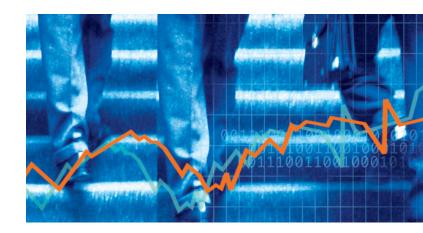
Annual Report 2014



Presented at the 66th Ifo Annual Meeting on 12 June 2015



Published 2015 for the Ifo Institute
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ISSN: 2194-928X

Editor: Marga Jennewein Translations: Lisa Giani Contini Printing: Ifo Institute

Ifo Annual Report 2014

Page
The Goals and Tasks of the Ifo Institute
Report of the Executive Board
The Research and Service Departments
Ifo Center for Public Finance and Political Economy 25
Ifo Center for Labour Market Research and Family Economics
Ifo Center for the Economics of Education
Ifo Center for Industrial Organisation and New Technologies
Ifo Center for Energy, Climate and Exhaustible Resources
Ifo Center for International Economics
Ifo Center for International Institutional Comparisons and Migration Research
Ifo Center for Business Cycle Analysis and Surveys 73
Library
Press, Publications, Conferences
Dresden Branch93
Munich Society for the Promotion
of Economic Research – CESifo GmbH
Conferences, Publications and External Relations
of the Ifo Institute
Personnel, Finances and Organisational Bodies
Personnel Development
Financial Development
Organisation of the Ifo Institute

The Ifo Institute 2014

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 = Information and Forschung (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 I 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 evaluation result is particularly gratifying for the Ifo Institute as the Leibniz Senate and the international group of experts commissioned by it attest to 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 Senate also mentioned that the institute's Executive Board has done "impressive work" in recent years. Ifo's President is one of "Ger-

Research aligned with social goals

Ifo performs strongly in Leibniz evaluation

many's leading academics" who repeatedly succeeded in: "initiating major public debates over a broad range of economic policy issues."

The reorientation of research and services in the Ifo Institute has been a resounding success. 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. It is also worth highlighting the very positive comments made about Ifo's infrastructure services, and especially the significance of personnel management as a key success factor, as well as quality management and cost and performance accounting.

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 I7 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. This enabled Ifo to further consolidate its leading position in economic monitoring. 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

Improvement in quality and quantity of publications

Focus on policy advice

Junior researchers benefit from network effects

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 4,000 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.

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 1,150 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, Constance, 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 51 research professors and 5 research affiliates, research associates and senior research associates (status: 31 December 2014) 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.

Endowment professorships reflect close links to LMU

International research networks proliferate

Joint projects and cooperation with external affiliates

Report of the Executive Board

Death of Prof.
Oppenländer

2014 was the first year following the highly successful conclusion of the evaluation by the Senate of the Leibniz Association and the penultimate full calendar year of the presidency of Prof. Hans-Werner Sinn. Both made their mark on 2014, which was overshadowed by the death of former Ifo President Karl Heinrich Oppenländer. Prof. Oppenländer worked at Ifo for over 40 years, 23 years of which he spent as President. He subsequently supported the Ifo Institute for a further six years as a member of Ifo's Board of Trustees. He died on 29 August 2014 at the age of 82. The Ifo Institute is deeply indebted to Prof. Oppenländer. Its administrative bodies and staff will honour his memory.



Prof. Karl Heinrich Oppenländer

The completion of the evaluation had an impact on 2014 because several Ifo researchers who had post-poned planned research stays at foreign universities during the evaluation phase, took research leave in 2014. A series of post docs and doctoral students were given leave to spend several months, mainly at top US universities. Several department heads also used the post-evaluation phase to take research semesters, which they largely spent at foreign universities.

There was nevertheless no pause for respite in 2014 from a scientific point of view. This was reflected in top publications in leading international journals and by scientific publishing, prizes and the top positions achieved by Ifo in the various rankings of researchers and research institutes in Germany.

The forthcoming change in President influenced key decisions taken by the Ifo Institute in 2014, and particularly decisions related to changes at the depart-

ment head level. The eight research departments of the Ifo Institute - each called the "Ifo Center for ..." - are generally headed by professors who are jointly appointed by the Ifo Institute and the University of Munich (LMU) and, parallel to heading a department at the Ifo Institute, also hold a chair at the LMU. Two research department heads left the Ifo Institute in 2014: after negotiations with the LMU Prof. Tobias Kretschmer was granted permission to expand his Institute for Strategy, Technology and Organisation at the university and therefore resigned as Director of the Ifo Center for Industrial Organisation and New Technolgy in order to focus on his role at the Faculty of Business Administration. In addition, Prof. Kai Carstensen, who headed the Ifo Center for Business Cycle Analysis and Surveys, accepted an offer from the University of Kiel, to focus on his academic research and left the Institute in spring 2014.

It is one of the basic principles - defined by the Leibniz Association in its presidency guidelines - that no decisions are to be made regarding senior academic positions during the three year period preceding a President's departure that bind his/her successor in the long-term. Ifo's Executive Board followed these recommendations and, in view of the forthcoming change in President, decided not to act prematurely by taking such important personnel decisions. Instead, the department head positions were filled on an interim basis. Prof. Oliver Falck was appointed director of the Ifo Center for Industrial Organisation and New Technologies for a period of five years and will prepare this large research department for the next evaluation by the Leibniz Association Senate, which is due to begin in July 2019. Prof. Falck was previously deputy director of the Ifo Center for the Economics of Education and Innovation and was responsible for the research area "innovation economics". In the course of his deprtment transfer, this research area was integrated into the Ifo Center for Industrial Organisation and New Technologies. The department previously known as the Economics of Education and Innovation was renamed the Ifo Center for the Economics of Education as a result of this change. Prof. Ludger Wößmann continued to lead the department. The position of Director of the Ifo Center for Busi-

Research stays at top foreign universities

ness Cycle Analysis and Surveys left vacant by the departure of Prof. Carstensen was filled by Prof. Timo Wollmershäuser, who will head the department on an interim basis until September 2016. After the changeover in President, the procedure to recruit a permanent director for the Ifo Center for Business Cycle Analysis and Surveys will be launched.

Prof. Niklas Potrafke, director of the Ifo Center for Public Finance and Political Economy, also received an offer from the University of Bozen in 2014, which he refused.

Current Ifo President Prof. Hans-Werner Sinn's term in office will end on 31 March 2016, just after he has turned 68 years old. After already extending his term in office by three years over the official retirement age, he has now reached the legal obligatory retirement age. The supervisory bodies of the Ifo Institute and the University of Munich began to tackle the succession issue in summer 2014. A coordination group nominated by the Administrative Council and led by the Chairman of the Administrative Council Peter-Alexander Wacker has since been looking for a suitable candidate.

Looking ahead to the changeover in President, the Ifo Institute's Scientific Advisory Council also began its accompanying evaluation and visited the research areas in 2014. The results of these visits were recorded in audit reports that will feed into an overall report in 2015. This report is to be approved at the Scientific Advisory Council's meeting on 21 January 2016.

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

Research and the Promotion of Junior Economists

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

The number of articles published by Ifo researchers in international, peer-reviewed journals remained at a very high level in 2014. Although the number of peer-reviewed articles published fell to 57 in 2014 from 63 in the previous year, this decline was compensated for by an increase in the number of articles accepted for publication in 2014, but not printed by the end of the year, which rose from 33 in 2013 to 35 in 2014. This took the total number of articles accepted for publication in international, peer-reviewed journals in 2014 up to 92, marking a new record in empirical economic research.

Table 1: Publications in Peer-Reviewed Journals in 2005 to 2014

	2005ª	2006°	2007°	2008°	2009ª	2010ª	2011 ^a	2012ª	2013ª	2014 ^b
Articles in peer- reviewed journals	33	44	45	55	50	44	45	68	63	92 (57)
Of which are in cat- egories A+ to B (as of 2009)	9	16	18	22	15	19	37	31	32	41 (22)

^a Articles published in 2014. ^b Articles published or accepted for publication in 2014 (in brackets).

The number of articles published in peer-reviewed journals is not the only criterion for measuring publication success. The second criterion is the extent to which academics succeed in publishing in high-ranking journals. Table I shows that a high share of articles were once again accepted for publication by journals in the high-ranking A+ to B category. In 2014 the figure was 4I out of 90 articles, or nearly half of all publications.

For several years Ifo researchers have regularly succeeded in publishing in the top 5 academic journals. However, the fact that two articles by Ifo researchers were accepted for publication in the *American Economic Review*, the world's leading economic journal, in 2014, was an exceptional achievement, even for the Ifo Institute. These two articles were:

- Falck, Oliver (with Stephan Heblich and Robert Gold), "E-lections: Voting Behavior and the Internet", American Economic Review 104 (7), 2014, 2238–2265
- Hornung, Erik, "Immigration and the Diffusion of Technology: The Huguenot Diaspora in Prussia", American Economic Review 104 (1), 2014, 84–122

Articles accepted for publication reaches new record

American Economic Review publishes 2 Ifo articles Further publications in top journals in the A+ and A categories included:

- Justin Tumlinson (and Deepak Hedge), "Does Social Proximity Enhance Business Partnerships? Theory and Evidence from Ethnicity's Role in US Venture Capital", in: Management Science;
- Oliver Falck, Ludger Wößmann (and Stefan Bauernschuster), "Surfing Alone? The Internet and Social Capital: Evidence from an Unforeseeable Technological Mistake", in: Journal of Public Economics;
- Erik Hornung, "Railroads and Growth in Prussia", in: Journal of the European Economic Association (to be published);
- Simon Wiederhold, Ludger Wößmann (with Eric A. Hanushek and Guido Schwerdt), "Returns to Skills around the World: Evidence from PIAAC", in: European Economic Review (to be published);
- Christa Hainz, Ludger Wößmann (with Sascha Becker and Katrin Boeckh), "The Empire is Dead, Long Live the Empire! Long-Run Persistence of Trust and Corruption in the Bureaucracy", in: Economic Journal (to be published);
- Rahel Aichele, Gabriel Felbermayr, "Kyoto and Carbon Leakage: An Empirical Analysis of the Carbon Content of Bilateral Trade", in: Review of Economics and Statistics (to be published);
- Rainer, Helmut (with Anderberg Dan, Wadsworth Jonathan, Wilson Tanya), "Unemployment and Domestic Violence: Theory and Evidence", Economic Journal, (to be published)
- Meier, Volker (with Schiopu Ioana, "Optimal Higher Education Enrollment and Productivity Externalities in a Two-Sector Model", Journal of Public Economics, (to be published);
- Schlotter, Martin (with Stefan Bauernschuster),
 "Public Child Care and Mothers' Labor Supply –
 Evidence from Two Quasi-Experiments", Journal of Public Economics, (to be published)
- Steinbrecher, Johannes (with Efing Matthias, Hau Harald and Kampkötter Patrick), "Incentive Pay and Bank Risk-Taking: Evidence from Austrian, German, and Swiss Banks", Journal of International Economics, (to be published)

Moreover, the following two books were published by top international publishers with reviewing procedures:

- Eric A. Hanushek and Ludger Woessmann, The Knowledge Capital of Nations: Education and the Economics of Growth, MIT Press, Cambridge, Massachusetts. 2015
- Hans-Werner Sinn, The Euro Trap On Bursting Bubbles, Budgets, and Beliefs, Oxford University Press, Oxford 2014.

An important preliminary stage to the publication of articles in international, peer-reviewed journals are presentations at international conferences with a peer review procedure. For it is at such conferences that researchers receive feedback on their papers from international specialist colleagues that they can use in the subsequent publication process. In 2014 Ifo researchers gave 148 conference speeches.

Among these speeches, Ifo President Sinn's participation in two panel discussions organised by the American Economic Association Meeting in Philadelphia deserves a special mention. In the session entitled: "Macroeconomics of Austerity" Hans-Werner Sinn discussed the low interest policy of the central banks with IMF chief economist Olivier Blanchard and former US Finance Minister Larry Summers. In a second session he discussed "Financial Globalization" with Ernesto Zedillo, Andrew G. Haldane, Simon Johnson and Maurice Obstfeld.

