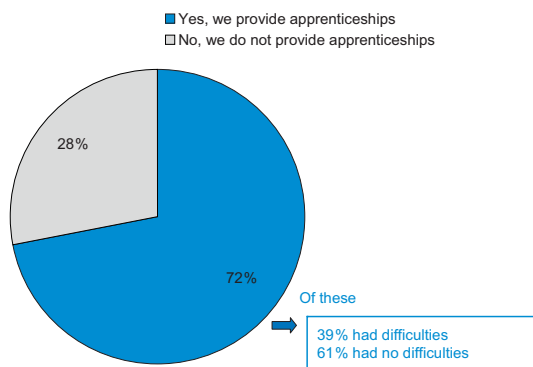
Ifo Randstad Personnel Manager Survey

A. Jacob-Puchalska, O. Falck, K. Wohlrabe, P. Wojciechowski for Randstad Deutschland GmbH & Co. KG, ongoing project, publication on the company's website.

Four times a year the Ifo Institute asks personnel managers in manufacturing, wholesaling and retailing, as well as in the service sector, about the importance of flexibility in personnel placement. The participating managers provide a general assessment of flexibility and an assessment with respect to specific measures (overtime, limited contracts, "mini-jobs", temporary workers, freelancers, outsourcing, internal transfers, working-time accounts).

The objective of the project is to gain insights into the role of flexibility measures in business cycles on a long-term basis. The survey has been conducted since the first quarter of 2008. A special, changing question deals with current personnel policy. An evaluation of the special questions can be found on the Ifo Institute's website and in the Ifo Schnelldienst. In 2015, special questions on the criteria for personnel selection, demands on employees and problems with filling apprenticeship positions were asked.

Ifo Randstad Personnel Manager Survey



Source: Ifo Randstad Personnel Manager Survey, 3rd quarter 2015.

The Economic Impact of the Hamburg Trade Fairs

H. Penzkofer for the Hamburg Messe GmbH, January 2015 to June 2017.

This project aims to calculate the direct and indirect production and income effects of the Hamburg trade fairs, as well as the resulting tax revenue. Based on surveys of visitors and exhibitors at selected Hamburg trade fairs conducted for the project, the total

number of visitors and exhibitors and their expenditure are determined. Calculations of the direct and indirect effects are derived from an estimation model that primarily uses the characteristics of the visitors and exhibitors and individual expenditure (e.g. accommodation, stand construction).

The Economic Impact of the Nuremberg Trade Fairs

H. Penzkofer for the NürnbergMesse GmbH, January 2014 to March 2016.

Based on surveys of visitors and exhibitors at selected Nuremberg trade fairs conducted for this project, the total number of visitors and exhibitors and their expenditure are determined. The calculations of the direct and indirect effects are derived from an estimation model that primarily draws on the characteristics of the visitors and exhibitors and individual expenditure.

Building Equipment Sector in Germany and in Selected European Countries

H.-D. Karl, M. Kocijan for Vereinigung der deutschen Zentralheizungswirtschaft e.V., Vereinigung Deutsche Sanitärwirtschaft e.V. and Messe Frankfurt Exhibition GmbH, May 2014 to April 2015, continuation until April 2016.

In continuation of a past project, the present development of the German building equipment sector was studied. To this end, key market data such as, for example, the number of enterprises, turnover, employees, investments, was collected. In 2014 the building equipment sector comprised 51,400 enterprises with 504,000 employees. The consolidated turnover amounted to around €53 billion. The economic prospects of the building equipment sector improved in 2014, supported by higher growth in the German economy. The growing need for replacement of heating and sanitation devices, the Energy Saving Ordinance, and the growing use of renewable energy also had a positive impact. Furthermore, the turnover of the German building equipment sector was compared with corresponding data from Belgium, Denmark, France, United Kingdom, Italy, the Netherlands, Austria, Spain and Switzerland. The project has been continued in 2015.

Building equipment sector enjoys better prospects

Building Equipment Sector (Sanitary Heating Air-Conditioning)

H.-D. Karl for Vereinigung der deutschen Zentralheizungswirtschaft, Vereinigung Deutsche Sanitärwirtschaft und Messe Frankfurt Exhibition GmbH, April 2014 to March 2015, continuation until March 2016.

With the help of the Ifo business barometer for the building equipment sector the cyclical situation and further development of the industry was analysed. For that purpose, following the practice of the Ifo Business Survey, information on the present state of the companies, the business expectations and on additional factors like demand, prices, employment, exports etc. was collected in an enterprise survey. Considering the three industry stages of the building equipment sector, surveys were carried out in the manufacturing industry (heating technique, building fittings), wholesaling and larger retail trade firms. The data for the current business situation and the business expectations were combined to form the business climate index for the whole sector. The project has been continued in 2015.

Economic Situation and Structure of Europe's Construction Sector (EUROCONSTRUCT network)

L. Dorffmeister, E. Gluch, M. Kocijan for the EC-Partner institutes, the organisers and participants in the EUROCONSTRUCT conferences, as well as recipients of the conference proceedings and for presentations at specialist conferences, publication in Ifo Schnelldienst 68(2), 2015; 68(3), 2015; 68(13), 2015; 68(14), 2015; as well as in various specialist journals.

The European research and advisory network EUROCONSTRUCT consists of 19 European member institutes (15 from Western Europe and four from Central and Eastern Europe). At conferences held twice a year in different locations, current forecasts for all partner countries – as well as for Europe as a whole – are presented. The forecasts not only feature figures (in euros) differentiated by construction type, but also present the physical variables of construction (number of dwellings). The conferences in 2015 (held in Warsaw in June, and in Budapest in December) also looked at the Russia-Ukraine-conflict

and its impact on the European construction industry, as well as current construction activities in other European countries that are not EUROCONSTRUCT members. The summer conference 2016 will be held in Dublin.

Construction in Germany by Segment

L. Dorffmeister, E. Gluch, M. Kocijan, for federal and state ministries, local authorities, research and advisory institutes, companies and associations, ongoing project, work tables (on request), as well as publications in Ifo Schnelldienst and external publications.

In the framework of this research and advisory project, figures, in terms of values and quantities, illustrating the German construction activities are forecast on a quarterly basis. These figures are broken down into residential construction, commercial building construction and civil engineering, and public-sector building construction and civil engineering. The forecasts are presented for debate in the construction and housing forecasting group, as well as at the Ifo Industry Colloquium (Ifo Branchen-Dialog). They are also integrated in the Joint Economic Forecast prepared by four major German research institutes and in the Ifo Institute's forecasts. Moreover, they are used for a series of reports in "Branchen special" and as the basis for the German contribution to forecasts of European construction (EUROCONSTRUCT).

Economic Trends in Amusement Machines Industry in 2014 and Outlook for 2015

H.-G. Vieweg, A. Jacob-Puchalska for the Deutsche Automatenwirtschaft, December 2014 to March 2015, follow-up project: December 2015 to March 2016.

The latest of the studies carried out on an annual basis focuses on the regulation of the German gambling and gaming market. The rationale was set out by legislative initiatives drafted by the German Länder to protect their gambling monopoly, but failed in court (Federal Constitutional Court, European Court of Justice). The initiatives tried to prevent illegal online gambling that attracts a growing number of clients in Germany – with inappropriate measures. The situation has got out of control, especially with sports betting. At the same time, the Länder infringe the constitutionally anchored

Three-tier survey conducted

Construction forecast for 19 countries

rights of amusement arcade operators. The corresponding provisions of the Interstate Treaty on Gambling will take effect as of 1 July 2017 and sound the death knell for over half of businesses. The industry has to use the remaining time to defend its constitutional rights. However, it has met with little success to date, with lawsuits against the infringement of basic rights at State Constitutional Courts. According to the expert in constitutional law, Hans-Peter Schneider, this has not been caused by an insufficient clarification of facts, but by the courts' aversion to making judgements on the constitutional rights of amusement arcade operators, which they see as less worthy of protection.

The Energy Policy Turnaround Caught Between Regionalisation and Centralisation (ENERGIO)

T. Triebs for the German Federal Ministry of Education and Research ("Environmentally and Socially Compatible Transformation of the Energy System" subsidies), September 2013 to August 2016.

This part of the ENERGIO project covered by the Ifo Center for Industrial Organisation and New Technologies analyses the behaviour of electric utilities, because firms' strategic behaviour is an important determinant of the success of the government's energy policy. The objective of energy policy is the decentralisation and regionalisation of energy generation. This project investigates whether firm strategies support this objective. In particular, the supply decisions (including cooperation choices) by local government-owned utilities are analysed. Small utilities are important in this regard because they can only provide electricity from large centralised generation sources in cooperation.

European Consortium for Sustainable Industrial Policy (ECSIP) – EU Sectoral Competitiveness Studies

H.-G. Vieweg, J. Koenen in cooperation with ECORYS, the Netherlands, IDEA Consult, Belgium, Cambridge Econometrics (CE), England, Danish Technological Institute (DTI), Denmark, The Vienna Institute for International Economic Studies (WIIW), Austria and Euromonitor; England commissioned by the Directorate General Enterprise and Industry of the European Commission, 2012 to 2016.

In 2012, Ifo, together with ECORYS, IDEA, CE, DTI, WIIW and Euromonitor, launched a European consortium for sustainable industry policy to execute sectoral competitiveness studies, namely the European Competitiveness and Sustainable Industrial Policy Consortium (ECSIP). After a successful open tendering procedure the European Commission awarded the consortium a framework contract covering a time period of four years. The assessment of sectoral competitiveness lays the foundation for further economic analysis. The consortium plans to identify determinants, trace the long-term perspectives for European industries, and recommend measures for strengthening competitiveness. The framework contract is a follow-up to a previous framework contract with the European Commission covering the period of 2007–2011.

Consortium awarded
4-year contract

Economics of Innovation in Telecommunications

A. Heimisch and A. Mazat, ongoing doctoral projects, supported by Deutsche Telekom AG, beginning

The doctoral projects deal with determinants of innovation in telecommunications and investigate the underlying mechanisms. Besides, the dissertations also consider the overall economic impact of these innovations. To answer these questions, individual-, regional- and firm-level data are used.

In the doctoral project of Andreas Mazat the first topic addressed is the effect of high-speed internet availability on entrepreneurs' decision to start a business, as well as on firm location. An instrumental variables strategy, exploiting the technological peculiarities of the public switched telephone network that influence the employability of DSL, is applied to identify a causal relationship. Initial results indicate that the establishment rate of startups increases with high-speed internet availability, especially in the service sector and knowledge intensive sectors.

High-speed internet and
its impact on start-ups

In Alexandra Heimisch's doctoral project, a first study investigates the returns on specialized skills in information and telecommunication technologies (ICT) (e.g. writing emails or searching for information online) in the labour market. These kinds of skills partly

ICT skills have causal effect on wages

emerge from being exposed to broadband internet (learning-by-doing). By employing two different instrumental variable approaches, ICT skills can be shown to have a causal effect on wages. The project also looked at whether ICT skills assist workers in carrying out abstract tasks on the job. Thus, the study presents another channel through which broadband infrastructure influences economic growth. It also examines whether computers are complementary to non-routine abstract tasks (such as problem solving and coordination); and whether they substitute for routine tasks (those that can be accomplished by following explicit rules). The paper finds evidence that this is indeed the case. The trends towards the growing importance of these abstract tasks may be a potential mechanism behind our result that ICT skills are considerably rewarded in modern labour markets

What Works in Innovation Policy?

T. Lohse, ongoing doctoral project.

Conceptually, this dissertation is located at the intersection of evidence-based economic research and the evaluation of publicly-funded innovation policies, as well as empirical innovation economics in general. The first part of this project aims to review the aspects of innovation policies that have been evaluated in a causal sense to date, and to draw conclusions that are relevant for policy makers. The second part deals with the evaluation of an innovation policy in eastern Germany. The remaining parts will investigate different determinants and mechanisms of innovation-enhancing policies.

Evaluating innovation policy in eastern Germany

New Technologies and Innovative Industries

K. Candel Haug, ongoing doctoral project.

This dissertation project focuses on the creation and diffusion of innovation, as well as on the resulting market and industry structures. An initial paper revisits the established measures of ICT in economic literature and develops a new indicator that reflects recent technological developments. The initial results of a firm-level analysis suggest that recent technologies have significant effects on firm employment. Notably, small firms shrink and large firms grow. A second paper analyses the innovation contribution of

migrants in Germany and potential spillover effects on the productivity of German inventors. This project uses a unique dataset of patent and migration data at the regional level.

Innovation Incentives, Innovation Policy and New Technologies

J. Koenen, ongoing habilitation project. Publication: Koenen, Johannes together with Martin Peitz "Firm reputation and incentives to "milk" pending patents", *International Journal of Industrial Organization* 43 (November), 2015.

The incentives of firms and individuals to invest in innovative fields and technologies depend on their economic environment, which directly depends on innovation policies. The patent system plays a central role in this context: Three projects focus on this nexus and explore how different components of the patent system (litigation, patents as property rights in vertical industry relationships and reputational mechanisms) are related to the incentives of firms and individuals to carry out innovation investments. Complementary to this, a fourth project analyses both theoretically and empirically (using data from the German automotive industry) how bilateral bargaining power and trust affect investments in innovative technologies.

Management in Production

T. Triebs, ongoing habilitation project, publication in Ifo Working Paper No. 129, 2012.

This project focuses on firm performance and its drivers. Performance is measured by production-function-based estimates of efficiency, productivity, or technical change. One part of the project investigates the impact of regulatory change on productivity for energy utilities. Technical and institutional changes enable regulatory change. It is important to assess the success of regulatory change in terms of firm performance. Another part of the project looks at the importance of management practices on firm performance, as well as the nature of management. It is widely believed that better management leads to better performance. Is this always the case? Does management affect labour productivity more than capital productivity? Does better management also

increase the rate of technical change? This research on management also helps us to understand how firms react to changing regulatory incentives.

Economics of Teamwork

J. Tumlinson, various ongoing research projects, publication in *Management Science* 60(9), 2014.

This project explores the economics of teams, how they form and when they do not, the incentives of team mates and loners, together with teamwork's impact on public and private welfare. This project spans the behaviour of entrepreneurs, partners and shareholders, together with the interplay of culture and societal norms. Methodologically, it marries game theory and empirics.

Although team production is synergistic, it obscures individual contribution. Thus, managers cannot perfectly compensate workers. In the model of "Unobserved Ability and Entrepreneurship" individuals use pedigree to imperfectly signal their ability to employers. However, individuals, whose ability exceeds their pedigree, choose entrepreneurship. Empirical analysis supports predictions that (a) entrepreneurs' ability and income exceed that of similarly educated employees, and (b) employees have better educational qualifications than equally able entrepreneurs.

It is precisely the most talented individuals relative to employer perception who avoid teamwork in favour of solo-oriented work. In "Adverse Selection in Team Formation under Discrimination", talented minorities strategically self-select out of traditional employment, leading to self-reinforcing, discriminatory beliefs, even when the manager assigns credit on a merit basis. Furthermore, among those working individually, discrimination victims outperform beneficiaries. Co-authoring behaviour in economics, where discrimination by surname exists, confirms these predictions.

In "Moral Hazard in Teamwork under Discrimination", discrimination victims, expecting lower rewards from group output, exert less effort than beneficiaries, such that a fair manager, knowing these incentives, compensates in a way that beliefs are confirmed in a Bayesian-Nash equilibrium.

Finally, "Corporate Provision of Public Goods" models the coordination benefits that firms bring to shareholders. When managerial contracts reflect shareholders' desires for consumption and public goods, firms produce the socially optimal output, despite mismatches between shareholder preferences and those of society at large. Managers also redirect more profits toward public goods than shareholders would when acting separately.



Ifo Center for Energy, Climate and Exhaustible Resources

The center's research activities are determined by the major challenges related to protecting the environment, climate change, the scarcity of natural resources and sustainable energy supply. In accordance with its name, the center is especially active in research and policy advice on climate and energy policy and the efficient utilisation of exhaustible resources. However, it also addresses questions regarding the provision of environmental goods and services.

The focus of the center's research in the field of **Climate and Exhaustible Resources** is on the intertemporal analysis of the allocation of non-renewable resources and the efficiency and effectiveness of climate policies. Hans-Werner Sinn's work on the green paradox highlighted the critical role played by resource suppliers in the effectiveness of climate policy measures. The center's analysis of climate and resource policy measures therefore places a special emphasis on resource supply responses. The results of this research serve as a basis for providing policy-makers with substantiated information on the effectiveness and efficiency of climate policy instruments. The center analyses climate policies, theoretically as well as empirically, under specific consideration of international trade, extraction costs, substitution possibilities, and capital market effects when the behaviour of resource owners is taken into account. An additional research area in climate change focuses on technology development and adaptation under specific consideration of uncertainty. The center also maintains and continuously expands an internet-based information platform on resource and energy related topics. Furthermore, it contributes to the existing database for the international comparison of economic institutions (DICE) with indicators from the areas of climate change and energy policy.

The research area **Energy** is closely related to the research area Climate and Exhaustible Resources, as anthropogenic emissions mainly result from the burning of fossil energy sources. Due to the great importance for growth and prosperity that this field has gained during the rapid expansion of renewable energies, as well as the German phase-out of nuclear energy, the center is increasingly focusing on energy-related topics. At the core of this research lies the

empirical analysis of the transformation of energy systems, energy markets and the energy industry, as well as the efficient design of energy policy. In its research, the center measures the success of energy policy, not only in terms of the reduction in CO₂-emissions achieved, but also in terms of economic feasibility, acceptance, environmental compatibility in general, as well as power supply security.

This area's research analyses the overall and regional economic effects of the restructuring of the energy systems, as well as the question of the optimal degree of centralisation and regionalisation of energy supply and energy policy. Both the expansion of renewable energies and the realisation and implementation of energy policy measures require harmonisation between various regional levels. The characteristics of energy supply, as well as behavioural and acceptance aspects on the part of citizens, companies and state institutions create a tension between regionalisation and centralisation. This tension is the focus of a perennial research project that takes policy implications into special consideration. Another interdisciplinary research project in cooperation with partners from a specific Bavarian region analyses the effects of the transformation of the energy system at a local level.

However, German energy policy and its impact also needs to be understood in the context of European developments as a whole. For this reason the area is developing a model of the European electricity market in which renewable energy production from wind and sun are integrated in a very detailed manner. The model contributes to a better understanding of the impacts of national and European policies, and thus makes an important contribution to policy advisory work.

In the area of **Environmental Economics**, the center's research mainly focuses on current topics from the environmental sector. Ifo has years of experience in analysing the environmental sector and its recent studies have focused on the suppliers of equipment and services in the field of renewable energies, as well as improvements in energy efficiency and energy saving, which provides a good example of the inter-relatedness of the center's different research areas.

Focus on efficiency and effectiveness of climate policies

Further topics in this field encompass the economic evaluation of the environmental effects of climate change as well as, traditionally, research on water use and water management. Beyond these research activities, the center also offers policy advice on different environment-related topics. Examples include market analyses in the environmental sector and the assessment of instruments and institutions with respect to the promotion of sustainable development. Analyses of the interactions of innovation, energy and environmental policy also play a central role.

Projects Completed in 2015

Assessing the Green Paradox

J. Pfeiffer, W. Marz, N. Jaakkola, K. Pittel in cooperation with the Potsdam Institute for Climate Impact Research (PIK) for the German Federal Ministry of Education and Research (BMBF), October 2011 to August 2015.

The first-best approach to climate policy would be the immediate and permanent introduction of a global emission trading system for all greenhouse gases in all sectors. Experience with international negotiations as in Kyoto, Copenhagen or Paris, for example, has shown, however, that only second- and third-best policies seem realistically attainable. The Green Paradox is an important argument in the debate over different types of climate policy. Basically, it implies that deviations from the first-best policy will be ineffective – or even counterproductive – in reducing carbon emissions from the energy sector because of the behaviour of fossil fuel owners. A global CO₂ tax that rises over time, as is often discussed in literature on this topic, creates incentives for resource owners to increase emissions (in terms of the supply of fossil resources that cause emissions) in the short run. Second- and third-best climate policies have to take this effect into account and should be designed accordingly.

The literature on the Green Paradox usually makes a number of simplifying assumptions and abstracts from some of potentially important aspects. The implications of limited substitution possibilities between dif-

ferent types of energy, the role of international trade in fossil resources, as well as feedback effects from the capital markets and market power are often left out of the discussion. Transaction costs and expectations related to the demand side of future policies can affect the strength of the Green Paradox considerably. Improved incorporation of these aspects into theoretical and empirical analyses can lead to better insights into the quantitative significance of the Green Paradox.

The main goal of this project was to assess the significance of the Green Paradox in an extended modelling framework and analyse its effects on the benefits and costs of climate policies. The idea was that the insights gained would prove useful in developing and implementing effective second-best measures that would pave the way for a global climate policy framework. In order to achieve this goal, the project conducted theoretical analyses, as well as numerical simulations of policy impact in the framework of the integrated assessment model REMIND.

The project results provide decision-makers with more accurate information on the implications and effectiveness of different climate protection strategies. They offer a basis for the derivation of supply-side policy measures that take the behaviour of resource owners, as well as the complex international and intertemporal effects of second-best climate policies, into consideration.

Accompanying Activities to the BMBF Funding Priority “Economics of Climate Change”

K. Pittel, J. Wackerbauer in cooperation with the Centre for European Economic Research (ZEW), Mannheim, for the German Federal Ministry of Education and Research (BMBF), January 2014 to December 2015.

The goal of the accompanying activities to the BMBF funding priority “Economics of Climate Change” was to strengthen the practical application and use made of the scientific work done within the framework of this research programme.

The green paradox and its effects on the benefits and costs of climate policies

Formulating supply-side policy measures

Communicating project results to a wider public

The projects that were supported by the “Economics of Climate Change” funding priority generated a variety of results to various climate-economic research questions. The aim of the accompanying activities was to communicate these results beyond the boundaries of the professional community to a wider public. The Ifo Institute cooperated with the Centre for European Economic Research in one of four focus areas entitled: “Energy resources and climate-friendly energy supply”.

This included, inter alia, the organisation of scientific workshops and events related to the focus. These conferences addressed topical issues of climate and energy policy debate and provided insights into current research, as well as a platform for discussion and informal exchange between science and practice. The findings and recommendations of the latest economic climate research were presented as background and policy papers in a concise and clear form. These publications are aimed at decision-makers and interested parties from industry, government, politics, media and society.

Integrated Assessment of the Instruments and the Fiscal- and Market-Based Incentives of International Climate Change Policies and their Impacts (IACCP)

M. Zimmer, K. Pittel, A. Ciesielski, J. Dieler, J. Lippelt, A. M. Montoya Gómez, G. Felbermayr, R. Aichele in cooperation with R. Tol, University of Sussex, and D. Anthoff, University of California Berkeley, for the German Federal Ministry of Education and Research (BMBF), October 2011 to December 2015.

To date past, literature on the effects and the effectiveness of (unilateral) climate policy measures has relied heavily on work based on computable general equilibrium models (CGEs) and integrated assessment models. While these models are strongly inspired by theoretical economic work and concisely integrate climatological insights, their calibration and numerical implementation are often based on ad hoc parameterizations drawn from separate pieces of evidence. Moreover, key economic relationships are typically not micro-founded, but used in a reduced-form format. This is, amongst other things,

true of the modelling of the international competitiveness effects that arise from unilateral climate policies, or the feedback effects of those policies on the supply behaviour of resource owners. Estimates from empirical literature do not always address the informational requirements of CGE modellers, nor do they necessarily reflect the restrictions underlying the theoretical model. There is therefore a great deal of uncertainty surrounding the results of CGE simulations.

In other fields of applied economic work – such as in the area of international trade, for example – researchers have recently developed methods to use structural relationships consistent with theoretical models to econometrically identify the parameters of the models. This ensures that the theoretical and empirical setups are compatible. This research project made intensive use of these insights. It integrated structural estimation and proper econometric identification, based on sound theory-based and micro-founded relationships into a CGE climate policy framework. The researchers with theoretical, empirical, and simulation-related backgrounds brought together by the project, contributed to the development of an integrated, internally consistent approach that helps to improve the quality of applied policy work. One key prerequisite was the generation of comparable data on various policies that regulate, tax, or subsidize the production and use of different types of energy. A lack of comparable data has greatly hampered empirical work to date. A second important step consisted of working out extensions – focusing on endogenous growth – to the FUND model, enabling a structural empirical estimation of behavioural economic relationships. In a third step, the project team used its framework to gain novel insights into the effects and effectiveness of existing unilateral climate policies, as well as the assessment of newly proposed policies. The project's key tasks were to assess the instruments and the fiscal and market-based incentives of international climate change policies, to develop indices that allow comparisons of policies between countries and policy instruments; and to quantify and compare the effects of policy measures considering cross-border interdependencies with other

Moving beyond CGE models

users and providers of fossil fuels. The project also aimed to identify substitution effects between different energy sources, to derive policy implications from the status quo analysis of policy measures, and to assess the national and global welfare effects of potential policy scenarios with a focus on their long-term consequences.

Development of a New European Electricity Sector Model

C. Weissbart, M. Zimmer in cooperation with G. Blanford, Electric Power Research Institute (EPRI), Palo Alto, for the Bavarian Ministry of Economic Affairs and Media, Energy and Technology, May 2014 to October 2015.

In the wake of the political decision to phase out nuclear energy in Germany, both politicians and the public were optimistic about the so-called “Energiewende”. After this burst of initial enthusiasm, however, it became increasingly apparent that matters are far more complex, and potentially much more expensive, than initially assumed. The current debate is almost exclusively focused on the transformation of the electricity system, which can partially be justified by the role of electricity in the future. If the long-term goals of reducing greenhouse gas emissions are to be achieved, the share of electricity in energy demand will rise considerably. Without nuclear energy, the role of renewables in such a low-carbon system will become increasingly important. In the discussion over the future design of national electricity markets, one dimension, however, is often ignored, although it is crucial: the integration of European-wide markets and policies. Although European electricity markets are essentially liberalized, European states largely tend to focus on national strategies and regulation. Integrating policies and developing a trans-European renewable energy strategy has the potential to increase efficiency – and thereby decrease costs – considerably. Not only does the larger, and therefore potentially more competitive market, offer potential cost reductions, the geography and meteorological diversity of Europe could also reduce both generation and storage costs.

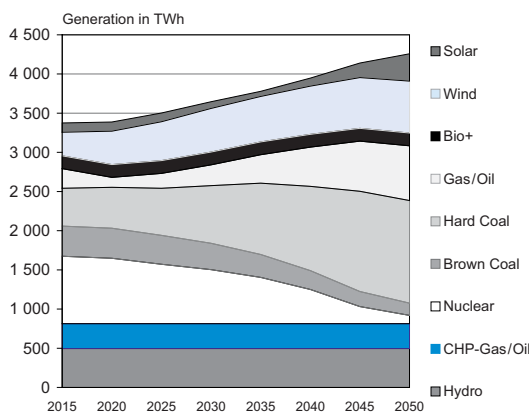
This project aimed to develop a dynamic model of the European electricity sector that is sufficiently decentralized to generate quantifiable answers to the crucial issues; and therefore provides the basis for much needed policy advice. Existing models of electricity markets that are designed to focus on long-term planning often omit key system features, while the more detailed system models tend to lack dynamics and breadth of scope. The model developed by the Ifo Center for Energy, Climate and Exhaustible Resources in cooperation with EPRI combines both of these criteria. It aggregates the EU28 countries plus Norway and Switzerland into 12 regions and considers the north and south of Germany separately. The model is solved by inter-temporal optimization through 2050 with 5-year time steps with the intention of simulating a competitive equilibrium under alternative scenarios. It also disaggregates generators and intra-annual time segments with sufficient resolution to capture dispatch, power flows between regions, and the implications of increased penetration of intermittent renewable resources.

In the first phase of the project, existing electric system data at country level was collected. Furthermore, the project team set up an in-house database for wind and solar resources. This enabled the simulation of hourly renewable resource profiles at a country level, disaggregated by quality class. Phase two of the project focused on the development of the dynamic model of the European electricity sector. The model was calibrated and first scenarios were run on the topics mentioned above. In September, the Ifo Center for Energy, Climate and Exhaustible Resources hosted the two final project workshops, one on modelling and one on policy issues. The workshops brought together renowned researchers from energy modelling and experts from the electricity sector and politics. The main purpose of the modelling workshop was to gather feedback on the model structure, calibration, data and scenario set-up, as well as input on further model development. The policy workshop served to present the new model to stakeholders and to discuss first model results and further scenario development.

New model aggregates
28 countries into
12 regions

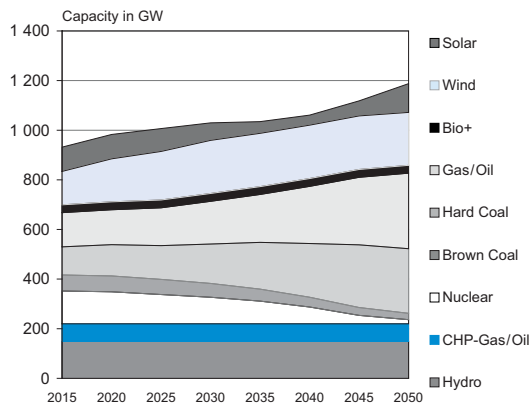
Two final workshops
hosted in September

Electricity Generation by Technology in the Baseline Scenario until 2050



Source: Ifo Institute.

Generation Capacity by Technology in the Baseline Scenario until 2050



Source: Ifo Institute.

Current Projects

ENERGIO – The Energy Policy Turnaround Caught Between Regionalisation and Centralisation

K. Pittel, T. Rave, J. Albrecht-Saavedra, T. Triebs in cooperation with A. Ziegler, University of Kassel, A. Lange, University of Hamburg, and the Institute of Energy Economics at the University of Cologne for the German Federal Ministry of Education and Research (BMBF), September 2013 to August 2016.

In the course of the energy policy turnaround the German federal government set targets for reducing greenhouse gas emissions, increasing the share of renewable energies and lowering energy consumption. The implementation of the measures necessary to achieve such targets usually requires an agreement between the federal states and municipalities, as well as local implementation of the measures. Closely linked to the need for regional implementation and independent local and regional policy measures are approaches to a decentralisation of energy provision itself, which completes, and if necessary, replaces existing central provision. However, between the regionalization of energy policy and a centralized approach there is a potential area of tension arising from both the characteristics of energy provision, as well as from behavioural and acceptance aspects on the part of citizens, companies and state institutions. Both centralized, supra-regional planning, as well as a decentralized approach that is close to citizens have certain advantages, but cannot be readily implemented at the same time.

In addition, the regional baseline situations for achieving energy turnaround targets are often very different (in terms of natural resources, the strategies of energy providers and demographic trends, for example). This baseline situation is also heavily influenced by political lobbying.

It remains largely unclear whether the political activities of states and municipalities are economically expedient and socially desirable. A form of maximisation philosophy and optimism about implementation seem widespread, and to such an extent that all levels

of government should and can implement as many of the measures for achieving the goals of the energy turnaround as possible. However, there are good reasons for giving the various levels of government in a federal state differentiated tasks and competences.

This project aims to shed empirical light on regional aspects of the planning and implementation of Germany's energy turnaround, and to explain the interaction between cost efficiency and preference equality/acceptance. Different methods will be used to analyse the degree to which the acceptance and participation of the players involved differ at a regional level; and how energy policy measures can be designed in a regionally differentiated and/or more cost-effective way. It will also explore whether energy policy measures can be implemented in areas where it is least expensive to do so; and/or where the greatest untapped potential for avoiding CO₂ emissions and innovation can be expected. Policy recommendations will be deduced with the help of theory-based criteria and the project results will be made available to experts and the general public. The validity and transferability of the results will be improved via an interdisciplinary group of experts and the organisation of workshops.

InTrans – Integrated Analysis of a Green Transformation

A. Ciesielski, A. Schmitt, K. Pittel in cooperation with the Centre for European Economic Research (ZEW), Mannheim, the Ludwig-Maximilian-University Munich and the University Bayreuth for the German Federal Ministry of Education and Research (BMBF), June 2015 to May 2018.

Reducing fossil fuel use to stabilise greenhouse gas emissions is an important element of a green transformation. Ensuring "environmental quality" in this context has the character of a public good for whose provision the regulator has to impose policy measures. As the transformation process induces significant long-term changes, the design of such measures must take into account acceptance of the process. The choice of policy instruments should therefore reflect not only questions of effectiveness and efficiency, but also of fairness and distributional impacts. In the light of these

considerations, this project evaluates different transformation paths and policy approaches. The project partners specifically analyse questions of process fairness, mechanisms to foster cooperation in the provision of public goods and scenarios of policy-induced technological change. Depending on the specific question addressed, the analyses employ theoretical, as well as empirical and experimental methods. The social and economic effects of different policies on households in Germany and international feed-back effects will be simulated in the framework of a micro simulation model, as well as a global general equilibrium model. Finally, questions of societies' potential to adapt to change are analysed from a sociological-historical perspective. The expected results of the project promise a better understanding of different policy approaches to transformation.

In its contribution to the project, the department focuses on technological change and the provision of environmentally-friendly technologies, which are an important prerequisite for the success of a green transformation. Feasible growth and technology paths are compared with respect to their economic and climate impacts under consideration of different forms of uncertainty. The process of technical change is at the center of the analysis, which aims to take potential path dependencies, irreversibilities and technological barriers into account. The macroeconomic perspective on long-run growth, investment and technology paths makes it possible to draw conclusions about the distribution of welfare gains and losses in an intergenerational context.

A second focus of the project is on the analysis of suitable long-run policies to foster clean technologies. In our modelling, technology paths are considered as an endogenous component in order to identify, in a first step, potential barriers to the adaptation of new technologies and their path dependencies, as well as to derive optimal policies. Another important goal of this research is to analyse endogenous technological change in view of the structural breaks and transition processes that are inevitable in the course of long-run development. In this context it is interesting to consider whether and to what extent the regulator might be able to create investment incentives by reducing regulatory and political uncertainties.

Focus on process
fairness and cooperation
mechanisms

Long-term policies to
foster clean technologies

The department's work on the project can be expected to result in a macroeconomic growth model that is soundly based on empirical observations. The model will help in the design of policies that promote technological change under uncertainty and will also facilitate assessments of the impact of different policies. The explicit integration of uncertainty in a dynamic context constitutes a substantial scientific contribution.

INOLA – Innovations for Sustainable Land and Energy Management at a Regional Level

J. Lippelt, A.M. Montoya Gómez, K. Pittel, M. v. Schickfus, M. Zimmer in cooperation with A. v. Streit and W. Mauser, Ludwig-Maximilian-University Munich, W. Mayer, Kempten University, and communal civil society and utility company partners for the German Federal Ministry of Education and Research (BMBF), October 2014 to September 2019.

The INOLA project aims to promote the interdisciplinary and transdisciplinary development of system solutions for sustainable land use and energy management of the model region "Energiewende Oberland" ("Oberland Energy Transition"). The Energiewende Oberland region covers three administrative districts south of Munich. The central question of the project is: which social and technical innovations are necessary in order to establish sustainable regional land use together with an adequate energy system. Cooperation between municipalities and districts, as well as the reflexive design of the innovation process are crucial in achieving these objectives. The primary contribution of the project is an innovation concept providing the region with the necessary process knowledge to successfully shape the transition towards a sustainable land use and energy system.

The Ifo Institute's task within INOLA is to determine the economic impacts of different scenarios for regional energy and land use systems. An input-output model is used to identify the effects on value-added, employment and sectoral output at a regional level, and to determine innovation strategies.

The results from the Ifo Institute's analysis will be used in the decision-making process at a local and re-

gional level: INOLA will provide key insights and tools for civil society players and decision-makers, enabling them to assess the economic sustainability of different land use and energy management options, and will accelerate the joint development of innovation strategies as a result.

Innovations needed
to establish sustainable
regional land use

Ifo Center for International Economics

There were no major changes to the department structure of the Ifo Center for International Economics in 2015, which is expected to remain in its present form in the future. There was, however, some turnover at the level of doctoral students and post-docs. Sebastian Benz left the institute for a position in the trade department of the OECD in Paris. The affiliated doctoral student Gilbert Spiegel, who completed his PhD, started to work for a consulting firm. Jasmin Gröschl, who left Ifo in 2013 for a position in the insurance industry, returned as a post-doc. Finally, Ms. Feodora Teti started at the Center as a doctoral student in August 2015. The Center's Director Gabriel Felbermayr went on a sabbatical to the Université de Paris I (Sorbonne, February to March 2015), to the University of California in Davis (March to May 2015) and to CEPII Paris (July 2015). The doctoral student Ms Inga Heiland spent the winter term 2015 at the University of Colorado, Boulder.

The Center for International Economics also made use of and expanded its international networks in 2015. As in 2014, these networks were drawn upon to organise conferences. The annual conference of the Economic Geography and International Trade Group took place on 20 and 21 March in Düsseldorf. The conference series organised with Ifo's cooperation partners GEP, Nottingham, and CEPII, Paris, also continued in 2015. For scheduling reasons, however, the event that was supposed to take place in 2014 was not held until January 2015 in Paris. A widely acclaimed conference on the topic of export financing was held at the Ifo Institute on 14 April. Finally, the Center co-organised a conference on the Transatlantic Trade and Investment Partnership (TTIP) in Warsaw, in which the chief negotiators of the EU and the US, Ignacio Garcia Bercero and Dan Mullaney gave presentations and interacted with the audience.

The Center for International Economics also used its international network in its project work and continued to make new strides in this area. Its work on mega regional trade agreements continued to involve international partners. The center participated in a CEPR e-book on the third country effects of TTIP and participated in a forthcoming book (MIT Press) on recent trade agreements edited by Jagdish Bhag-

wati. In December, the center's Director started consulting work with the IMF on the Transpacific Trade Partnership agreement. He also cooperated with the Norwegian Institute for International Affairs (NUPI) on trade policy issues and is in the process of proposing a study to the Norwegian government. The center is part of an international consortium that won a framework contract with the EU Commission (Directorate General Trade) and submitted an offer for the ex post evaluation of the EU's 2011 free trade agreement with South Korea. The center's Director, his deputy, together with the Ifo research professor Mario Larch and a former Ifo doctoral student, published a study on TTIP in the journal *Economic Policy*. The center is involved in a joint project proposal for the German Finance Ministry that brings together Ifo's French partner CEPII and several Ifo centers with a view to developing new perspectives for fostering Europe's competitiveness.

Two new research professors joined the center in 2015: Wolfgang Keller, University of Colorado, Boulder, who was a Humboldt professor at the center in 2014, and Marc-Andreas Münder, University of California, San Diego. Wolfgang Keller is working with the center's staff on a project using Ifo firm-level data. Marc-Andreas Münder is cooperating with the center on research aimed at a better understanding of the labour markets of globalization and is planning a number of research stays in Munich in the years ahead.

Cooperation with national partners was also expanded in the center's project work. The center benefitted from the financial support of Roland Berger Strategy Consultants Holding to conduct work on the evolution of collective wage bargaining structures in the context of increasing domestic and global competition. It also further developed its successful cooperation with the Institute for Applied Economic Research at the University of Tübingen (IAW). In January 2015, Gabriel Felbermayr presented a major study for the German Federal Ministry for Economic Cooperation and Development on the potential effects of TTIP on developing countries at a large conference in Berlin together with Minister Gerd Müller and Secretary of State Brigitte Zypries. Again together with IAW, over the summer, the center drafted a report for the Aus-

[TTIP article published in *Economic Policy*](#)

[Developments in collective wage bargaining](#)

trian government on the economic effects of Austria's entry into the EU in 1995. In the fall, IAW and the Center collaborated on a large project for the German Federal Ministry for Economics and Energy on the effects of market liberalisation from 1990 to 2014.

Over the summer, Gabriel Felbermayr wrote a study for the Federal Ministry for Economic Cooperation and Development on the involvement of German firms on the African continent. This analysis provided background information for the EU-Africa summit in September 2015.

Finally, towards the end of 2015 the Senate of the Leibniz Association announced its decision to fund an ambitious three-year project QUANTAGG – Quantitative Analysis of Global Governance, led by the center's post-doc Rahel Aichele. The project aims to further develop quantitative methods for the analysis of trade policy and international agreements. The center is also involved in a similar three-year project ENGAGE – Economic Growth Impacts of Climate Change – scheduled to start in early 2016 and led by the Potsdam Institute for Climate Impact Research (PIK).

The center also continued its long-standing cooperation with the Bertelsmann Foundation. In 2015, the Foundation commissioned a study on the potential economic effects of an exit of the United Kingdom (BREXIT) from the European Union, which received over 1,000 citations in international media. The cooperation also yielded a study on the role of international trade in economic inequality. This work, which also involved Daniel Baumgarten from the University of Munich, showed that international trade has played only a minor role in shaping the evolution of the distribution of gross wages in Germany. Finally, the center produced a study on the Transpacific Trade and Partnership agreement that the US has successfully negotiated with eleven other countries in the Pacific region. Work started on joint projects to evaluate the options of developing the European Union's cooperation with Turkey and Russia in 2015; initial results are expected in spring 2016.

The center's Head is involved in preparing a large-scale research proposal in a special research area together with colleagues from the universities of

Munich and Berlin. This major proposal, led by Klaus Schmidt from the University of Munich, cleared the first hurdle in autumn 2015.

The Center for International Economics hosted a total of 11 guest researchers from abroad in 2015. Despite Gabriel Felbermayr's sabbatical, the number of guests received was comparable to the number hosted in previous years. This was partly due to the fact that foreign researchers are cooperating in several of the department's projects and in its acquisition of additional projects. The choice of visitors is regularly motivated by the center's strategic objective to develop new competences in the area of the Chinese economy, for example, or to develop new partnerships with a view to acquiring interesting project work.

The center's research primarily focuses on the following areas:

- Globalization and labour markets,
- Trade costs and trade policy
- Trade and environmental policy.

In the first area, the center is supported by Ifo research professors Devashish Mitra, Maxwell School of Public Administration, Syracuse University, Marc-Andreas Münder, University of California, San Diego, and Assaf Razin, Cornell. In the second area, it is supported by Ifo research professors Wolfgang Keller, University of Colorado, Boulder, Mario Larch, University of Bayreuth, and Wilhelm Kohler, University of Tübingen. Peter Egger, ETH Zurich, provides advice in all of the center's research areas.

The analysis of the effects of **globalisation on labour markets** has always been a major part of the department's work in the past. This research attempts to incorporate various types of labour market imperfections into models of international trade, outsourcing and international migration; and to numerically or empirically quantify their effects. A new article by the department head, together with G. Impullitti, University of Cambridge, and J. Prat, Centre de Recherche en Économie et Statistique, Paris, shows how wage distribution for homogeneous employees can be deduced from the interaction of search frictions, convex ad-

German firms in Africa

International trade and gross wages in Germany

justment costs and nominal wage rigidity. Key insights from this research will be used in a recent consulting project for the European Parliament. The center head also published a chapter in the new Handbook of the Economics of International Migration, together with Wilhelm Kohler, University of Tübingen, and Volker Grossman, Université di Fribourg.

In terms of the center's applied work, the refugee crisis played a large role. With co-authors from the Ifo Center of Excellence for Migration and Integration Research (CEMIR), Michele Battisti and Gabriel Felbermayr produced a series of policy briefs published in the *ifo Schnelldienst*. Their purpose was to present the results of the Ifo migration model (a quantitative general equilibrium model featuring unemployment, wage bargaining, a redistributive public sector, and classical labour market complementarities), to provide insights from a survey of firms asked about their assessment of the employability of refugees, and to offer much needed transparency on numbers, the qualifications of refugees, and the implications that the latest wave of migration has for public finances. Gabriel Felbermayr gave a number of public speeches on this topic in 2015.

The department continued its work in the area of **trade costs and trade policy**. This strand of research looks at how high the natural and policy-induced trade costs are, what measures can be taken to reduce them and the trade potential that can be realised in this manner.

As in the last two years, there continued to be lively interest in the analysis of a potential free trade agreement between the EU and the USA in 2015. This topic attracted a tremendous amount of media attention over the course of the entire year. The center's Director gave a series of interviews in the national and international press, as well as presentations on the economic effects of the agreement at a wide range of conferences including, for example, a keynote address at the ADRES conference in Paris, a talk at the German Economic Association's meeting in Münster, and at a TTIP conference at the Warsaw School of Economics. He testified twice before the German Bundestag, and co-authored a position paper for the

German Bishops' Conference. He also continued to advise political parties on issues related to free trade agreements.

As part of the center's basic research, Erdal Yalcin and Ifo research professor Wilhelm Kohler, University of Tübingen, continued to work on the DFG project "Dynamic Aspects of Offshoring". One of the issues addressed as part of the project is the relationship between economic uncertainty and the growing fragmentation of production. In addition to basic research on the topic, Yalcin and Kohler coorganised a workshop at the CESifo Summer Institute in Venice. The keynote speakers were Pol Antràs, Harvard University, Kalina Manova, Stanford University, and Ngo Van Long, McGill University. The project will run into 2016.

Finally, the department continued and intensified its activities in the field of trade and environmental policy. This research mainly highlights the question of the role of international trade flows in making economies more resistant to global climate change. The impact of climate shocks can be lessened by strong participation in the international division of labour; at the same time, however, there is the danger of an outflow of capital and skilled labour. The center has compiled and published online the Ifo GAME database, a database that contains Geological And Meteorological Events from across the world on an extremely disaggregated regional scale from 1970 to 2014. These data were used in an article published by Gabriel Felbermayr and Jasmin Gröschl in the *Journal of Development Economics* and have been requested by numerous scholars worldwide. The database is a key information source for the center's participation in the PIK-led research project EN-GAGE (see above), which will be officially launched in March 2016. The center's work in this area has increasingly focused on issues of international development in recent years, and will continue to do so in the years ahead.

[Dynamic aspects of offshoring](#)

[Ifo GAME database](#)

Projects Completed in 2015

Potential Impact of TTIP on Developing and Emerging Countries

G. Felbermayr, R. Aichele, E. Yalcin in cooperation with Ifo research professor W. Kohler, University of Tübingen, G. Klee for the German Federal Ministry of Economic Co-operation and Development, October 2014 to January 2015, publication in *ifo Forschungsbericht* No. 67, Ifo Institute, Munich 2015.

Although TTIP will incorporate a classic free trade agreement, the two sides also want the partnership to make a contribution towards defining the rules of world trade for the 21st century, especially in the area of regulatory cooperation. TTIP should directly impact around 45 percent of global value added and 30 percent of world trade. According to the latest estimates, Germany's real per capita income will grow by between 1.0 percent and 3.5 percent in the long term as a result of TTIP. But impacts on third countries must also be expected. Excluding energy resources, the EU imports more from developing countries than the US, Canada, Japan and China combined. But the United States is also an important market for developing countries. For 30 percent of third countries, trade with TTIP countries accounts for over 50 percent of export turnover.

The negotiating mandate of the EU Commission repeatedly highlights sustainable development as a major goal of the contracting parties and states that the Commission is committed, in principle, to making TTIP development-friendly. It envisages monitoring sustainability, not least from a development perspective, based on regular dialogue with other stakeholders, including civil society. The present study looks at whether and how TTIP could become the basis for an equitable and revised multilateral world trading system. The factors that are needed for this should be taken into account in the negotiations.

The study drew on analyses of literature, expert interviews and case studies. It proceeded in five steps: firstly, existing theoretical literature on the trade diversion and trade creation effects of preferential trade agreements was presented and examined in re-

lation to TTIP. This was followed by 12 expert interviews with key representatives from business and civil society. Based on this conceptual groundwork, the results of several existing quantitative studies were evaluated. Finally, nine detailed case studies were made of countries that are interesting from a development policy point of view. Based on this work, the study ends with ten policy recommendations.

The sheer size of the transatlantic economy means that TTIP will have an impact on developing and emerging economies. On the one hand, higher income in the EU and the USA will increase demand for goods and services in third countries, which should benefit them. On the other hand, the agreement can be expected to divert trade flows from TTIP partners away from third countries, which will be detrimental to the latter. On balance, there will be both winners and losers among the developing countries. However, the effects on both groups will be small; and several parameters can be adjusted to make the winner group as large as possible.

Microeconomic analyses report limited negative real income effects for 42% to 80% of third countries. Even if the trade costs of third countries stand to fall due to TTIP ("spillover effects"), this decrease will range from 3% to 40%. The cumulative prosperity losses over 10–12 years will amount to less than 1% of per capita income. Against a background of annual growth rates of 3 to 4%, these effects seem small. The exporters of raw materials or countries that are involved in the value creation chains of EU or US manufacturers tend to be positively affected. By contrast, exporters of clothing, shoes and citrus fruits, for example, tend to be negatively impacted.

Since TTIP is supposed to prove a success for as many developing countries as possible, the agreement should (1) forego complex rules of origin unless absolutely necessary, (2) expand recognition of transatlantic standards to third countries as far as possible, (3) give developing countries rights to information on the work of the planned regulation boards, (4) prevent the redirecting of protectionist measures towards "TTIP-outsiders" and (5) develop a credible prospect of third and developing countries participating in the future.

TTIP to help define world trade rules for 21st century

TTIP committed to sustainable development

To ensure that TTIP contributes to the development of a fair world trade order, the EU's long-term international trade policy needs to be oriented towards (1) further lowering the customs and trade barriers for particularly relevant export goods (e.g. textiles, shoes, cotton, tobacco), (2) offering political and technical support to developing countries in forming their own regional free trade agreements, (3) expanding the existing trade agreements between the EU and various developing countries, (4) promoting the involvement of developing countries in global value creation chains with suitable development policy instruments and (5) reinforcing the WTO's role as the effective advocate of smaller, poorer states.

Follow-up Project: Global Trade and Wage Inequality: Facts and Challenges

G. Felbermayr, S. Lehwald for the Bertelsmann Foundation, October 2014 to March 2015.

This study analysed the change in German wage inequality over the years from 1996 to 2010 based on social security data from the research data centre of the federal employment agency. This study was an update of a previous project completed in 2014 for the Bertelsmann Foundation. It aimed to incorporate recent insights and results from related research, conducted with Daniel Baumgarten, University of Munich. The main part of the study attempted to identify the most important drivers of wage inequality in Germany from the mid-1990s onwards. It found that classical factors such as changes in the education and age structure of the workforce, together with changes in the remuneration of these factors, are largely driving the increase in wage inequality. Another important factor for the increase in wage inequality, however, is the decline in the collective bargaining coverage of German plants over the considered time period.

Assessment of the Net Employment Effects of a Change in Rules on Foreign Value Added in the German Federal Government's Export Credit Guarantee Scheme (Hermes Coverage)

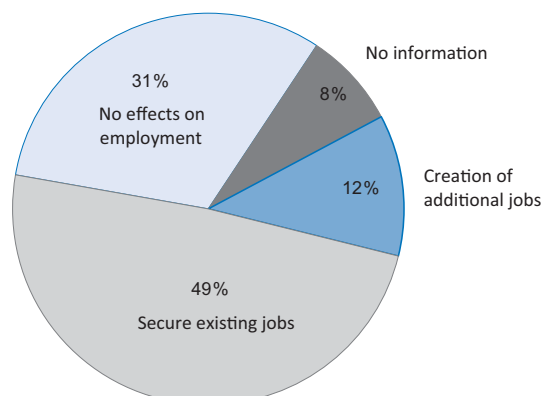
E. Yalcin, G. Felbermayr, A.-N. Sandkamp for the German Federal Ministry for Economic Affairs and Energy, October 2014 to March 2015, publication in *ifo Forschungsberichte* No. 68, Ifo Institute Munich 2015; *ifo Schnelldienst* 68(13), 2015.

In 2012 the Ifo Institute analysed the "Employment effects of export credit guarantees issued by the Federal Republic of Germany (Hermes coverage)" using econometric methods. The study illustrates that Hermes guarantees promote German exports and, in turn, employment by lessening the impact of a partial failure in the capital markets. In this sense Hermes guarantees can be seen as a regulatory policy instrument that compensates for a gap in the market system.

Against the background of increasingly international supply chains, this follow-up study focused on the employment-creating effects of export credit guarantees in companies with different shares of foreign value added. It investigated the extent to which companies with high shares of foreign value added create jobs in Germany, and whether increasing the share of foreign value added that can be covered would lead to a change in the employment effect of Hermes guarantees. These results made it possible to assess whether the approval of a higher share of foreign value added in the provision of Hermes guarantees would have positive or negative effects on domestic employment. Unlike in earlier studies, the employment effects created abroad were identified and plausible case study analyses were used to simulate the potential effects of a change in current rules. The results presented aim to promote the further development of this government instrument, especially in terms of sensible regulation of the approved foreign value added share of exports that can be covered by Hermes guarantees.

Export credit guarantees and employment

Net Employment Effects by Hermes Coverage



Source: Survey of the Ifo Institute.

While existing cover policy is sufficiently flexible for the majority of companies, the study finds that allowing higher foreign content shares would create additional employment in Germany and Europe. Finally, the study includes a critical discussion of passing default risks on to countries whose companies have a share in German exports.

Costs and Benefits of Britain's Exit from the European Union (BREXIT)

G. Felbermayr, R. Aichele for the Bertelsmann foundation, January 2015 to April 2015.

After winning the UK's general elections on May 7, 2015, the Tories announced a referendum on Britain's exit ("Brexit") from the European Union for the year 2017.

In recent years Britain has been the second and third biggest net contributor to the EU and made almost 10 billion euros in net payments to Brussels in 2014. Britain is not in the Eurozone or in the Schengen area. Certain EU rules like, for example, freedom of movement within the EU, or the EU Working Time Directive are increasingly coming under fire. Britain's exit would mean its withdrawal from the European Customs Union and the internal market. The EU's foreign trade agreements, of which there are now almost 40, would no longer apply to Britain. Around half of Britain's foreign trade, foreign direct investment and labour migration respectively takes place with other EU member states. This would seem to suggest that the economic risks of a Brexit are significant. These risks, however, would be very unevenly distributed across the various economic sectors. Other EU member states would also be negatively impacted by a Brexit, and to a growing degree the closer their links to Britain.

This project aimed to assess the net economic costs of a Brexit for Britain and other EU members. A critical factor is the scope that Britain will have to rebuild its foreign trade relationships in the wake of a Brexit. This, in turn, will depend heavily on the attitude of its trade partners (e.g. the rest of the EU). This analysis used Ifo's foreign trade model to examine several different scenarios, e.g. a scenario in which the EU grants the UK a status similar to Norway or Switzer-

land ("soft exit"), but also a scenario the UK's isolation, in which the country loses preferential access to the Single European Market and all of the EU's free trade agreements with third countries.

The project's key results are:

1. The costs of the Brexit for the United Kingdom range between 0.6 and 3% of the per capita income (GDP per capita) in the base year in static models – depending on whether the Brexit takes place as a "soft exit," or (less likely) an "isolation of the UK." If dynamic effects that illustrate the impact of economic integration on investment and innovation behaviour are taken into account, the costs increase to between 2 and 14%.
2. For the United Kingdom, leaving the EU would yield a potential fiscal saving of 0.5% of the GDP at most. As such, the static models make clear that a Brexit, on balance, would not yield a profit for the UK; and that its net cost – depending on the scenario – could be extremely high.
3. The economic uncertainty that a Brexit would unleash for the UK and other EU member states would be huge, certainly for the first few years after the decision was taken. The broad spectrum of predictions demonstrates this uncertainty. The resulting indirect costs for economic momentum are difficult to quantify, but could be significantly higher than the direct costs of increasingly difficult market access.
4. A Brexit would entail very high costs for some of the remaining EU member states. On one hand, they would need to compensate for the UK's eliminated net contribution to EU financing. On the other, EU companies would also have poorer access to markets in the United Kingdom. However, these costs would differ widely depending on the countries' intensity of economic relations with the UK. The biggest losers – after the United Kingdom – would be Ireland, Malta and Luxembourg, which maintain strong economic relationships with the island kingdom's finance sector. These countries would have to accept heavy losses similar in magnitude to those in the UK. According to the results of static model simulations, Germany's losses would be relatively moderate (0.1 to 0.3%), but could be much higher in dynamic models

(0.6 to 3.0%). Germany would need to transfer an additional €2.5 billion to Brussels to compensate for loss of the UK's financial contribution to the EU budget, if the present contribution mechanism were to remain unchanged.

5. Findings in academic literature show that the United Kingdom has enjoyed both fiscal and labour market benefits from the immigration of EU citizens. If half of EU immigrants were to return to their home countries, Britons could expect a lower per capita income of between 2 and 5% in the long term. There would also be significant effects on innovation and investment dynamics.
6. At a sectoral level, a Brexit would most heavily impact the UK's mechanical engineering, automotive and chemicals industries. The EU's MFN import tariffs are relatively high in these areas. However, the finance industry could be the biggest loser. Conversely, this industry would benefit in countries like Germany, France and Luxembourg. On the continent, losses would be concentrated in the automotive, food and paper industries.
7. Since a Brexit would also have a negative impact on the remaining EU member states without timely and generous negotiations on new terms of cooperation, they have a strong incentive to quickly negotiate follow-up agreements with the United Kingdom, which could, in turn, limit the costs for the UK.

Integrated Assessment of the Instruments and Fiscal and Market-Based Incentives of International Climate Policy and Its Impact (IACCP)

G. Felbermayr, R. Aichele, I. Heiland in cooperation with the Ifo Center for Energy, Climate and Exhaustible Resources, R. Tol, University of Sussex, D. Anthoff, University of Michigan, for the German Federal Ministry of Education and Research, October 2011 to April 2015.

This project aimed to conduct a consistent, integrated, micro-based estimate of the impact of unilateral climate policy. The Center for International Economics investigated international competitive effects. To this end, international trade flows were modelled using a structural gravity model. Relevant model parameters were structurally estimated using

econometric methods, to simulate various climate scenarios and their impact on trade flows and the resulting carbon leakage taking into consideration general balancing effects.

Megatrends in World Trade: Opportunities and Challenges for the Bavarian Economy

G. Felbermayr for the Bavarian Chamber of Commerce and Industry, March 2015 to June 2015.

Bavaria's companies are now more successful than ever on the world market. The Free State's exports recently totalled 170 billion euros; and 25% of employees depend directly or indirectly on exports. But the world is changing at a rapid pace: new technologies, new markets and diverging demographic trends are leading to a shift in power relations. This project outlined long-term trends in the export markets, supply markets and production locations of the future. It draws on the long-term forecasts of various international institutions and the Ifo partner institutes CEPII Paris. It clearly showed that the markets of the future are outside of Europe and that they are of largely not yet covered by free trade agreements. To ensure the prosperity of Bavaria, which depends far more heavily on international trade than many other regions in Europe, the offensive design of world trade system rules is more important. However, economic policy homework also has to be done nationwide and this primarily includes an improvement in the investment climate.

Short and Long-Term Policy Requirements to Achieve Sustainable Economic Growth and Employment in Croatia

E. Yalcin, T. Steinwachs in cooperation with other Ifo Centers for the die Croatian Statehood Foundation, Zagreb, September 2014 to December 2015.

In the context of this project, the department particularly analysed the development of foreign direct investment in Croatia, as well as Croatian exports over the past decade, and derived recommendations aimed at improving Croatia's international competitiveness.

In this analysis, economic indicators are used to first identify a reference group of countries with an economic performance that corresponds to Croatia's.

Long-term trends in export markets

Improving Croatia's competitiveness

The data analysis reveals that the development of exports and FDI attraction was much weaker in Croatia compared to its reference countries. A major reason for Croatia's relatively weak economic development in these two areas can be found in the insufficient competitiveness of Croatian unit labour costs, particularly since the country's deepening integration into the EU.

Using econometric panel data analyses, the average effect of a change in unit labour costs on per capita growth within the reference countries is derived. Thereby, the average effect of the change in unit labour cost on exports and FDI, which in turn results in an adjustment of per capita income, is identified explicitly.

In a final step, the derived average effects are used for simulations quantifying the politico-economic consequences of an internal and external devaluation. These simulations aim to present reliable recommendations for action to political decision-makers and to communicate target-oriented economic reforms, which can lead Croatia out of its economic stagnation in the medium term. The results of these analyses have been documented, critically discussed at Croatian-German expert meetings, and processed into a policy paper.

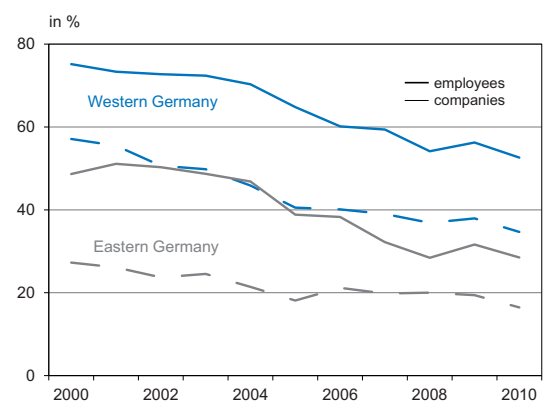
Commitment to the Collective Bargaining Agreement in Retailing: Trends and Wage Effects

G. Felbermayr, S. Lehwald for the Roland Berger Strategy Consultants Holding GmbH, April 2015 to Juni 2015, publication in *ifo Schnelldienst* 68(11), 2015.

The project looked at the price structure in the German retailing sector. A descriptive approach was selected to paint a picture of the current collective bargaining situation in German retailing without theoretical classifications or complex econometric assumptions. The analysis was based on a so-called LIAB data set, which was provided by the Institut für Arbeitsmarkt und Berufsforschung (IAB) of the German Federal Employment Agency. The result of the analysis, which spanned the period from 2000 to 2010, showed that the importance of collective bar-

gaining agreements in the trade sector has changed significantly: since 2000 the share of jobs governed by a collective wage agreement has fallen from almost three quarters to less than half. Only one in three companies has a collective agreement. It also emerged that companies with collective wage agreements tend to be bigger and older than those without. They also paid 25% to 32% higher wages on average.

Developments in Collective Wage Agreements in Wholesaling and Retailing



Source: Ifo Institute calculations based on LIAB data.

20 Years of Austria in the EU – Challenges and a Blueprint for Future Action

G. Felbermayr, R. Aichele in cooperation with B. Boockmann and W. Kohler, University of Tübingen, for the Austrian Federal Ministry for Science, Research and Business March 2015 to May 2015.