The publication successes enjoyed by Ifo researchers are also reflected in the **scientific rankings of the RePEc Network** (RePEc – Research Papers in Economics). In the RePEc ranking of international scientific citations of institutes based in Germany, the Ifo Institute ranked highest among all German economics research institutes and economics faculties. It was topped by institutions that also publish the work of persons not resident in Germany like the network of the IZA – Institut für die Zukunft der Arbeit – (Bonn), which has over a thousand researchers worldwide, the European Central Bank (headquartered in Frankfurt am Main) and its own CESifo network.

Table 2: Economic Research Institutes and Economics Faculties in the RePEc-Ranking December 2014

Ranking	Institution	Average Ranking
I	IZA, Bonn	1.15
2	EZB, Frankfurt/Main	2.11
3	CESifo, Munich	3.64
4	Ifo Institute, Munich	4.90
5	DIW, Berlin	4.91
6	University of Mannheim	5.13
7	LMU, Munich	6.71
8	University of Bonn	7.82
9	University of Frankfurt/Main	8.13
10	ZEW, Mannheim	9.44
11	IfW, Kiel	11.11
26	RWI, Essen	29.76
36	IWH, Halle	45.15

In the corresponding RePEc ranking of scientific citations of individual researchers Ifo researchers ranked very highly. Hans-Werner Sinn ranked first among German economists and Ludger Wößmann, the youngest member of the top ten, ranked 6th. In addition – see Table 3 – the Ifo department heads *Gabriel J. Felbermayr* (38), *Panu Poutvaara* (96), *Oliver Falck* (115) and *Niklas Potrafke* (125) also featured among the top 150 economists in this ranking.

Table 3: Individual Researchers in the RePEc Ranking of December 2014 (up to Rank 150)

		` •	
Ranking	Person*	Institution	Average ranking
- 1	Hans-Werner Sinn	Ifo Institute	3.44
2	Urs Fischbacher	University of Constanze	4.13
3	Armin Falk	University of Bonn	5.07
4	Klaus M. Schmidt	LMU	5.36
5	Gerard J. van den Berg	University of Mannheim	6.89
6	Ludger Wößmann	Ifo Institute	7.61
7	Klaus F. Zimmermann	IZA, Bonn	8.02
8	Bruno S. Frey	Zeppelin University, Friedrichshafen	8.09
9	Martin F. Hellwig	MPI, Bonn	8.19
10	Marcel Fratzscher	DIW, Berlin	9.85
25	Dennis Snower	IfW, Kiel	27.33
38	Gabriel J. Felbermayr	Ifo Institute	46.89
41	Christoph M. Schmidt	RWI, Essen	47.65
43	Clemens Fuest	ZEW, Mannheim	48.55
50	Reint E. Gropp	IWH, Halle	56.21
96	Panu Poutvaara	Ifo Institute	99.76
115	Oliver Falck	Ifo Institute	117.02
125	Niklas Potrafke	Ifo Institute	124.32

*Bold: Presidents of the respective economics institutes, Italics: Department heads at the Ifo Institute (2014).

The publication performance of Ifo researchers, which was described by the Leibniz experts as "excellent" in the last evaluation, also arises from its successful acquisition of research projects, that are awarded by competitive tender. For 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. That 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 2014: the Ifo Center for the Economics of Education started work on a Leibniz project conducted in cooperation with Harvard University entitled: "The Political Economy of Education Policy: Insights from a Public Opinion Survey" in 2014. The Ifo Institute was particularly successful in the Leibniz tenders for 2015, for which funding decisions were taken by the Leibniz Association Senate at the end of November 2014. The application for funding submitted by the Ifo Center for Labour Market Research and Family Economics for the project entitled: "Economic Uncertainty and the Family (EcUFam)" in the funding line: "Women in scientific management positions" was approved. Each Leibniz Institute can only submit one application per year in a Leibniz tender, but it can be involved in more than one Leibniz project as a cooperation partner. The Ifo Institute benefitted from this regulation in two cases in 2014: the Ifo Center for the Economics of Education will participate as a cooperation partner, as a cooperation partner in the project: "Acquiring and using competences as an adult: network for the analysis, further development and spread of PIAAC" which was acquired by the GESIS - Leibniz-Institut für Sozialwissenschaften via a Leibniz tender. Ifo's Dresden branch will also work as a cooperation partner with the Institut für ökologische Raumentwicklung (IÖR) on the successfully acquired Leibniz project: "Single-Family-Homes under Pressure".

Ifo's strong support for trips to international expert conferences with peer-review procedures (described in this report) and the acquisition of research funding via competitive tenders are cornerstones of the Ifo Institute's strategy to provide ideal framework conditions for research and advanced scientific quali-

Success with Leibniz tenders

Ifo acts as cooperation partner in Leibniz projects

fication. A second central cornerstone of this strategy is the international cooperation and networking of its researchers. This occurs in several different ways, but primarily via involving guest researchers and research professors in the Ifo Institute's work. In 2014 47 guest researchers stayed at the Ifo Institute. Kai Carstensen (University of Kiel). Tobias Kretschmer (University of Munich) and Andreas Haufler (University of Munich) became new research professors, bringing the total figure up to 51 by 31 December 2014.

A further component of international networking is systematic support for research stays by Ifo researchers, especially abroad. As already mentioned at the beginning of this report, there was an unusual clustering of leaves of absence by Ifo researchers who went on research stays abroad in 2014. These research stays primarily took place at the following top universities in the USA and Canada: University of Berkeley (3), University of Harvard (3), Princeton (2), Stanford (3), University of California Davis (1), Penn State University (I), University of Toronto (I) and the University of Victoria (1). Several researchers also visited European universities (University College London, as well universities in Tilburg, Helsinki, Linz, Barcelona, Mannheim, Augsburg and Regensburg). The European Central Bank also invited Ifo researchers to participate in two guest stays. Such research stays significantly improve the scientific performance of Ifo's research departments, since researchers given a leave of absence generally use it to consolidate their scientific competences and to 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 2014 the CESifo Group organised 26 international 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 the Venice International University also took place in 2014. The event featured workshops on "Behavioural Political Economy", "The Economics and Political Economy of Energy Subsidies", "Demographic Change and Long-Run Development", "Regional Mega Deals — New

Trends. New Models. New Insights?" and "Reforming the Public Sector". 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 include 1,166 members from 41 countries worldwide by the end of 2014.

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 held temporary professorships at the LMU in 2014. Christa Hainz accepted a guest professorship at the University of Augsburg, while Francesco Cinnirella took up an interim professorship at the University of Mannheim. In addition, Ifo researchers gave 85 classes representing a total of 190 hours per week each semester, as well as supervising 97 doctoral, bachelor and master theses, 64 dissertations and 15 post-doctoral habilitations.

Research is closely linked to the **promotion of junior economists**, which is a priority at the Ifo Institute. 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 (40 on 31.12.2014) thanks to generous third-party funding obtained via its successful scientific tendering. Sponsors who financed Ifo doctoral student positions in 2014 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 13 doctoral students completed their theses over the course of 2014:

Stefan Arent, Sebastian Benz, Teresa Buchen, Florian Buck, Christian Essling, Nadine Fabritz, Benedikt Heid, Michael Kleemann, Constantin Mang, Wolfgang Nagl, Luise Röpke, Benedikt Siegler and Manuel Wieland

Clustering of leaves of absence

CESifo organised 26 international conferences

Prizes awarded to Ifo researchers bear witness to the scientific standing of the Ifo Institute. An outstanding example was the award of the Gossen Prize by the Verein für Socialpolitik to Ludger Wößmann for his scientific achievements. The Verein für Socialpolitik awards this annual prize to the best economist in the German-speaking world aged under 45 years old. Ludger Wößmann also became a member of the Leopoldina – National Academy of Sciences.

He was joined as a Leopoldina member by Hans-Werner Sinn, who also received the following honours: the Verein für Socialpolitik awarded him the Gustav-Schmoller-Medaille, an honorary medal for special services to the Verein. The "Swiss think tank GDI Gottlieb Duttweiler Institute" also named Hans-Werner Sinn as one of the 100 most influential people in the world in 2014, who not only shaped current public debate with their ideas, but also introduced future topics into that debate.

The magazines *Capital* and *Welt am Sonntag* featured Niklas Potrafke, director of the Ifo Center for Public Finance and Political Economy, in their "Top 40 under 40" rankings. In addition, Justin Tumlinson, a researcher at the Ifo Center for Industrial Organisation and New Technologies, was awarded the "FGF Best Entrepreneurship Research Newcomer Award" sponsored by the Wissenschaftsförderung der Sparkassen Finanzgruppe for his publication entitled: "Unobserved Ability and Entrepreneuship".

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; and to reinforcing the foundations on which politicians and business leaders base their decisions on the one hand, and improving 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 2014.

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 2014:

- Joint Economic Forecast (Ministry of Economic Affairs and Energy)
- Feststellung des Nebenbeschäftigungseffektes bei einer Änderung der Regelungen zu ausländischen Zulieferungen bei den Exportkreditgarantien des Bundes (German Federal Ministry for Economic Affairs and Energy)
- Economic Dimensions and Effects of the Alianza del Pacifico (Konrad-Adenauer-Stiftung)
- Effekte und Konsequenzen einer neuen Welthandelsordnung unter besonderer Berücksichtigung der Entwicklungsländer (Bertelsmann Stiftung)
- Globaler Handel und ökonomische Lohnungleichheit: Neue Fakten. Neue Herausforderungen (Bertelsmann Stiftung)
- The market opportunities for the EU agri-food sector in a possible EU – US trade agreement (European Parliament)
- TTIP as Part of a New European International Trade Strategy – an Analysis with a Special Focus on the Austrian Perspective (Austrian Ministry for Science, Research and the Economy)
- The Economics of Innovation in Networks (Deutsche Telekom AG)
- Development and Implementation of a Demandside Monitoring System (Ernst & Young)
- EEG-Related Additional Costs of CO₂ Avoidance (Die Familienunternehmer – ASU)
- German-Croatian Research Project: Short- and Long-term Policy: Requirements to Strengthen Sustainable Growth and Employment in Croatia (Croatian Statehood Foundation)
- Public Administration Staff in North Rhine Westphalia (State Parliament of North Rhine Westphalia)
- Continuation of the Long-Term Projection of Trends in Income of the Saxon State Budget to 2025 in 2014 and 2015 (Saxon State Ministry of Finance).

Focus on euro crisis

Moreover, the Ifo Institute highlighted key issues in the policy debate with numerous publications; and this particularly applied to the euro crisis. The book on the debate written by Hans-Werner Sinn and published by the Redline-Verlag entitled: "Gefangen im Euro" ("Trapped in the Euro") attracted as much public attention as his "Ifo Viewpoints", which are brief commentaries on topical issues. In 2014 these viewpoints covered the following topics: "Europe's Next Moral Hazard", "World Champion Capital Exporter", "Outright Monetary Infractions", "Putin and Flickering Power", "Why We Should Give Putin a Chance", "Europe's Next Moral Hazard", "Quantitative Teasing", "Piketty's World Formula", "German Gerontocracy" and "Europe's Brush with Debt". Hans-Werner Sinn's statement on the responsibility of states and central banks in the euro crisis published in English in the CESifo Forum was also aimed at the international press. This was a translation of the report on the ECB's OMT programme that Hans-Werner Sinn was commissioned to write by the German Constitutional Court. In its statement of February 2014 the Constitutional Court largely fell into line with the critical position of Prof. Sinn and other experts who were consulted.

In its annual report 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. The report published in February 2014 and entitled: "The Road Towards Cohesion" particularly indicated that further savings measures are necessary to achieve a relative harmonisation of prices in the Eurozone. Moreover, the European Economic Advisory Group critically analyses the concept of a European banking union and comes to the conclusion that this would lead to a socialization of old debt.

Articles published in the **Ifo Institute's periodica** are regularly cited in the public debate. In 2014 Ifo published 24 issues of the *ifo Schnelldienst*, twelve issues of *ifo Konjunkturperspektiven*, six issues of *ifo Dresden berichtet*, as well as four issues of *CESifo Forum*, *CESifo DICE Report* and *CESifo World Economic Survey* respectively. Two *ifo Forschungsberichte* and three *ifo Dresden Studien* and *ifo Beiträge zur Wirtschaftsforschung* were

published as monographies, while 23 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, 590 issues appeared in the CESifo supervised series *CESifo Working Papers*. This series features articles by members of the CESifo research network. It is one of the most important and renowned working paper series in the world.

The Ifo Institute also enriched the economic policy debate with its events in 2014. It is worth highlighting the Ifo Annual Meeting, which, as in previous years, was organised in cooperation with the LMU and took place in the latter's Großer Aula. Prof. Christoph Buchal of the Peter Grünberg Institut of the Forschungszentrum Jülich was the guest speaker on the topic of: "Understanding the energy turnaround". His speech was followed by a discussion with Prof. Aldo Belloni, a board member of Linde AG; Jochen Homann, President of the German Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railways; and Prof. Hans-Werner Sinn on the topic of: "Safeguarding prosperity with energy - successfully designing the magic triangle of energy supply security, cheap energy prices and reducing emissions of polluting gases".

Another highlight was the Munich Economic Summit, which took place for the 13th time in 2014. 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 2014 Summit entitled: "Free Trade and Prosperity" the role of free trade in the prosperity of Europe was analysed. The Summit also looked at negotiations on transatlantic and transpacific partnerships, as well as the outlook for trade between BRICS states and Europe. The speakers included Karel De Gucht, EU Commissioner for trade, Mukhisa Kituyi, Secretary General of UNCTAD, and Karl-Ernst Brauner, Deputy Director General of the WTO.

Savings needed to harmonise EU prices

A total of 14 "Munich Seminars" jointly organised by CESifo and the Süddeutsche Zeitung were held in 2014. Renowned speakers from business, academia and politics spoke on current economic issues at the seminars, which also attracted a great deal of media attention. It is particularly worth highlighting both the dispute between Dieter Janecek (economic policy speaker of the BÜNDNIS 90/DIE GRÜNEN political party and Bavarian State Chairman) and Hans-Werner Sinn on the topic of the: "Opportunities and risks of the energy turnaround", as well as the presentation of Hans-Werner Sinn's newly published book "The Euro Trap: On Bursting Bubbles, Budgets, and Beliefs". Extensive reports on all speeches were published in the Süddeutsche Zeitung.

In 2014 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 leading events. Further details of the colloquium are available in the section on the Ifo Center for Industrial Organisation and New Technologies and in the report on the work of the Press, Publications, Conferences department.

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. In 2014 he looked at the topic of: "Generational (un-) fairness: the causes, consequences and policy implications of the demographic deficit".

On 3 February 2014 CESifo and the ESADE Business School organised the first **Spanish-German economic dialogue**, which was initiated by Hans-Werner Sinn and Javier Solana, the former General Secretary of NATO. The conference was livestreamed via the internet.

At the suggestion of the former SPD group chairman Ludwig Stiegler, the Ifo Institute invited politicians from Berlin to a "parliamentary breakfast" in the Bavarian Representation in Berlin, where Hans-Werner Sinn, together with Ludwig Stiegler and German members of parliament, discussed the status of the euro crisis.

In cooperation with the Hochschule Weihenstephan-Triesdorf (HSWT) the "Energy policy workshops" event series was introduced in 2014. Twice a year economists and practitioners are invited to an energy policy workshop in the Ifo Institute. The aim of this workshop is to take up various themes from the areas of energy and let engineers, scientists, economists and decision-makers from politics and business present them in an interdisciplinary way. In 2014 the programme featured two topics entitled: "Bioenergy – how much energy grows on trees and in fields" and "Energy storage – the stepchild of the German energy turnaround."

Media resonance is a key indicator of the relevance of Ifo's work for politics and society. According to Media Tenor, Ifo's media resonance fell slightly in the first months of 2014, but then rose sharply, giving the Ifo Institute the highest media profile of all economic research institutes for the year as a whole.

The very good results achieved by Ifo researchers, especially its President and department heads, in terms of both their research and media resonance, had a dual effect on the FAZ Ranking 2014 of the most influential economists active at universities or research institutes. For the achievements of Ifo researchers teaching at the LMU in research and their policy advisory work were divided into the LMU and the Ifo Institute by the organisers of the FAZ ranking. This meant that economists from Munich (see Table 4) performed outstandingly in the FAZ ranking, with the LMU ranking I and the Ifo Institute ranking 3. In short, Germany's most influential economists come from Munich.

Table 4: Economic Research Institutes/ Faculties in FAZ Ranking for 2014

Ranking	Institution	Points
1	LMU, Munich	1795
2	DIW, Berlin	1416
3	Ifo Institute, Munich	1315
4	TU, Berlin	758
5	University of Bochum	620
6	HU, Berlin	601
7	University of Cologne	562
8	ZEW, Mannheim	534
9	RWI, Essen	531
10	University of Duisburg-Essen	521

Energy policy workshops focus on bioenergy and energy storage

Ifo's strong performance boosts FAZ ranking

Wößmann ranked 4th by FAZ

According to the FAZ ranking for 2014, Prof. Sinn was Germany's most influential economist in 2014 (cf. Table 5). According to the FAZ: "No other economic researcher in Germany has as much influence in the media and politics and is also active in research." Ranked 4 Ludger Wößmann, Director of the Ifo Center for the Economics of Education, was also a member of the top group of Germany's most influential economists. As shown in Table 5, other Ifo researchers also held excellent positions in the 2014 FAZ ranking.

Table 5: Placement of Ifo Researchers in FAZ
Overall Ranking for 2014

Ranking	Name	Points
1	Hans-Werner Sinn	629
4	Ludger Wößmann	429
29	Gabriel Felbermayr	115
38	Niklas Potrafke	80
50	MarcelThum	53
52	Klaus Wohlrabe	51
67	Joachim Ragnitz	32

Scientific services

The Ifo Institute is not only a service provider for academics, but also supplies 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.

Informing the public of the results of Ifo Business Surveys was once again one of the most high profile services provided by the Ifo Institute. This was particularly true of the Ifo Business Climate Index, which remains one of the most important indicators of economic developments in Germany. The indices from the Ifo Business Survey were expanded in November 2014 to include the Ifo Export Expectations. As in previous years, the Ifo Business Survey was used to ask special questions on the current policy debate. In November 2014, for example, all companies that participate in the Ifo Institute's monthly business surveys (with the excep-

tion of contractors) were asked whether they had been affected by the minimum wage, and if so, what measures were they taking in response. The results showed that service providers and retailers were more heavily impacted by the minimum wage than manufacturers and wholesalers. In retailing the main reactions were cited as shorter working times and staff cuts. Service providers, by contrast, plan to raise prices instead. In addition, an email service was set up to facilitate access to the results of the international business survey by indicating the publication of the CESifo World Economic Survey (WES).

The Economics & Business Data Center (EBDC) – an accredited research data center that is jointly run by the LMU and Ifo, which makes Ifo survey data available for research purposes among other things – further expanded its service offering in 2014. After a branch of the Bavarian State Office for Statistics and Data Processing was set up there, data from the research data centers of all of Germany's State Statistics Offices can now be accessed from the EBDC. This significantly increases the research opportunities offered by the EBDC.

In addition to company surveys, a survey of inidviduals was launched for the first time in 2014. As part of a project acquired via a Leibniz tender, the **Ifo Education Barometer** was developed and published for the first time in 2014. It is based on a representative and comprehensive opinion poll of over 4,000 individuals. The survey was conducted by the Ifo Center for the Economics of Education. The Ifo Education Barometer is to become one of the permanent services offered by the Ifo Institute and will be published on an annual basis.

The Database for Institutional Comparisons in Europe (DICE) also continued to grow in 2014. It currently features almost 4,000 entries on around 8,000 variables 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 Visual Storytelling technology introduced in 2013 also proved increasingly popular in 2014.

Ifo Business Climate Index retains high profile

Services related to data provision offered by the Ifo Institute were complemented by the new Ifo Resources Database. The Ifo Center for Energy, Climate and Exhaustible Resources is responsible for the set up and expansion of the resources database. Drawing on tables and documents from several data providers, the database offers a comprehensive overview of energy reserves and resources. In addition to data on reserves of the fossil fuels oil, gas, coal and uranium, the database also provides access to recent figures on renewable energy, as well as key figures on imports and exports, electricity production, energy prices, CO_2 emissions and the reserves of various fuels. The resources database is free-of-charge and can be accessed via the CESifo Group website.

The importance of the internet and web-based 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 accordingly. In 2014 this was clearly reflected in Ifo's more intensive use of social media, and especially of Twitter and YouTube. The CESifo Group is a pioneer in recording and providing video recordings of important events. They are available to the general public in the media library, which is part of the CESifo Group's website. A selection of current videos can also be viewed on YouTube. Ifo's media library is being used by a growing public, which is contributing to a steadily rising number of hits on the CESifo Group website (a million hits per month on average). A growing number of users are also viewing livestreamed events via the internet. The Ifo Annual Meeting 2014, for example, was viewed live on the internet by 712 users.

Another step towards intensifying knowledge transfer via digial media was the publication of CESifo Group periodica like the *ifo Schnelldienst*, the *CESifo Forum* and the *CESifo DICE Report* in **ebook format**. This had a dual effect: on the one hand the production costs of the print issues was lowered, and on the other, the circle of readers was considerably expanded at costs that remained virtually unchanged. The extent to which provision in a digital format expands the readership of the Ifo periodica cited above is shown by the number of page hits on the corresponding pages of the CESifo Group's website in 2014. Leader of the

pack was the *ifo Schnelldienst* with 182,350 hits, followed by the *CESifo Forum* with 58,545 hits and the *CESifo DICE Report* with 58,529 hits.

The newly developed online course entitled: "Solution and Innovation Skills" follows the same strategy. The course was developed and offered as part of the EU research project "LLLightinEurope" with the participation of the Ifo Institute in the Digital School of the Leuphana University of Lüneburg and the Zeppelin University in Friedrichshafen. The online teaching event was based on the topic of innovation. Participants in the ten-week free course were taught how to develop and implement new ideas.

Online course on innovation introduced

A workshop for young journalists was held in 2014 and marked the beginning of a cooperation with the Bayerische Rundfunk and the Deutschen Journalistenschule with a view to training outstanding junior journalists to promote high-quality journalism, particularly in reporting on economic topics. For this area is steadily gaining importance in the media and is particularly demanding in terms of the knowledge of economic relations that it requires, as well as the ability to research and analyse economic data. The cooperation partners are seeking to explore new territory in training young journalists in order to strengthen the foundations of reporting on business-related issues both in terms of expertise and methods. The workshop was a pilot event that should be the first in a series of annual seminars for young journalists.

Development of the Ifo Institute as an Organisation

In 2014 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 21 Ifo researchers on 31 December 2014 (previous year: 22). This meant that on the date cited above, 22.3% (previous year: 22.7%) of scientific staff were foreigners or Germans who worked or studied at a foreign university prior to joining Ifo.

Focus on attracting foreign researchers

To create an ideal environment for top research involves intensive scientific further qualification. The development of this qualification was presented in the context of reseach. In 2014 the fact that Ifo researchers were able to make several foreign research stays, particularly at top US universities, was extremely important. Further key focus points once again included speeches at international, peer-reviewed events (148) to which Ifo researchers were invited, as well as their 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 106 advanced training measures were approved in the reporting year, 83 of which were carried out that 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 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.

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 quality 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 2014 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 the external audits. The recertification audit of March 2014 was also without reproach in this respect and was an acknowledgement that the Ifo Executive Board is committed to ensuring gender equality and

that the working conditions at the Ifo Institute be designed to gradually achieve a balanced gender structure. The fact that women already account for 37.5% of doctoral students (previous year: 34.1%; reference date 31.12 in both cases) shows that the Ifo Institute is on the right path towards achieving this goal.

Personnel capacity was largely stable compared to the previous year. On the reference date of 31 December 2014 the total number of staff employed by Ifo edged downwards by three to 190. This decline only applied to non-scientific staff; while the number of staff employed in research (researchers, heads of divisions, doctoral students and specialists) remained unchanged.