Austria has been a full member of the European Union for 20 years. The country has developed very favourably over this period: purchasing power per capita has risen from around 30,000 euros in 1995 to 44,000 euros in 2014 – an increase of 47%. The country's commodity exports have more than tripled since 1995 from around 42 billion euros to 128 billion euros; while the country's traditional negative balance of trade has shrunk to less than 2 billion euros. Between 50% and 64% of Austria's per capita gross domestic product (GDP) is now generated by international trade and the number of employees in Austria has risen to over 3.5 million in 2014. In

Unit labour costs, FDI and exports

Price structure in German retailing

this study researchers from the Ifo Institute and the IAW Tübingen focused on the question of whether and to what degree Austria's EU accession can be held causally responsible for this success story. The results of the Ifo study show that at least 2% of Austrian purchasing power per capita and per year (per 2014) is purely due to the effects of EU membership that boost static efficiency. If dynamic effects are included, the benefits are even more substantial. EU membership has boosted Austria's trade with EU countries by at least 15% on average. All economic sectors increased their EU exports, especially the key sectors of mechanical engineering (+54%), vehicle manufacturing (+88%), chemistry (+80%) and company services (+87%). The reduction in the fixed costs of access to European markets primarily helped medium-sized companies in Austria. Austria's (southern) eastern neighbours – especially Slovenia, Hungary and Slovakia – are benefiting tremendously from Austria's EU membership.

Austrian per capita gross domestic product has been almost 5% higher since 1998 than it would have been if Austria had not joined the EU. Between 1995 and 2008 this corresponded to a cumulative additional value creation of 19,000 euros per capita. The advantages of membership are at least four times higher than Austria's net contributions (1.25 billion euros, and/or 0.4% of GDP) to the EU budget. If dynamic effects are taken into consideration, the advantages are up to 20 times as high as Austria's contribution. The positive income effects of European integration are largely level effects: an annual repeated increase in income despite unchanged growth rates. These effects were somewhat higher in the first decade of Austria's membership than in recent years. In other words, the growth stimulus provided by EU expansion is gradually fading. Fresh stimuli could come from a further deepening of the EU internal market in the areas of services, digital business and electrical energy, for instance. The EU's collective international trade policy could also drive fresh growth. Ultimately, medium-sized and young companies in particular need better access to venture capital in order to fully capitalize on the growth opportunities offered by global markets.

New Trade Rules for China? Opportunities and Threats for the EU

E. Yalcin, G. Felbermayr, A. Sandkamp for the European Parliament, October 2015 to November 2015.

A large number of World Trade Organisation (WTO) member states continue to classify China as a non-market economy, including the European Union and the USA. The legal basis for this classification lies in China's protocol of accession to the WTO dated December 2001. Article 15 of the protocol enables WTO member states to decide, on the basis of their own national legislation, whether or not China is a market economy. China is generally seen as a country in transition from a centrally planned economy to a market-based economy. A country's economic status nevertheless plays an important role due to the trade policy protective instruments allowed within the WTO, for it legally determines the comparability of prices, as well as the calculation of the dumping margin. Paragraph 15(a) in China's accession protocol allows member states to ignore prices and costs in the Chinese market and to use data from third countries to calculate the corresponding dumping margin instead. This presupposes that the Chinese exporters in question cannot clearly prove that they are acting under market economy conditions.

Article 15 paragraph (a) (ii) of China's accession protocol to the WTO expires on December 2016. This short study examined the economic and political implications arising from the potential European strategies related to China's treatment against this background, including the possibility of China being granted a market economy status.

Detailed Factsheets on the Trade Effects of Free Trade Agreements

R. Aichele, G. Felbermayr for the Bertelsmann Foundation, June 2015 to November 2015.

After five years of intensive negotiations, a political consensus was reached on 5 October 2015 on a trans-Pacific free trade agreement (TPP) between the USA and eleven other neighbouring states on the Pacific Ocean (Australia, Brunei, Chile, Canada, Japan, Malaysia, Mexico, New Zealand, Peru, Sin-

[Is China a market economy?](#)

[TPP signed after five years](#)

gapore and Vietnam). This marked the creation of the world's biggest free trade area, with 800 million consumers and a gross domestic value added of 28 trillion US dollars, or around 37% of world GDP. In addition to the removal of traditional trade barriers like customs and excise and quotas, the agreement features regulations on non-tariff barriers, working standards and new technologies.

This study quantified the potential prosperity effects that TTP could bring its partners, as well as the effects on non-members like China and the EU. Finally, it quantified the benefits lost by the other TTP countries as a result of China's exclusion. TPP could boost world income by around 1%, with participants in the agreement enjoying significant benefits. Australia, Vietnam and the USA stand to see their per capita income increase by 5%, 5% and 2% respectively. In contrast to China, which will be a clear loser, other non-participating countries also stand to benefit from TTP, especially as additional economic growth in the Pacific region will lead to higher demand for exports. An agreement including China would benefit the world and the majority of TTP countries, as well most non-participating countries, but not the USA. For Germany it emerges that the automobile industry in particular could come under pressure from TPP, since Japanese and US automotive manufacturers may source more from suppliers in Asia as a result of the agreement.

Optimal Immigration Policies in Europe: From Conflicting Interests to Mutual Gains

M. Battisti, supported by the Leibniz Association (SAW), January 2012 to December 2015.

The Ifo Center of Excellence for Migration and Integration Research (CEMIR) was set up in January 2012. This center combines expertise from different institutions, different countries, and separate fields in economics. It constitutes the node of a lasting network with the goal of providing public goods to the research and policy communities in the form of analysis, data, policy briefs, workshops and conferences, the education of young academics and a new integrated assessment model. For further details, see the chapter on the Ifo Center of Excellence for Migration and Integration Research (CEMIR).

The Effects of Market Liberalisation in International Trade for Business, Growth and Jobs in Germany, 1990–2014

G. Felbermayr, R. Aichele, E. Yalcin in cooperation with W. Kohler, University of Tübingen, for the German Federal Ministry for Economic Affairs and Energy (BMWi), June 2015 to November 2015.

This project investigated the effects of the growing globalisation of the German economy on international trade and domestic per capita income. This research primarily focused on the EU's eastward expansion and preparation for it through the Europe agreement at the beginning of the 1990s, China's accession to the World Trade Organisation in 2001 and various EU free trade agreements (with Turkey, South Africa and Chile, for example).

Involvement of German Firms in African States

Gabriel Felbermayr, Erdal Yalcin for the Federal Ministry for Economic Cooperation and Development, July 2015 to September 2015.

Africa is a continent with huge potential. However, it also faces enormous challenges. Recently, economic growth has been high in many countries. Africa's population will double by 2050, but per capita incomes remain very low. The involvement of German firms in Africa is rather weak, with the exception of South Africa. Germany is Africa's fifth most important supplier, but its market share in the continent has eroded from 14% in 1992 to 5% in 2013. Germany mostly exports manufactured goods, while agricultural goods tend to play only a minor role. Germany is the eighth most important market for African exporters, but growth in trade has lagged significantly behind the dynamics seen in Africa's trade relationships with other countries. Interestingly, energy and mining products dominate Germany's imports to a lesser degree than those of other countries. This is related to the fact that there is virtually no foreign direct investment (FDI) by German firms in extractive resource sectors. Instead, German FDI is concentrated in the know-how intensive automotive industry. However, Africa accounts for less than 1% of Germany's total FDI and this figure is only

Potential prosperity
effects of TTP

CEMIR set up in 2012

growing very slowly. German businesses could stand to profit from growth opportunities in Africa; and their involvement could also spur local economic development. An appropriate institutional framework and political assistance is required to facilitate more trade and investment. For example, the study shows that free trade agreements are highly effective in fostering African exports, and that bilateral investment treaties are necessary conditions for German FDI in Africa.

Current Projects

In-Depth Analysis of TTIP and Jobs

G. Felbermayr for the European Parliament, October 2015 to January 2016.

This study examines literature on the labour market effects of European international trade policy in general, and the agreement currently under negotiation of a Transatlantic Trade and Investment Partnership specifically. The critical analysis of academic literature should lead to a realistic assessment of the agreement's impact. To this end it will draw heavily on previous work by the Ifo Center for International Economics. More recent literature, in contrast to older traditions, refers to systematic labour market effects created by stronger international integration of the markets for goods and services. This should be compared with other market reforms, which initially only have an impact on the domestic market. Lower barriers to market entry, stiffer competition and a greater specialisation in competitive fields can increase incentives to create additional jobs. This primarily applies to the long term, since adjustment costs arise in the short term in the form of temporarily higher unemployment.

Structure and Dynamic of Income and Wealth Inequality in Germany since Agenda 2010

G. Felbermayr, S. Lehwald, M. Battisti for the Stiftung Familienunternehmen, October 2015 to January 2016.

The debate over the distribution of wealth and income has been going on in Germany for some time. The basic tenor of the debate seems to be that in-

equality in income and wealth seems to be increasing steadily. The empirical evidence of this development, however, is rarely called into question. Interdependencies such as, for example, lower unemployment among the low-skilled and gross wage distribution, are not taken into account; the changing composition of labour force potential is excluded; the very clear differences in trends in gross and net values (in income distribution, for example) particularly in Germany, are not sufficiently highlighted; and the role of public goods and the size and/or composition of households is not taken into consideration. On the basis of the apparent dramatic increase in economic inequality, there are calls for radical economic measures such as, for example, intervention in primary income distribution or changes in taxation policy. The introduction of a minimum wage on 1 January 2015 and calls for its rapid increase to 10 euros are examples of these demands. There is a danger that the Agenda 2010 reforms will be repealed. There are also discussions on raising income tax rates and various forms of taxes on wealth. The long-term negative side-effects of these measures on, for example, employment, education incentives and economic growth, are not mentioned in the current debate.

This research project uses data from the Socio-Economic Panel (SOEP) and data on wages and employment from the Institut für Arbeits- und Berufsforschung to analyse the structure and dynamic of income and wage inequality in Germany since Agenda 2010. A superficial look at the data available reveals that the assertion that the average earner's real gross income in Germany is falling has to be qualified. For today's average earner has other socio-economic characteristics than he used to have in the past. The assertion that the Hartz reforms were unfair because they increased inequality also merits closer consideration. The reforms have made the distribution of household income from earnings more equal through higher employment and participation rates in the labour market. Lastly, the widespread assumption that the distribution system structured by taxes, transfers and public goods no longer functions is not true. Compared to other countries Germany distributes wealth on a large scale and effectively.

Rising economic inequality calls for radical measures

Changes in profile of average earner

**Free Trade from Lisbon to Vladivostok:
Who Will Benefit from a Eurasian Trade
Agreement and Who Will Be Harmed by It?**

R. Aichele, G. Felbermayr, J. Gröschl for the Bertelsmann Foundation, November 2015 to January 2016.

Free trade between Europe the Eurasian customs union dominated by Russia (EZU: Kazakhstan, Kirgizia, Russia, Tajikistan and Belarus) could offer significant economic advantages for the countries involved; as Russia's economic structure, geared towards commodities and primary industries, is complementary to the EU's. To date there has been no quantification of the economic effects of a free trade area between the EU and EZU that would include additional countries with which both Russia and the EU already have free trade agreements, especially the Ukraine. The study will begin by estimating the potential trade and income effects of such an agreement.

EU Integration of Turkey at a Crossroads

E. Yalcin, G. Felbermayr, R. Aichele for the Bertelsmann Foundation, November 2015 to January 2016.

In May 2015 the Turkish government together with European Union representatives announced a declaration of intent to update and deepen the existing customs union between both parties. This desire to deepen relations between the EU and Turkey free from the stagnating EU *acquis* is surprising, but may represent a step towards averting the threat of a rift in the economic trade relations between the two regions. While no major progress has been made in political negotiations over Turkey's accession to the EU in recent years, bilateral economic relations have developed very positively, despite the fact that Turkey's membership of the customs union is restricted to industrial goods and processed agricultural goods.

German companies in particular are using the customs union with Turkey to produce cheap intermediate goods in the country and to subsequently reimport them into Germany for further processing. It is therefore unsurprising that a large share of foreign direct investment in Turkey comes from German com-

panies. The study looks at the following questions: (i) What are the economic implications of Turkey's inclusion in the European customs union? (ii) What economic effects are to be expected in Turkey and the EU if the free trade agreement currently under negotiation is ratified and the asymmetry of the European-Turkish customs union continues to exist? (iii) What economic adjustments are to be expected in Turkey and the EU if one of the potential agreement adjustments is made in the light of new EU trade policy (iv) What would a mid-term integration path for Turkey look like?

Dynamic Aspects of Offshoring

E. Yalcin, S. Benz, I. Heiland in cooperation with Ifo research professor W. Kohler, University of Tübingen, for the German Research Foundation (DFG), January 2013 to June 2016.

Thanks to its dynamic perspective, as well as its consideration of uncertainty, this project should make a major contribution to the existing literature on the relocation of production stages abroad (offshoring). Dynamic models enable the analysis of long-term effects that arise through the accumulation of real or human capital (education, R&D). By taking uncertainty into consideration, the international fragmentation of production can be explained as a key strategy for coping with shocks or volatility in the areas of production and demand. This can partly explain empirical anomalies related to fluctuation in employment in various countries. From a practical standpoint this strategy seems natural, but it has barely been mentioned in literature on the topic to date. If the perspective is extended to include dynamic relations and elements of uncertainty, new normative issues are almost inevitably brought into play. The project should therefore also look at aspects of optimal economic policy in trade and foreign direct investment.

Free trade area between
EU and EZU

Bilateral economic
relations developing
positively

Ifo Center for Business Cycle Analysis and Surveys

The Ifo Center for Business Cycle Analysis and Surveys comprises the two main areas of economic forecasting and business surveys. Joining these two areas emphasises the importance of business surveys for the analysis of economic activity and differentiates the Ifo Institute from other economic research institutes. The key activities of the department include the surveying, evaluation and interpretation of business data, as well as survey-based business-cycle analyses and forecasts for Germany, the European Union and other major countries.

A key service function of the Ifo Institute is conducting and interpreting **business surveys**. The regularly collected data not only constitute an integral part of the Institute's economic forecasts; they also form the basis of industry and aggregate economic forecasts of businesses, industry associations and government agencies. The survey results are extensively discussed and interpreted in the media. In economic research, micro data derived from Ifo business surveys play an important role in testing economic behavioural patterns – for example investment and employment behaviour, labour market trends or pricing policies. The excellent reputation of the Ifo Institute in the area of business surveys is also confirmed by the fact that the surveying techniques of the Institute are currently used in over fifty countries throughout the world.

Ifo business surveys again stood at the centre of public interest in 2015. To meet the demand for information on the international business cycle, Ifo conducts the Ifo World Economic Survey (WES). In contrast to the national Ifo business surveys that query firms on their own situation and prospects, WES is a pool of experts who assess the economic situation of the countries in which they are based.

The **economic forecasts** are based on the systematic collection and methodical processing and analysis of Ifo's own survey data and official statistics. Particular weight is given to the results of the Ifo Business Survey, the Ifo Investment Survey and the Ifo World Economic Survey (WES). The economic indicators derived from the Ifo surveys and official statistics are constantly examined for their usefulness in macroeconomic analysis and forecasting. This also applies to

the forecasting instruments developed by the Ifo Institute itself, such as econometric approaches to estimating business cycles and growth trends, time-series models for various economic variables, and model analyses of the macroeconomic effects of alternative economic policy measures.

In order to quantify macroeconomic production gaps as a measure for cyclical swings, the production potential of key countries is also estimated. The main focus is on the German economy for which development trends in the supply-side determinants of production potential like productivity, labour market participation and capital accumulation are documented and analysed. Moreover, the key figures for economic development and the special circumstances of individual countries – currently, for example, public debt levels, budget deficits, current account balances, measures of competitiveness and fiscal policy reform – are also systematically compared to identify possible economic policy options for Germany and Europe.

Analysing supply-side determinants of production potential

Service Projects

The Center for Business Cycle Analyses and Surveys regularly carries out a number of service projects, based on its own research work and continuously monitored by scientific criteria. The most important projects are the Ifo business surveys and the economic forecasts.

Ifo Business Survey in Industry and Trade

The business survey introduced by the Ifo Institute in 1949 was an innovation in business-cycle and market observation. Today it is one of the most important sources for assessing the current economic situation in Germany. In 1990, shortly after the German Economic and Currency Union took effect, the Business Survey was expanded to include eastern Germany.

The monthly survey is based on roughly 7,000 responses from firms throughout Germany on how they see their business situation and related aspects of operational activities. The standard questions require firms to appraise their current situation and assess their business expectations and plans in the three

to six months ahead. Survey participants are asked to exclude seasonal fluctuations from their assessments. As this is only partially possible, the results undergo an additional seasonal adjustment. The survey results, which are subject to a complex evaluation procedure, provide information on some 500 individual sub-sectors, the manufacturing industry, construction, as well as the wholesaling and retail industry.

The objective of the Ifo Business Survey is to capture the business-cycle component of the macroeconomic developments. It does not predict long-term growth trends. The Ifo Business Survey is designed to supplement official statistics. It provides information on economic phenomena that are not ascertained by official statistics, and is published in a timely manner.

The long time-series of the Ifo Business Survey is used to derive informative business-cycle indicators. The Ifo Business Climate Index, combined with quarterly questions on capacity utilisation and order stocks, provides a reliable picture of the current business situation and short-term developments. A key advantage of Ifo's economic indicators vis-à-vis the official statistics are their early availability. Official German production and new-order indicators are, in general, not published until four weeks after the end of the reporting period, and are often subject to major revisions. The results of the Ifo Business Survey are released between the 22nd and 27th day of the survey month. Furthermore, participants give their appraisal of and expectations for their firms, thereby offering supplemental information to the quantitative information provided by the official statistics.

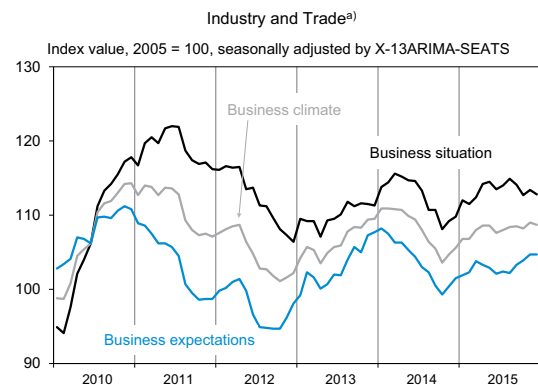
External individuals interested in the time series of the Ifo Business Survey can obtain data from the Ifo Institute's database service. The data offered also include time series from other sources.

Ifo Business Climate in German Trade and Industry

The Ifo Business Climate, which is calculated as the transformed mean of the balances of the business situation and expectations for the next six months, has been published regularly by the Ifo Institute since 1972. It has proven to be a reliable early indicator

of economic development in Germany. Compared to the production index for the manufacturing industry provided by official statistics, it leads, on average, by two to three months. As a result, it has become an integral part of German economic forecasts. The national and international importance of the Ifo Business Climate can be seen in the reactions to the publication of the new forecast on the part of the financial markets, which eagerly await its results every month. Special monthly evaluations and commentaries of the Ifo Business Survey are provided by the Ifo Institute for Bavaria, Baden-Württemberg, North Rhine-Westphalia and Saxony.

Ifo Business Climate in Germany



Source: Ifo Business Climate.

At the beginning of 2015 the Ifo Institute changed its seasonal adjustment procedure. The old approach was not able to remove all seasonal patterns, especially in the construction sector. All series have been completely revised. There were substantial changes in the construction sector, whereas for the main Ifo Business Climate Index the modifications were small. During the year, the Ifo Business Climate grew steadily with some decreases, pointing to robust economic development in 2016.

Monthly Ifo Business Survey of the Service Sector

The Ifo Business Survey of the Service Sector is the most comprehensive monthly survey of the German service sector. Over 2,500 firms participate on a reg-

A business cycle snapshot

Early availability offers key advantage

ular basis. The Ifo Business Climate in the Service Sector indicator, which has been published since 2005, is based on important, and particularly on business-oriented segments of the tertiary sector (excluding distribution and government). Financial services (banking and insurance) are not included in the indicator. The Ifo Institute carries out separate surveys in these areas, including its monthly business climate in leasing. These results are used, among other things, to assess investments in plants and equipment.

Information on sales, employment and the economic sector, as well as structural data from official statistics, are used in the calculation and projection of the indicator. The survey methods and calculations are similar to those of the Ifo Business Survey of industry and trade (manufacturing, construction, wholesaling and retailing).

The Ifo Business Survey of the Service Sector meets the current standards of harmonised business surveys in EU member states. The results are published on a monthly basis together with the Ifo Business Survey of manufacturing, construction, as well as wholesaling and retailing.

Ifo Investment Survey

The Ifo Investment Survey was the forerunner of all of the Federal Statistics Office's investment surveys. Today it supplements official ex-post data with timely information on projections based on company plans. This makes the Ifo Institute the only source for quantified estimates of current developments in investment prior to the publication of official ex-post data. As a voluntary survey – the Ifo Investment Survey is like all non-official surveys and is not grounded in law – it cannot essentially replace a comprehensive survey. This is especially true with respect to the desired subdivision of the branches. The sectors of manufacturing, construction, wholesaling and retailing, as well as equipment leasing (leasing and manufacturer leasing) were all polled by the Ifo Investment Survey in 2015. The forecasting horizon covers roughly one year. The surveys were conducted on an annual basis in most of the sectors mentioned above; and only manufacturers were surveyed twice a year.

In addition to data on past developments in investment, the Ifo Institute's investment survey of manufacturing and mining also collects data on investment plans for the ongoing and forthcoming year and the setting of investment goals, as well as the relevant factors influencing them. According to the latest results, investments in manufacturing increased nominally by around 7% in 2015.

Ifo Business Survey in Leasing

With its business survey of the leasing sector the Ifo Institute closes a statistical gap. Unlike in other areas of the investment survey, this is a comprehensive survey, as there are no official statistics for the extrapolation of sample results. The test results for last year show an 8.3% upturn in new business versus last year to 50.7 billion euros. Movables leasing rose by 7.9%, while growth of as much as 20.6% was seen in real-estate leasing following a three-year decline. This led to an increase in the overall leasing rate to 15.3% from 14.7%; while leasing as a share of total investment in movables even increased from 22.2% to 23.0%.

For over a decade the Ifo Institute, in cooperation with the German Association of Leasing Companies based in Berlin, has conducted a regular economic survey of German leasing companies. The survey was initially conducted on a quarterly basis, but became monthly as of 2003. The assessments by leasing companies of their current business developments are particularly useful in forecasting overall investment in equipment.

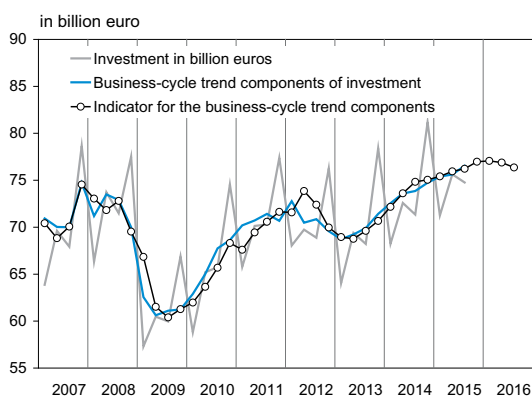
The results of the Ifo Institute's economic surveys of the leasing sector point to more favourable business developments for leasing companies in 2015. Although assessments of the current business situation were no longer quite as positive as previously over vast swathes of last year, they remained significantly higher than the long-term average on balance. Optimism on the part of leasing companies participating in the Ifo Business Survey regarding business expectations reached its highest level since the beginning of 2014. This suggests that leasing investment will continue to develop positively in the second half of the year.

New leasing business sees upturn in 2015

Leasing companies express optimism

The investment indicator, which is based on assessments of the current business situation jointly polled by the Ifo Institute and the German Association of Leasing Companies, signalled a moderate increase of 3.4% in equipment investment, including other assets, for 2015, following on from a 4.7% increase the previous year. There was a downturn in growth in investment over the course of 2015. The investment climate indicator points to a further weakening in the investment dynamic in 2016.

Investment Indicator



Calculated as of 25 November 2015.

Source: Ifo Business Survey of the Service Sector; Federal Statistical Office; calculations of the Ifo Institute.

Ifo Insurance Survey

In close collaboration with the Federation of the German Insurance Industry, the Ifo Institute has been conducting a quarterly business survey of the insurance sector since the end of 1999. Included in the survey are insurance companies in the areas of life, health and property/casualty. In terms of gross premiums, the insurance companies participating in the survey cover over 80% of the premium income.

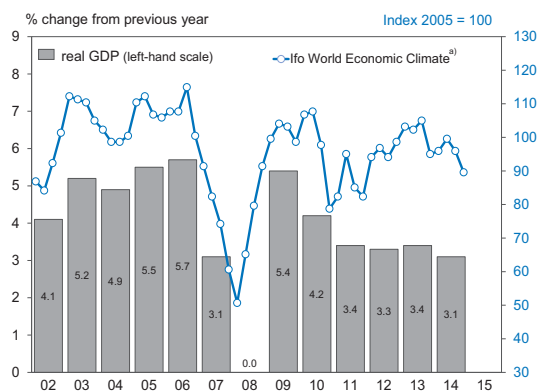
Ifo Innovation Survey

The Ifo Institute has conducted the Ifo Innovation Survey since 1979. The innovation surveys in other OECD countries are carried out on the same conceptual basis. For details, see the chapter on the Ifo Center for Industrial Organisation and New Technologies.

Ifo World Economic Survey (WES)

For over 30 years the objective of the Ifo World Economic Survey (WES) has been to depict the current economic situation and outlook in numerous industrial and transformation countries as accurately as possible. The survey results are characterised by their timely information and international comparability. The assessments and expectations of on-site experts are particularly valuable in countries where the official statistics remain unreliable. The figure below shows the high correlation of the survey results with actual growth in the world economy. Once again in 2015, the Ifo Institute polled over 1,000 international business experts at institutes or multinational enterprises on the economic situation and outlook in some 120 industrial, emerging and developing economies. In return, participants received detailed survey results. The WES results are also published in the quarterly English language journal *CESifo World Economic Survey*, and in a condensed form in German in the *ifo Schnelldienst*. In Latin America the Ifo Institute has cooperated with Fundacao Getulio Vargas/Instituto Brasileiro de Economia (FGB/IBRE) since 2007, which publishes the WES results for this region.

World Economic Outlook and Ifo World Economic Climate



^{a)} Arithmetic mean of judgement of present and expected economic situation. Sources: IMF, World Economic Outlook, October 2015; Ifo World Economic Survey (WES) IV/2015.

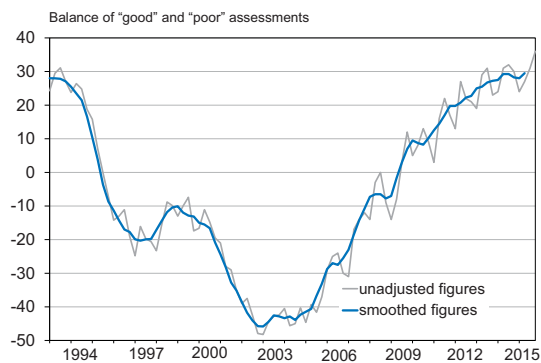
Ifo Architects Survey

The Ifo Architects Survey, which began in 1980 in only four federal states, has been conducted nationwide in Germany since 1996. Some 1,800 freelance architects across all 16 German states are surveyed on a quarterly

basis. The survey results produce the following indicators: business climate, new contracts – and hence estimated construction volume – as well as order stocks. The data are supplemented by annually surveyed information on the legal form and size of the architects' offices and their fees. State-specific survey results are sent to participating architect chambers in various German states; and participants receive the survey results along with the next quarterly survey questionnaire. The results for Germany are published every three months in *ifo Schnelldienst*. The current business climate among freelance architects is equally as favorable as it was in the years following German Reunification.

Business Climate of Self-employed Architects

Assessments of the current order situation by freelance architects



Source: Ifo Architects Survey

Ifo Economic Forecasts

At mid-year and year-end, the department publishes a detailed report that includes forecasts of gross domestic product (sector origin, use and distribution), the labour market, inflation, as well as public expenditure and revenues. Special attention is paid to quantifying the acceleration or deceleration of economic activity, and to identifying business-cycle turning points. Since 2010, the department has also provided annual sector accounts for institutional sectors, the economy as a whole, non-financial and financial corporations, private households (including non-profit organisations), the government sector, as well as for the rest of the world. The accounts provide a systematic overview of important transactions between sectors that are included in the overall economic figures.

The department frequently makes statements to the media on the current economic outlook and the economic policy problems related to it. The economic implications of fiscal policy decisions are also analysed and commented upon. Particularly interesting issues in 2015 included the European Central Bank's large-scale bond buying programme, the sharp fall in oil prices, as well as the economic implications of refugee migration. Overall, the department enjoyed extensive media coverage in 2015.

Joint Economic Forecast

In the spring and autumn the department participates in the Joint Economic Forecast (*Gemeinschaftsdiagnose*), commissioned by the Federal Ministry of Economics and Technology. In 2013, an open invitation to tender for this forecast was reissued. Together with the department for business cycle research of the ETH (Swiss Federal Institute of Technology) Zurich (KOF) as a consortium partner, the Ifo institute was awarded a contract to participate for another three years.

The other three successful consortia were the German Institute for Economic Research (DIW), together with the Austrian Institute of Economic Research (WIFO), the Halle Leibniz Institute for Economic Research (IWH) together with Kiel Economics, as well as the Rheinisch-Westfälisches Institut für Wirtschaftsforschung (RWI), Essen, together with the Institute for Advanced Studies in Vienna (IHS). The Joint Economic Forecast comprises forecasts for Germany, the European Union and other major countries, as well as an evaluation of those economic policies that affect Germany's economic activity. It is presented at the facilities of the federal press conference (*Bundespressekonferenz*) in Berlin and subsequently submitted to the Federal Ministry of Economics and Energy (BMWi).

Eurozone Economic Outlook

The Eurozone Economic Outlook is a European joint initiative of the Ifo Institute, INSEE in Paris and Istat in Rome. It provides an estimate (for the past quarter) and a forecast (for the current and following quarters) of real GDP, private consumption, industrial output and inflation in the euro-zone. Forecasting is conducted primarily by applying econometric forecasting

Key issues: ECB's bond buying, lower oil prices and immigration

Forecasts for EU, Germany and other major countries

methods. The projections are then rounded off using the personal appraisals of the project team. The *Eurozone Economic Outlook* is published quarterly – in January, April, July and October – as a two-page press release in German and English.

European Economic Advisory Group (EEAG)

The European Economic Advisory Group at CESifo (EEAG) is a European expert advisory board consisting of seven well-known economists from seven countries and currently chaired by John Driffill, Birkbeck College. It was launched in 2001 by CESifo. The group writes detailed reports on specific economic policy issues. The Ifo Center for Business Cycle Analysis and Surveys provides a forecast and analysis of economic activity in Europe and the world for the EEAG Report. Special matters are also treated on a regular basis. The forecast is part of the "Economic Outlook" chapter.

Economic Analyses, Preparation of Indicators and Forecasts

The project aims to compute monthly survey-based electricity indicators to forecast the electricity consumption in Germany and in the ENBW customer base and to build an appropriate econometric model to predict the target time series over a forecast horizon of up to 12 months. The electricity indicators are generated from the disaggregated results of the Ifo business surveys in the manufacturing industry and reflect the cyclical variations in power demand. The forecasting model is based on the idea of improving predictive accuracy by combining a larger number of individual forecasts and models not only of business cycle fluctuations, but also the medium term trend, seasonality, temperature and structural effects of electricity demand. Additionally, this project includes consulting services connected with the current state of the business cycle and economic policy issues.

Forecasting electricity
consumption in Germany

Service Projects in Detail

Ifo Business Survey

K. Wohlrabe, P. Wojciechowski, L. Dorffmeister, S. Sauer, C. Seiler, A. Bauer, monthly publication in *ifo Schnelldienst* and *ifo Konjunkturperspektiven*.

Ifo World Economic Survey (WES)

K. Wohlrabe, G. Nerb, J. Garnitz, quarterly publication in *CESifo World Economic Survey* and *ifo Schnelldienst*.

Ifo Leasing Business Survey

A. Städtler, S. Sauer regular publication in *ifo Schnelldienst*.

Ifo Business Survey of the Insurance Sector

W. Ruppert for the Association of German Insurance Companies, information for clients and participants.

Ifo Business Survey for Bavaria

P. Jäckel, for the Bavarian Ministry of Economic Affairs and Media, Energy and Technology, regular publication in *Konjunktur in Bayern* as well as on the client's website.

Ifo Business Survey for Baden-Württemberg

W. Ruppert for Landescreditbank Baden-Württemberg – Förderbank, regular publication in the series *L-Bank-ifo-Konjunkturtest* and on the internet.

Ifo Business Survey for Saxony

R. Lehmann, regular publication in *ifo Dresden berichtet*.

Ifo Business Survey for North-Rhine Westphalia

A. Weichselberger for NRW Bank, regular publication in the series *NRW.Bank.ifo-Index* and on the internet.

Ifo Investment Survey

P. Jäckel, S. Sauer, A. Städtler, A. Weichselberger, regular publication in *ifo Schnelldienst*.

Ifo-KfW Business Cycle Barometer for Medium-sized Businesses

W. Ruppert, for the KfW Bank Group, regularly published by the client.

Ifo Employment Barometer

K. Wohlrabe, A. Bauer, monthly publication in *Handelsblatt*, *ifo Konjunkturperspektiven* and on the CESifo website.

Credit Constraint Indicator

K. Wohlrabe, A. Marjenko, monthly publication as a press release, in *ifo Konjunkturperspektiven* and on the Ifo Institute's website.

Ifo-GfK-Konsumreport

W. Nierhaus, A. Bauer in cooperation with GfK Marktforschung, Nürnberg, publication in *ifo-GfK-Konsumreport*.

Ifo Export Expectations

K. Wohlrabe, monthly publication as a press release, in *ifo Schnelldienst* and on the CESifo website.

Ifo Architects Survey

L. Dorffmeister, E. Gluch, regular publication in *ifo Schnelldienst* and *Deutsches Architektenblatt*.

Ifo Managers Survey

K. Wohlrabe, J. Garnitz for *WirtschaftsWoche*, regular publication in *WirtschaftsWoche* and on the Ifo website.

Upper Interest Rate Ceiling/Average Interest Rates for Consumer Credit Average Interest Rates for Consumer Loans

C. Seiler, K. Wohlrabe, T. Wollmershäuser, Survey for the Bankenfachverband.

Joint Economic Forecast

T. Wollmershäuser, T.O. Berg, Chr. Breuer, Chr. Grimme, St. Henzel, A. Hristov, N. Hristov, W. Meister, W. Nierhaus, J. Garnitz, F. Schröter, A. Steiner, E. Wieland, A. Wolf, K. Wohlrabe together with the Konjunkturforschungsstelle (KOF) of the ETH Zurich and in cooperation with three other consortia, for the Federal Ministry of Economics and Energy, published in *ifo Schnelldienst*. *ifo Schnelldienst* 68(8), 2015; 68(19), 2015.

The Joint Economic Forecast was conducted at the Ifo Institute in Munich in spring 2015, and was hosted by the RWI in Essen in autumn.

Ifo Economic Forecasts

T. Wollmershäuser, T.O. Berg, Chr. Breuer, Chr. Grimme, St. Henzel, A. Hristov, N. Hristov, W. Meister, W. Nierhaus, J. Garnitz, F. Schröter, A. Steiner, E. Wieland, A. Wolf, K. Wohlrabe, published in *ifo Schnelldienst* 68(12), 2015; 68(24), 2015.

Ongoing analyses and forecasts of economic activity in Germany, Europe and the world.

Eurozone Economic Outlook

A. Hristov in cooperation with INSEE, Paris, and Istat, Rome.

The Eurozone Economic Outlook is published on a quarterly basis – in January, April, July and October – as a two-page press release in German and English.

European Economic Advisory Group (EEAG)

T.O. Berg, N. Hristov, regular publication in the *EEAG Report on the European Economy*.

Economic Analyses, Preparation of Indicators and Forecasts

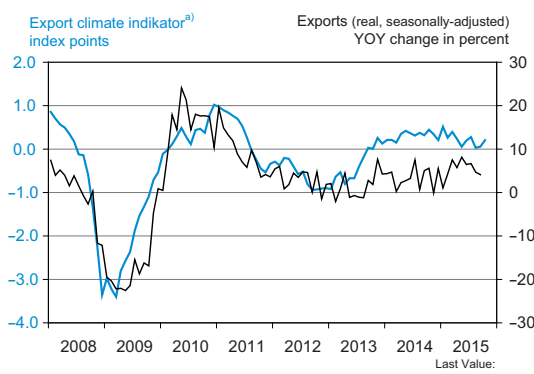
T.O. Berg, P. Wojciechowski for EnBW Trading GmbH.

Ifo Export Climate

C. Grimme, for *WirtschaftsWoche*.

The Ifo Export Climate consists of the world economic climate and an indicator for the price competitiveness of German companies versus 36 trading partners as distinguished by their consumer price indices. The world economic climate, weighted by Germany's export shares, reflects sentiment among companies and consumers in 41 countries. The countries covered by the Ifo Export Climate account for 90 percent of the sales markets for German exports and are represented by seasonally-adjusted values in the calculation of the Ifo Export Climate. Price competitiveness is introduced via log differences. The weightings used for price competitiveness and the world economic climate are 0.12 and 0.88 respectively.

Export Climate and Exports



^{a)} Business and consumer climate in the key sales markets and the real effective exchange rate of the euro.

Source: Federal Statistical Office; national sources: calculations of the Ifo Institute.

National Income Accounting for Saxony

W. Nierhaus in cooperation with the State Statistics Office of Saxony, ongoing project, published in *Statistik in Sachsen* (1), 2008; *ifo Dresden berichtet* 21(3), 2015; 21(4), 2015; 21(6), 2015.

The working group "National Income Accounting (NIA) of the German States" regularly publishes annual regional statistics on gross domestic product and gross value added by economic sector. In contrast to national income accounts, no quarterly statistics are made available on a regional basis. Quarterly NIA statistics constitute an important link, however, between the monthly cyclical indicators of the special statistics and the annual NIA results. The objective of this project is to provide additional information for economic monitoring and forecasting in Saxony with aggregate data for periods of less than a year. The focus is on the origin of the price-adjusted gross domestic product. Using the method of temporal disaggregation, a quarterly regional dataset is generated that is largely consistent with the annual results of the Working Group NIA of the German States for Saxony in the estimating period. Annual aggregates are transformed into quarterly aggregates by using higher-frequency reference indicators. Since 2013 the quarterly results have been presented according to the new breakdown of the branches of the economy (WZ 2008).

Supplementing information
for forecasting in Saxony

Research Projects

The Center's research is divided into three major interdependent areas: survey methods, forecasting methods and macroeconomics.

Projects by the Survey Methods Research Group

In the area of survey methods, efforts are made to safeguard the high quality of surveys on the one hand, and to improve surveying techniques on the other. The results of these research projects are directly incorporated into the practical analysis and design of the business surveys. The range of topics includes the analysis of response spectrums, the graphic representation of survey results, as well as the analysis of the questionnaire and response behaviour of the companies participating in the business survey.

One research project is currently looking at response behaviour in the context of surveys. It looks at whether there are structural differences between the responses given via electronic media and traditional responses filed on paper. (C. Seiler, "Mode Preferences in Business Tendency Surveys", *Ifo Working Paper* No. 193, 2014). Another research project focuses on the question of how many responses are required as part of tendency surveys in order to obtain valid indicators. Various criteria are used as benchmarks like, for example, the MCD measurement or correlations. (C. Seiler and K. Wohlrabe, "Sample Size Determination in Business Tendency Surveys", *mimeo*, 2014).

Projects by the Forecasting Methods Research Group

In view of the huge quantities of data available to the forecasters, partly stemming from the results of Ifo's own surveys, the department focuses on processes of information compression and selection in the field of forecasting methodology. It investigates, for instance, whether microdata from companies and surveys are suitable for forecasting macroeconomic time series. Moreover, alternative aggregation procedures for microdata on survey participants, branches and regional boundaries are also analysed. Examples include boosting techniques, which make it possible to gather core information (e.g. to identify companies that are very good predictors). In addition,

tion, procedures like Bayesian modelling or models with mixed frequencies, which are already frequently used, are analysed in terms of their suitability and further developed. A paper shows that Bayesian Vector Autoregressive (BVAR) models are good predictors in forecasts that draw on large quantities of data. It compares different methods of implementing such BVAR models. The methods analysed are evaluated both in terms of their point forecasts and their density forecasts. It emerges that a combination of Bayesian “shrinkage” and factor methods results in very good forecasting quality in most of the situations assessed (T.O. Berg, S. Henzel, “Point and Density Forecasts for the Euro Area Using Bayesian VARs”, *International Journal of Forecasting* 31(4), 2015). Building on this research, a further working paper examines whether explicit modelling of monetary policy’s so-called zero lower bound improves forecasting quality. (T.O. Berg, “Forecast Accuracy of a BVAR under Alternative Specifications of the Zero Lower Bound”, *Ifo Working Paper* No. 203, 2015).

Projects of the Macroeconomics Research Group

The research group “Macroeconomics” investigates the cause and effect of macroeconomic disturbances and derives implications for applied business cycle analyses from them. Thematically the Group’s work focuses on the influence of financial market frictions and uncertainties, as well as the impact of monetary and fiscal policy measures on real and financial variables. Many questions arise from experiences and observations related to the global financial crisis and the euro crisis. In terms of methods, theoretical model approaches like dynamic stochastic general equilibrium (DSGE) models, as well as empirical time series procedures like, for example, vector autoregressive models, are both used. Moreover, the Group’s empirical research frequently also draws upon the Ifo Institute’s survey data. Credit constraints and corporate uncertainty, for example, are identified at a company level with the help of microdata from the Ifo Business Survey. The Group also cooperates with the center’s research professors and research associates.

In the project “Uncertainty Shocks and Credit Spreads in Bank-Based and Market-Based Financial Systems” C. Grimme analyses the impact of an in-

crease in overall economic uncertainty on the interest rates charged on corporate and bank loans in Germany and the USA. It emerges that loan interest rates rise during periods of volatility, while interest rates on bank loans fall. This difference is due to the fact that bank loans also feature credit collateral in addition to interest. Banks are interested in maintaining long-term customer relations, and try to prevent fluctuations in the probability of default by corporate clients by lowering interest rates during volatile periods. At the same time, however, banks demand more collateral in order to cover themselves if their clients should nevertheless declare insolvency. This instrument is not available in the bond market, which explains the rise in interest rates to provide corresponding compensation.

In another project A. Hristov (together with R. Bachmann, University of Notre Dame, and S. Elstner, German Council of Economic Experts) looks at the interdependence of economic fluctuations and company-specific heterogeneity. The project uses numerical procedures to represent both aggregate and microeconomic uncertainty and heterogeneity. The project shows how various strands of macroeconomic uncertainty are correlated to the business cycle.

The project “Financial Market Imperfections and the Pricing Decision of Firms: Evidence, Theory, and Macroeconomic Implications” (N. Hristov together with A. Balleer, RWTH Aachen, and D. Menno, University of Michigan) is financed by the German Research Foundation (DFG) for 2015–2017. Drawing on microdata from the Ifo Business Survey, it examines why and in what way flaws in the financial market influence the price-setting behaviour of companies. The theoretical part of the project models an explicit interaction of financing restrictions and price adjustments. Insights from this model are used as a basis for empirical procedures and to interpret empirical results. Initial results suggest that financially-constrained companies in Germany adjust their prices far more frequently. This means that price adjustments are more flexible, and thus monetary policy is less effective, when companies only have restricted access to funding. The theoretical model is in a position to qualitatively reproduce these empirical facts.

Economic uncertainty and loan interest rates

Financial market flaws and price setting

Differences between private and official capital flows

Another research project examines the causes and outcomes of international capital flows (A. Steiner, "Does the Accumulation of International Reserves Spur Inflation? A Reappraisal" and "A Tale of Two Deficits: Public Budget Balance of Reserve Currency Countries"). This project focuses on the difference between private and official capital flows. While private capital flows are based on investment decisions taken by private investors, development aid and the currency reserves held by central banks count as official forms of capital movements. This is used as a basis to develop a new benchmark for measuring the private financial openness of countries. A panel study of over 100 countries shows that private financial openness has a significantly positive impact on economic growth. In a subsequent step the project examines the impact of a world reserve currency on the economy in question. Our empirical analysis over a historical period from 1890 to 2009 shows that demand for currency reserves leads to lower fiscal balances in the budgets of world currency countries. In economic policy terms, this highlights the instability of the world currency system, since the world reserve countries are accumulating a rising level of debt.

Target 2 and its impact on economic developments

The topic of Target 2 balances also remains on the department's research agenda. The option of accumulating potentially unlimited Target 2 claims vis-à-vis other member countries primarily enabled the crisis-afflicted countries in the euro area to largely compensate for dwindling, or even reversing, flows in foreign capital. The study: "Capital Inflow Shocks in the Euro Area and the Effects of Target-2-Balances" (N. Hristov and T. Wollmershäuser together with O. Hülsewig, Hochschule München and T. Siemsen, Ludwig Maximilian-University Munich) examines the effects of the Target 2 system on economic developments in key core and crisis-afflicted countries in the euro area. The results suggest that the Target 2 system significantly reduced the negative economic impact of dwindling private capital flows.

However, joint research contributions are also made in cooperation with other Ifo Centers, especially the Ifo Center for Public Finance and Political Economy. A research project spanning several years

and co-financed by the Fritz Thyssen Stiftung analyses the economic effects of fiscal policy measures in Germany in 2008 and 2009. During this period two major economic stimulus packages were introduced to combat the negative effects of the largest recession since 1950 on the German economy. The aim of this two part research project is to understand the impact of fiscal policy measures on the German economy. The first part of the project has already assessed and quantified the effects of fiscal measures on Germany's economy (T.O. Berg, "Time Varying Fiscal Multipliers in Germany", *Review of Economics* 66(1), 2015). The second part of the project will also explore the importance of corporate confidence as a transmission channel for fiscal policy measures. In addition, the project analyses the effectiveness of financial support to boost investments in the future by municipalities and Länder, taking into account institutional framework conditions in Germany. The project also examines the growth effects of the expenditure policy on the Länder ("Economic Effectiveness of the Financial Policy Economic Stimulus Measures of 2008 and 2009", N. Potrafke, T. Wollmershäuser, T.O. Berg, C. Breuer, A. Hristov, B. Kauder, M. Reichmann, M. Riem, C. Schinke, July 2013 to July 2016).

LMU-ifo Economics & Business Data Center (EBDC)

In 2015 the EBDC's hardware usage was made more flexible. Now researchers can simultaneously access the Ifo data pool – panels and EBDC Business data – from all 4 EBDC computers, depending on the identifier they have been given. This significantly eased the demand situation during the busy summer months. The EBDC also benefitted from improvements in Ifo's IT in terms of storage and software licences. Larger storage capacities were also made available for the archive, and the first microdata panel from the departments has already been stored there.

To minimise the work involved in panel updates, the Do-procedures of the Ifo data pool and the EBDC Business Panel will be harmonized. This means that the appearance of the panel will be synchronized, which should facilitate work by researchers.

To promote the alignment of the research data centers organised by the Council for social and economic data, the EBDC is participating in the harmonisation working group. The group aims to develop common standards for creating panels, as well as testing, offering and archiving data. This will create greater transparency for researchers both in terms of locating and assessing data, as well as in their work with it.

A comprehensive set of EBDC panel statistics was also recently made available to interested researchers.



Ifo Center for International Institutional Comparisons and Migration Research

The main research focus of the Ifo Center for International Institutional Comparisons and Migration Research (IICM) is international migration and institutional economics in the fields of banking and political economics. IICM also offers key services for academics and the general public by maintaining, developing and distributing DICE, an internationally comparative database of economically relevant regulations and institutions, and by publishing the journals CESifo DICE Report and CESifo Forum.

DICE Database and the Journal CESifo DICE Report

The institutional framework of an economy and its implied incentive structure are central to any analysis of a nation's welfare. At a time of rapid globalisation when people, businesses, capital and goods are becoming increasingly mobile internationally, countries and their respective institutions are compelled to compete. No country can afford not to compare its institutions with those of its neighbours; and all countries must aim to comply with international benchmarks and best practices. International institutional data that allow a country to assess its own situation and to prepare reforms are in great demand as a result. However, deficiencies in comparable EU data on institutional regulations are widespread. DICE therefore collects international institutional data from a broad range of sources.

The English-language database contains systematic descriptions of the institutional set-up and legal regulations of the economic policy framework in all European countries and in selected non-European countries, enabling inter-country and benchmark comparisons. The DICE database is available free-of-charge via the internet. DICE currently includes the following areas: business and financial markets, education and innovation, energy and natural environment, infrastructure, labour market and migration, public sector, social policies and values. At present, the database contains nearly 3,800 entries.

The quarterly journal, *CESifo DICE Report – Journal for Institutional Comparisons*, was launched in 2003. The journal is dedicated to the analysis of institutions, regulations and economic policy design from

a country-comparative perspective. Its editors are Marcus Drometer, Christa Hainz and Romuald Méango. Each issue of the journal considers a special topic, presented in the "Forum" section, which is approached by different authors from various perspectives. The journal also features the following sections: "Research Reports", "Reform Models", "Database and News".

The Journal CESifo Forum

CESifo Forum focuses on current economic topics of worldwide interest and features contributions by internationally renowned authors. The English language journal is published quarterly. It comprises the rubrics "Focus", "Special", "Spotlight" and "Trends". CESifo Forum is edited by Chang Woon Nam.

Institutional Research

The institutional research deals with the impact of institutional regulations on economic development. An important question investigated is the extent to which the voting behaviour of individuals depends on the impact of policies on their own financial situation. Initial work on this subject examines whether voters respond to election promises or wait until the following election, if the appropriate policy measures have been implemented. A second paper analyses whether voting behaviour in referenda can be explained by financial self-interest or social preferences. Another focus is the analysis of interactions between political institutions and migration. This research examines whether naturalisations are used strategically by the government to increase the likelihood of re-election. Furthermore, institutional research explores the relationship between elections, party ideologies and migration.

The research field of banking investigates whether well-protected property rights reduce the lending rate and the role played by bank competition here. It also examines the real effects of the abolition of state guarantees for banks. Further research in the field of institutional economics looks at the impact of aid flows on the quality of institutions in recipient countries. Another project analyses the rules underlying the European Central Bank's monetary policy decisions.

International
benchmarking of
institutions

DICE database online and
free-of-charge

International Advisory and Research Projects

Coordinated by the Center for International Institutional Comparisons and Migration Research, the Ifo Institute conducts international advisory and research projects that deal with questions in the context of development and transition economics. The focus here is on economic risk assessment and analysis, as well as on crisis management in emerging economies.

Projects Completed in 2015

Employment Effects of Regulatory Thresholds for French and German Enterprises

M. Drometer, C. Hainz, D. Leithold, R. Méango, T. Nikolka, P. Poutvaara, S. Rumscheidt, D. Wech for the French Senate, April 2015 to May 2015.

This project presented a comparative analysis of regulatory thresholds related to the number of employees applicable to firms in France and in Germany. It started with a descriptive analysis of the thresholds. A central question tackled by the report was whether regulations related to limits on firms' employment appear to stop French firms from growing above these thresholds. The project's final task was to present a qualitative analysis of potential reforms in France and their effects.

Analysis was carried out both qualitatively and quantitatively. The first part of the project compared French and German labour market regulations, which depend on firm size. The differences identified in the first part provided the basis for the empirical analysis in the second part, which focused on manufacturers in both countries. Firm size distributions around the regulatory thresholds were compared between France and Germany; and the propensity for firm growth was assessed in an empirical framework. The third part, based on empirical findings, presented an evaluation of reform proposals aimed at alleviating the potential growth deterring effects of the regulatory thresholds. The empirical analysis focused on the manufacturing sector and used AMADEUS firm data for France and the IAB establishment history panel for Germany.

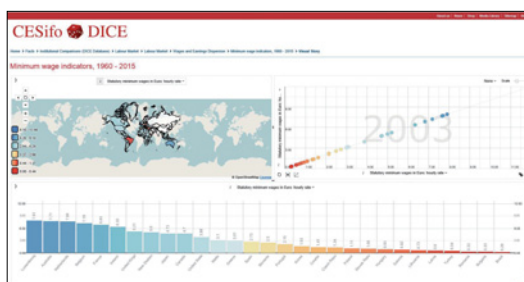
DICE: Database for Institutional Comparisons in Europe

M. Drometer, C. Hainz, I. Kauppinen, D. Leithold, R. Méango, T. Nikolka, P. Poutvaara, S. Rumscheidt, M. Wiegand, D. Wech, H. Arnold-Rothmaier, J. Dieler, N. Fabritz, A. Fichtl, J. Lippelt, W. Marz, M. Piopunik, T. Strobel, J. Wackerbauer, S. Wiederhold.

The user-friendliness of the DICE Database was improved in 2015. The DICE website has gained a dynamic dimension and the four most recent entries to DICE and to the CESifo DICE Report are linked here. Furthermore, two video short-clips were produced to explain the use of the DICE Database and the interactive graphic tool Visual Storytelling. Short abstracts were added to individual DICE themes in order to explain their respective institutional background. The DICE Database currently comprises around 3,800 entries (tables, graphs and short reports), which have been thematically summarised in a more user-friendly format and a range of visual stories have been added. Free access to DICE is provided at www.cesifo-group.de/DICE. Some data are available as Excel files, facilitating econometric research. The tool Visual Storytelling, which gives interactive graphical insights into the data presented, was also implemented. Data sets were compiled from numerous sources. The combination of qualitative descriptions and quantitative judgements in one database makes DICE a "one-stop service" for interested researchers, journalists and policy-makers.

Visual Storytelling offers interactive insights

Visual Storytelling



CESifo DICE Report

M. Drometer, C. Hainz, R. Méango, S. Rumscheidt, D. Wech.

In 2015 the topics featured in the “Forum” category of the CESifo DICE Report were: lessons from a decade of childcare reforms, pensions and the financial crisis, rent seeking, and private insolvency. The “Research Reports” and “Reform Models” rubrics are not thematically fixed, but constantly provide national comparisons of the set-up of relevant institutions in terms of the economy and economic policy. The “Database” rubric highlights and interprets new entries in the DICE database. The articles featured in the CESifo DICE Report can also be downloaded from the CESifo homepage.

CESifo Forum

C. W. Nam.

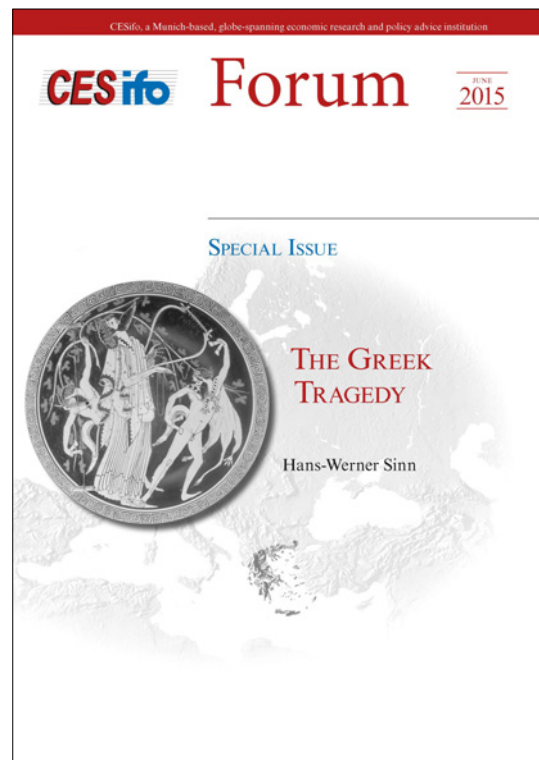
In 2015 the following “Focus” themes were discussed: Disputes about Piketty’s $r > g$ Hypothesis on Wealth Inequality; Foreign Direct Investment: Current Challenges; Competitiveness and Innovation and Recovery of Baltic Countries from the Crisis. In addition, a special issue with the title The Greek Tragedy was published in June. CESifo Forum can also be downloaded from the CESifo homepage.

Optimal Immigration Policies in Europe: From Conflicting Interests to Mutual Gains / CEMIR

P. Poutvaara, G. Felbermayr, H. Rainer, L. Wößmann, M. Drometer, I. Kauppinen, R. Méango, T. Nikolka, M. Battisti, J. Saurer, T. Heitmann, J. Koch, M. Piopiunik in cooperation with A. Danzer, University of Munich, M. D. Munk, Aalborg University, E. Sadka, Tel-Aviv University, and the Ifo research professors G. Borjas, Harvard Kennedy School, E. A. Hanushek, Stanford University, W. Kohler, University of Tübingen, G. Peri, University of California Davis, A. Razin, Cornell University, S. Übelmesser, University of Jena, supported by the Leibniz Association (SAW), January 2012 to December 2015.

The Ifo Center of Excellence for Migration and Integration Research (CEMIR) was set up in January 2012 and funded by a Leibniz association SAW

grant through December 2015. It combines expertise from four Ifo Centers and integrates labour economics, international economics, public economics, and education economics perspectives on migration. The unifying question behind its analyses is how receiving countries’ welfare state and labour market institutions, as well as their immigration policies, should be designed so that migration can unlock mutual benefits for all parties involved. CEMIR was established to achieve a lasting impact on the German and European policy debates on migration. For details see the chapter on the Ifo Center of Excellence for Migration and Integration Research (CEMIR).



Short- and Long-Term Policy Requirements to Strengthen Sustainable Growth and Employment in Croatia

O. Falck, S. Schönherr, J. Saavedra, N. Fabritz, M. Reischmann, M. Riem, J. Ragnitz, J. Steinbrecher, M. Weber, T. Steinwachs, E. Yalcin, T. Wollmershäuser, T. Buchen, D.M. Bach, M. Drometer in cooperation with

tion with R. Osterkamp, Ifo research professor M. Werding, University of Bochum, Klaus-Peter Willsch, MP, as well as a group of Croatian scientists for the Croatian Statehood Foundation, September 2014 to December 2015.

The main purpose of the project was to develop appropriate recommendations to improve Croatia's international economic competitiveness. Since the outbreak of the financial crisis Croatia has faced negative growth rates and Foreign Direct Investment has not recovered since. This has resulted in a steadily growing brain drain of highly qualified labour and extremely high unemployment, especially among young people. The economy's international competitiveness has been falling for quite some time, and has now dropped to one of the last positions in the European ranking. Economic analysts and many politicians agree that the country's development is blocked by not being able to reform. Implementation of the necessary reforms is a precondition for any return to sustainable growth.

On behalf of the Croatian Statehood Foundation, the Ifo Institute was searching for ways out of the reform crisis. The analyses focused on reform areas such as FDI and exports, exchange rates, labour markets, private debt, public finance, regulations of private enterprise, social security, human capital, technology and innovations, as well as infrastructure. Policy papers were prepared on these topics by working groups and discussed in joint workshops in which Croatian scientists and specialists participated. The policy papers dealing with the individual topics were condensed into a final reform agenda document. Publication of the results and recommendations is planned for early 2016.

Current Projects

Ifo Center of Excellence for Migration and Integration Research (CEMIR)

P. Poutvaara, G. Felbermayr, H. Rainer, L. Wößmann, M. Drometer, Méango, T. Nikolka, M. Battisti, J. Saurer, M. Piopiunik in cooperation with the Ifo research professors G. Borjas, Harvard University, Cambridge MA., and G. Peri, University of California Davis.

This project is ongoing and will continue in the future. For further details, see the chapter on the Ifo Center of Excellence for Migration and Integration Research (CEMIR).

DICE Database for Institutional Comparisons in Europe and CESifo DICE Report – Journal for Institutional Comparisons

M. Drometer, C. Hainz, D. Leithold, R. Méango, T. Nikolka, P. Poutvaara, S. Rumscheidt, D. Wech, H. Arnold-Rothmaier, J. Dieler, A. Fichtl, J. Lippelt, W. Marz, M. Piopunik, J. Wackerbauer, S. Wiederhold.

The extension of the DICE database and the publication of the CESifo DICE Report series will continue. The DICE Database has become more text-based in order to facilitate orientation for the user. Moreover, for illustrative purposes, parts of central Visual Stories have been integrated into the homepage.

CESifo Forum

C.W. Nam.

The publication of the CESifo Forum series will continue.



Ifo Center of Excellence for Migration and Integration Research – CEMIR

The Ifo Center of Excellence for Migration and Integration Research (CEMIR) was set up in January 2012 as a multidisciplinary centre of competence at the Ifo Institute. It combines expertise from four Ifo research departments – Ifo Center for International Institutional Comparisons and Migration Research, which is responsible for coordinating CEMIR, the Ifo Center for the Economics of Education, the Ifo Center for International Economics, and the Ifo Center for Labour Market Research and Family Economics. This, in turn, makes it possible to analyse migration and integration from the different perspectives of labour economics, international economics, public economics, and education economics.

CEMIR's main focus up until December 2015 was the project titled "Optimal Immigration Policies in Europe: From Conflicting Interests to Mutual Gains (SAW-2012-ifo-3)" funded by the Leibniz Association. The heads of the four Ifo Centers, Panu Poutvaara, Ludger Wößmann, Gabriel Felbermayr and Helmut Rainer worked on the project along with the Ifo researchers Marcus Drometer, Ilpo Kauppinen, Romuald Méango, Till Nikolka (Ifo Center for International Institutional Comparisons and Migration Research), Marc Piopiunik, Jens Ruhose, Guido Schwerdt (Ifo Center for the Economics of Education), Michelle Battisti (Ifo Center for International Economics), Judith Saurer (Ifo Center for Labour Market Research and Family Economics). They worked in cooperation with a range of external researchers including Alexander Danzer, Ludwig Maximilian-University Munich, Martin David Munk, Aalborg University, Efraim Sadka, Tel-Aviv University and the Ifo research professors George Borjas, Harvard University, Cambridge MA., Erik A. Hanushek, Stanford University, Wilhelm Kohler, University of Tübingen, Giovanni Peri, University of California, Davis, Assad Razin, Cornell University and Silke Übelmesser, University of Jena.

CEMIR's research is informed by the question of how receiving countries' welfare state and labour market institutions, as well as their immigration policies, should ideally be designed so that migration can unlock mutual benefits for all parties involved. Through research, scientific conferences and discussion events, CEMIR aims to enrich the debate over migration in Germany and Europe with scientific information.

CEMIR's research is divided into five modules:

Module 1: Optimal Immigration Policies with Skill Complementarities and Redistribution

Migration affects the welfare of all native skill groups, since it leads to wage effects in the labour market and income redistribution. The first module looks at an optimal migration policy integrates in imperfectly competitive labour markets.