Although the number of scientific staff fell by three in the research departments, one doctoral student and two specialists joined the institute. Specialists are academically trained experts, whose prominent position at the interface between research and services requires particular staffing continuity. The number of clerks and assistants in the research centers fell by one to 20. There were a total of 51 staff members employed in the Ifo Institute's infrastructure on the reference date of 31 December 2014, of which twelve had management responsibilities (and remuneration of TV-L E 13 and upwards). Moreover, as on the same reference date in 2013, three trainees were employed by the institute.

Both bodies of the Ifo Institute followed its development very closely in 2014. The Ifo Institute's Scientific Advisory Council regularly assesses the performance of the Ifo Institute's research departments in alternation with the external evaluations by the Senate of the Leibniz Association. It conducted its accompanying assessment in 2014. To this end, it focused in-depth on the conceptual development of the Ifo Center for Industrial Organisation and New Technolgies and the Ifo Center for Business Cycle Analysis and Surveys, which are both under interim leadership, as well as visiting Ifo's other research departments. The results were recorded in audit reports that will be compiled into an overall report in 2015. In its annual meeting the User Advisory Council once again examined developments in the services of the Ifo Institute very closely and made several recommendations.

106 advanced training measures approved in2014

Ifo committed to gender equality

Developments in **finances** in the reporting year are presented in detail in the Financial Development Section. Here are the key points: the annual surplus of **18 thousand euros** was generated almost entirely from voluntary contributions by members that amounted to a total of 17 thousand euros, which will be channeled into earmarked reserves according to § 4 para. 2 of Ifo's articles. These contributions increased the reserves to 773 thousand euros. The remainder of the annual surplus (I thousand euros) will be put towards the research reserve, taking it up to 1,109 thousand euros by 31.12.2014. This resulted in marginal growth in the association's assets, which rose to 1,882 thousand euros by 31 December 2014.

A special feature of financial developments in 2014 was that – as already mentioned – there were significant savings made in personnel costs due to two factors: several lfo researchers went on guest stays to foreign universities in 2014 that had been postponed during the evaluation phase and were granted leave

on the one hand; and two scientific management positions were filled by Ifo staff as an interim solution on the other. That made it possible not to use institutional funding of 500 thousand euros in 2014. With the consent of the awarding authorities, this sum was carried over as a cash balance into the programme budget for 2015 and will give the institute greater financial leeway during the important phase of the changeover in its President.

With its achievements in research, policy advisory work, the promotion of junior economists and services, the Ifo Institute consolidated its performance as one of Europe's leading scientific think-tanks in 2014 and further strengthened the foundation for its successful future development. The Ifo Institute's Executive Board and staff will continue to pull their weight in the future and remain fully committed to providing unbiased support for Germany and Europe in solving the economic problems of our day based on first-class research and to supplying economically relevant information.

The Executive Board



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



Prof. Meinhard Knoche

The Research and Service Departments

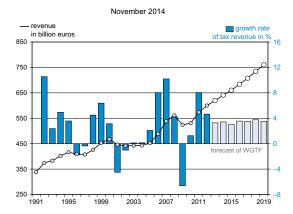
Ifo Center for Public Finance and Political Economy

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's activities focus on public debt in Germany and Europe, the assessment of fiscal and taxation policy, fiscal federalism and local finances. There is a special focus 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, the department contributes to public debate over the reform of the German taxation and transfer system with 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 to be 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. The 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



Source: Working Group on Tax Revenue Forecasting (WGTF).

Projects Completed in 2014

German Federal Ministry of Finance – Tax Revenue Forecast/Income Tax I

C. Breuer in cooperation with RWI researcher H. Gebhardt, Rheinisch-Westfälisches Institut für Wirtschaftsforschung (RWI), Essen, and J. Boysen-Hogrefe, Kiel Institute for the World Economy, for the German Federal Ministry of Finance, January 2014 to June 2014.

This research project focused on the empirical determination of the revenue elasticity of assessed income tax in Germany. Well-founded and widely accepted methodology and data was used as a basis for the research. In a first step the revenue elasticity of tax revenues was ascertained directly and unadjusted with relation to possible taxable bases. The focus in this step was on the identification of late assessments. In a second step income tax revenue was transformed into accruals and deferrals identified with the help of payment structure statistics. This was then followed by an institutional analysis of revenue elasticity based on individual surveys. The analysis mainly focused on the special features of households and of the taxation system; and their impact at an individual level, as well as the question of how high revenue elasticity should be for institutional theoretical reasons.

Income tax and revenue elasticity

Effects of Inheritance Taxation on Entrepreneurial Activities of Family Businesses

N. Potrafke, B. Kauder, M. Reischmann, M. Riem, C. Schinke for the Foundation for Family Business (Stiftung Familienunternehmen), February 2014 to April 2014.

We investigated how inheritance taxation affected the entrepreneurial activities of family businesses. Using a new survey dataset, we showed how many family businesses have been affected by inheritance taxation since 2000 and how family businesses perceived inheritance taxation. Linking the inheritance survey data with financial statement data, we investigated the structures and industry sectors of the family businesses that were affected by inheritance taxation. Linking the inheritance survey data with the business survey database of the Ifo Institute, we assessed the effects of inheritance taxation on entrepreneurial activities.

In March 2014, the Ifo Institute asked 1,729 family businesses how inheritance and gift taxation influence their business activities. In the years 2000 to 2014 271 companies (15.7%) transferred company assets via inheritance and 458 companies (26.5%) transferred company assets via inter vivos gifts. The number of inter vivos gifts increased sharply in the years 2012 and 2013. Most family businesses reported that the tax relief for business property in the case of inheritance/gift contributes to maintaining their level of investment and number of employees. 43% of the family businesses with inheritances or gifts reported that without tax relief for business property, they would have had to sell their business or parts of their business in the course of succession.

Linking the survey data with the historical Ifo Business Survey data shows that companies that had a case of succession or had to pay inheritance tax considered their business situation to be worse than that of companies that did not have a case of succession or did not have to pay inheritance tax. Companies that transferred assets via inter vivos gifts considered their business situation statistically as significantly better than companies that did not transfer assets via inter vivos gifts.

Public Employment in North Rhine-Westphalia: Developments and Options for Restructuring

N. Potrafke, M. Reischmann, M. Riem in cooperation with Stefan Korioth, University of Munich, for the state parliament of North Rhine-Westphalia (commission of inquiry III), September 2014 to December 2014.

The report describes the personnel expenditure and structure of public employment in North Rhine-Westphalia and discusses options for personnel policy.

Direct and indirect personnel spending in North Rhine-Westphalia accounted for 43% of total spending by the state and 28% of total spending by the municipalities in 2012. Organisational and budgetary changes, especially the outsourcing of public functions from the core budget, impede the transparency of spending disclosures. Outsourcing, cost advantages due to the large population and a high degree of municipalisation gave rise to direct personnel spending per capita (1,200 euros) below the average of western German states in 2012. By contrast, the spending per capita of the municipalities (651 euros) was above the average figure.

Demographic change has different effects on individual activities and imposes new challenges on the personnel policies of the state. The sticky costs that occur when public services are reduced (particularly public administration and infrastructure) can partly be offset by merging public institutions and undertaking administrative and territorial reforms.

Thanks to financial constraints and demographic change, personnel management has to be modified. Flexibility in the public sector should be increased by setting up target and performance agreements to strengthen the public sector as an attractive employer, while creating greater mobility between the public and private sector. Reducing salaries may well be necessary to achieve sustainable personnel spending, especially against the background of the financial situation in North Rhine-Westphalia and the debt brake that will come into effect as of 2020. In view of the limited savings generated by other measures, reducing personnel in all areas of administra-

Business impact of inheritance tax

Asset transfer via inter vivos gifts

tion is probably inevitable. Despite the pressure to reduce personnel spending and the legal constraints on policy intervention, the quality of public administration must be ensured. Policy measures should be characterised by flexibility, decentralization and segmentation.

Current Projects

Empirical Studies in Public Debt Analysis

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

This doctoral project analyses the sustainability of public debt. A special emphasis lies on fiscal transfer schemes and hidden debt. The study also examines political variables that influence the distribution of intergovernmental grants.

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 und firm behaviour. A 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.

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. It focuses on investigating the determinants of income/wealth inequality. Studies include in-depth analyses of inheritance and gift flows, whether partisanship influences income inequality and how it influences economic policy advice.

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 July 2015.

The focus of the part of the project covered by the Ifo Center for Public Finance and Political Economy lies on public debt and the sustainability of fiscal policy. Generally, weaknesses in the respective areas are identified, which subsequently enable the formulation of concrete policy advice. Public debt in Croatia has risen sharply since 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 rising expenditure has led to large government deficits in recent years. Expenditure on social security (mainly pension and health system) and the compensation of public employees in particular are endangering the sustainability of the government budget. We identify saving potential on the expenditure side, elaborate on strategies to increase revenues, and provide a detailed overview of the public debt structure.

Economic Effectiveness of Economic Stimulus Packages in 2008 and 2009

N. Potrafke, T.O. Berg, A, Hristov, B. Kauder, M. Reischmann, M. Riem, C. Schinke for the Fritz Thyssen Foundation, July 2013 to July 2015.

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

The research project follows two pillars. In the first pillar we examine how fiscal policy measures influence the German business cycle. We discuss the role of business confidence as a transmission channel for Public debt structure in Croatia

Impact of fiscal policy on business cycle

fiscal policy measures. In the second pillar we examine the effectiveness of fiscal aid for additional investment in the German municipalities and states. We also investigate whether state governments strategically influence fiscal forecasts in the run-up to elections.

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 (have to) look different to today's. Demand for qualified staff will continue to grow and it will be essential to ensure that more women, seniors and immigrants participate in the labour market. Family-friendly and age-appropriate jobs will play an ever greater role, 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 influence 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 microeconometric validation. Policy makers 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 microeconometric 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 on labour markets, with a focus on frictions and institutions in the labour market. This research investigates the impact of frictions and institutions on the rate of unemployment, the duration of unemployment, wage distribution, the formu-

lation of staffing policy and international trade. 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.

In the field of labour market research one of the center's projects also examines the external effects of local urban transport strikes on traffic, the environment and health. In view of the strikes in 2014 and the political debate over the introduction of a collective labour agreement law (Tarifeinheitsgesetz), the project's research results constitute an active contribution to the ongoing economic policy debate in Germany.

Within its main research area of **family economics**, the center 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, like the expansion of publicly-funded childcare for toddlers, 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.

Local transport strikes and their external effects

Policy and parents' career decisions

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.

In its family economics research the center 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 in the extent of unemployment and the frequency of domestic violence against women.

Projects Completed in 2014

Labour Disputes in Public Service Companies: Strikes in Public Transport

H. Rainer, A. Fichtl, T. Hener in cooperation with S. Bauernschuster, University of Passau, for the Carl Friedrich von Weizsäcker-Stiftung, August 2012 to March 2014, publication of results in *ifo Schnelldienst* 67(24), 2014.

This research project explores the potential negative effects of public transport strikes on the population. To this end, detailed data on over 77 local transport strikes in Germany's five largest cities — Berlin, Munich, Hamburg, Cologne and Frankfurt — were gathered for the years 2002 to 2011 and empirically examined in terms of various results variables. The key findings are that traffic volumes increase by around 6% on the mornings of strike days. This increases traffic jam volumes and commuters spend 11% more time on the roads on their way to work. If this figure is projected, commuters travelling by car lose a total of 26,289 hours in every city. The incidence of traffic accidents rises by 20% due to higher traffic volumes during the morning rush hour. Environmental damages can be seen in higher fine dust

pollution, which is 26% higher on the mornings of strike days than on normal days. This higher fine dust pollution is already leading to short-term health problems. Hospital statistics show that respiratory problems are more frequently diagnosed on strike days, especially in small children. Overall, strikes in local transport also have far-reaching consequences for the general public ranging from higher traffic volumes and more accidents to higher environmental pollution and health problems. Merely judging by the effects measured in the study, the costs of local public transport strikes for the general public exceed those sustained by the striking employees' company many times over.

Current Projects

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* No. 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 the Economics of Fertility

W. Auer, ongoing doctoral project, publication of partial results in *Ifo Working Paper* No. 190, 2014.

This doctoral research theoretically and empirically analyses the influence of socio-political measures on behaviour when founding a family. Microeconometric methods are used in the modelling, while various micro data sets (e.g. Pairfam) are drawn on in the empirical analyses.

Marital stability

Strikes: higher traffic volumes and longer commuting times

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 microeconometric 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.

Sorting in Frictional Markets

B. Schulz, ongoing doctoral project.

This dissertation project analyses equilibrium search and matching models with two-sided heterogeneity, theoretical and empirical. The concept of positive assortative matching (PAM) is central. This property impacts wage formation and gives rise to a better understanding of cyclical patterns in labour and marriage market data. The magnitude of PAM as the central theoretical concept is also analysed empirically using structural econometric methods and administrative data.

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; ifo Schnelldienst 67(10), 2014; CESifo DICE Report 12(1), 2014.

Pivotal to demographic development issues – ageing societies and low birth rates – are the decisions of households, families and individuals. 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. The importance of family and labour market policies in the decision to start a family is also examined. The early life circumstances of children form the focus of studies on the impact of macroeconomic shocks and early childhood education.

Public Finance, Globalization and Labour Markets

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

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.

Interplay of family and labour market policies

Friction in labour markets



Ifo Center for the Economics of Education

In 2014 the center's research focused on the economics of education. Topics related to the economics of innovation are now largely covered by the Ifo Center for Industrial Organisation and New Technologies, following the appointment of Prof. Dr. Oliver Falck, formerly deputy director of the Ifo Center for the Economics of Education and Innovation, as its director in October 2014. At the same time, close cooperation is planned with the Ifo Center for Industrial Organisation and New Technologies in areas where the economics of education and innovation intersect.

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 frontier. However, little can be learned from such general macroeconomic insights for concrete policy-making at the micro level. The research programme of the Ifo Center for the Economics of Education therefore asks what kind of knowledge matters most for prosperity, what determines knowledge generation, and what kind of policies 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 microeconometric 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 an economy to escape the consequences of world-wide 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 changing at an accelerated pace. In 2014, as part of an FP7 project funded by the European Commission, the center used international data on adult competencies to estimate the returns on skills – the labour-market rewards on higher competencies in the form of higher earnings. Moreover, the center started a research project on the importance of school-leaving grades for the hiring decisions of firms based on a survey of human resource managers. In addition, a particular focus was placed on the dual vocational education system, an important 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 decisively important to the prosperity of society at large and to 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, such as how the diffusion of education before and during industrialisation 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.

Education policies and advancing knowledge

Education as determinant of equity

Determinants of Education: Culture, Resources and Institutions

Given the central importance of education to 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 on rich micro data from various international student achievement tests. In 2014, 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 the 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 in the population. In 2014, the results of the first Ifo Education Barometer were presented - an opinion survey on education policy in Germany 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 using (quasi-) experimental methods aims to bring evidence-based policy advice into the political decision-making process.

Projects Completed in 2014

Microeconometric Evaluations of Education Policies

B. Siegler, completed doctoral project, supported by the Bavarian Graduate Programme in Economics (BGPE), publication as *ifo Beitrag zur Wirtschaftsforschung* (forthcoming) and of partial results in *BGPE Discussion Paper* No. 124, 2012; No. 135, 2013.

This dissertation investigates the effects of three distinct education policies. One chapter analyses the effect of the tertiary education expansion of the 1960s and 1970s in West Germany on tertiary education attainment by the local population. Using a difference-in-differences approach and data from the Socio-Economic Panel (SOEP), the chapter shows that the increase in the share of individuals with tertiary education attainment is stronger for counties with a new university compared to counties without a university. Results also suggest that, in particular, universities of applied sciences had a strong positive effect on tertiary education attainment by the local population.

Universities positively affect tertiary education attainment

Another chapter investigates the effects of the Bologna Reform on German universities. In the course of the reform, the old single-tier study programmes were gradually replaced by the new two-tier Bachelor/Master system. To account for potential selection due to the parallel supply of old and new degree programmes, the analysis is based on an instrumental variable approach. This approach uses the exogenous variation in the distance between a student's place of high school and the nearest university with a Bachelor programme relative to the nearest university with a traditional degree programme. Using micro data on German high school graduates from 2006 (HIS-Studienberechtigtenpanel), the study finds that the Bologna Reform did not have significant effects on national or international student mobility and participation in internships. However, positive effects are obtained for a student's satisfaction with the study atmosphere, as well as a lower dropout probability for certain subgroups.

Bologna reform has no major impact on student mobility

Since 2001, the No Child Left Behind Act requires all US states to introduce school accountability systems based on standardised student test scores. In Florida,

students of repeatedly failing public schools were offered a state funded voucher to transfer to a private school. In 2006, this option was terminated, so that the repeated failure of accountability standards only triggered the loss of reputation and the option to transfer to a different public school. Applying a difference-in-discontinuities approach to administrative micro data on all students in Florida public schools from 2003 to 2009, the study finds no detrimental effect from the termination of the voucher programme on the success of the accountability system in Florida. Overall, the analyses extend our knowledge on the effectiveness of education policies to improve the

educational outcomes of juveniles and young adults.

Investment in ICT: Determinants and Economic Implications

N. Fabritz, completed doctoral project, supported by the Deutsche Telekom AG from December 2010 to November 2013, publication as ifo Beitrag zur Wirtschaftsforschung (forthcoming) and of partial results in Ifo Working Paper No. 166, 2013; No. 195, 2015; CESifo Working Paper No. 4277, 2013; ifo Schnelldienst 66(11), 2013; CESifo DICE Report 11(4), 2013.

This project analyses the importance of innovations in the telecommunication sector for economic development. The first part of the study addresses the question of whether broadband internet availability can positively affect economic activity in rural areas. Based on municipality level data, a positive effect of broadband internet availability on local employment rates can be observed in rural municipalities.

The second part considers the economic benefits of broadband internet infrastructure at the firm level. Even although no overall positive effect is found, some subgroups, notably firms in the service sector and firms in Eastern Germany, profit more from broadband infrastructure.

The third part of the project consists of a firm questionnaire as part of the Ifo Innovation Survey. This investigates firms' innovative activities depending on their ICT investment and use. The results show a positive relationship between substantial investments in ICT and subsequent product innovations. Since ICT is

generally seen as a major driver of economic growth, not only its consequences, but also its formation is of interest. The survey finds that incentives to invest mostly stem from within the firm from the IT management, followed by external IT consultancies, the internal IT department and others.

The fourth project investigates whether deregulation in the telecommunication sector affects firms' investment in infrastructure. To this end, the so-called bitstream-access market, a telecom wholesale market that gives internet providers access to end-users via a competitor's network infrastructure, is analysed in the UK. In 2008 and 2010, the UK authority deregulated areas with sufficient levels of competition. Local deregulation tends to have a positive effect on infrastructure investments of the incumbent and its competitors.

Market Consequences of ICT Innovations

C. Mang, completed doctoral project, supported by the Deutsche Telekom AG from December 2010 to November 2013, publication as *ifo Beitrag zur Wirtschaftsforschung* (forthcoming) and of partial results in *Ifo Working Paper* No. 147, 2012; *Wirtschaftsdienst* 92(11), 2012; *der Gemeinderat spezial*, 2013.

This doctoral project deals with the overall economic impact of innovation in the telecommunications sector. The topics specifically addressed include the effect of online job searches on job matching quality, the valuation of broadband internet access in the form of rent prices on the housing market, the effect of mobile broadband availability on the usage of local online services – such as online services for restaurant reviews by customers - and the effect of PC use in school on student achievement. Methodologically, the studies use micro data from sources like the German Socio-Economic Panel and the student achievement test TIMSS. In order to identify causal effects, the study exploits, for example, the geographic variation that influenced the rollout of fixed-line and mobile broadband internet in Germany.

The results of this doctoral project show that the internet influences several areas. As it turns out, online job searches result in better outcomes. Job changers

Florida's voucher system

Economic benefits of broadband internet

who found their new job online are better matched than their counterparts who found their new job through traditional channels. Moreover, broadband availability affects the housing market. Properties in municipalities with higher broadband availability have higher rent prices. A further result shows that an upgrade of the mobile internet infrastructure actually increases the usage of this infrastructure. Online services for restaurant reviews are more often used in areas with upgraded mobile internet. Finally, the results on the effect of PC use in classrooms on student achievement are mixed. For example, using a PC to look up ideas and information has positive effects on student achievement, whereas using the PC to practice skills and procedures has negative effects.

The Development of Economic Behaviour: Experimental Studies with Primary School Children

P. Lergetporer, completed dissertation, February 2011 to May 2015, supported by the Government of the autonomous province South Tyrol; publication of results in *Journal of Economic Behavior and Organization* (forthcoming); *Proceedings of the National Academy of Sciences of the USA* 111(19), 2014.

This dissertation project investigates the development of several dimensions of economic behaviour in elementary school children aged from 6 to 11 years. Simple economic experiments were conducted over a period of two years in order to measure traits such as cooperation, altruism and the time preferences of about 1,500 children. The experiments were conducted in the bilingual city of Meran (Italy). The fact that about half of the population is affiliated to the German or Italian language group in this city enables the investigation of social interactions across both language groups.

The project results show that the economic behaviour of children varies markedly with age and language group affiliation. For instance, cooperation rates increase significantly with age. Children also develop a taste for discrimination in their early years: from 9 to 10 years on, children cooperate significantly more with other children from their own language group as compared to children from the other respective language group. Furthermore, the project shows that

simple punishment-mechanisms increase cooperation rates in all age groups. The combination of data from different experiments reveals a strong, but non-linear relationship between altruism, risk tolerance and patience. Another key finding is that children who speak Italian are significantly more impatient than Germanspeaking children. Finally, an easy-to-implement and easy-to-understand method for measuring time preferences is introduced in the dissertation. This novel method is particularly suitable for measuring time preferences in children, while delivering similar results to conventional methods.

Strong, non-linear relationship between altruism, risk tolerance and patience

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 2016, publication of first results in *ifo Schnelldienst* 67(18), 2014.

Empirical research has produced many insights into how education policies could be altered to improve student outcomes. Political players, however, 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 players are responsive to the opinions of voters and of well-organised interest groups, which may diverge from what is in the public interest more generally. 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 public opinion on a broad range of topics in education policy. We therefore conduct 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. The other subgroup of

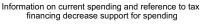
Understanding public opinion on education topics

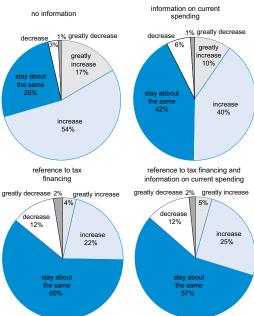
respondents answers the same question, but does not receive any information. Comparing the answers of both subgroups allows us to quantify the causal effect of the respective information on public opinion.

The close cooperation with the "Program on Education Policy and Governance" (PEPG) at Harvard University constitutes another key aspect of the project. In order to draw a comparison between public opinion in the US and Germany, we joint drafted questions on a subset of topics which were asked in both countries.

The results from the 2014 survey reveal a multifaceted picture: in some areas such as compulsory and free preschools, full time schools, the co-education of children with and without special needs, nationwide central exit exams or salary increases for teachers in schools with many disadvantaged students, most respondents clearly support reforms. Other proposals like increasing teacher salaries, abolishing school grades or giving tenure to teachers are not supported by the majority of the population.

Should Public Spending on Schools Increase?





Source: ifo Bildungsbarometer 2014. For more details see ifo Schnell-dienst 67 (18), 2014, 16-33.

Furthermore, we find that information provision has heterogeneous effects on public opinion: the majority that supports increases in public spending for education turns into a minority when the necessity of a tax raise in order to finance the additional spending is emphasised. Similarly, a plurality against tuition fees turns into a plurality in favour of tuition fees when respondents are informed of the salary gap between university graduates and persons with a lower vocational degree.

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 centers 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 on the analysis of economic aspects of educational policies and reforms; and supporting the dissemination of knowledge related to the economics of education in Europe.