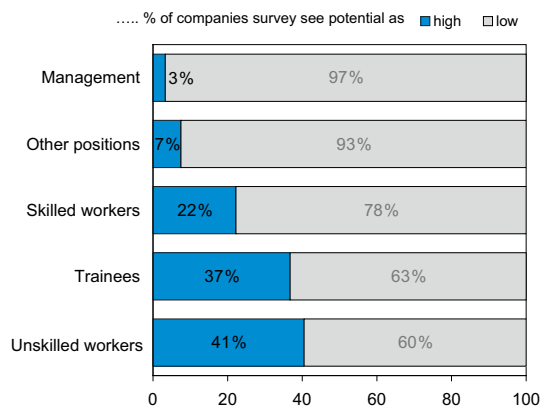
This module investigates the role of social networks in influencing employment opportunities and human capital investment by recent immigrants to Germany. It is assumed that both social networks and human capital affect the probability of finding employment. Individuals with larger social networks are also more likely to find a job soon after arrival, but these positive effects shrink over time, as individuals with better social networks invest less in developing their human capital. It is possible to match information from a novel survey dataset of immigrants to Germany with their individual administrative records to construct social networks on arrival, as well as employment and earnings profiles. The module finds support for the main predictions of the model: while individuals with larger networks are more likely to be employed initially, the effects decrease over time. At the same time, larger social networks are associated with a lower probability of making human capital investments, as well as lower wages in the long run.

Another project also focuses on the labour market integration of immigrants in Germany. Immigrants and natives perform differently in labour markets (Michele Battisti, Gabriel Felbermayr and Panu Poutvaara, *CESifo Working Paper* No. 5022, 2014; *ifo Schnelldienst* 68(18), 2015; *ifo Schnelldienst* 68(22), 2015; Michele Battisti and Gabriel Felbermayr *ifo Schnelldienst* 68(20), 2015). Using detailed micro-level data from Germany for 2000 to 2010, it is documented that immigrants' wages are 14% lower than those of natives, controlling for observables, that their odds of being unemployed are about 6 percentage points higher, that their unemployment spells are approximately one month longer and that they absorb more business cycle volatility than natives.

Analysing immigration
from different
perspectives

Cooperation with external
researchers

Assessment of the Recruitment Potential of Asylum-Seekers in Relation to Various Positions



Source: Ifo Business Survey on the Employment of Refugees, October 2015.

Module 2: The Political Economy of Immigration and the Welfare State

A large body of empirical literature has established that ethnic diversity reduces political support for income redistribution. At the same time, immigrants who obtain citizenship change the distribution of voter preferences. The second module integrates various political responses into the analysis carried out in the first module.

This module analyses attitudes towards immigration in Germany, using the German Socioeconomic Panel (SOEP) (Panu Poutvaara and Max Steinhardt, *CESifo Working Paper* No. 5611, 2015). It emerges that a negative approach to life is correlated with harbouring concerns over immigration. Separate analyses of civil servants, pensioners and other persons not working show that the effect cannot be entirely explained by concerns that immigrants are competitors in the labour market.

A further strand of research focusses on the political economy of migration. One paper analyses the impact of elections on immigration policy, and particularly on naturalisations, in a panel study of US states. The corresponding results indicate that immigration policy is (partly) driven by elections: there are more naturalisations in presidential election years and dur-

ing the terms of Democratic incumbents. A second strand of research investigates the linkages between migration flows, election outcomes and changes in migration laws based on a large panel data set on migration flows for 12 OECD (destination) countries. This study comes to the conclusion that nationalist parties that enter parliament are a crucial factor in explaining the stringency of laws that regulate migration and the stance of moderate parties as regards migration.

Another study analyses how the proportion of foreigners in one's region affects attitudes towards immigration and political preferences. Using multiple data sources, it exploits an instrumental variable strategy based on immigrants from former Yugoslavia during the Balkan wars in the 1990s. Providing within-country evidence from Germany, the author finds that an increase in the proportion of immigrants in a region creates more negative attitudes towards asylum seekers and immigrants in general among the general public. This effect largely appears to be driven by growing concerns about job security and worries related to individuals' personal economic situation. Extreme-Right Placement, however, decreases.

Module 3: Integration of Immigrants' Children via the Education System

The Ifo Center for the Economics of Education was the main contributor to module 3 entitled: "Integration of Immigrants' Children through the Education System". Several studies analysed the determinants of the educational outcomes of students with a migration background, such as the institutional structure of the education system, language proficiency and the effect of migration on crime.

The Ifo Center for the Economics of Education mainly contributed to module 3: "Integration of Immigrants' Children through the Education System". Several studies analysed determinants of educational outcomes of students with migration background, such as the institutional structure of the education system and the language proficiency, and the effect of migration on crime.

One study investigates the effect of language proficiency of children with migration background on

Presence of foreigners and attitudes to asylum-seekers

educational outcomes. The results show that stronger language skills in the host-country language have a strong positive impact on the math competencies of the children. This emphasises the importance of language skills for the educational success and the integration into the host country of children with migration background.

A further study considers the question whether the timing of school tracking affects the integration of migrants (Jens Ruhose and Guido Schwerdt, *CESifo Working Paper* No. 5248, 2015; Jens Ruhose, *ifo Beiträge zur Wirtschaftsforschung* 61, Ifo Institute, Munich 2015). The results show that early performance-based tracking of children into different school types does not automatically foster migrant integration. This is not true, however, for children from the least integrated families, i.e. those families that do not speak the language of the country at home or children born outside the country. For them, the abolition of early school tracking is an appropriate way to increase educational performance. This part of the project provides insights into how the educational institutions can help to reduce the cost of integration and reap additional long-run benefits by taking intergenerational aspects into account.

In an additional study, we investigate whether immigration increases crime in Germany (Marc Piopionik and Jens Ruhose, *CESifo Working Paper* No. 5303, 2015; Jens Ruhose, *ifo Beiträge zur Wirtschaftsforschung* 61, Ifo Institute, Munich 2015). To identify a causal effect, we exploit the quasi-random distribution of ethnic Germans across federal states and counties. The results indicate that migration does not increase crime in regions with good economic conditions (i.e. low unemployment rates), while it increases crime in regions with high unemployment rates.

Another paper looks at the effects of birthright citizenship on participation and the success of immigrant children in the educational system of the host country (Judith Saurer, Anita Fichtl and Christina Felfe, *ifo Schnelldienst* 68(24), 2015; Judith Saurer and Christina Felfe *ifo Working Paper* No. 208, 2015). It addresses this question relying on a reform of the German naturalization law in 1999 that entitled children born after

January 1, 2000 to birthright citizenship. Results based on administrative data indicate significant positive effects across all educational levels: preschool, primary school and secondary school – the latter, however, fade out over time. The underlying mechanism seems to be parental decisions and not improved (evaluations of) children's skills.

Module 4: Economic and Social Integration of Immigrants

This module aims to examine the effects of recent changes in the German tax and transfer system on the economic integration of immigrants. Second, with respect to social integration, the module investigates intermarriage as a way through which immigrants acquire host county customs, language skills and knowledge of the local labour market, and obtain connections which improve their job prospects and increase the rate of assimilation.

Individual trust in police among migrants residing in European countries is the focus of this module, which draws on data from the European Social Survey. It is well established in literature on this topic that individual trust towards other people is culturally transmitted from immigrants' countries of origin, and this study aims to shed light on whether a similar pattern can be established for trust of institutions. According to its findings, immigrants' trust in police is associated with the trust levels in their respective countries of origin.

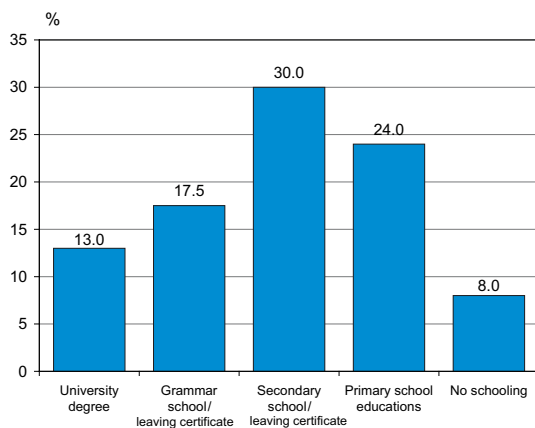
A further paper studies the return migration behaviour of immigrants in Denmark accounting for the particular role of partnership and family ties. Initial results show that return migrants seem to be more highly educated on average and earn more than those who remain in the country. Studying partners who jointly immigrated reveals that those couples featuring two college-educated partners are more likely to return. Return propensities are also higher among couples where one partner is not part of the labor force. Among dual earner couples, returners seem to be strongly positively selected on the income of the primary earner. Families with children at school age are less likely to return to their home country.

School tracking and immigrant integration

Immigration and crime

CEMIR also publishes the Ifo Migration Monitor, providing the latest information on migration as well as on refugees, which is updated on a monthly basis and available via the Ifo website. Quarterly articles on the Ifo Migration Monitor are also published in the Ifo Schnelldienst. The first article in this series provides an overview of data gathered to date on regular migration and refugee inflows into Germany *ifo Schnelldienst* (68(23), 2015; 69(1)). Another article discusses the institutional aspects of current asylum legislations in Germany (*ifo Schnelldienst* 69(1), 2016).

Qualification Structure of Asylum Applicants in Germany in 2015



Source: IAB (2015).

Module 5: International Competition for Talent and Brainpower Circulation

As part of the fifth module, which looks at the exodus of highly-qualified workers and with the circulation of knowledge, one study analyses the self-selection of emigrants, in terms of observable and unobservable characteristics (Ilpo Kauppinen, Panu Poutvaara and George J. Borjas, *CESifo Working Paper* No. 5567, 2015).

In terms of family migration, research into the international migration of couples from 2014 was extended to accommodate different skill prices in the country of origin and in the country of destination. Another report analyses labour force participation and the household economies of couples that have emigrated. It draws on survey data on Danish

couples that have emigrated. It shows that emigration is associated with reduced female labour force participation, especially among couples migrating to the United States. Most couples that had separate finances in Denmark have joint finances abroad. Usually, the male partner contributes more. The switch to a traditional male breadwinner model is particularly strong among couples with children and where the male is highly educated.

In another project theory and evidence on intra-family decision-making in the context of international migration is presented. Theory predicts that the probability of being a tied mover decreases with own income and increases with the partner's income. Empirically, it emerges that family migration decisions are usually a shared preference, but are often driven to a larger extent by the male partner. The probability that emigration is driven by male preferences increases with male earnings.

In addition to its research output, CEMIR also organised the following events in 2015: a CEMIR and UC DAVIS workshop on "Advances in migration research" was held on 1 and 2 May 2015, which brought together migration researchers from Europe and the United States to present ongoing research in the field. On 30 and 31 May 2015 the CEMIR junior economist workshop on migration research provided the opportunity for young researchers from different countries to discuss their recent work and exchange ideas on future research. A concluding policy event was held in November 2015 in Berlin to present CEMIR's research results to a broader public, including policy makers and journalists. In December, Panu Poutvaara gave a public lecture on refugee crisis at the Ifo Institute.

[Emigration reduces female labour force participation](#)

[CEMIR hosts junior economist workshop](#)



Library

The library of the Ifo Institute is primarily a service provider for Ifo and CESifo, visiting researchers and students of the Munich universities. With more than 135,500 books, ca. 400 periodicals and 30 statistical reports, the Ifo library is one of the largest libraries for economics in southern Germany.

The Institute's electronic catalogue uses various descriptors, PTS country codes, and abstracts, as well as the classification system of the Journal of Economic Literature (JEL).

Thanks to its literature and database research, along with its procurement of data and information on selected economic and economic-political areas,

the library fulfils an important service function. Its services were used a total of around 5,000 times in 2015.

The Ifo Institute's library is a member of the library association of the Northern German Länder, GBV. This allows users to access Ifo's library via the internet and marked an important step in the harmonisation of the Ifo holdings with those of other large libraries in economics. The Ifo online public access catalogue (OPAC) is a component of the Ifo website (under Publication Series/Database Search).

The library of the Ifo Institute co-operates closely with the German National Library of Economics (ZBW) in Kiel and Hamburg.

Press, Publications, Conferences

The Ifo Institute is a European think-tank that forms a bridge between academic research and politics. The applied, scientific economic research carried out by the Ifo Institute aims to intensively contribute to policy advice and the economic policy debate, as well as to provide services to researchers and the general public. The successful transfer of knowledge to the public realm is the task of the Press, Publications, Conferences department. It prepares and conveys the results of Ifo's research to its target audience of political and business decision-makers, public administrators, members of the academic community and the media. Additionally, supplying information to enhance a broader public's knowledge of economics has become more important. The department also offers services for Ifo's Executive Board and its research departments, as well as supporting them in their publications, organising major events and assuming responsibility for the public image of the Ifo Institute. This includes the development of Ifo's corporate design, as well as the design and editorial maintenance of its website. In addition, the department is responsible for the numerous video projects and social media activities of the entire CESifo Group.

Development, Implementation and Professionalisation of Knowledge Transfer Concepts

To enhance the benefits of its work for society, the Ifo Institute wishes to further develop the conceptual and methodological bases for the transfer of knowledge available in the Ifo Institute and its working results to relevant social groups, and to tap fresh knowledge transfer potential. With communication technologies and behaviour undergoing rapid changes, the Ifo Institute also wishes to align its expertise and the results of its work with these new framework conditions.

In view of this aim, a knowledge transfer concept oriented towards the future needs of the Ifo Institute, which can also be used as a prototype for other research institutes, is to be developed as part of the project entitled: "The development, implementation and professionalisation of knowledge transfer concepts" funded by the German Federal Ministry for Education and Research from June 2015 to May 2018.

With the support of external partners, who will bring their complementary expertise to the project, the effectiveness and efficiency of knowledge transfer by the Ifo Institute will be systematically lifted to a new level. Prof. Hans-Bernd Brosius, Director of the Institute Communications and Media Research at the University of Munich, and Dr. Alexander Haas will provide support with their expertise in communications.

In a first step Ifo's existing transfer services will be documented. These services specifically include the publications and events organised by the Ifo Institute, its press and publicity work, the diffusion of the Ifo departments' research results and other, scientifically-based economic information, the institute's internet presence and its use of social media. This review will be followed by a strengths-and-weaknesses analysis of existing transfer services. The additional information requirements of socially relevant groups will then be identified and potential for improvement will be developed.

Finding new instruments for providing society with economic information, and intensifying the use of mass media to raise awareness of Ifo's research results at an international level in particular, is one of the project's main focal points.

After a kick-off meeting the Ifo Institute's products were systematically reviewed in several workshops held over the course of 2015. These "product profiles" cover the contents of the publications/events, diffusion channels, the respective target groups, statistics on use to date, and an evaluation by those responsible for the respective products. The results were summarised in a matrix featuring target groups and the most relevant products on offer from Ifo's point of view. Moreover, the planning and implementation of new transfer offerings for the key target groups of schools and mass media has already commenced. The signature of a cooperation agreement between the Bayerischen Rundfunk (BR), the Deutsche Journalistenschule (DJS) and the Ifo Institute laid the legal foundation for close cooperation between these institutions to promote young journalistic talent. The newly-introduced series of events

Ifo's existing transfer services reviewed

New knowledge transfer offerings launched

Focus on raising press profile in Europe

“Ifo Practical Experience Days for High-Quality Journalism” forms the core of Ifo’s contribution to the professional qualification of these young journalists. The first event in this series took place in November 2015. It built on the experience of a pilot workshop successfully conducted in November of the previous year. With a view to intensifying press work in key European countries, steps were also taken to expand Ifo’s international press mailing list. To expand knowledge transfer geared towards the key target group of schools, an analysis of their needs for scientifically-based economic information was initiated and work started on the production of a DVD on the topic of “Economic activity” in cooperation with the specialist publisher MedienLB.

Press Relations

The task of Ifo’s press office is to present the institute’s research results to the media and the general public in an understandable, non-technical form. Around 200 press releases in 2015 offered information on research results, current survey results, new publications and events. As an intermediary between journalists and the Ifo Institute, the press office coordinates press interviews with institute staff, organises press conferences and answers queries. It also provides the general public with relevant information and material.

Ifo Institute Press Conference Presenting the Ifo Economic Forecast, December 2015



Prof. Dr. Timo Wollmershäuser, Director of the Ifo Center for Business Cycle Analysis and Surveys, Prof. Hans-Werner Sinn, President of the Ifo Institute, Dr. Mayntz, Bundespressekonferenz

It continuous and active PR work is one of the reasons why the Ifo Institute has a very high media profile. This is also partly due to the monthly publication of the Ifo Business Climate Index, the Ifo Export Expectations, the Ifo Employment Barometer and other Ifo survey results. Ifo’s forecasts of the economic outlook, and above all Ifo’s economic policy statements, also attract a great deal of media attention.

With their numerous interviews and exclusive reports in the national media, Ifo researchers frequently initiate discussions on important issues. As a columnist of the weekly *WirtschaftsWoche*, the president of the Ifo Institute Hans-Werner Sinn elaborates his views on current economic policy developments on a monthly basis. He also writes regularly for Project Syndicate, which places his articles worldwide in major national daily newspapers. Ifo’s President is also a sought-after interview partner by radio stations, television channels and newspapers across Europe. The discussion surrounding his new book “Der Euro: Von der Friedensidee zum Zankapfel” received a great deal of media attention. Several press conferences related to the book launch were held in Germany.

To support the media in reporting on the Ifo Institute’s results, Ifo’s press releases were more strongly oriented towards journalists’ information needs in 2015 and an additional service for the media offering regular notice of forthcoming regular press releases was launched.

29 young journalists (18 from DJs and 11 from BR) took part in the Ifo Practical Experience Days for High-Quality Journalism mentioned above, which were chaired by BR editor Jürgen Seitz and Ifo press officer Harald Schultz. This event aims to deepen participants’ understanding of economic relations through the practice-oriented communication of economic and journalistic knowledge. Leading scientists from all of Ifo’s departments presented their work and their research results. Typical mistakes in economic reporting were also analysed using practical examples. In addition to the explanation of the Ifo Business Climate Index by Timo Wollmershäuser, the presentation on energy and climate research by Karen Pittel and Panu Poutvaara’s report on the problems of migration were also particularly well received. A highlight of the event was Hans-Werner Sinn’s speech on the refugee crisis.

Publications

Another of the department's responsibilities is the conception, production and distribution of Ifo's publications. This includes developing topics of general current interest, editing and translating (German/English or English/German). The pre-printing work is also done in the department, including the preparation of graphs and tables, as well as type-setting and layout, interfacing with the printers and address management. The press relations, publications and conferences team assists other departments in the professional presentation of their publications and lectures.

The Ifo Institute publishes the following series of publications:

- *ifo Schnelldienst*: a bi-monthly journal containing discussions of current policy issues and Ifo research findings;
- *ifo Konjunkturperspektiven*: a monthly journal presenting the current results of the Ifo Business Survey in graphs, tables and descriptive analyses;
- *ifo-GfK-Konsumreport*: a monthly journal reporting on the results of the Ifo Business Survey, GfK Wirtschaftsdienst Konsum- und Sparklima and on consumer confidence in the EU (joint publication with GfK Marktforschung, Nürnberg);
- *ifo Dresden berichtet*: a journal of the Ifo Dresden branch on economic policy and structural change in east Germany that appears six times a year;
- *CESifo World Economic Survey*: a quarterly publication in English containing the results of an Ifo expert poll on the world economy in graphs and tables with a detailed analysis;
- *CESifo Forum*: a quarterly English-language journal published by CESifo GmbH focusing on current economic topics of worldwide interest with contributions by internationally renowned authors;
- *CESifo DICE Report*: a quarterly English-language journal with articles on institutional regulations and economic policy measures using a country-comparative approach;
- *CESifo Economic Studies*: a quarterly, refereed academic journal in English. Articles present the results of economic research and address policy-relevant issues. CESifo Economic Studies is published by Oxford University Press. Its managing editor is Panu Poutvaara, who has been director of Ifo's Center for International Institutions Comparisons and Migration Research since 2010;
- *ifo Beiträge zur Wirtschaftsforschung*: a book series in which important research projects of the Ifo Institute are published.
- *Ifo Economic Policy*: an English-language book series on important research projects of the Ifo Institute, published by Edward Elgar Publishing, Cheltenham, UK.

As of 2014 selected journals are also available in EPUB format.

In addition to the standard issues of the *ifo Schnelldienst*, a special issue was published in 2015 entitled "Die griechische Tragödie", and a special issue of CESifo Forum entitled "The Greek Tragedy" was also published in the same year.

The Ifo Institute also publishes the results of expert reports that do not appear in book form in the *ifo Forschungsberichte* and research conducted by the Ifo Dresden branch in *ifo Dresden Studien*, which deals primarily with topics affecting the new German federal states and their eastern neighbours

The *ifo Newsletter*, a free electronic information service, is distributed at the end of each month by email. It reports, in German, on the latest research findings, key publications, selected events, personnel particulars, important dates and many other items from the Ifo Institute. The *ifo Dresden Newsletter* is a service offered by the Dresden Branch of the Ifo Institute that regularly reports on the latest publications and events organised by the branch. The newsletter is sent out on publication of the journal *ifo Dresden berichtet*. In addition, the publication of new issues of CESifo Forum, CESifo DICE Report and CESifo World Economic Survey is accompanied by a summary of contents and download options.

The CESifo Group also provides information on news via Twitter in German (@ifo_Institut) and English (@CESifoGroup). Ifo President Hans-Wer-

ner Sinn also uses Twitter. Internet users can keep abreast of the latest news from the Ifo Institute and the CESifo Group via the CESifo Group's RSS feeds.

Some of the Ifo publications are distributed by international, online service providers. A complete overview of the publications and ordering information is available at www.cesifo-group.de.

Conferences

The Press, Publications, Conferences department is responsible for the organisation and realisation of the Ifo Institute's major conferences, the presentation of the institute at external conventions and conferences like, for instance, the Annual General Meeting of the Verein für Socialpolitik (Association for Social Politics), and for taking care of groups of visitors to the institute. Key events in 2015 were the symposium "Energiewende: Konsequenzen für den Industriestandort Deutschland" (with the German Advisory Council on the Environment), the symposium to commemorate the 100th Birthday of Hans Möller in June, the Ifo General Meeting in June, the symposium on migration and securing skilled workers in manual trades – potential and need for action in October, the Ifo Industry Colloquium (ifo Branchen-Dialog) in October, the Ifo Brussels International Economic Forum in November and the university lecture given by Hans-Werner Sinn featuring a review of half a century of economic policy in December. Public events are mostly livestreamed on the internet to make them accessible to members of the public who are unable to attend in person.

At the suggestion of the former head of the SPD (German social democrats party) Ludwig Stiegler, the Ifo Institute invited German members of parliament from all parties to a "**Parliamentary breakfast**" at the Bavarian Representation in Berlin for the first time in 2014. This was followed up in 2015 with two events: in February Hans-Werner Sinn, together with Ludwig Stiegler and other German MPs, met to discuss the demographic shortfall; and in September they talked about the current situation in the European Union and "Migration in the welfare state."

On 13 May 2015 the Ifo Institute together with the German Advisory Council on the Environment, organised a symposium entitled: "The energy turnaround: what are its implications for Germany as a manufacturing location?" After the welcome speech Ifo President Hans-Werner Sinn and Prof. Martin Faulstich, SRU and Technical University of Clausthal-Zellerfeld, discussed the costs and advantages of the energy turnaround for Germany. Prof. Harald Bradke, SRU Berlin; Fraunhofer ISI, Karlsruhe, and Prof. Joachim Weimann, Otto-von-Guericke University, Magdeburg, critically analysed efficient ways of reducing energy consumption. Prof. Karsten Neuhoff, DIW Berlin and Technical University of Berlin, and Prof. Andreas Löschel, Westfälische Wilhelms University of Münster, took a critical look at funding to secure competitiveness. Dr. Fritz Brickwedde, President of the German Federal Association for Renewable, Berlin, Prof. Christoph Buchal, Peter Grünberg Institut, Jülich, Holger Lösch, German Manufacturers' Association, Berlin, Matthias Machnig, State Secretary in the German Federal Ministry for Economic Affairs and Energy, and Prof. Stephan Reimelt, President and CEO, General Electric Deutschland, Frankfurt am Main, subsequently discussed the implications of the energy turnaround.

The 11th of June 2015 marked the 100th Birthday of Prof. Hans Möller, to whose chair Hans-Werner Sinn was appointed at the University of Munich. Hans Möller devoted himself to the theory of economic policy and practical policy advice and was a member of the German federal government's Scientific Advisory Committee from 1950–1996. To mark the occasion, the Ifo Institute and the economics faculty of the University of Munich jointly organised the **Symposium on the "Development of Economic policy in the Federal Republic of Germany"**, which was linked to the Ifo Annual Meeting held on the following day. The symposium's keynote speakers were Prof. Knut Borchardt, Emeritus of the University of Munich's economics faculty, Prof. Claudia M. Buch, Vice-President of the Deutsche Bundesbank, and Prof. J.-Matthias Graf von der Schulenburg, Gottfried Wilhelm Leibniz University of Hannover. In addition to Prof. Sinn, the Dean of the University of Munich's economics faculty, Prof. Joachim Winter, and Prof. Bernd Huber, President of the University of Munich, also gave brief introductory speeches.

Key events in 2015

Ifo meets with German MPs

The public part of the **66th Annual Meeting**, which was jointly organised with the Center for Economic Studies (CES) in the Great Hall of the University of Munich, followed on from the Hans Möller Symposium. The Chairman of Ifo's Administrative Council, Dr. Peter-Alexander Wacker, opened the event and informed participants that a decision had been taken regarding the Prof. Hans-Werner Sinn's successor. He announced that Prof. Dr. Clemens Fuest, President of the Zentrums für Europäische Wirtschaftsforschung (ZEW) in Mannheim, was to take over as the new President of the Ifo Institute as of 1 April 2016 and would take up a professorship at the University of Munich. Prof. Bernd Huber, President of the University of Munich, subsequently greeted the numerous guests. Following on from the Hans Möller Symposium held on the previous day, Hans-Werner Sinn gave a review entitled: "Economic policy and policy advice since German reunification". His speech focused on German reunification, the Maastricht Treaty, Germany's crisis as a manufacturing location, the financial crisis, the energy turnaround and the Riester pension scheme.



Hans-Werner Sinn, Sigmar Gabriel and Marc Beise

German Economics Minister Sigmar Gabriel began his speech by paying tribute to the achievements of Hans-Werner Sinn. Sinn is one of the very few economists in Germany to have occupied an outstanding position in research and policy research in Germany for many years. The Ifo Institute has also become an institution in the Federal Republic of Germany, noted Gabriel. It has accompanied Germany's economic history with in-depth expertise and passion for over

66 years. Gabriel looked at the question of where the task of policy advice ends and where politics begins. From his point of view, politics has to reach compromises and cannot be based on "pure doctrine." Political decisions are never objectively right or objectively wrong, they are merely the expression of a majority or minority in parliament.

Policy advice vs. politics

Following his speech, Federal Minister Gabriel and Prof. Sinn exchanged views in a discussion chaired by Marc Beise, Chief Economics Editor of the *Süddeutsche Zeitung*, in a public discussion. The subsequent expert discussion was devoted to the basic questions of economic policy and policy advice in Germany. In a discussion once again chaired by Marc Beise, Prof. Sinn, Prof. Harold James, Princeton University, Prof. Georg Milbradt, former Minister President, and Prof. Wolfgang Wiegard, former Chairman of the German Council of Economic Experts, looked at the question of what policy advisory work can achieve and the extent to which it makes sense. The second strand of the discussion focused on Greece and the question of its potential exit from the euro.



Hans-Werner Sinn, Harold James, Wolfgang Wiegard, Georg Milbradt and Marc Beise

In the members' meeting held on the afternoon of 12 June 2015, Hans-Werner Sinn reported on the Ifo Institute's activities in 2014. The annual financial statement of accounts on 31 December 2014 presented by Ifo Executive Board Member Meinhard Knoche was approved and the Executive Board was unanimously discharged.

To conclude the members' meeting – following the election of trustee board members – the Society for the Promotion of Economic Research (Friends of the Ifo Institute) Prize for Economics was awarded. The Ifo Institute Prize for Special Success in the Management of Third Party Projects was not awarded in 2015, but four special prizes for outstanding services were presented. A more detailed report on the prize awards is available in the Personnel Development Section of this report and in the *ifo Schnelldienst* 68(13), 2015.

Another Ifo event with considerable public resonance was the symposium entitled “Immigration and securing skilled personnel in trades and crafts – potential and the need for action” jointly organised by the Bavarian Chamber of Trade and Crafts and the Ifo Institute on 14 October 2015. At the event participants discussed the opportunities offered to trades and crafts by immigration, the challenges to be overcome and the requirements that politics needs to fulfil.

In his introductory speech the managing director of the Bavarian Chamber of Trade and Crafts, Lothar Semper, noted that many trade and craft companies are already having problems finding qualified staff. 15% of the apprenticeships offered in Bavaria cannot be filled even now due to a lack of suitable candidates. In his speech Ifo President Hans-Werner Sinn analysed the extent to which migration can compensate for the demographic deficit. In addition to immediate language courses in German and professional training, Sinn proposed a suspension of the minimum wage to facilitate the integration of immigrants into the German labour market. Franz Josef Pschierer, Bavarian State Secretary for Economic Affairs and the Media, Energy and Technology, illustrated the special challenges of demographic change for Bavaria. Following on from this presentation, Ursula Heller, Bayerischer Rundfunk, chaired a discussion among the panelists of the question of which political changes are required to achieve orderly immigration flows and the successful integration of migrants. Their contributions were published in the *ifo Schnelldienst* 68(21), 2015.

Securing skilled staff in trades and crafts

Sinn: suspend minimum wage to help integrate immigrants



Panel discussion: Franz Josef Pschierer, Lothar Semper, Hans-Werner Sinn and Ursula Heller

On 28 October 2015 the Ifo Institute in cooperation with the Chamber of Commerce and Industry for Munich and Upper Bavaria and funded by the Bavarian State Ministry for Economic Affairs and the Media, Energy and Technology organised the 15th **Ifo Branchen-Dialog (Ifo Industry Colloquium)**. This working conference aims to analyse the economy as a whole and economic developments in manufacturing, construction, wholesaling and retailing, as well as in selected service sectors. Detailed reports on the conference are available in the Section on the Center for Industrial Organisation and New Technologies and in the *ifo Schnelldienst* 68(23), 2015.

ifo Branchen-Dialog 2015 (Ifo Industry Colloquium)



On 5 November 2015 the conference series “**Ifo Brussels International Economic Forum (Ifo BrIEF)**” was continued in Brussels with a conference entitled: “Is Europe back on a Growth Track with its Energy Union and in Promoting Innovation?” In this confer-

ence series the Ifo Institute presents its latest research and discusses it with high-ranking EU representatives. The European Union's Committee of the Regions hosts the event. After words of welcome by Jiří Buriánek, General Secretary of the Committee of the Regions, Ifo President Hans-Werner Sinn explained the problems of the German energy turnaround in a European context in a panel entitled: "The German Energy Reform and the European Energy Union – Opportunities and Pitfalls." He subsequently discussed developments and potential solutions with Marc Busieras, Electricité de France, Karen Pittel, Ifo Institute, and Nils-Henrik M. von der Fehr, University of Oslo. In the second panel entitled: "Towards a Sound Foundation for European Innovation Policy" Oliver Falck, Ifo Institute, Albert Bravo-Biosca, NESTA, Innovation Growth Lab, Henry G. Overman, What Works Centre for Local Economic Growth, Dirk Pilat, OECD, and Stefan Weiers, European Commission, looked at the potential and meaningfulness of subsidising innovation at various levels of the European Union. Both panels were chaired by Karl-Heinz Lambertz, First Vice-President of the Committee of the Regions.