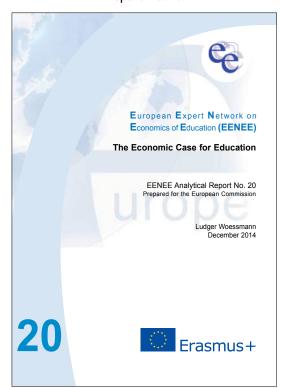
EENEE performs the following concrete tasks: preparing analytical reports, writing policy briefs, providing guidance and advice on concrete questions of the Commission in the field of the economics of education that emerge occasionally on an ad-hoc basis, offering support with conferences and meetings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

EENEE published three analytical reports in 2014. Report 18 examines the contribution of universities

Close cooperation with PEPG at Harvard

to innovation, (regional) growth and employment. Report 19 deals with mechanisms and methods for analysing the cost-benefit/cost-effectiveness of specific education programmes. Report 20, written by Ludger Woessmann, discusses the economic case for education. Three further reports are currently under preparation. The first one investigates how education and training can be used to prevent and combat youth unemployment. The second report discusses how to reduce inequality in education and skills and its implications for economic growth; and the third report deals with innovations in education that give individuals better skills and higher employability.

Report No. 20



Five policy briefs summarising key aspects of the economics of education in a concise way were also published in 2014. The first brief deals with early school leaving in Europe and its costs for individuals and the society. The second policy brief is based on Analytical Report 18 and discusses how universities can be activated as engines of growth in Europe. The third policy

brief is based on Analytical Report 19 and presents arguments on why we should care about the costs and benefits of education. The fourth policy brief, which was prepared by Raj Chetty, John N. Friedman and Jonah E. Rockoff, deals with the lasting value of great teachers. The last policy brief is based on Analytical Report 20 and summarises findings on the economic case for education. In total, the network has published fourteen policy briefs. Work is currently ongoing on four additional policy briefs.

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 program, October 2012 to September 2015, publication of first results in European Economic Review 73, 2015; also published as NBER Working Paper No. 19762, 2013; 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 is 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 attempts to shed light on these questions.

To answer these questions, the project draws heavily on the PIAAC (Programme for the International Assessment of Adult Competencies) survey conducted by the OECD. PIAAC was designed to measure key information processing skills that individuals need to advance in their jobs and participate in society. The OECD released the data for the 24 countries participating in the first wave of PIAAC in October 2013. Simon Wiederhold and Ludger Woessmann, in cooperation with the Ifo Research Professors Eric A. Hanushek (Stanford University) and Guido Schwerdt

Five policy briefs published in 2014

Lifelong learning is essential

(University of Konstanz), measure how labour markets reward skills in 18 European and 5 additional countries (the Russian Federation was not considered because of data problems). They estimate the returns to skills as the increase in hourly wages when skills increase by one out of five proficiency levels in PIAAC. The figure shows that higher cognitive skills are systematically related to higher wages in all 23 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 18 percent increase in wages across countries. But perhaps the most striking finding from the international analysis is 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) are roughly twice as large as in the countries with the lowest returns (Sweden, the Czech Republic, and Norway). Eight countries, including all Nordic countries, have returns between 12 and 15 percent, whereas six countries are above 21 percent, with the largest return being 28 percent in the United States.

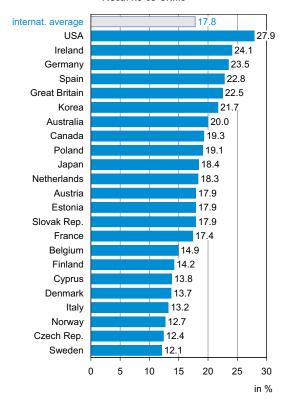
Major variation in returns to skills

Displacement has negative earning effects

Previous research has highlighted that job displacements can have major and lasting adverse effects on life-time earnings. However, the mechanisms behind these earnings losses are not well understood. In reseach jointly conducted with Ljubica Nedelkoska and Frank Neffke (both Harvard University), Simon Wiederhold investigates the role of skills in explaining the costs of job displacement. The authors 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 to stayers.

Other LLLight in Europe research deals with measuring skill mismatches between occupations. Together with Anja Perry (GESIS Mannheim) and Daniela Ackermann-Piek (GESIS Mannheim und University of Mannheim), Simon Wiederhold uses individual skill data from the PIAAC survey to improve existing measures of skill mismatch, which are typically based on self-reports.

Returns to Skills



Source: PIACC (2013).

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 have helped to develop the course.

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-Puchalska, F. Kugler, funded by the German Federal Ministry of Education and Research, March 2014 to February 2018.

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 in the labour market. However, the positive association observed 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 will be based on an extensive survey of human resources managers. The survey will include a randomised experiment to help identify a causal relationship. 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.

US State Human Capital

L. Wößmann, J. Ruhose in cooperation with Ifo research professor E. Hanushek, Stanford University, for the Kern Family Foundation, September 2012 to April 2015.

While US states invariably point to the need to improve the skills of their citizens, generally through school investments, they neither know where they currently stand nor what the implications of this are for their economic development. This research develops estimates of the human capital of the la-

bour force in each state over the past four decades. These estimates combine data on school attainment and student achievement, recognising where people, including migrants, were schooled. The resulting database is used to understand the role of human capital in determining income levels across states. It also provides insights into the difference in economic growth rates across states. Finally, there will be an intensive effort to communicate the results of this research to senior policy-makers – governors, budget directors, state education commissioners – so that they can make informed decisions about investments in human capital within states.

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

L. Wößmann, M. Piopiunik, J. Ruhose, funded by the Leibniz Association, January 2012 to December 2015.

The Ifo Center of Excellence for Migration and Integration Research (CEMIR) combines expertise from labour market economists, public economists, education economists, and globalisation researchers. The Ifo Center for the Economics of Education mainly contributes to module 3: "Integration of Immigrants' Children through the Education System". This module estimates the leading determinants of educational outcomes of students with a migration background, with a special focus on the role of the institutional structure of the education system and on language proficiency. Methodologically, this research extends the existing microeconometric literature on the topic by exploiting quasi-experimental variation in the German socio-economic panel (SOEP) and panel variation in the PISA data. 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.

National Education Panel (NEPS)

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

How human capital determines income levels

Outcomes of students with migration background

Data on skills development, education processes and decisions 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. From 2014 onwards, the NEPS project will be continued by the Leibniz Institute for Educational Trajectories (LIfBi) based in Bamberg. In this new setting the Ifo Center for the Economics of Education has co-responsibility for item development in the pillar of 'returns to education across a life span'.

Value-Added Based Measures of Teacher Effectiveness and its Determinants in the German National Educational Panel Study

B. Enzi, L. Wößmann in cooperation with Ifo research professor G. Schwerdt, University of Konstanz, ongoing doctoral project, supported by the German Research Foundation, October 2012 to September 2015.

The project aims to analyse teacher 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 achievement 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. This allows a new set of analyses of the determinants of teacher quality, covering three broad categories of teacher characteristics: firstly, basic teacher traits such as gender, age,

experience, and teacher training; secondly, variables describing the attitudes and behaviour of teachers; and thirdly, unique NEPS data on the course of teacher studies and selection into the teaching profession.

Empirical Studies in the Economics of Education

L. Wößmann, various ongoing research projects, recent publications, among others, in MIT Press (forthcoming); Economic Journal (forthcoming); European Economic Review 73, 2015; Journal of Public Economics 117, 2014; Historical Methods 47(2), 2014; Perspektiven der Wirtschaftspolitik 15(2), 2014; Education Next 14(4), 2014; Zeitschrift für Erziehungswissenschaft 17(1), 2014; 17(2S), 2014; ifo Schnelldienst 67(18), 2014; 67(2), 2014; CESifo Working Paper No. 4597, 2014; No. 4684, 2014; 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 related to 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 completed in 2014 and will be published in 2015 by MIT Press. The book makes a simple, central claim, developed with rigorous theoretical and empirical support and built on the long-run growth experience of nations: knowledge is the key to a country's economic development.

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 microeconometric 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 other things, how central exit exams affect the German labour market, computer use in the classroom,

Analysis of teacher effectiveness

and the economic returns of effective educational reforms in terms of reducing the number of at-risk students. A further study investigates the effects of internet access on social interactions.

Several historical research projects document and analyse the ifo Prussian Economic History Database (iPEHD). For example, a current paper studies how educational expansion around the turn of the 20th century affected secularisation. 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. In addition, a methodological contribution describes econometric methods for evaluating the causal effects of economic policy in a non-technical way.

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. 2733, 2009; No. 3252, 2010; No. 3430, 2011; No. 3603, 2011; No. 3904, 2012; No. 3936, 2012; No. 4391, 2013; *CEPR Discussion Paper* No. 9730, 2013; *CAGE Working Paper* 174, 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 from a 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.

Furthermore, this habilitation project aims to study the effect of human capital on 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.

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 human capital has a significant positive impact on innovation and — once accounting for innovation — human capital has a large residual impact on income.

Finally, a new project studies the evolution of the emancipation of labour theoretically and empirically. The project analyses the extent to which the complementarity between physical capital and skills created incentives to abolish serfdom which, in turn, triggered sustainable investments in human capital.

Human Capital Production and Migration

M. Piopiunik, ongoing habilitation project; publication of results in *Scandinavian Journal of Economics* 116(3), 2014; *Economics of Education Review* (42), 2014; *Zeitschrift für Erziehungswissenschaft* 17(2), 2014; 17(1), 2014; *NBER Working Paper* No. 20727, 2014.

A skilled population is considered a prerequisite for a prospering economy. To this end, an efficient education system 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. Specifically, the impact of educational inputs such as teacher skills and tracking age on the achievement of students are investigated. Different national and international student achievement datasets are used to quantify these impacts.

Understanding the Relationship between Skills and Labour-Market Outcomes

S. Wiederhold, ongoing habilitation project, publication of results in, among others, *European Economic Review* 73, 2015; *NBER Working Paper* No. 20727, 2014.

Human capital, innovation and economic growth

Analysis of educational outcomes

It has long been reckoned that the skills of the population 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 makes it possible to quantify how different modern economies value skills for the first time.

Another part of this habilitation project deals with skill mismatch, which is a ubiquitous phenomenon in the economy. At the individual level, every job change involves skill shortages (skills that have not been learnt, but that are relevant in 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 organisational 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 have also left their mark on the German labour market. A number of recent studies suggest that the qualifications available in the labour market are not a good match for the skills that are demanded by the economy.

Previous research 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 following questions: are displaced workers matched worse than voluntary job switchers? Can skill mismatches partly explain 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 to stayers.

Finally, another aim of the habilitation is to improve the measurement of skill mismatch between occupations. To achieve this, we use objective data on skills at the individual level from the PIAAC survey, and detailed data on the tasks that workers perform on the job, allowing us to measure the distance between occupations depending on the similarity of the tasks performed by the workers in the respective occupations.

Microeconometric Analyses on Economic **Consequences of Selective Migration**

J. Ruhose, ongoing doctoral project, publication of results in CESifo Working Paper No. 4992, 2014.

In literature on economics, migration mainly describes the movement of labour, which is one of the important factors in the production process. Industrialised countries in particular are seeking to attract high-ability migrants to foster innovation and economic growth. Therefore, understanding the causes and consequences of migration is crucial to these countries' welfare. One of the central questions in migration research is where people move and why they have chosen a particular destination. The performance of migrants in the educational sector and in the labour market is another important issue. In addition, the thesis covers some aspects related to the consequences of a higher influx of migrants for natives. The empirical analysis mainly uses different micro datasets, but also exploits aggregated data sources at the county and country level.

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 from the first Prussian census in 1886. The relationship between educational inputs such as educational expenditure per student, class size, and teacher quality and economic development, measured by income tax per capita, is analysed. In a second project, additional Prussian county-level data are used to examine the effect of linguistic fractionalization on the provision of public goods, measured by educational expenditure. A third

Skill mismatches

Job displacement and lifetime earnings

project examines the effect of a historical schooling regulation, which introduced secular school monitoring in Prussian schools on educational outcomes such as school attendance, teachers per school-aged children, school density, and private school attendance.

Economics of Education Policy

K. Werner, ongoing doctoral project.

The aim of 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. Initial results show that schools receive particularly high grades for their ability to cater for 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. Future work will provide additional insights 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.

This doctoral project investigates questions in the field of the economics of education and studies structural change in the 19th century German Empire using microeconometric methods. A first project analyses how agricultural inheritance practices, an informal institution, promote structural change. The county-level data set is self-constructed from historical statistics and literature. Controlling for observables and using fixed effects, outcome variables such as average farm size for 1895 and 1907, the number of people working in secondary employment, the number of

cities and their population, and the number of people who migrated to the US between 1880 and 1890 should show that a certain type of inheritance practice (partible inheritance) reduces farm sizes. Farmers therefore need to take up secondary employment and provide their labour for upcoming industry. Thus, structural change is promoted in partible-inheritance counties. The argument should be strengthened and differences in the varying inheritance-practice regimes better documented by using fertility and human capital as further outcome variables.

Inheritance practices and structural change



Ifo Center for Industrial Organisation and New Technologies

In June 2014, Prof. Tobias Kretschmer, Ph.D., the previous director of the Center for Industrial Organisation and New Technologies, left. He will nevertheless continue to cooperate with the Ifo Institute as a research professor. Prof. Dr. Oliver Falck, previously deputy director of the Ifo Center for the Economics of Education and Innovation under Ludger Wößmann and responsible for the innovation economics research programme, took over as director of the Center for Industrial Organisation and New Technologies for a period of five years. In this context, the innovation economics research programme was integrated into the 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 the analysis of 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 of great value to practitioners.

Focus on the analysis of determinants and effects of firm behaviour

Three main areas

Industrial organisation and industry-level analysis

In the area of industrial organisation, the Center analyses, for example, the effects of industry-specific regulation (e.g. telecommunications and energy) or industrial policy (e.g. the support for so-called European champions) on firm behaviour. Besides the analysis of policy effects on firm behaviour, the Center also focuses on internal firm activities, such as management practices, employee diversity or 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 has been the twice-yearly publication of almost 160 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 Munich and Cologne) and on the construction sector within the framework of the EUROCONSTRUCT project in 2014. 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. In 2014, the Ifo Industry Colloquium was organised in cooperation with the Chamber of Industry and Commerce for Munich and Upper Bavaria and with the support of 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 central importance to the various German industries. In particular, 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 particularly focuses on information and communication technologies (ICT) as general-purpose technologies. Within the framework of a longstanding cooperation, Deutsche Telekom AG sponsors two doctoral positions at the center. These two doctoral students perform research in the field of the economics of innovation in telecommunications. In addition, the Center investigates the effects of the institutional framework (e.g. patent laws) and government policy (e.g. cluster policies) on the innovation activities of firms, which enables it to assess the effectiveness of various policies. For example, the Center is involved in an international consortium that is preparing an evaluation and monitoring system for the DG Enterprise of the European Commission.

Collection of firm-level and industry-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 are the personnel manager survey (supported by Randstad Germany) aimed at gathering data on the personnel strategies of firms, and the innovation survey that has been conducted by the Center for the past 30 years. The innovation survey asks firms about their innovation activities, their drivers of innovation, and the constraints affecting them. Furthermore, the Center provides industry-level investment data by different asset types (e.g. investment on information and communication technologies) to study structural shifts in the importance of industries and capital goods.

Projects Completed in 2014

Ifo Industry Colloquium 2014

M. Ebnet, H.-D. Karl, T. Strobel, H.-G. Vieweg, L. Dorffmeister, E. Gluch, G. Orhan, J. Lachner, A. Städtler, H. Blau, A. Jacob-Puchalska, G. Nerb, R. Stanga 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* 67(23), 2014.

This year's Ifo Industry Colloquium took place on November 5th 2014, 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. Over 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, Hans-Werner Sinn, President of the Ifo Institute, and Timo Wollmershäuser, Interim Director of the Ifo Center

for Business Cycle Analysis and Surveys, gave presentations on "The economic situation in Germany and Europe" and the "Mid-term forecast for Germany" respectively.

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.

Gabriel Felbermayr, director of Ifo Institute for International Economics, closed the Ifo Industry Colloquium 2014 with his talk on "Transatlantic Free Trade – Opportunity or Threat?"

The speakers that participated in the forums were:

Forum I – Industry: Introduction and Moderation: H.-G. Vieweg, Ifo Institute, Munich; Experts: T. Strobel, Ifo Institute, Munich, C. Malorny, McKinsey Company, and L. Balzer, EAC-Euro Asia Consulting.

Forum 2 – Commerce: Introduction: A. Städtler and G. Orhan, both from Ifo Institute, Munich; Moderation: W. Fischer, CityPartner Munich; Experts: N. Busch-Petersen, Trade Association Berlin-Brandenburg e.V., and H.-G. Maier, Edeka Handelsgesellschaft Südbayern mbH.

Forum 3 – Construction: Introduction: L. Dorffmeister, Ifo Institute, Munich; Moderation: R. Scholl, former Federal Ministry of Transport, Building and Urban Development, Berlin; Experts: R. Dippel, Interpane Glas Industrie AG and B. Kramer, Viessmann Werke GmbH&Co.KG.

Forum 4 – Services: Introduction: G. Nerb and A. Jacob-Puchalska, both from Ifo Institute, Munich; Moderation: R. Obermeier, Chamber of Commerce and Industry for Munich and Upper Bavaria; Experts: H. Küster, Randstad Professionals and G. Müller, TÜV SÜD.

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 October 28th, 2015.

Ifo Industry Colloquium



Prof. Dr. Dr. h.c. mult. Hans-Werner Sinn

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

H.-G. Vieweg, J. Koenen, J. Schricker, T. Strobel.

The European Commission awarded a contract to the European Consortium for Sustainable Industrial Policy (ECSIP) within the framework contract awarded 2012 by the DG Enterprise and Industry with a duration of up to 2016 (see: current projects). The project lead was taken by WIIW, 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 perspectives 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 have been 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-highto 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 has become obvious 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 services providers, which are of pivotal importance for competitiveness and economic performance. Driving factors are 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 fuelled by manufacturers' renewed efforts to gain better access to consumer markets.

In spite of 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.

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

Manufacturing and services sector complement each other

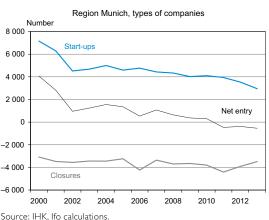
exist. For example, a more ambitious implementation of the EU Services Directive would be a significant step forward in this direction, accompanied by the removal of the remaining regulatory barriers to goods markets, particularly at a national level. Acknowledging of the trend towards further specialisation 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.

Competitiveness of the ICT and Media Industries in the Greater Munich Area

T. Kretschmer, K. Haug, J. Koenen, T. Strobel for the IHK Munich/Upper Bavaria and the City of Munich, November 2013 to October 2014.

This report studies the competitiveness of the Greater Munich Area in the sectors of ICT and the media, using both secondary data sources, as well as primary data from a survey of firms in the area and expert interviews. Overall, the Greater Munich Area is highly competitive in these industries, which was reflected in the high satisfaction rates expressed by survey respondents. Strong recent growth has more than erased the negative effects of the financial crisis, although the rate of start-up formation has slowed down somewhat in recent years (see figure). This observation can partly be explained by the excellent employment opportunities that the two sectors have offered over the past few years, especially in services.

Start-ups and Closures in the ICT and Media Sectors since 2000



Future challenges include high costs (especially wages and rent), which are a likely cause of dwindling employment in the area of ICT production. On 14 October 2014, the central results were presented to and discussed with the Chamber of Commerce and Industry committees on ICT and the Media.

Strong growth erases effects of crisis

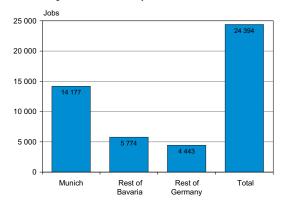
The Economic Impact of the Munich Trade Fairs and Events

H. Penzkofer for the Messe München GmbH, March 2013 to April 2014, publication in *ifo Schnelldienst* 67(10), 2014.

The total aggregate output resulting from the direct and indirect impact of a typical trade-fair and event year is about EUR 2.6 billion, or ca. 24,400 gainfully employed persons. The resulting tax revenue of the various authorities (City of Munich, Bavaria and Germany) was also estimated. With a trade-fair and event related output of EUR 2.6 billion, the concomitant tax revenue is about EUR 490 million

The Economic Impact of Munich Trade Fairs and Events

Average trade-fair and event year of Messe München GmbH



Source: Calculations of the Ifo Institute.

The Economic Impact of the Cologne Trade Fairs

H. Penzkofer for the Koelnmesse GmbH, August 2012 to December 2014, publication in *Annual Balance Report of the Koelnmesse GmbH*, 2015.

Quantifying impact of trade fair

The objective of this project was to calculate the expenditure of trade fair participants in a typical trade fair year. Their direct and indirect impact on production volume and tax revenues were also estimated. 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.

Building Equipment Sector in Germany and in Selected European Countries

H.-D. Karl for the Vereinigung der deutschen Zentralheizungswirtschaft e.V., Vereinigung Deutsche Sanitärwirtschaft e.V. and Messe Frankfurt Exhibition GmbH, May 2013 to April 2014, follow-up project, May 2014 to April 2015.

In a continuation of a project that has run over several years, 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 and investments, was collected. In 2013 the building equipment sector comprised 51,400 enterprises with 502,000 employees. Its consolidated turnover amounted to around € 51.4 billion. The economic prospects of the building equipment sector improved in 2013, despite the weak growth of the German economy. The growing need to replace heating and sanitation devices, the Energy Saving Ordinance, and the growing use of renewable energy all had a positive impact. In addition, 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 financing institutions will assume responsibility for publication of the results.

Developments in building equipment sector

Building Equipment Sector (Sanitary Heating Air-conditioning)

H.-D. Karl for the Vereinigung der deutschen Zentralheizungswirtschaft e.V., Vereinigung Deutsche Sanitärwirtschaft e.V. and Messe Frankfurt Exhibition GmbH, April 2013 to March 2014, follow-up project, May 2014 to April 2015.

Drawing on the Ifo business barometer for the building equipment sector, the cyclical situation and further development of the industry was analysed. To

this end, information on companies' current business situation and their business expectations was gained from the Ifo Business Survey, while data on additional factors like demand, prices, employment, exports etc. was collected via surveys of enterprises. According to the three industry stages of the building equipment sector, companies in the manufacturing industry (heating technique, building fittings), wholesaler and larger retail traders were surveyed. The data on the current business situation and the business expectations for the several stages were combined to form the business climate index for the whole sector. The survey started in October 2004. This report contains an analysis of last year's data. The financing institutions will assume responsibility for publication of the results.

Economic Trends in Amusement Machines in 2013 and Outlook for 2014

H.-G. Vieweg, A. Jacob-Puchalska for Deutsche Automatenwirtschaft, December 2013 to March 2014, follow-up project, December 2014 to March 2015.

Since the late 1980s the Ifo Institute has been producing studies on economic developments in the amusement machine industry. In these studies, a special focus is on the analysis of the institutional framework. The results of the study most recently commissioned by the German Coin-operated Machine Industry Association were presented at the opening of the International Trade Fair for Vending and Amusement Machines (IMA) in Dusseldorf on 14 January 2014.

Current Projects

Information System "Branchen special"

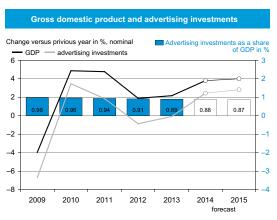
M. Ebnet, H. Hofmann in cooperation with over 20 Ifo researchers from various Ifo Centers for the DG-Verlag, Wiesbaden, ongoing project, publication in Bundesverband der Deutschen Volksbanken und Raiffeisenbanken (BVR), DG-Verlag, Wiesbaden.

The "Branchen special" project has now been providing information continuously for over 20 years and currently 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 the 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 structural change into account, the selection of industries surveyed is occasionally adjusted to correspond to the changed importance of some 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 Ifo and other institutes. This leads to a condensed offering of information in the form of text, tables and graphics (see Figure I for an example). 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/branchenspecial). Individual reports can be obtained from the Volksbanken und Raiffeisenbanken, while subscriptions are available from the DG-Verlag in Wiesbaden.