Farewell lecture



On 14 December 2015 Prof. Sinn gave his traditional end-of-year lecture for the last time as Ifo President. His review of the economic policy events that he found particularly memorable over the past 50 years was attended by an audience of 750 guests who filled the Great Hall of the University of Munich. The lecture was also broadcast in a neighbouring lecture hall, it was livestreamed via the internet and was subsequently made available in the Ifo Institute's media center.

Internet

The Ifo Institute has digitalised most of its activities in research, policy advice and service and made this information available online. This applies not only to internal and external communication, to searches and to knowledge management, but also to business surveys, research projects and making data available to users worldwide. The Ifo Institute's activities are linked with those of its other partners in the CESifo Group. For this reason, the CESifo Group has a joint internet portal (www.cesifo-group.de) that combines the information offered by the Ifo Institute, CESifo GmbH and the Center for Economic Studies (CES).

The internet portal aims to provide the public with comprehensive information from the working areas of the CESifo Group and to improve the general level of knowledge in economics. It also has the goal of quality assurance, by enabling complete transparency regarding the resources and output of the members of the CESifo Group, so that a control function can be exerted by its users.

The CESifo Group website: <http://www.cesifo-group.de>



In the internet portal of the CESifo Group, the Ifo Institute presents timely information on the institute, its services, its research topics, its economic-policy ad-

Ifo maximizes online offering

vice based on this research, and its future plans. This also includes comprehensive information on the theoretical and policy-oriented output of Ifo's research centers and its staff, as well as the media resonance of this output.

The range of services for the transfer of knowledge is being continuously expanded. In internet databases, publications can be easily searched and ordered and some can be retrieved in full-text form. Several Ifo journals have also been offered as downloads in the .epub format as of 2014, which enables the dynamic adjustment of the text to the reader's screen size and is particularly suitable for viewing on mobile devices like tablets and E-Readers. The library of the Ifo Institute also makes its electronic catalogue available to external users. The DICE database (Database for Institutional Comparisons in Europe) offers information in a systematic and comparable form on institutional regulations, especially within the European Union. The offering of "Visual Stories", which offer a comprehensive graphic representation of data, was also expanded in 2015. The Ifo Resources Database, which was developed and is regularly updated by the Ifo Center for Energy, Climate and Exhaustible Resources, is also frequently accessed by users. Based on tables and documents from several data suppliers, it provides a comprehensive overview of energy reserves and resources. Special service offerings for researchers include the databases iPEHD and GAME. The Ifo Prussian Economic History Database (iPEHD) – Ifo's historical economics database on Prussia – offers interested researchers a systematic collection of digitalised Prussian data available via Ifo's website. Ifo GAME – the database on geological and meteorological events newly integrated into Ifo's website in 2015 – collects information on geological and meteorological events worldwide from 1979 to 2010 and summarises them in a structured and aggregated manner at a national level. Ifo GAME thus offers a unique dataset for economic analysis.

Numerous lectures given by guest researchers at the Center for Economic Studies (CES), as well as selected lectures at Ifo events, are made available in a video format to an international audience in the CESifo Group's media library. The internet platform is also used to conduct Ifo's business surveys and to provide

the media with information. CESifo GmbH and CES provide a wide range of information on their work in the joint internet portal, especially with regard to the CESifo Research Network and the scientific conferences organised by CESifo.

Videos

Video contributions are becoming an increasingly important instrument for conveying information. Recordings of speeches, lectures, panel discussions and other events document the CESifo Group's work. CES and Ifo began recording events and producing video films back in the 1990s, meaning that the CESifo Group now has a vast pool of video recordings, some of which have now acquired historical importance. Users have central access to its entire offering of videos via the user-friendly media library. A well-established focus of Ifo's use of video is livestreaming, or the live broadcast of events via the internet, which are subsequently made available in its media library. This technology has significantly raised the public profile of CESifo events. State-of-the-art video technology now makes it possible to show the slides used in lectures in a second window.

CESifo's Media Library also serves as a virtual auditorium: lectures and presentations are often viewed in their entirety. The CESifo Lectures, which can be accessed via the CESifo website, are recordings of lectures given by international academics at CES and Ifo. In 2015 the lecture series: "Economics of Conflict" given by Dominic Rohner featured just a few of the lectures recorded.

In addition to livestreams via the internet, a growing number of self-produced video clips will also be added to the media library in the future. The key findings of conferences organised by the Ifo Institute will be also presented in short event reports. Recordings of selected events have also been supplemented by short interviews with the panellists as of 2014.

To reach a greater number of users, recordings of events were also made available on the video platform YouTube in 2014. Important speeches and interviews are selected for the Ifo Institute's YouTube channel and presented in an optimized format.

Ifo journals available in .epub format

New in 2015: Ifo GAME

Dresden Branch



Dresden Branch

The Dresden Branch, established by the Ifo Institute in 1993, conducts empirical economic research that focuses on the special conditions in the New Länder, and especially in the Free State of Saxony. Ifo Dresden Branch prepares economic analyses that deal with the economic developments in Eastern Germany and the Free State of Saxony. It offers policy advice and information to the public. The branch receives financial support from the Free State of Saxony and draws on the experience of Ifo Institute, its parent institute in Munich.

Ifo Dresden's researchers have solidly established themselves in the German research landscape, and their expertise and know-how, especially in the field of Eastern German economic development, is highly valued by both economists and politicians. Ifo Dresden Branch can look back at more than two successful decades of empirical economic research.

The Dresden Branch currently works in the following **research areas**:

- Business-cycle and growth in Saxony and the New Länder,
- Human capital, structural change and the position of Saxony and the New Länder in locational competition,
- Labour market and social policy in Saxony and the New Länder,
- Integration of Saxony and the other new Länder into the international division of labour (especially with Central and Eastern Europe) and
- Public finance and support of economic development in Saxony and the New Länder.

Ifo Dresden Branch also does research into the general topic of "implications of demographic change to the economic development". The shrinking and ageing of the population will have a significant impact on nearly all fields of social and economic development, and will thereby pose new challenges for economic policy.

Under the management of Marcel Thum and Joachim Ragnitz, 14 economists currently engage in research at the branch, of which 12 are doctoral candidates. The **team** is completed by two non-scientific staff mem-

bers and a number of student research assistants. Ifo Dresden closely **co-operates** with the Dresden University of Technology and the Statistical Office of the Free State of Saxony. Co-operation agreements specifically cover visiting fellowships of researchers, joint activities and presentations. Ifo Dresden also offers project-related work experience to interested students of economics.

In addition to economic research, the Dresden Branch offers **extensive services**. Economic-policy oriented analyses are published in the journal *ifo Dresden berichtet* and in the book series, *ifo Dresden Studien*. Ifo Dresden provides information and advice on current economic-policy issues to policy-makers, companies and business organisations. It also organises workshops and conferences.

The journal *ifo Dresden berichtet* has been published every two months since 1994. In this journal, Ifo Dresden researchers and external authors publish their current research findings on the economic situation in the New Länder for a wider public in politics, business and academia. The results of more comprehensive research projects are published in the series *ifo Dresden Studien*. In 2015, three volumes in the series were published.

Conferences and workshops, such as the working group for the monitoring of economic activity, are regularly held on the premises of Ifo Dresden. Workshops in 2015 included the 10th workshop on "Macroeconomics and the Business Cycle" organised in co-operation with the Helmut-Schmidt-Universität Hamburg (19/20 November 2015) and the 9th workshop on "Political Economy" (27/28 November 2015) together with CESifo and the TU Dresden. The workshop on "Labour Markets and Social Policy" organised in co-operation with the TU Dresden (19/20 March 2015) and the workshop on "Regional Economics and Structural Change" together with the TU Dresden and the TU Braunschweig (10/11 September 2015) were hosted by Ifo Dresden for the fifth time.

In the series *Dresdner Vorträge zur Wirtschaftspolitik*, prominent economists present their latest research findings in economics and finance. In 2015

Cooperation agreements

Focus on economic situation in New Länder

Events in 2015

four lectures were held in this series. Giacomo Corneo, Professor of Public Finance and Social Policy at the Free University (FU) of Berlin, Joachim Weimann, Professor of Economic Policy at the Otto-von-Guericke-University Magdeburg, Steffen Müller, Head of the Department of Structural Change and Productivity at the Halle Institute for Economic Research (IWH) and Michael Fritsch, Professor of Business Dynamics, Innovation, and Economic Change at the Friedrich-Schiller-University Jena, discussed their views on current policy issues with audience members from the fields of science, policy and public administration.

In 2015, the political reunification of Germany celebrated its 25th anniversary. To mark the occasion, the Ifo Institute hosted a conference in Dresden on October 9th entitled: "25 Jahre Deutsche Einheit: Wo stehen wir – wie geht es weiter?". The conference covered economic developments in the New Länder since 1991, key political achievements and perspectives for the future. Michael C. Burda, Director of the Institute for Economic Theory at the Humboldt University of Berlin, Reiner Klingholz, Director of the Berlin Institute for Population and Development, Astrid Lorenz, Professor of Political Science at the University Leipzig, Georg Milbradt, former Prime Minister of Saxony and Professor of Economics at Dresden University of Technology, Hans-Werner Sinn, President of the Ifo Institute, and Gert Wagner, board member at the German Institute for Economic Research (DIW) Berlin, provided insights into the successes and failures of German unification.



Hans-Werner Sinn addresses conference participants

Together with the Akademie für Politische Bildung Tutzing, Ifo Dresden also organised the "Tutzingener Sommerakademie". This conference took place from 1 September to 4 September 2015 and addressed the economic, social and political aspects of German reunification.

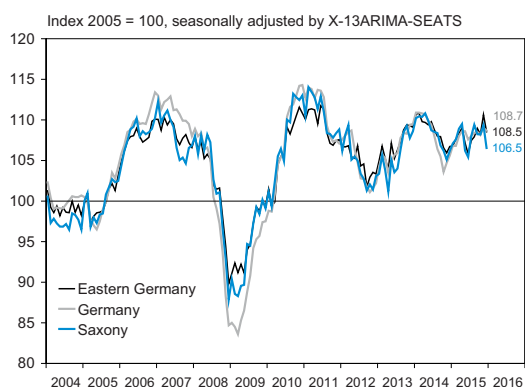
Economic Activity and Growth in Saxony and the New Länder

Ifo Dresden gets a significant amount of media coverage with the regular provision of its business cycle indicators. Ifo Dresden publishes the Ifo Business Survey for Eastern Germany and the Free State of Saxony on a monthly basis, and business cycle forecasts for these two regions twice a year.

The business cycle forecasts are presented in June and December at a press conference and at the workshop entitled: "Ifo Working Group on the Business Outlook for Saxony". The workshop takes place at the Ifo Dresden Branch and brings together representatives from the Ifo Institute in Munich, the Dresden Branch of the Ifo Institute, the Federal Employment Agency, the Regional Office of the Institute of Employment Research in Saxony, the Statistical Office of the Free State of Saxony, various Saxon ministries, the credit reporting agency Creditreform, the Chamber of Crafts Dresden, the Chamber of Industry and Commerce Dresden and others. The 35th and 36th workshops took place in 2015.

In addition to its biannual business cycle forecasts, Ifo Dresden Branch provides monthly reports featuring the regional results of the Ifo Business Survey for Eastern Germany and the Free State of Saxony. The results for Eastern Germany are published as monthly press releases and as articles in the journal *Wirtschaft + Markt*. The outcomes of the Ifo Business Survey for the Free State of Saxony are published on a monthly basis as the so-called "Sachsenbarometer" in the daily newspaper *Sächsische Zeitung*. In 2015, the *Sächsische Zeitung* launched a new quarterly magazine called "WIRTSCHAFT in Sachsen – Das Entscheidermagazin". In order to widen the readership of the "Sachsenbarometer", the *Sächsische Zeitung* asked the Ifo Dresden Branch together with Creditreform Dresden to comment on the "Sachsenbarometer" in this new magazine. Four issues were published in 2015.

Ifo Business Climate Eastern Germany (Index)



^{a)} Manufacturing, construction, wholesaling and retailing.

Source: Ifo Business Survey.

According to the Ifo Institute's forecasts, private consumption will provide a major stimulus for economic growth in 2015. However, a significant portion of private consumption is debt-financed, bearing an increasing risk of over-indebtedness. Carolin Fritzsche and Michael Weber of the Dresden Branch analysed the regional degree of and reasons for over-indebtedness in Germany, using a new data set released for the first time by the Federal Statistical Office. They conclude that the risk of over-indebtedness in Eastern Germany and in the Free State of Saxony is not higher than in Germany as a whole. Their results were published in issue 4/2015 of the journal *ifo Dresden berichtet* in a paper entitled: "Zuviel Konsum auf Pump? Überschuldung im regionalen Vergleich".

The doctoral candidates at Ifo Dresden also published several articles in academic journals. One of the essays in Robert Lehmann's PhD thesis, "Forecasting GDP at the Regional Level with Many Predictors", was published in the *German Economic Review*, the journal of the German Economic Association. The article, written together with Klaus Wohlrabe, asks which indicators or methods are able to reduce the forecasting error for regional GDP compared to simple benchmark models. For Baden-Württemberg, Saxony and Eastern Germany they find that regional indicators, as well as variables that mirror regional economic structures, have the highest forecasting accuracy.

The companion paper to this study "Nowcasting Regional GDP: The Case of the Free State of Saxony"

was published in the journal *Review of Economics*. Since indicators have different publication lags, the set of information for a forecaster changes within each quarter. In this article, Steffen R. Henzel, Robert Lehmann and Klaus Wohlrabe look at different points in time in each quarter and ask whether the forecast for the current and following quarter become more precise the more information is available. This is particularly important in forecasting practice. It turns out that regional indicators are exceptionally good at forecasting regional economic development. The paper's key results were also published in *ifo Dresden berichtet* 4/2015.

Regional economic forecasting

Economic forecasting is not exclusively restricted to a prediction of total output. In their paper: "Forecasting Employment in Europe: Are Survey Results Helpful?" Robert Lehmann and Antje Weyh (Regional IAB Office Saxony) ask whether business survey results have a predictive power in forecasting employment growth. For most of the 15 European states under consideration, survey results are a powerful tool in predicting employment. The article is available as Ifo Working Paper No. 182.

Exports are a major demand side component of GDP and transfer international shocks into the domestic economy. Thus, the forecasting accuracy of GDP depends on the unbiasedness of export forecasts. Forecasting literature has intensively discussed private consumption, whereas studies of export forecasts are rather scarce. The article: "Survey-based Indicators vs. Hard Data: What Improves Export Forecasts in Europe?" by Robert Lehmann fills this gap. It sets up a forecasting competition between indicators from surveys (for example, export expectations) and those based on hard facts like price and cost competitiveness against major trading partners. This article focuses on export growth forecasts for 20 European countries, as well as the aggregates EA-18 and EU-28. Robert Lehmann finds that survey-based indicators outperform hard data for most of the countries in the sample. The forecast accuracy of survey results, however, varies considerably between countries depending on the countries' export composition. The article is available as Ifo Working Paper No. 196 and was presented at both the 2015 Annual Congress of the German Economic Association (Münster) and at the 55th Congress of the European Regional Science Association in Lisbon.

Survey-based vs. hard fact indicators

Human Capital, Structural Change and the Position of Saxony and the New Länder in Locational Competition

This research features studies of regional disparities and different regional growth prospects. The research focuses on regional policies to foster the harmonization of inter-regional living conditions or to deal with demographic change. This analysis examines the economic convergence process of Eastern Germany. Furthermore, the long-lasting economic effects of past political events has become one of the main research topics in recent years.

The project entitled: "Effects of the Demographic Change in Germany as an Immigration Country", that was conducted on behalf of the Friedrich-Ebert-Stiftung (FES) and finished in 2015, places an emphasis on how people with a migration background influence demographic developments, as well as the labor market and social security systems. Besides purely economic aspects, the study also focuses on the impact of an increasing share of people with a migration background on local public services and urban societies. The project was carried out jointly with Alexander Kemnitz, Professor of Economic Policy and Economic Research at TU Dresden, and Gesine Marquardt, Professor of Social and Health Care Buildings and Design at TU Dresden. The results of this study are published by the FES and were presented at a conference of the Friedrich-Ebert-Stiftung in Berlin on 28 September. A summary of the main results will also be published in *ifo Dresden berichtet*.

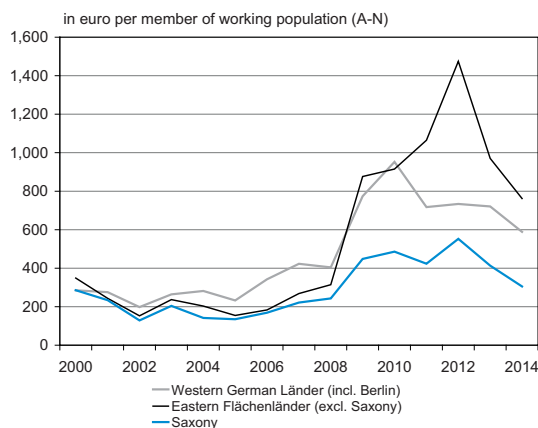
Furthermore, the Dresden Branch worked on the research project: "Homes-uP – Single-Family Homes under Pressure", funded by the Leibniz Association. The focus of the project was to analyse the mechanisms in the housing market hampering a regular price adjustment. Another topic examined the challenges facing local decision-makers when maintaining county roads in a region with a large share of single-family homes.

Within the scope of a project conducted on behalf of the City of Dresden, Jan Kluge and Marcel Thum focused on the city's economic development. The project is a follow-up of an earlier Ifo project conducted in 2012 (*ifo Dresden Studie 64*) and concerns the rea-

sons for Dresden's poor economic growth rates since 2005. The authors conclude that the poor growth dynamic of the semiconductor industry, which is one of the main growth drivers in Dresden, is partly responsible for the city's relatively weak growth development. In Europe, in particular, but also globally, the whole semiconductor industry has fallen below its growth levels of the last decade. The results of this study will be published in *ifo Dresden berichtet*.

An article by Christian Ochsner in *ifo Dresden berichtet* (5/2015) analysed regional differences in the credit volumes committed by the KfW-Mittelstandsbank (Kreditanstalt für Wiederaufbau). Prior to the great recession in 2009, credit commitment volumes per worker increased steadily in Eastern and Western Germany. Since the year 2009, absolute credit commitment volumes have increased. Regional distribution has also changed in favour of Eastern Germany. However, regional differences within Eastern Germany are considerable. The Free State of Saxony and Thuringia benefit less from the special funds issued by the KfW-Mittelstandsbank to defend the credit crunch and to promote renewable energy and energy efficiency.

Loan Commitment by KfW-Mittelstandsbank from 2000 to 2014 per Member of Working Population in Economic Sector A – N



Source: KfW annual reports; VGR working group of the federal government and the Länder; calculations of the Ifo Institute.

On the occasion of the 25th anniversary of German reunification, Ifo Dresden reviewed the economic differences between Eastern and Western Germany.

Jan Kluge and Michael Weber investigate the development of the East-West wage gap between 1996 and 2010. They find that the Eastern German median daily wage is 35% lower than in Western Germany. In addition, this gap does not close over time. Furthermore, the authors elaborate on the determinants of this persistent wage gap. One half of this gap can be explained by differences in worker, establishment and regional characteristics. One quarter can be explained solely by regional price differentials and differences in establishment sizes. Differences with respect to the age- and qualification structure of workers, different labour market participation rates of women and productivity differentials at the establishment level play only a minor role. The results of this study ("Decomposing the German East-West Wage Gap") were published as *ifo Working Paper* No. 205.

Jan Kluge – jointly with Gunther Markwardt, BTU Cottbus-Senftenberg, and Christian Thater, formerly Ifo Dresden, – analysed the political budget cycles in Saxon municipalities. Using a data set of 458 municipalities between 1994 and 2010, the authors show how elected politicians adjust their spending policy to the election schedule. Powerful parties that face only weak opposition in their local councils tend to increase expenditure prior to elections. Accordingly, politicians compensate for this by cutting back expenditure after the elections. Furthermore, they tend to increase spending on items that are visible to voters at the cost of reducing expenditure, on administrative tasks that are less visible. The findings of this study ("Self-preserving Leviathans – Evidence from Regional-level Data") are published as *CESifo Working Paper* No. 5177. A shortened version with a slightly different focus was published in *ifo Dresden berichtet* 5/2015.

Furthermore, Jan Kluge presented a paper on the impact of sectoral diversification on the economic stability of regions. Using a data set containing all German districts and urban municipalities between 2000 and 2012, he investigates whether more diversified regions achieve higher stability, i. e. lower volatility of gross value added growth rates, for any given level of overall growth. It can be shown that the most diversified decile of the regions achieves growth rates of only 81% compared to the most specialized decile. However,

the growth rate volatility of highly diversified districts only amounts to 41% of the volatility in highly specialized districts. Hence, sectoral diversification can be interpreted as an insurance that allows regions to trade growth for stability. The article ("Sectoral Diversification as Insurance against Economic Instability") was published as *ifo Working Paper* No. 206.

In two articles, Joachim Ragnitz describes the current status of the convergence process of Eastern Germany 25 years after reunification (*Wirtschaftsdienst* 6/2015 "25 Jahre Deutsche Einheit: Eine Erfolgsgeschichte: Realistische Erwartungen an den Aufbau Ost" and *Berliner Debatte Initial* 2/2015: "Ostdeutschland im Schatten gesamtwirtschaftlicher Entwicklung – Kann die 'Angleichung der Lebensverhältnisse' noch gelingen?"). Both articles conclude that the economic convergence of Eastern Germany has stopped at around 75% of the level seen in Western Germany. It is unlikely that further convergence will take place in the near future for a number of reasons. Among the well-understood reasons for the relatively small average establishment units in Eastern Germany and their weak export and R&D (Research and Development) focus, Joachim Ragnitz cites historical factors that still apply today. Firstly, Eastern Germany – especially its northern parts – was traditionally a producer of agricultural goods, which still shapes the current "mentality" of its citizens. Secondly, many industrial firms were resettled towards Western Germany after World War Two. This has mainly affected the southern parts of Eastern Germany to date. Joachim Ragnitz concludes that policymakers should rethink the target of equalizing living standards within Germany.

Labour Markets and Social Policy in Saxony and the New Länder

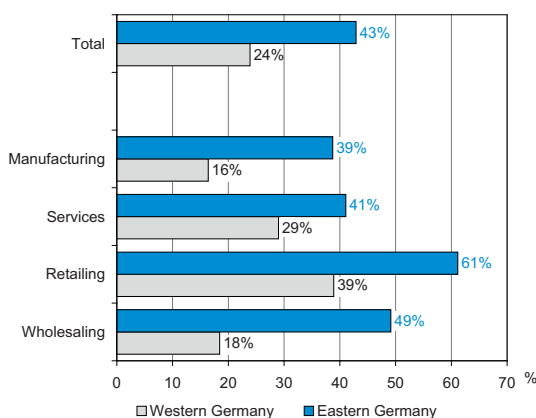
In the research field "labour markets and social policy" Ifo Dresden Branch regularly publishes reports on developments in the labour markets of the Free State of Saxony and Eastern Germany. The analyses are based on data from the Federal Employment Agency. In 2015, additional reports and journal contributions focused on current political topics such as the statutory minimum wage, which was introduced in Germany on 1 January, 2015, and the effects of the German Hartz reforms, which were implemented in the years 2003 to 2005.

Eastern Germany's economic convergence

Eastern German labour markets

In November 2014, the Ifo Institute conducted a company survey asking whether firms were affected by the statutory minimum wage and how the establishment planned to react to the increase in labour costs. Robert Lehmann, Joachim Ragnitz and Michael Weber presented the regional results of this survey for Eastern Germany in their article "Mindestlohn in Ostdeutschland: Firmen planen Preiserhöhungen und Personalabbau", which was published in issue 1/2015 of the journal *ifo Dresden berichtet*.

Companies Affected by the Minimum Wage



Source: Ifo Business Survey.

Additional insights into the effects of the statutory minimum wage will be gained from another establishment survey to be conducted in 2016. Ahead of this survey, the Ifo Dresden Branch has developed and successfully tested a questionnaire. This work was part of the project "The Impact of the Statutory Minimum Wage Act in Saxony – Preparing a Survey" conducted on behalf of the Chamber of Commerce and Industry Chemnitz.

Exactly ten years prior to the introduction of the statutory minimum wage Germany implemented one of its most painful reforms of the labour market: the German Hartz IV reform. In a commentary, "Zehn Jahre Hartz-Reformen in Deutschland", published in issue 1/2014 of the journal *ifo Dresden berichtet*, Joachim Ragnitz highlighted the need for this reform. One of the measures featured in the reform was to reduce the unemployment compensation of

the long-term unemployed. Michael Weber analysed, how the structure of welfare recipients and the long-term unemployed differed across regions in the tenth year after the reform. He identifies a clear East-West pattern in the share of welfare recipients in different demographic groups, but a less clear pattern regarding the structure of the welfare recipients and the unemployed. The results were published as: "Regionale Strukturunterschiede bei den erwerbsfähigen Leistungsberechtigten" in issue 3/2015 of the journal *ifo Dresden berichtet*.

Another aspect of the Hartz IV reform was the implementation of "job-centers", new one-stop public employment services for the long-term unemployed and welfare recipients. In 2012, some municipalities took over the job placement activities in these job-centers. Michael Weber demonstrates in his research project entitled: "The Short-run and Long-run Effects of Decentralizing Public Employment Services" that these municipalities are less efficient than the Federal Employment Agency with regard to job placements and that they are less likely to impose sanctions upon the misbehaviour of their clients.

Integration of Saxony and Eastern Germany in the International Division of Labour

EU enlargement has intensified the competitive pressure on Saxon firms – especially with firms from Czech Republic and Poland – but has also created new opportunities for Saxon firms at the same time. The regional integration and cross border relations between Saxony, the Czech Republic and Poland are topical themes.

In 2015, the Ifo Institute continued and completed a major project for Croatia as a new EU member. The Munich and Dresden Branches of the Ifo Institute worked together to develop a comprehensive reform agenda for sustainable growth and employment generation. Ifo Dresden focused on structural reforms regarding the Croatian infrastructure and labor market. The results will be published as an *Ifo Forschungsbericht* in 2016. A short version will be published in issue 1/2016 of the journal *CESifo Forum*.

Ten years of Hartz reforms

Public Finance and the Promotion of Economic Development in Saxony

As in previous years, Ifo Dresden provided the Saxon State Ministry of Finance with a long-term projection of Saxon public revenues. A significant decline in revenues is expected due to the expiration of the solidarity agreement II (Solidarpakt II) in 2019. The diminishing population will lead to further revenue decreases up to 2025. The results of the projection enter the medium-term financial planning of the Free State of Saxony. They are presented in further detail in Ifo Dresden's publications.

A project commissioned by the Ministries of Finance of Saxony and Thuringia focused on the question of whether the need for special transfers arises for some Länder due to their demographic development. The study also discussed reasons for the moderate economic performance of Saxony and Thuringia.

Several studies published in the journal *ifo Dresden berichtet* were concerned with local differences in social welfare expenditure and local tax competition in Germany. The results indicate that drastic cuts in local business tax rates lead to tax decreases in neighbouring municipalities, indicating tax competition. Further studies spotlighted local government debt ("Hoch gepokert, hoch verschuldet: Kurzfristige Fremdwährungskredite der Kommunen in Deutschland" and "Geballte Schuldenlast: Wie ungleich sind die kommunalen Schulden in Deutschland verteilt?"). Both papers show that municipalities in Germany carry unequally distributed debt burdens. Highly-indebted cities in Western Germany in particular use unsecured foreign currency loans in borrowing.

Further publications in this area focused on the financing of universities (issue 02/2015 of the journal *ifo Dresden berichtet*, as well as *ifo Dresden Studien* 75 "Hochschulfinanzierung in Mecklenburg-Vorpommern"), the reform of fiscal federalism in Germany (Joachim Ragnitz: "Anmerkungen zur Neuordnung der föderalen Finanzbeziehungen", *Sachsenlandkurier* 01/15) as well as the financial feasibility of medical advances within statutory health insurance (Alexander Karman, Felix Rösel and Markus Schneider: "Produktivitätsmotor Gesundheitswirtschaft: Finanziert sich

der medizinisch-technische Fortschritt selbst?", *Perspektiven der Wirtschaftspolitik*, forthcoming). The paper: "Incentive Pay and Bank Risk-Taking: Evidence from Austrian, German, and Swiss Banks" co-authored by Johannes Steinbrecher looks at the incentive effects of bonus payments on the risk behaviour of bank employees in capital market divisions. It shows that high bonus payments led to an excessive amount of risk taking in the period from 2003 to 2007. In times of lower bonus payments during the crisis period (2008 to 2011), the correlation between bonus payments and risk taking cannot be confirmed. The paper was published in *Journal of International Economics* (96), pp. S123–S140, 2015. To increase the impact of the paper in the banking sector, the results were also published in the journal *Die Bank* (03/2015) in a paper entitled "Optimale Vergütungsstrukturen in Banken" and in *ifo Schnelldienst* 03/15.

A special issue of *ifo Dresden berichtet* on the financing of universities in Eastern Germany was published in 2015. The efficiency of universities and universities of applied science in Eastern Germany, as well as their financing structure were discussed in several articles. The articles leaned on a previous project published in *ifo Dresden Studien* 75. The results show that the higher education sector differs substantially within Eastern Germany. Local politics, as well as the universities themselves, are therefore asked to further improve their unique advantages in order to maintain their attractiveness.

Linked to this Ifo Dresden research area is the article: "On the Political Economy of National Tax Revenue Forecasts – Evidence from OECD Countries" by Beate Jochimsen (Berlin School of Economics and Law) and Robert Lehmann. In this article the authors asked whether national tax revenue forecasts in 18 OECD countries are biased by political distortions. The paper tests four hypotheses, namely if national tax revenue forecasts are biased in line with the electoral cycle, with the political colour of the incumbent, in more fragmented governments or parliaments, or if the reelection is unlikely. The robust estimation strategy clearly reveals two results. Firstly, left-wing governments produce positive markups of estimated tax revenues compared to right-wing incumbents. And

Bonuses and their impact on risk-taking by bankers

Political bias and national tax revenue forecasts

secondly, more fragmented governments or parliaments produce more pessimistic forecasts. Thus, the authors rebut the classical “common pool” problem. At the opposite end of the scale, the electoral cycle and the probability of reelection do not explain tax revenue forecast errors. The article is available as Ifo Working Paper No. 198 and was presented at the Annual Congress of the German Economic Association (Münster).

The Free State of Saxony has set up a commission to evaluate the allocation of human resources in the public sector and to develop proposals for necessary adjustment processes. Around half of the current employees in the Free State of Saxony's administration will retire by 2030. However, due to demographic changes and increased competition for high-skilled employees, the labour supply will decrease quantitatively. Joachim Ragnitz was appointed to the commission as a scientific member. The commission will deliver a final draft of policy proposals to the government of the Free State of Saxony in January 2016.

The paper: “Tax Evasion, Corruption and Market Entry” by André Seidel and Marcel Thum examines the impact of tax policy on the market entry of firms in the presence of corruption and tax evasion. The results indicate that higher taxes and stricter enforcement of taxation can have a double benefit if certain conditions are met. Up to a certain threshold, for which a simple rule is developed, stricter enforcement increases market entry and reduces tax evasion. These findings will be published in the *Scottish Journal of Political Economy*.

Projects Completed in 2015

The Impact of the Statutory Minimum Wage Act in Saxony – Preparing a Survey

M. Thum, M. Weber for the Chamber of Commerce and Industry (Industrie- und Handelskammer, IHK) Chemnitz, January 2015 to April 2015.

On January 1st 2015, Germany implemented a statutory minimum wage of 8.50 euros per hour. Ex-ante analyses indicate that the minimum wage will affect regions and industries to differing degrees. Ex-post analyses, which can be started in a few months, will measure the actual impacts by conducting establishment surveys. To lay the ground for such surveys, this project develops and tests a questionnaire.

Effects of Demographic Change in Germany as an Immigration Country

J. Kluge, W. Nagl, M. Thum in cooperation with A. Kemnitz and G. Marquardt, Dresden University of Technology, for the Friedrich Ebert Foundation, December 2014 to May 2015, publication as M. Thum et al., *Auswirkungen des demografischen Wandels im Einwanderungsland Deutschland*, Friedrich-Ebert-Stiftung, Berlin 2015.

Demographic change covers population ageing and decline, as well as the growing ethnic diversity of society. Both past and future migration affect demographic change in across all of these dimensions. This project analysed demographic developments up to 2030, with special reference to people with a migration background and potential future immigration.

It also examined the impact of immigration on the labour market and social security systems. The project looked at which sectors, regions and skill levels are particularly affected by demographic change. Furthermore, the labour income of Germans and foreigners living in Germany were compared and the differing rates of labour force participation were analysed.

The municipal social, health and education services and the living conditions of elderly migrants were also discussed. The changing demographic situation and the higher proportion of people with a migration

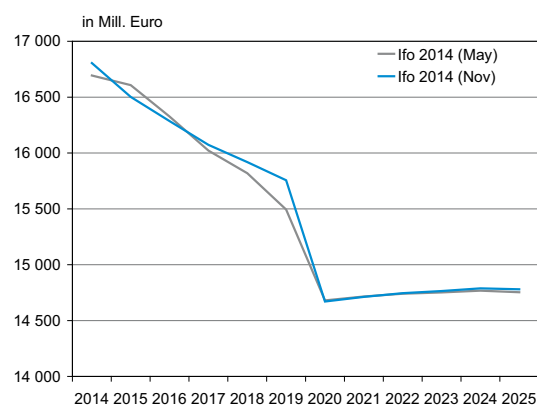
background in society are creating new challenges for municipal social, health and education services. The possible change in demand for elderly care was investigated by a survey. Examples of best practice in successfully handling a greater degree of social heterogeneity (multi-minority communities) were analysed.

Long-term Projection of the Revenue Development of the Saxon State Budget until 2025 in 2014 and 2015

A. Eck, C. Fritzsche, J. Ragnitz, J. Steinbrecher for the Saxon State Ministry of Finance, July 2014 to November 2015, publication in *ifo Dresden berichtet* 21(1), 2015.

Since 2009, the Dresden Branch of the Ifo Institute provides projections on an annual basis for the public revenues of the Free State of Saxony up to the year 2025. The forecast shall contribute to the design of a sustainable fiscal policy in Saxony. As transfers specially designed to benefit the Eastern German Länder will cease, the Saxon state revenues will significantly decline until the year 2020. Although the current results are more optimistic than the results from 2014, the drop in revenues until 2020 will still not be compensated by increasing tax revenues until 2025. The results of this projection are published in the medium-term financial planning of the Free State of Saxony, Saxon State Ministry of Finance (2015): „Mittelfristige Finanzplanung des Freistaates Sachsen 2014–2018“, Dresden.

Long-term Projection of the Revenue Development of the Saxon State Budget until 2025



Source: Saxon State Ministry of Finance; calculations of the Ifo Institute.

Economic Reform Agenda for Sustainable Growth and Employment in Croatia

J. Ragnitz, J. Steinbrecher, M. Weber in cooperation with the Ifo Institute Munich for the Croatian Statehood Foundation, September 2014 to September 2015, publication in *Ifo Forschungsbericht*, 2016; *CESfo Forum* 17(1), 2016.

In this project, Ifo Institute Munich and Dresden Branch developed a comprehensive reform to improve the international economic competitiveness of Croatia. Ifo Dresden Branch focused on structural reforms regarding the Croatian infrastructure and labour market.

SWOT-Analysis and Strengths-Weaknesses-Profile

J. Ragnitz, M. Weber for the City of Leipzig (Stadt Leipzig), July 2015 to December 2015.

The Ifo Institute, Dresden Branch, developed a SWOT-Analysis on behalf of the City of Leipzig. Currently, Leipzig's economy and population are growing, due to Leipzig attractiveness particularly for the young and the logistic industry. However, Leipzig's economy lacks diversity, making it vulnerable to business cycle fluctuations and increases in labour costs. Furthermore, Leipzig's enterprises generate comparably small tax revenues. Leipzig needs to attract new, higher-value industries to continue its growth path in the medium run.

Leipzig's economy lacks diversity

Economic Development of Dresden

M. Thum, J. Kluge for the City of Dresden (Landeshauptstadt Dresden), October 2015.

This project concerns the economic development of the City of Dresden. It is based on an earlier project of the Ifo Institute in 2012, in which the authors conclude that Dresden has been suffering from growth rates below the Saxon average since 2005. In the 1990s, Dresden had been one of the major growth drivers in Saxony. This sudden decline had been triggered by global fluctuations in the semiconductor industry. Dresden's specialization on this sector allowed participating in the global growth opportunities. However, Dresden's economic development also suffers from the high fluctuations in this high-tech industry.

The current project shows that the below average development has continued until today. Although the service sectors account for the bulk of gross value added and employment growth in Dresden, the much smaller manufacturing sector (which the semiconductor industry belongs to) triggers high fluctuations that have not been compensated by enhanced growth rates since 2005.

The currently bright prospects for the global semiconductor industry may lead to the expectation that Dresden's growth rates will be above the Saxon average in the years to come. However, the specialization on this high-tech industry also comes with a considerable dependence on the development of this highly volatile international market.

The results of this study will to be published in the journal *ifo Dresden berichtet*.

Current Projects

Homes-uP – Single-Family Homes under Pressure

C. Fritzsche, M. Thum, L. Vandrei for the Leibniz Association (Leibniz-Gemeinschaft), January 2015 to December 2017.

In many countries, single-family homes constitute the majority of residential buildings. Economic and financial crises, demographic and social structural change, and changes in user preferences, are raising new challenges in this segment of the housing stock. Outside core regions of economic growth, stagnating or dropping prices, difficulties in selling, and even vacancies, are no longer a rarity in this segment in many regions. Nonetheless, these developments, and their possible related consequences, have hardly been investigated. Studies from a number of relevant perspectives are needed, including economics, ecology, settlement-structure and the social situation.

Together with the Leibniz Institute of Ecological Urban and Regional Development (IÖR, Dresden), the Research Institute for Regional and Urban Development (ILS, Dortmund), the Institute for Social-Ecological Research (ISOE, Frankfurt/Main) and the Centre for European Economic Research (ZEW, Mannheim), we pursue three key objectives:

- To provide a description of trends and changes in the development of traditional and novel single-family homes user groups and their housing preferences and the characteristics of current single-family homes building stocks.
- To deepen our understanding of the effects of these changes. We are interested in the implications for market outcomes, and particularly for prices and vacancies; we also study implications for the use of natural resources.
- The identification of possible development scenarios and approaches to action.

Investigations of the situation in Germany will be supplemented by comparative studies inside Europe, as well as in Japan and the United States. The international perspective is underpinned by several inter-

national cooperating partners and an international advisory board. Publication of the results is planned on completion of the project.

Commission for the Comprehensive Evaluation of Public Services and Public Staff in Saxony

J. Ragnitz for the Saxon State Chancellery, April 2015 to March 2016.

The Free State of Saxony has set up a commission to evaluate public services and staff. The tasks of this commission are twofold: on the one hand, the number of employees in public administration in Saxony is still higher than in many other German federal states, resulting in the need for a well-designed downsizing of its public staff base. On the other hand, about half of Saxony's current staff is set to retire by 2030, when new, qualified employees will need to be recruited. However, due to demographic change, the labour supply in Saxony is expected to decrease quantitatively and qualitatively in the future. The commission will develop suitable concepts for dealing with these challenges and will deliver them to the State government by spring 2016.

Impact of Demographic Developments on the Eastern German Housing Market

J. Ragnitz, C. Fritzsche, J. Kluge, M. Thum, L. Vandrei in cooperation with the Leibniz Institute of Ecological Urban and Regional Development and G. Marquardt, Dresden University of Technology, for the Federal Ministry of Economic Affairs and Energy, November 2015 to October 2016.

Conducted on behalf of the Federal Ministry for Economic Affairs and Energy, this project analyses the extent to which the Eastern German housing market is prepared for current and future demographic developments such as a shrinking and ageing society. In a first step, the present situation of the Eastern German housing market and the socio-economic characteristics specifically relevant to the housing market will be analysed. In a second step, trends and possible challenges for the Eastern German housing market will be presented, especially with respect to the care

sector. The final part of the project will survey the current system of funding instruments and regulatory measures and discuss reform options.

Industry Reports

C. Boede, U. Mandalka for the Volks- und Raiffeisenbanken, since 2006 on-going.

As part of Ifo project "*Branchen special*", Ifo Dresden produces reports for 15 selected branches twice a year. Analyses and forecasts are prepared in a standardised form on the structure of the branch, its business prospects, profits and competitiveness. The information of these special reports can indicate intermediate-term prospects for re-spective branches as well as chances and risks within the structural transformation. The "*Branchen special*" reports are employed primarily by co-operative banks in their lending and consulting business. Company consultants are provided with a survey of prospects and risk profiles for individual branches.



Munich Society for the Promotion of Economic Research – CESifo GmbH

The CESifo Group, which consists of the Center for Economic Studies (CES) of the University of Munich (LMU), the Ifo Institute and CESifo GmbH, bundles its resources into an internationally active research alliance and enhances the public economic policy debate with contributions based on excellent theoretical and empirical scientific research, supports the economic policy decision-making process with high quality policy advisory work and supplies the public with highly acclaimed economic information like the Ifo Business Climate Index. Its research activities are closely linked with major contributions to the teaching and promotion of junior economists.

The CESifo GmbH (co-founded in 1999 by the University of Munich and the Ifo Institute), provides the platform for the joint activities, promoting the internationalisation of research and co-ordinating an international research network.

The main tasks of CESifo GmbH, which were actively pursued in 2015, include the:

- Support of exchanges between the LMU and the Ifo Institute and the promotion of junior economists,
- Administration of the worldwide CESifo Research Network,
- Analysis of economic events in the European Union and the provision of impulses in the debate over European economic policy,
- Publication of economic research,
- Organisation of conferences and seminars.

2015 was the last calendar year that CESifo GmbH was led by its founder and managing director Prof. Hans-Werner Sinn. Despite the upheaval with the change in presidency of the Ifo Institute and management of CESifo GmbH, the company completed an ambitious work programme in the reporting year and raised its international profile even further.

Exchanges between the LMU and the Ifo Institute

CESifo GmbH supports the active participation of researchers from the LMU and the Ifo Institute in various academic conferences.

The joint appointment of professors who work both at the Ifo Institute and also have a chair at the LMU remains particularly important. These endowed professorships are a central means of attracting outstanding researchers to become center directors at the Ifo Institute and to take up chairs at the LMU. These joint appointments not only strengthen the links between the Ifo Institute and the LMU in research, but also in the teaching and promotion of Ph.D. students. A total of eight endowed professorships have been jointly established by the Ifo Institute and the LMU to date, with CESifo GmbH contributing to the financing of two of them.

Endowed professorships attract top talent

Research Network

The CESifo Research Network is primarily composed of economists who cooperate with researchers from either CES or Ifo in the context of joint projects. In 2015 the **CESifo Research Network** grew to a total of 1,219 members, most of whom have been guest researchers at CES and the Ifo Institute. CESifo Research Network members are subdivided into affiliates and fellows. Affiliates are young promising researchers in the earlier stages of their career. Fellows are senior researchers who typically hold a full professorship at a university. By the end of October 2015, the CESifo Research Network numbered 265 affiliates and 954 fellows.

Most of the fellows come from Europe and North America. However, the network also has members in a large number of countries, which ensures that the CESifo Group's products are well-known and used worldwide. The network members come from 41 countries and their fields of expertise span most areas of economics. To guarantee the internationality of the network, the network has a strict quota for German members, who account for a maximum of 20%.

CESifo enjoys worldwide recognition

CESifo Research Network members by region:

Region	in %	Number
North America	29.70	362
Germany	19.85	242
Rest of Europe – total	46.60	568
– Western and Southern Europe	36.26	442
– Scandinavia	10.34	126
Others	3.85	47

To guarantee an intensive exchange of ideas between its members and to strengthen cooperation between the CESifo Research Network and the corresponding Ifo Centers, the network is subdivided into several areas. These are headed by internationally renowned economists, or so-called "Area Directors", who contribute to the network with their international standing and expertise.

The network's area directors are:

- Christian Gollier, University of Toulouse, Area Director of Applied Microeconomics
- Ernst Fehr, University of Zurich, and Klaus Schmidt, LMU, Area Directors of Behavioural Economics
- Eric Hanushek, Stanford University, Area Director of the Economics of Education
- Kai A. Konrad, Max Planck Institute for Tax Law and Public Finance, Munich, Area Director of Employment and Social Protection
- Michael Hoel, University of Oslo, Area Director of the Energy and Climate Economics
- John Whalley, University of Western Ontario and University of Warwick, and Peter Egger, ETH Zurich, Area Directors of Global Economy
- Paul De Grauwe, University of Leuven and London School of Economics, Area Director of the area of Macro, Money and International Finance
- Rick van der Ploeg, University of Oxford, Area Director of Public Sector Economics

The international reputation of the area directors has boosted the attractiveness of the CESifo Research Network, which is reflected in its growing number of members.

CESifo GmbH provides network members with the English-language publications of the CESifo Group. Together with the Ifo Institute, it organises numerous international conferences. The annual Area Conferences provide a platform for lively discussions among network members. As part of each of the Area Conferences, the "CESifo Distinguished Affiliate" prize has annually been awarded to a young economist since 2008. The aim of this prize is to

identify promising young researchers and to establish early links to the CESifo Network.

CESifo Research Network members by research area:

Research area	in %	Number
Applied Microeconomics	14.36	175
Behavioural Economics	7.05	86
Economics of Education	6.48	79
Employment and Social Protection	10.34	126
Energy and Climate Economics	6.07	74
Global Economy	11.98	146
Macro, Money and International Finance	18.05	220
Public Sector Economics	25.67	313

CESifo Distinguished Affiliates of 2015 are:

- Applied Microeconomics:
Daniel F. Garrett, Université Toulouse I Capitole
- Behavioural Economics:
Supreet Kaur, Columbia University, New York
- Economics of Education:
Lesley J. Turner, University of Maryland
- Employment and Social Protection:
Massimo Anelli, Università Bocconi, Milan
- Energy and Climate Economics:
Katinka Kristine Holtsmark, University of Oslo
- Global Economy:
Benedikt Heid, University of Bayreuth
- Macro, Money and International Finance:
André Kallåk Anundsen, Norges Bank, Oslo
- Public Sector Economics:
Dominika Langenmayr, LMU, Munich

The close links between the members of the CESifo Group and external researchers are further strengthened by the CESifo Visitor Programme. In 2015, 26 international researchers were welcomed to Munich in order to initiate or continue joint projects with members of the CESifo Group, and especially with Ifo Institute staff. These guests included Raj Chetty, Harvard University; Andrei A. Levchenko, University of Michigan; Wilhelm Kohler, Eberhard Karls University of Tübingen; Henrik Jordahl, Research Institute

of Industrial Economics (IFN); Randall Reback, Columbia University; Martin R. West, Harvard Graduate School of Education; Eric A. Hanushek, Stanford University – Hoover Institution; Stephan Heblich, University of Bristol; and Lutz Killian, University of Michigan. The significant drop in the number of guests versus last year (2014: 42) was due to the fact that several Ifo department heads were on sabbatical at foreign universities and a large number of post docs were invited to visit renowned universities, mainly in the USA.

The Visitor Programme is closely linked to the evolution of the research network, as a successful visit is typically a prerequisite for any invitation to join the network.

Analysis of Economic Developments in the European Union and Participation in the Debate on European Economic Policy

EU topics are becoming increasingly important for the future of Europe's citizens. The discourse at the European level, which centres on Brussels, is leading to a new political reality that is changing Europe. It is important that economists participate in this discourse, as much of what happens has an economic dimension, costs a lot of money and leads to fiscal redistribution in Europe. CESifo GmbH was founded to provide economic-policy impulses at the European level and the latter's importance is growing steadily.

As part of CESifo's activities, numerous documents have already been released in past years that engage critically with possible developments in the EU, and especially in the euro area. Network members, as well as CES and Ifo staff, have engaged intensively in the European debate, which is gradually shaping a new form of state.

A particularly important role in this debate has been played by **the European Economic Advisory Group at CESifo**. The EEAG is a European council of economic experts that provides policymakers and the general public with an independent and scientifically-based assessment of on current economic developments in the EU. The EEAG is unique in both its composition and its focus. This year's council members are outstanding

economists from several European countries and the USA, namely:

- Torben Andersen, Aarhus University
- Giuseppe Bertola (Vice-Chairman), EDHEC Business School, University of Turin
- John Driffill (Chairman), Birkbeck College, University of London
- Harold James, Princeton University
- Hans-Werner Sinn, LMU Munich – Ifo Institute
- Jan-Egbert Sturm, KOF, ETH Zurich
- Branko Urošević, University of Belgrade

The EEAG releases an annual report in which it not only analyses the current state of the European economy, but also provides an in-depth evaluation of several other economic-policy issues of topical importance for Europe.

The 2016 EEAG report explores issues associated with equity between generations, educational policies in Europe, the possible role of Denmark as a model for Europe, and the Western Balkans, in particular the conditions for, and effects of, potential EU membership. Released on 22 February 2016, it also provides a thorough analysis of, and forecast for, the world's major economies.

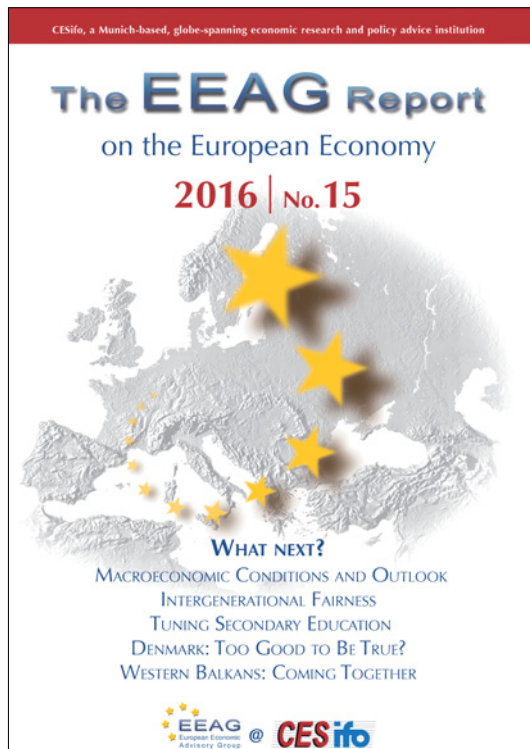
As in previous years, the EEAG Report was presented at press conferences in a number of European capitals, and was made available to policymakers and experts in science, economics, and politics throughout Europe.

Various Ifo research centers contribute to the report with background research, as well as editing and typesetting. The European economic forecast is prepared almost entirely by the Ifo Institute. The EEAG also draws on the **Database for Institutional Comparisons in Europe (DICE)** compiled by the Ifo Institute. The **Munich Economic Summit** is a joint initiative of the BMW Foundation Herbert Quandt and the CESifo Group Munich, held in cooperation with two leading European newspapers – *The Times* and *Handelsblatt* – and with the support of leading European institutions

[EEAG 2016](#)

and businesses. Aimed at bringing together academic scholars and decision-makers in politics, business and finance, as well as media representatives, to discuss vital European topics, the Summit is a widely acknowledged forum for the substantive discussion of European policy issues.

EEAG Report on the European Economy 2016



The 2015 Summit was devoted to competitiveness and innovation, the latter both productive and social, and to looking for ways to foster both as the only viable strategy to stay ahead of competitors. Speakers included French Prime Minister Manuel Valls, EU Vice-President Valdis Dombrovskis, EU Commissioner Günther Oettinger, Huawei CEO Ken Hu, and SAP CEO Bill McDermott, amongst others. The 2015 Summit was made possible by the generous support of UBS Germany, Roland Berger Strategy Consultants, PWC, Swiss Re, Norton Rose Fulbright, and Brähler ICS.

The **Munich Seminars**, jointly organised by CESifo and the *Süddeutsche Zeitung*, one of Germany's leading dailies, are also part of the regular event calendar.

Their popularity among invited guests from business, public administration, academia and the press demonstrates the great demand for accessible discussion of economic problems and solutions. In 2015 a total of 18 Munich Seminars were organised. Highlights of the series in 2015 included seminars by Václav Klaus, President of the Czech Republic from 2003 to 2013, Dr. Jens Weidmann, President of the Deutsche Bundesbank, Professor Motoshige Itoh, President of the National Institute for Research Advancement (NIRA), Prof. Yanis Varoufakis, former Minister of Finance of Greece, and Timotheus Höttges, CEO of Deutsche Telekom AG.

Full reports on all Munich Seminar lectures are published in the *Süddeutsche Zeitung*, making their findings accessible to a wide readership. This, in turn, enhances the standing of the Munich Seminars and helps attract renowned personalities for future presentations.

Conferences and Events

As in past years, a major focus of the activities of CESifo GmbH was the organisation and administration of academic **conferences**. With the goal of strengthening Munich's standing as a science and research location and supporting empirical and theoretical research in economics, CESifo organised 23 scientific conferences and events in 2015.

CESifo hosts two categories of conferences. In addition to the established annual area conferences relating to the individual areas of the CESifo Research Network, CESifo also hosts conferences that are initiated and supported by network members and deal with topical issues in the field of economic research. These include the CESifo Venice Summer Institute, as well as large policy-oriented conferences such as the Munich Economic Summit.

The **Musgrave Lecture** in honour of Richard Musgrave was a special highlight in 2015. The associated prize is awarded to an internationally renowned economist working in the area of public finance, following a selection by the President of the Ifo Institute and the President and Vice-Presidents of the International Institute of Public Finance (IIPF). Professor Raj Chetty,

William Henry Bloomberg Professor of Economics at Harvard University, was awarded the prize in 2015 and delivered a lecture on “Behavioral Economics and Public Policy: A Pragmatic Perspective”.



Award of Richard Musgrave Visiting Professorships to Raj Chetty (centre) by Hans-Werner Sinn (President CESifo, right) and Michael B. Devereux (IIPF President, left)

The CESifo **Venice Summer Institute** has become a tradition in the CESifo event calendar and has earned a solid reputation among international economists. In 2015, the Venice Summer Institute comprised of five workshops, dealing with the following topics:

- “International Currency Exposure”, organized by Yin-Wong Cheung and Frank Westermann
- “The World Trade Organization and Economic Development”, organized by Ben Zissimos
- “New Developments in Global Sourcing”, organized by Wilhelm Kohler and Erdal Yalcin
- “Rethinking the Need for a Fiscal Union in the Eurozone”, organized by Roel Beetsma and Shafik Hebous
- “The Economics of Entrepreneurship: Bringing the Entrepreneur Back into Economics”, organized by Oliver Falck, Stephan Heblich and Olmo Silva

In 2015, CESifo also organised eight area conferences:

- CESifo Area Conference “Macro, Money and International Finance”, February 2015
- CESifo Area Conference “Applied Microeconomics”, March 2015

- CESifo Area Conference “Public Sector Economics”, April 2015
- CESifo Area Conference “Employment and Social Protection”, May 2015
- CESifo Area Conference “Global Economy”, May 2015
- CESifo Area Conference “Economics of Education”, September 2015
- CESifo Area Conference “Energy and Climate Economics”, October 2015
- CESifo Area Conference “Behavioural Economics”, October 2015

In addition, CESifo assisted partner organisations with several of their scientific events including:

- “FDI & Sustainable Development”, with UNCTAD and Federal Ministry for Economic Affairs and Energy, April 2015
- “Workshop on Public Opinion and the Political Economy of Education”, with Ifo and PEPG at Harvard Kennedy School, May 2015
- “CEMIR Junior Economist Workshop on Migration Research”, with Ifo, May 2015
- “CESifo-Delphi Conference: Current Account Adjustments”, with Athens University, May 2015
- “Re-Thinking Sovereign Debt”, with CES and JAPONICA, July 2015
- “Pension Taxation, Population Ageing and Globalisation”, with CEPAR, Australia, September 2015
- Norwegian German Seminar, with Norwegian Center for Taxation at NHH, and Oslo Fiscal Studies at UiO, November 2015
- “Ifo Dresden Political Economy Workshop”, with TU Dresden and Ifo Dresden, November 2015
- “Ifo Survey Data”, with Ifo, December 2015

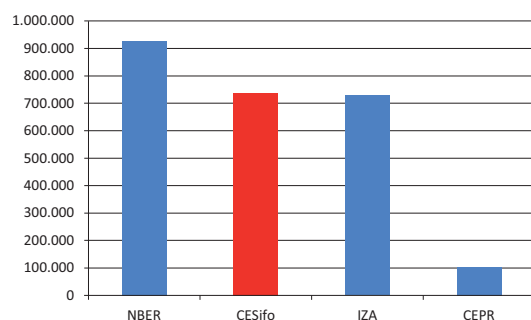
These international conferences benefit the CESifo Group in two ways: firstly, they offer CESifo Group researchers an opportunity to interact with researchers from all over the world and establish co-operations; and secondly, the events promote the international reputation of the CESifo Group.

Publications

CESifo has developed a number of publications aimed at contributing to the discussion of economic issues in Europe. An important role is played by the **CESifo Working Paper Series**, which disseminates the early-phase findings of academic research conducted by network members, making them available for professional discussion.

In 2015, a total of 539 papers were published in this series. All papers are distributed electronically to a large number of libraries throughout the world. More importantly, they are disseminated worldwide via CESifo Group's website and various online databases. This year the CESifo Working Paper series clocked around 64,998 downloads through SSRN (Social Sciences Research Network), 40,333 downloads through RePEc, the world's largest online repository of economics publications, and nearly 108,500 downloads through Econstor, the Open Access server of the German National Library of Economics – Leibniz Information Centre for Economics by mid-October.

Cumulative Working Paper Downloads of the Leading International Research Networks Through the Social Sciences Research Network (SSRN) since its Inception in 1995



The **CESifo Newsletter**, distributed electronically, provides up-to-date information and commentary for a wide spectrum of readers, ranging from academics to members of the European Commission and the media. It also reports on CESifo events and provides articles on selected CESifo Working Papers in a form that is easily accessible to the non-specialist reader.

The **CESifo Seminar Series with MIT Press** publishes refereed contributions from selected CESifo conferences. In 2015, three new books were published on “Emissions Trading Systems as a Climate Policy Instrument”, “Political Economy and Instruments of Environmental Politics” and “The Economics of Infrastructure Provisioning”.

In addition, the **CESifo Book Series with MIT Press** is the series for monographs, which are typically “tandem projects” between internationally renowned economists from the CESifo Network and researchers from the Ifo Institute or the Center for Economics Studies. All books cover a topical policy issue in economics and are subjected to a careful, multi-stage refereeing process. The most recent book in this series was published in early 2015 and is on “The Knowledge Capital of Nations”. It is a tandem project between Eric Hanushek, Stanford University, and Ludger Woessmann, ifo.

The **CESifo Group website** is a portal of choice in its field. It contains a wealth of information on the entire range of products and activities of the CESifo Group in German and English, documents the combined research output of CES, Ifo and CESifo as far as conferences, seminars and publications are concerned, and offers a wide spectrum of further topics that are of interest to economists, politicians and the business community. More detailed information on the website is provided in the Press, Publications, Conferences section.

In short, the research cooperation between the Ifo Institute, the LMU and the international scientific community continued to flourish very successfully in 2015. The CESifo Group provides a unique platform in Europe for exchange among economists and for public discourse. It has now secured an outstanding international reputation that extends well beyond European borders. In light of the epochal changes that are taking place in the EU, this kind of platform is now more important than ever before.

Further details of CESifo's activities can be found in the German online version of the Annual Report on pages 228–246 (<http://www.cesifo-group.de/Jarhesbericht>).

539 CESifo Working Papers published in 2015

Conferences, Publications and External Relations of the Ifo Institute

Information on the Ifo Institute's events, publications, teaching activities and links to institutions/individuals, as well as further details of CESifo's activities can be found in the German online version of the Annual Report on pages 163–246 (<http://www.cesifo-group.de/Jahresbericht>).

Conferences

Besides regular events, like the Annual Meeting, Euroconstruct, Ifo Industry Colloquium (*ifo Branchen-Dialog*), a number of special conferences, workshops and press conferences were held during 2015. These included:

- Workshop on “Policy Scenarios for the Future of the European Electricity Sector”
- Workshop on “Economic Reform Agenda for Sustainable Growth and Employment Generation”
- Workshop on “Labour Market and Social Policy”
- Research seminar on “Economics of Education”
- “EGIT – Economic Geography and International Trade”
- Conference on “Foreign Direct Investments”
- Workshop on “Public Opinion and the Political Economy of Education”
- Symposium on “Turnaround in Energy Policy: Consequences for Germany”
- Workshop on “Economic Reform Agenda for Sustainable Growth and Employment Generation”
- Workshop on “Economics of Education”
- Workshop on “Assessing the Green Paradox”
- Workshop on “Political Economy”
- Workshop on “Macroeconomics and Business Cycle”
- Conference on “25 Years of German Unity”
- Conference on “Macroeconomics and Survey Data”
- Conference on “International Migration and Europe”

Lunchtime Seminars are held on a weekly basis. They serve the purpose of putting current research and new economic developments up for discussion. Par-

ticipants are researchers from the Ifo Institute, CES, the University of Munich and CES visitors.

In 2015 a large number of Ifo staff members gave 146 papers and presentations at external conferences.

Publications

Ifo publications include:

- *ifo Schnelldienst* – a journal on policy issues, research results and forecasts; twice monthly
- *ifo Konjunkturperspektiven* – a monthly publication presenting in detail the results of the Ifo Business Survey
- *ifo Dresden berichtet* – a bi-monthly report on the economy, structure and economic policy in the State of Saxony
- *CESifo Forum* – a quarterly English-language magazine focusing on major current topics of international interest, including European policy issues and economic trends
- *CESifo DICE Report* – a quarterly English-language journal for institutional comparisons
- *CESifo World Economic Survey* – a quarterly English-language journal publishing the results of the Ifo Institute's quarterly poll of international economic activity
- *CESifo Economic Studies* – a quarterly refereed journal in economics
- *ifo Beiträge zur Wirtschaftsforschung* – a series in which important research projects of the Ifo Institute are published
- *ifo Forschungsberichte* – other studies of the Institute are documented in this series and made available to the public
- *ifo Dresden Studien* – studies of the Ifo Dresden branch which deals primarily with topics affecting the new German federal states and their eastern neighbours
- *Ifo Working Papers*

Teaching and external relations

A number of Ifo staff taught or presented lectures at universities in 2015:

Christian Breuer (University of Applied Sciences, Erding)

Francesco Cinnirella (University of Munich, University of Bayreuth and University of Barcelona)

Marcus Drometer (University of Munich)

Oliver Falck (University of Munich)

Gabriel Felbermayr, (University of Munich)

Xenia Frei (Dresden University of Technology)

Christa Hainz (European Fourm Alpbach)

Alexandra Heimisch (University of Munich)

Julia Heller (Dresden University of Technology)

Steffen Henzel (University of Applied Sciences, Munich)

Christian Holzner (University of Munich)

Björn Kauder (University of Munich)

Meinhard Knoche (University of Applied Sciences, Weihenstephan-Triesdorf)

Johannes Koenen (University of Munich)

Philipp Lergetporer (University of Munich)

Volker Meier (University of Munich)

Chang Woon Nam (University of Applied Sciences, Erding)

Till Nikolka (University of Munich)

Natalie Obergruber (University of Munich)

Marc Piopiunik (University of Munich)

Karen Pittel, University of Munich)

Niklas Potrafke (University of Munich)

Panu Poutvaara (University of Munich)

Helmut Rainer (University of Munich)

Felix Rösel (Dresden University of Technology)

Jens Ruhose (University of Munich)

Judith Saurer (University of Munich)

Bastian Schulz (University of Munich)

Hans-Werner Sinn (University of Munich)

Johannes Steinbrecher (Dresden University of Technology)

Marcel Thum (Dresden University of Technology)

Lars Vandrei (Dresden University of Technology)

Simon Wiederhold (University of Munich)

Ludger Wößmann (University of Munich)

Klaus Wohlrabe (University of Munich)

Timo Wollmershäuser (University of Munich)

The Ifo Institute was host to 40 visiting researchers from a variety of countries. 58 students in Munich and nine students in Dresden were able to gather initial experience in empirical economic research.

Personnel, Finances and Organisational Bodies



Personnel Development

Personnel Development

The most important personnel matter for the Ifo Institute in 2015 was the search for a successor to Ifo President Hans-Werner Sinn, due to retire on 31 March 2016, via the joint appointment procedure of the University of Munich (LMU) and the Ifo Institute. To this end, the Ifo Institute's Administrative charged a coordination group led by Council Chairman Peter-Alexander Wacker with the task of preparing the official appointment and/or selection procedure for the future president in compliance with German civil service regulations; and in particular to identify potential successors to Prof. Sinn. Following the successful completion of the process of finding a successor, for which the University of Munich's Presidential Board set up a high-ranking, international selection committee, the Administrative Council of the Ifo Institute designated Prof. Clemens Fuest as the new President of the Ifo Institute as of 1 April 2016 in its meeting on 20 May 2015. The presidency is linked to a professorship at the economics faculty of the University of Munich.

There were no changes in Ifo's research department heads in 2015. The Ifo Institute's eight research centers are headed by professors who are jointly appointed by the Ludwig Maximilian University of Munich (LMU) and hold a chair at the LMU parallel to their position as head of an Ifo Research Center. The Ifo Centers for Industrial Organisation and new Technologies, as well as for Business Cycle Analysis and Surveys, whose previous heads resigned in 2014, continued to be led by interim department heads in 2015 to enable the new Ifo President to have a say in their appointment.

Leading academics from the Ifo Institute receive offers from domestic and foreign universities every year. In 2015 Prof. Oliver Falck, Interim Director of the Ifo Center for Industrial Organisation and New Technologies, refused an offer from the Christian Albrecht University of Kiel. Dr. Steffen Henzel, a researcher at the Ifo Center for Business Cycle Analysis and Surveys, accepted an offer from the Hochschule für angewandte Wissenschaften in Munich.

Trends in Employee Numbers

The total number of staff employed at the Ifo Institute on the reference date of 31 December 2015 rose by seven persons versus the previous year to 197. Five of these additional new employees were academic staff recruited by Ifo's research centers (researchers, doctoral students and specialists). Although the number of researchers fell by one person, six doctoral students joined the institute, meaning that a total of 46 doctoral students were employed by the Ifo Institute on 31 December 2015. The number of specialists remained unchanged. Specialists are academically-trained staff who are appointed to central positions at the interface between research and services that require a high degree of staff continuity. Like last year, 20 clerks and technical staff employed by the centers. A total of 53 employees were employed in Ifo Institute infrastructure on the reference date of 31 December 2015, which was 2 higher than the previous year's figure. The number of trainees remained unchanged at 3.

The number of part-time staff increased by 5 to 89 persons. This increase can be attributed to growth in the number of doctoral students, as the number of part-time staff remained unchanged in all other staff groups. The doctoral students and researchers (post-docs) employed by the Ifo Institute are given fixed-term contracts in line with Academic Fixed-Term Contract Law. They can only be given indefinite contracts for really outstanding scientific achievements and if further requirements are satisfied. The conditions for this procedure are set out in guidelines by the Executive Board. These career guidelines also specify the conditions that must be satisfied to move into a higher compensation category. Overall, the number of limited duration contracts rose by four to 85. With one exception, this increase only applies to the research departments. The share of fixed-term contracts among academic staff (including the doctoral students) declined slightly from 77.9% in 2014 to 77%. Specialists only have fixed-term contracts when they are employed to cover staff on leave. As in 2014, there were no fixed-term contracts among the institute's clerks and assistants in 2015. The number of persons with fixed-term contracts as a share of total staff remained almost the same (2014: 42.6%; 2015: 43.1%).

Six additional doctoral students joined Ifo in 2015

Ifo comes closer to gender-balance goal

The number of women at the Ifo Institute rose by nine to 102. This took the number of women as a share of total employees to 51.8%, which edged over the 50% marker for the first time ever (2014: 48.9%). The increase in the share of women was mainly due to the higher number of female doctoral students at the institute, which increased from 37.5% to 47.8%. This means that Ifo has almost achieved its long-term goal of striking a gender balance among doctoral students. This means that the Institute is more likely to continue to employ female academic staff as researchers after they have successfully completed their doctoral thesis. Ifo therefore stands a better chance of boosting the number of female post-docs at the institute, which barely changed in the reporting year (2015: 18.5% versus 2014: 18.2%). There were still more women than men among the institute's specialists on 31 December 2015, despite the fact that the share fell from 57.1% to 52.4%. Among Ifo's infrastructure employees the number of women among non-scientific staff fell by one and rose by two among trainees.

Another of the Ifo Institute's personnel policy goals is to gradually increase the number of post-docs as a share of total academic staff to 100%. In the reporting year this share increased from 81.8% to 90.7%. If doctoral students are included in the figure, a total of 95% of academic employees (2014: 89.5%) either held a doctorate, or were working on their doctoral thesis on the reference date of 31 December 2015. There was an increase in the share of professors and researchers with their habilitation, which rose from 21.8% in 2014 to 24.1% in 2015.

Ifo boasts increasingly international staff mix

The international orientation of the Ifo Institute is also reflected in the fact that a growing share of scientific staff are either foreigners, or Germans who have previously held a position or studied abroad and have returned to take up a position at the Ifo Institute. On the reference date of 31 December 2015 this figure rose by 3 persons from 21 to 24. Four of the heads of Ifo's research centers are foreign or held positions in foreign universities before being appointed by the Ifo Institute. Moreover, there were also nine foreigners (2014: eight/seven) and three "returnees" (2014: two). Like last year, five doctoral students are foreign and another three (2014: two) studied abroad before

being appointed by the Ifo Institute. This means that 24% (2014: 22.1%) of Ifo's academic staff were foreigners or Germans who had previously held a position or were studying abroad prior to joining the Institute.

Number of Staff at Year-End of 2015 and 2014

	Total staff		Women	
	2015	2014	2015	2014
Research and service				
Scientific staff	54	55	10	10
Doctoral students	46	40	22	15
Specialists	21	21	11	12
Technical staff/assistants	20	20	19	19
Infrastructure				
Non-scientific staff	53	51	37	36
Of which staff with management responsibilities**	12	12	8	8
Trainees	3	3	3	1
Total	197	190	102	93
	Part-time workers		Limited duration contracts	
	2015	2014	2015	2014
Research and service				
Scientific staff	13	13	31	34
Doctoral students*	45	40	46	40
Specialists	4	4	1	1
Technical staff/assistants	12	12	0	0
Infrastructure				
Non-scientific staff	15	15	4	3
Of which staff with management responsibilities**	3	3	1	1
Trainees	0	0	3	3
Total	89	84	85	81
	Post-docs/habilitations, professors		Of which women	
	2015	2014	2015	2014
Scientific staff	49/13	45/12	6/1	5/1

* Without guest doctoral students. – ** Non-scientific staff compensated according to TV-L E 13 and upwards.

Further Education for Researchers

The Ifo Institute is a very attractive employer for policy-oriented research economists. It does everything in its power to attract excellent researchers by providing the ideal conditions for excellent performance. Creating a productive environment for top researchers is a comprehensive strategic task that goes beyond personnel policies and instruments. This applies, for example, to the close cooperation with universities, which is a precondition for the joint appointment of Ifo department heads as mentioned

initially, to international orientation and cooperation, as well as to the recognition of special achievements through bonuses. Meanwhile, the central sphere of activity is the consistent support of scientific profile formation of the researchers employed in the institute at all levels, which includes making contacts with other researchers from around the world, and, above all, promoting a culture of discussion at a very high scientific level within the institute. The foundations for this comprehensive strategy for scientific and professional further qualification in the Ifo Institute are laid by a works agreement.

Another important element of further education is the promotion of young academics. Ifo's programme for junior economists aims to promote the next generation of young scientists in the field of empirical economic research. This training lays the foundations for both an academic career and for a practice-oriented role in business or public administration. Only a small percentage of doctoral students have the opportunity to continue their professional career at the Ifo Institute. That is why Ifo's Executive Board offers strong support with their next career move to doctoral students who complete their PhD at the Ifo Institute.

The high level of the graduate training now offered by the Ifo Institute is shown by the huge range of peer-refereed scientific publications that Ifo doctorates contribute to year after year. The high number of doctoral students active at the Ifo Institute, which Ifo will strive to maintain high, was financially possible thanks to a series of DFG projects, successful bids in the competitive tendering process of the Leibniz Association (SAW projects) and projects financed by private foundations (including Deutsche Telekom Foundation, Thyssen Foundation). Doctoral students receive support not only from their respective department heads and post docs, but also from "doctoral student officers" with cross-department responsibilities. Dr. Marc Piopiunik and Dr. Timo Hener, both former doctoral students at the Ifo Institute, are highly dedicated to this task. In the reporting year the Executive Board decided to increase the compensation of doctoral students. As of September 2015 almost all doctoral students had 75% positions.

Integrating doctoral students in empirical research and in work on policy-oriented projects strengthens the empirical side of their economic education. As a rule, they complete their doctorates at the Economics Faculty of the University of Munich, become members of the Munich Graduate School of Economics and also attend graduate school courses there. In addition to many other interested members of the Ifo staff, the doctoral students all attend the lunchtime seminars of the Center for Economic Studies and the Ifo Institute. The regular research seminars held within each department also play an important role for doctoral students.

The joint appointment of all departmental heads as professors at the University of Munich has made it possible for almost all Ifo doctoral students' work to be supervised by their department heads. The situation is similar at the Dresden branch of the Ifo Institute since its Director holds a chair at the Technical University of Dresden (TUD) and his Deputy Director, Joachim Ragnitz, has an honorary professorship there.

Supported by department heads and experienced post-docs, the students are introduced early on to presenting research findings at international forums. Presentations at high-level economic conferences with selection procedures prepare the young academics at an early stage of their career to publish articles in internationally renowned refereed journals. Despite a limited travel budget, Ifo researchers gave 146 presentations at top conferences. The further qualification of doctoral students is also supported by internal training seminars, professional editing of English-language papers and participation in external summer schools and workshops. Doctoral students can also take advantage of supplementary training measures. Courses on assertion and conflict resolution, and communication and presentation training, for example, were offered. Ifo also organised customised training measures like, for example, on the preparation of deep econometric work. Sixteen male Ifo researchers and four female researchers are currently working on their habilitation.

Several researchers at the Ifo Institute teach at universities with which Ifo cooperates closely, which gives them the opportunity to constantly revise and

Seminars enable doctoral students to exchange views

Ifo offers students customised training

Ifo staff gave 93 university lectures in 2015

expand their own expert knowledge base. In the summer semester 2015 and in the winter semester 2015/2016 93 university lectures were given by Ifo staff. This is particularly advantageous for the subjects that are empirically oriented. Additionally, all researchers at the Institute are given the opportunity to keep abreast of research developments by attending the appropriate lectures and seminars at the University of Munich. An important contribution to the exchange of new research ideas is provided by the weekly lunchtime seminars – a forum for the discussion of current research and research findings as well as new developments in economics. Speakers and attendees are primarily from the Ifo staff and the University of Munich. In addition, two annual internal conferences are held at which Ifo researchers can present their new work, or use the events to prepare for submitting papers to peer-reviewed journals or international conferences.

Academic competence is developed primarily in research projects. Here, internal Ifo competence is extended in cooperation with external experts. Guest researchers play a special role in this respect. The number of guest researcher stays totalled 43 in 2015 (2014: 47). This decline compared to previous years was mainly due to the fact that several Ifo department heads themselves took research leave at foreign universities and a higher number of researchers were granted several months of leave to conduct research at top American universities (including Harvard, Princeton, Stanford). Research stays at top universities benefit the academic performance of Ifo's research departments, since the academics on leave can further deepen their academic expertise during their research stays abroad, can pave the way for new joint projects with foreign co-authors and, at the same, can continue to work on their ongoing projects.

Research stays abroad boost academic performance

The promotion of junior economists begins in the Ifo Institute with the employment of interns. Their importance for the institute should not be underestimated, since former interns often apply successfully for posts as doctoral students. A total of 76 interns gained their first experiences of empirical economic research in 2015 (2014: 76). Almost half were female students (2015: 49.3%; 2014: 42.1%). With its high

share of women among interns the Ifo Institute wishes to interest as many women as possible in applied and policy-oriented economic research in order to increase the long-term number of female applicants for doctoral positions.

Further Education for Non-Researchers

The further education of staff working in the non-research areas also has a high priority for the Institute. The above-mentioned agreement with the Works' Council regulates all aspects of the professional education of non-research personnel. The further education of non-research staff is aimed at providing them with the optimal qualifications for managing their current tasks and preparing them for future ones, thereby insuring that their individual qualifications keep pace with the demands of their respective positions.

To this end the qualification requirements of all staff members are systematically surveyed at the beginning of each year. Overall, 166 further training measures were approved in 2015, of which 132 were also conducted in that year. Some of the training measures had to be postponed until 2015 or were cancelled due to illness. A large share of the training measures requested are usually in the field of computers, whereby the focus lies on schooling for the specific IT requirements of individual employees. These measures were complemented by further training for doctoral students and junior economists cited above. Customised courses were also organised to deal with challenges encountered in individual roles. Further qualification related to innovation and problem solving and can be directly integrated into professional activities, is becoming increasingly important. This takes place both individually (in the form of individual coaching, for example) and in teams (in the form of workshops or group training).

The Institute also endeavours to promote young staff in the non-academic area. It regularly offers an Office Communication trainee programme. In 2015 two young staff members successfully completed their training. Both left the Institute at the end of their programme to begin studies at university. In September 2015 two new trainees were recruited who are now following the modified: "Office management trainee programme".

Awards

The Society run by the Friends of the Ifo Institute awards prizes to researchers at the institute who have attracted attention thanks to their outstanding scientific achievements. A prize can only be awarded if a scientific article was published in an internationally renowned peer-refereed journal. In 2015 this prize was awarded to Prof. Oliver Falck, Director of the Ifo Center for Industrial Organisation and New Technologies, for his article: "E-lections: Voting Behavior and the Internet", which he published together with Stephan Heblich and Robert Gold in the *American Economic Review* 104(7), 2014.

The annual prize outstanding achievement in third-party research was not awarded in 2015. Instead the Ifo Institute awarded four special prizes for special achievements that were not directly linked to specific third-party funded projects. The first prize went to Horst Penzkofer, a researcher at the Ifo Center for Industrial Organisation and New Technologies, for his numerous expert reports on the impact of trade fairs commissioned by the German Messewirtschaft. Mr Penzkofer has been working alone on these expert reports for years and has established himself as the branch's "Trade fair pope". The second special prize went to the former doctoral student Erik Hornung, who has now left the Ifo Institute. He received a prize for writing the paper: "Immigration and the Diffusion of Technology: The Huguenot Diaspora in Prussia", which was published in the *American Economic Review* 104(1), 2014, during his time as a doctoral student at the institute. The special third prize went to the project team consisting of Prof. Ludger Wößmann, Ulrike Baldi-Cohrs, Marc Piopiunik, Jens Ruhose and Ruth Maria Schüler from the Ifo Center for the Economics of Education for their continuous supervision of the "European Expert Network on the Economics of Education" (EENEE) since 2003 on behalf of the European Commission. Finally, as the fourth special prize, all members of the CESifo GmbH team were invited to attend a dinner to thank them for their valuable support in organising prestigious international events over the past 16 years.

The Ifo Institute has actively promoted equal opportunities for men and women for many years. In this area the Executive Board is supported by an equal

opportunity officer in Munich and a woman's representative at the Dresden Branch. The current equal opportunities plan, which is valid until autumn 2017, is primarily aimed at gradually reducing the under-representation of women at all levels of the scientific career ladder. Improving the working conditions and the advancement, especially of female researchers with young children, and generally improving the chances for professional development by means of further qualifications are intended to make work at the Ifo Institute more attractive and to increase the share of women on the research staff. Ifo's internal rules on equality also form part of its certified management system, which is annually audited by external auditors. This means that the continued certification of Ifo's management system depends on the monitoring and continued further development of rules on equality.

The Ifo Institute is particularly keen to qualify female researchers for management positions in academia. It expressly supports the application for projects in the Leibniz tendering process that serve to promote women to leadership positions in academia. This Leibniz line of funding aims to particularly increase the likelihood of the respective female project/working group heads being appointed as W2 or W3 positions. The Ifo Institute was successful with such project applications in the Leibniz tendering procedure of 2015 and 2016.

The promotion of equal opportunities for men and women with scientific positions also supports the setting of flexible target quotas along the lines of the cascade principle of research oriented equality standards established by the Deutschen Forschungsgemeinschaft (DFG). At the recommendation of the Leibniz Association, the Ifo Institute anchored this kind of flexible target quota for the compensation levels of senior scientific staff in its programme budget, which forms the basis of its institutional support by the federal government and the Länder. The time frame for these target quotas extends until 2017.

As already mentioned above, Ifo increased its share of female researchers in 2015 and the number of male and female doctoral students almost balanced out in 2015. Dr. Christa Hainz, an experienced researcher from the Ifo Center for International Insti-

Equality remains top priority

Flexible target quota introduced for senior staff

tutional Comparisons and Migration Research, helps Ifo's Executive Board to improve the general conditions for female doctoral students' activities in her role as mentor for female doctoral students. She is their contact person and deals with the special issues of young female economists like for example, qualification events that are exclusively aimed at female doctoral students.

The availability of part-time positions remains a key component of the family-friendly organisation of work at the Ifo Institute. The number of part-time positions did not rise quite as strongly as the total number of staff (part-time staff: +5, total staff: +7). The number of women as a share of part-time employees was 65.2%. If doctoral students are excluded from the number of part-time positions, then this figure was as high as 81.8% (2014: 79.5%). The Ifo Institute will also continue to offer part-time employment so that its employees are given the opportunity to combine a career with having a family more effectively.

The option of tele-working is also part of the family-friendly organisation of work at the Ifo Institute. The framework conditions for tele-working are laid out in a works agreement, which also covers its offer to staff on parental leave to continue to use the opportunities provided by the institute for further training. To enable parents to resume their careers swiftly, the Ifo Institute signed a cooperation agreement in 2013 with a municipal operator of child care facilities on corporate childcare. The institute finances the prospective entitlement to three places for children that are offered to its employees. At the moment three Ifo staff members enjoy a nursery place at a reasonable municipal price.

An important contribution to equal opportunity at the Institute is that women are increasingly being appointed to the various boards. In the Administrative Board, the supervisory body of the Ifo Institute, this is not determined by the Institute as the majority of seats are linked to an external function. Nevertheless, 40% of the Administrative Board members, who are chosen at the Annual Meeting, are women. The Scientific Advisory Council, which formerly was comprised only of men, also now has two respected fe-

male academics. Three of the nine members of the Ifo User Advisory Council are women and 12 members of the Ifo Institute's Board of Trustees (total: 72) are now women.

The Institute's cooperation with the Dual Career Offices of the Munich universities is also important for both sexes. This service is becoming increasingly significant in terms of attracting renowned researchers to the institute. Moreover, support from the Dual Career Office of the Technical University of Munich has already met with success.

Number of part-time staff continues to grow

Ifo welcomes more women onto its boards

Financial Development

The Ifo Institute is a non-profit institution that aims to serve academia and research. The Ifo Institute's objective is to provide research and services as public goods, and not to generate financial profits. This also applies to contract research conducted on behalf of state or private institutions. Ifo's findings are also made public, which strengthens the foundations of all of the Institute's work. The Institute's financial strategy aims to achieve a balanced long-term cost and earnings structure that permits a large service and research output that benefits the general public. Sufficient financial reserves help offset income fluctuations and allow a flexible reaction to special demands.

Summary of key developments

The Institute's financial statement for 2015 shows a surplus of 187 thousand euros. This was channelled into reserves, increasing the Institute's assets to a total of 2,069 thousand euros as of 31 December 2015.

In 2015 the Ifo Institute received public funds totalling 10,493 thousand euros as part of research promotion based on Art. 91 b Basic Law (German constitution). Of this amount 10,178 thousand euros was used for current operations and 315 thousand euros was used for investment. The funds for current operations include 510 thousand euros in special funding for a four-year limited period to build up the Energy, Climate and Exhaustible Resources research area. A cash balance of 500 thousand euros, which was accumulated in 2014 and carried over into 2015, also remains at the disposal of the Ifo Institute. The sum of 10,843 thousand euros in institutional funding was granted to the Ifo Institute in 2015, of which 350 thousand euros was not used. Thanks to savings, particularly in terms of personnel expenditure, and to high income from commissioned activities, the Institute did not need to use 850 thousand euros of its institutional funding. This sum was accumulated in a cash balance that will be carried forward to next year.

Assets and Finances

The balance sheet total rose by 176 thousand euros (+2.6%) versus last year to 6,855 thousand euros. On the asset side, this was due to the fact, that within the floating as-sets, short-term receivables and accruals and deferred income increased by 1,626 thousand euros, while other asset items fell (fixed assets –34 thousand

euros, inventory –377 thousand euros, liquid funds –1,039 thousand euros).

On the liabilities side, an increase was seen in both the Institute's assets (+187 thousand euros) and in provisions (+1,109 thousand euros). There was, by contrast, a decline in liabilities vis-à-vis banks (–5 thousand euros), down-payments received (–415 thousand euros) and other liabilities (–700 thousand euros).

From the annual surplus of 187 thousand euros, 171 thousand euros was channelled off into research reserves, bringing the latter up to a total of 1,281 thousand euros by 31.12.2015. Voluntary payments beyond membership fees, which are managed by the Ifo Institute's Administrative Council, amounted to 16 thousand euros. This sum was added, in accordance with the Ifo statutes (Art. 4. Sec. 2), to the earmarked reserves, which totalled 788 thousand euros. This increased the Institute's assets to a total of 2,069 thousand euros by 31.12.2015.

Assets rose

Balance Sheet of the Ifo Institute for 2015 in
Thousand Euros (abridged version)

	31.12.2015	31.12.2014
Assets		
<i>Fixed assets</i>	163	197
<i>Current assets</i>		
Inventory	590	967
Receivables and accruals	2,812	1,186
Liquid funds	3,290	4,329
Total assets	6,855	6,679
Liabilities		
<i>Net worth</i>		
Earmarked funds	788	773
withdrawals/ additions	0 16	0 17
Research reserves	1,281	1,109
withdrawals/ additions	0 171	0 1
<i>Short-term debt</i>		
Reserves	3,445	2,336
Liabilities vis-à-vis banks	10	15
Down payments received	816	1,231
Other liabilities	515	1,215
Total liabilities	6,855	6,679

Liquid funds were available at all times throughout 2015. The stock of liquid assets fell compared to the preceding year by 1,034 thousand euros to 3,280 thousand

euros. Both cash flow from current operations (–997 thousand euros) and cash flow from investment activity (–37 thousand euros) were negative in 2015. This negative cash flow from current operations was due to the retroactive reimbursement of the personnel costs of endowed professorships at the University of Munich.

Income

Operating income grew significantly by 589 thousand euros in 2015 to reach a total of 16,738 thousand euros. The upturn was largely due to an increase in public financial support consisting of the institutional support of the Ifo Institute as part of the collective research funding received from the federal government and the Free State of Bavaria according to Art. 91b Basic Law on the one hand, and the support of the Dresden Branch by the Free State of Saxony on the other. This support increased by 499 thousand euros to 11,223 thousand euros. The cash balance mentioned at the beginning of this report is not included in this sum. It will only enter the annual financial statement when and to the extent that it is used.

Income from third-party activities, comprising of revenue from publications and database services, earmarked subsidies and contract research as well as the corresponding changes in inventory, rose from 5,270 thousand euros in 2014 to 5,366 thousand euros in 2015 (1.8%).

The number of Association members fell from 362 in 2014 to 354 on 31 December 2015. Income from membership fees (obligatory and voluntary) therefore decreased slightly from 155 thousand euros to 149 thousand euros.

The increase in revenues from commissioned activities was accompanied by a corresponding increase in the cost of materials and related services totalling 51 thousand euros versus 2014.

Personnel expenses, by contrast, dropped by 28 thousand euros (0.2%) to 11,655 thousand euros, despite a 2.1% increase in compensation under collective wage agreements as of March 2015. This development in personnel costs was primarily due to a surprising reimbursement of contributions paid to the VBL (Ver-

sorgungsanstalt des Bundes und der Länder) in 2015 amounting to 492 thousand euros. Another reason was that, as in 2014, two scientific management positions were filled by internal staff as an interim solution, leading to savings in personnel costs.

Regular depreciations (54 thousand euros) refer to fixed assets financed out of the Institute's own funds, while unscheduled depreciations (184 thousand euros) correspond to the investment subsidies received in the reporting year from public research funding bodies. Other operating expenses (balanced by other operating income) fell by 40 thousand euros to 2,693 thousand euros.

This means that income exceeded costs by 712 thousand euros (income from on-going business). This was offset by –503 thousand euros in negative neutral and out-of-period results due to a change in provisions. The Institute also had to pay taxes of 22 thousand euros, giving it an annual result of 187 thousand euros.

Profit and Loss Statement of the Ifo Institute for 2015 in Thousand Euros (abridged version)

	31. 12. 2015	31. 12. 2014
Institutional support	11,223	10,724
Earmarked financial support	1,866	1,831
Obligatory membership fees	133	138
Voluntary membership fees	16	17
Income from publications and data bank services, conferences	229	263
Income from commissioned activities	3,651	3,033
Change in stocks of non-invoiced services	–380	143
Operating income	16,738	16,149
Expenditure for material and purchased services	1,440	1,389
Personnel expenditure	11,655	11,683
Regular depreciation	54	36
Unplanned depreciation	184	295
Other operating expenses minus income	2,693	2,733
Operating expenses	16,026	16,131
Operating profit	712	13
Financial profit	0	1
Taxes on income and profit	–22	–5
Neutral income and income unrelated to the accounting period	–503	9
Profit for the year	187	18
Withdrawals from research reserves	0	0
Additions to research reserves	171	1
Withdrawals from statutory reserves	0	0
Additions to statutory reserves	16	17
Profit brought forward	0	0

Upturn in operating
income

Higher revenues from
commissioned activities

For the output that the Ifo Institute produces in research, policy consulting and services as an institution of the Leibniz Association, it receives institutional support from the federal government and the federal states as part of the collective research support according to Art. 91b Basic Law. Institutional support from the Bavarian State Ministry for Economic Affairs, Transport and Technology as well as from the Bavarian State Ministry for Finance and Energy amounted to 10,843 thousand euros. It also had reserves of 500 thousand euros from 2014. The sum of 10,178 thousand euros of available funds was used for day-to-day operations and 315 thousand euros was spent on investments and maintenance. As already mentioned, the funds granted totalling 850 thousand euros were not used, as permitted by the funding guidelines. This sum was accumulated as a cash balance that will be carried forward to next year.

In addition to this basic public support, the Dresden Branch receives separate institutional support from the Free State of Saxony according to Art. 91b Basic Law. After deduction of the surplus, the institutional support of the Dresden Branch by the Saxon Ministry for Economic Affairs and Labour amounted to 730 thousand euros.

The Institute's financial statements were audited by KPMG Deutsche Treuhand-Gesellschaft AG, Munich, and received unreserved certification.

Executive Board

Prof. Dr. Dr. h.c. mult. Hans-Werner Sinn (President)
 Prof. Meinhard Knoche

Ifo Centers for

Business Cycle Analysis and Surveys

Prof. Dr. Timo Wollmershäuser (interim director)

- National and international economic activity forecasts
- Business surveys
- Research in the areas of macroeconomics, forecast methods and survey methodology
- Provision of survey data and methodological competence

Public Finance and Political Economy

Prof. Dr. Niklas Potrafke

- Fiscal federalism and local finances
- Evaluation of fiscal and taxation policy
- Government debt in Germany and Europe
- Political economy

Labour Market Research and Family Economics

Prof. Helmut Rainer, Ph.D.

- Labour economics
- Family economics
- Evaluation studies in the area of social, family and labour market policy and institutions

The Economics of Education

Prof. Dr. Ludger Wößmann

- Education and individual outcomes: labour markets and lifecycles
- Education and long-term development: economic growth and prosperity
- Determinants of education: culture, resources and institutions
- Governance of education: efficiency and equity

Industrial Organisation and New Technologies

Prof. Dr. Oliver Falck

- Industrial organisation and industry-level analysis
- New technologies
- Collection of firm-level and industry-level data

Energy, Climate and Exhaustible Resources

Prof. Dr. Karen Pittel

- Climate and exhaustible resources
- Environment
- Energy

International Economics

Prof. Gabriel Felbermayr, Ph.D.

- Globalisation and labour markets
- Trade costs and trade policy
- Trade and environmental policy

International Institutional Comparisons and Migration Research

Prof. Panu Poutvaara, Ph.D.

- Research on institutions and international comparisons
- Research on migration and coordination of the Center of Excellence for Migration and Integration Research
- Database for Institutional Comparisons In Europe (DICE)
- Publication of the *CESifo DICE Report* and the *CESifo Forum*

Executive Departments

Scientific Staff

Wolfgang Meister

Executive Support Staff

Franca Fogli-Götz
 Barbara Hebele
 Anja Hülsewig
 Caroline Schiller

Quality Management

Johanna Garnitz
 Stefan Sauer

Controlling/Equal Opportunity AGG

Dr. Dorothea Pohlmann

Data Protection

Angela Wagner

LMU-ifo Economics and Business Data Center (EBDC)

Prof. Dr. Ralf Elsas

Prof. Dr. Timo Wollmershäuser (interim director)

International Advisory Projects

Prof. Dr. Siegfried Schönherr

Dresden Branch

Prof. Dr. Marcel Thum (Director)

Prof. Dr. Joachim Ragnitz (Managing Director)

Central Departments

Human Resources

Prof. Meinhard Knoche

Finances and Centralised Services

Sabine Dehof

Information Technology

Christian Pitsch

Library

Petra Braitacher

Press, Publications, Conferences

Prof. Dr. Dr. h.c. mult. Hans-Werner Sinn
 Prof. Meinhard Knoche

Ombudsman

Prof. Dr. Dres. h.c. Arnold Picot