Labelling Extract from Branchen special No. 52 "Advertising Agencies"



Source: Federal Statistical Office; Ifo Institute; ZEW.

Demand-Oriented Innovation Policy

O. Falck, N. Fabritz, J. Koenen, C. Mang 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 demandoriented innovation policies according to state-of-the-art methodolgy. In an independent work package, Ifo has conducted a meta-study analysing existing evaluation studies to determine which types of policies are effective under which 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.

"Branchen Special" covers 160 branches

Ifo Innovation Survey

O. Falck, H. Penzkofer, T. Strobel, ongoing project.

Economic growth and competitiveness in the long term are characterised by high-tech innovations. True technological breakthroughs, however, are the exception, and progress develops primarily in a series of very small steps. For this reason, it is important to employ a broad definition of innovation. Technical progress can only be explained if both the "radical" and the "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 the data of the Ifo Innovation Survey, the Ifo Institute is able to capture the industry- and product-specific innovation activities of companies. The results also supply information on the aggregate level for sector, structural and growth analyses. Furthermore, data on the economic and technological conditions that affect the innovation activities of German industry are also collected.

Ifo Personnel Manager Survey

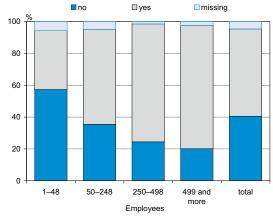
A. Jacob-Puchalska, O.Falck, K. Wohlrabe, P. Wojcie-chowski for Randstad Deutschland GmbH & Co.KG, ongoing project, publication on the company's website.

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 ifo Schnelldienst. In 2014, special

questions on minimum wages, early retirement (at the age of 63), female quota, and problems with filling apprenticeship positions were asked.

Do You Expect Your Employees to Make Use of the New Early Retirement (at the Age 63) Rules during the Next Two Years?



Source: Ifo Personnel Manager Survey, 2nd Quarter 2014.

The Economic Impact of the Leipzig Trade Fairs

H. Penzkofer for the Messe Leipzig GmbH, November 2013 to October 2015.

The objective of this project is to calculate the direct and indirect production and income effects, as well as the resulting tax revenue, of the Leipzig trade fairs. Based on surveys conducted for the project among visitors and exhibitors at selected Leipzig trade fairs, 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 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 conducted for the project among visitors and exhibitors at selected Nuremberg trade fairs, the total number of visitors and exhibitors and

Since 1979 Ifo Innovation Survey

their expenditure are determined. The 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.

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 July 2015.

The focus of the part of the project covered by the Ifo Center for Industrial Organisation and New Technologies lies on the policy areas of human capital, innovation and doing business. These three areas are generally considered crucial determinants of long-run economic growth. In a first stage, the status-quo in Croatia in these three areas is thoroughly analysed. Based on these analyses and on the reform experiences in comparable countries, policy recommendations for Croatia are derived.

Economic Situation and Structure of Europe's Construction Sector (EUROCON-STRUCT network)

L. Dorffmeister, E. Gluch, M. Ebnet for the EC-Partner institutes, the organisers and participants in the EUROCONSTRUCT conferences, as well as recipients of the conference proceedings and of presentations at specialist conferences, ongoing project, publication in *ifo Schnelldienst* 67(2), 2014; 67(3), 2014; 67(14), 2014; as well as in various specialist journals.

The European research and advisory network "EURO-CONSTRUCT" 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 Europe as a whole — are presented. The forecasts not only feature values (in euros) differentiated according to the type of construction, but also present the physical variables of construction (number of dwellings). Further topical issues of the 2014 conferences were the U.S. housing market and Building Information Modelling (BIM) The 79th EURO-CONSTRUCT-Conference will be held in Warsaw on June 12th, 2015. Further information can be found under www.euroconstruct.org.

Construction in Germany by Segment

L. Dorffmeister, M. Ebnet, E. Gluch for federal and state ministries, local authorities, research and advisory institutes, companies and associations, ongoing project, as well as publications in *ifo Schnell-dienst* and external publications.

In this project, figures, in terms of values and quantities, illustrating German construction activities are forecast on a quarterly basis. The 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 in the Ifo Industry Colloquium (ifo Branchen-Dialog). They also feature in the joint economic forecast made by the research institutes and 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 (EURO-CONSTRUCT).

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 of for Industrial Organisation and New Technologies analyses the behaviour of electric utilities, because firm's strategic behaviour is an important determinant for 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) of 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.

German construction activities

Analysis of the behaviour of electric utilities

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

H.-G. Vieweg, J. Koenen, T. Strobel 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, the European Competitiveness and Sustainable Industrial Policy Consortium (ECSIP). The European Commission awarded a framework contract to the consortium, which covers a time period of four years, after a successful open tendering procedure. 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.

Economics of Innovation in Telecommunications

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

The doctoral projects deal with determinants of innovation in telecommunications and investigate the underlying mechanisms. Moreover, the dissertation also considers 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 up a business, as well as on firm location. In order to identify causal effects, the studies exploit factors such

as the technological features of the traditional telephone network that influenced the rollout of fixedline broadband infrastructure in Germany.

In the doctoral project of Alexandra Heimisch, a first study investigates the returns on specialised 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 emerge from being exposed to broadband internet (learning-by-doing). By employing an instrumental variable approach, it can be shown ICT skills have a casual effect on wages. Thus, the study presents another channel through which broadband infrastructure influences economic growth.

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. On the one hand, it addresses the development and implementation of econometric methods that allow drawing quantitative causal inference. On the other hand, it also seeks to apply these methods to relevant questions and programmes of innovation policies in order to supplement the predominantly ideological public debate on appropriate policies with quantitative reasoning.

New Technologies and Innovative Industries

K. Candel Haug, ongoing doctoral project.

This dissertation project focuses on the diffusion and productivity effects of innovations, and particularly of information and communication technologies (ICT), as well as on the resulting market and industry structures. An initial paper revisits the established measures of ICT in the economic literature and develops a new indicator for interconnectivity. The indicator reflects recent technological developments such as the increasing integration of communication and information into one single system. The initial results of a firm-level analysis suggest that interconnectivity has significant effects on firm productivity.

Sectoral competitiveness studies

Innovation Incentives, Innovation Policy and New Technologies

J. Koenen, ongoing habilitation project.

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.

Productivity, Innovation and Capital Formation

T. Strobel, ongoing habilitation project.

Productivity is a key performance indicator for the prosperity and growth of an economy. The aim of the habilitation project is the empirical analysis of the determinants of productivity at a sectoral and aggregate level. The focus here is on the impact of new technologies and analyses of sectoral investment behaviour. Therefore, an important role is played by the adequate identification (measurement) of productivity- and growth-enhancing factors such as capital, labour and technological progress. Ifo's own established input-specific databases, as well as national and international datasets, are used in the course of the project.

Management in Production

T. Triebs, ongoing habilitation project.

This project focusses 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, 2014.

This project explores the economics of teams, how they form and when they do not, the incentives of teammates and loners, together with teamwork's impact on public and private welfare. This project spans the behaviour of entrepreneurs, partners and share-holders, 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 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 meritocratically. Furthermore, among those working individually, discrimination victims outperform beneficiaries. Co-authoring behaviour in economics, where discrimination by surname exists, confirms these predictions.

Firm performance and its

Economics of teams

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 such that the beliefs are confirmed in a Bayesian-Nash equilibrium.

"Does Social Proximity Enhance Business Partnerships?" formally models social proximity's selection and influence effects on business partners. Consistent with the model's predictions, US venture capitalists invest in start-ups with coethnic executives, particularly when the ex-ante success probability appears low. These companies successfully exit more often and have higher profits after IPO. Two-stage regression estimates suggest that these positive performance outcomes stem primarily from superior post-investment communication and coordination.

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 research activities of the Center are determined by the main challenges arising from the protection of 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 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 policymakers with substantiated information on the effectiveness of climate policy instruments. An additional main research area in climate change is incentives to avoid emissions, as well as technological developments and adaptation. Beyond the traditional analysis of instruments, the Center's research also encompasses voluntary emission avoidance and the technological and economic barriers that stand in the way of adapting to and preventing climate change. The Center analyses, for example, in the course of two perennial research projects, the effectiveness of climate policies and the implications of international trade, extraction costs, technological change and substitution possibilities for the efficiency of these policies when the behaviour of resource owners is taken into account. The Center is also developing an internet-based information platform on resource and energy-related topics. It also continuously extends 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 result mainly from the burning of fossil energy sources. Due to the immense importance that this field has for German growth and prosperity – especially after the decision to acceler-

ate the 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 $\rm CO_2$ -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 both the overall and the 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 investigated in the course of another perennial research project that takes policy implications into special consideration.

German energy policy and its impact must be understood in the context of European developments as a whole. For this reason the area is developing a model of the electricity market in which renewable energies from wind and sun are integrated. The model should improve understanding and estimates of the impact 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. If o has longstanding experience in the analysis of the environmental sector and has placed the emphasis of its recent studies on the suppliers of equipment and services in the field of renewable energies, the improvement of energy efficiency and energy saving, which provides a good example of the interrelatedness of the different research areas of the Center. Further topics in this field encompass the economic evaluation of the environmental effects of climate change as well as, traditionally, research on

Measuring success of energy policies

Regionalisation versus centralisation

Recent focus on energy efficiency and saving

Policy advice

water use and water management. Beyond these research activities, the Center also offers policy advice on different environment-related topics. Examples are 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 2014

The EEG-Related Extra Costs of CO₂-Mitigation

L. Röpke, C. Weissbart, K. Pittel, M. Zimmer for Die Familienunternehmer – ASU e.V., April 2014 to August 2014.

For almost a decade the development of the German energy market has been strongly affected by two regulatory measures, both of which were introduced in order to reduce CO₂ emissions. The energy sector is part of the European emission trading system (EU-ETS) on the one hand, and subject to the German Renewables Energy Law (Erneuerbare Energien Gesetz, EEG) on the other. This support system for renewable energy has led to an unprecedented increase in renewables capacities, primarily of wind and solar energy. The aim of this study was to provide a rough estimate of the most important cost components that energy consumers may face until 2030 - under perpetuation of the EEG on the one hand, and under its immediate renunciation and reliance on the EU-ETS as the main instrument of climate policy on the other.

Extra costs of renewables

When estimating the costs of renewable energy expansion, often only the so-called difference costs of the EEG are considered, i.e. the difference between the support payments to renewables and the revenues from selling the generated renewable electricity on the electricity exchange. In this study, however, a number of additional cost components were considered that determine the net costs of the EEG for consumers. These include, for example, the effects on the electricity price and the costs of expanding the grid in order to maintain security of supply. The effects of an increasing feed-in of renewable energy

on the price of CO_2 certificates in the EU-ETS was also taken into account. The approach chosen makes it possible to estimate the costs of providing electricity to consumers, yet it does not reflect the economic costs of electricity in their entirety. The study should thus not be mistaken as a forecast of the economic costs of the energy turnaround from now until 2030.

Two main scenarios, each with a number of sub-scenarios, were considered in the study. The first main scenario reproduces the status quo under continuation of the EEG ("status quo scenario", SQ), while the second one reflects a hypothetical scenario without EEG ("no EEG scenario", NE). The respective sub-scenarios differ with respect to the calibration of some parameter values, which allows us to draw conclusions about the sensitivity of the main scenarios with respect to parameter variations. As uncertainty about future developments increases with the progression of time, the time horizon of the analysis was limited to 2030. Electricity prices were calculated using a dispatch model of the German electricity market that was developed by the Center.

Scenario System

Main scenarios: SQ = status quo (EU-ETS with EEG)

NE = no EEG (EU-ETS without EEG)

Sub scenarios: I = moderate expansion of renewables' capacities
2 = strong expansion of renewables' capacities
a = high fuel costs, high CO₂ price
b = high fuel costs, low CO₂ price
c = low fuel costs, low CO₂ price
d = low fuel costs, low CO₂ price

Example: SQ Ia = status quo scenario with moderate expansion of renewables' capacities, high fuel costs and high CO₂ price

Souce: Ifo Institute.

The table shows the accumulated extra costs that will arise in the period of 2014 to 2030 if the EEG is continued, compared to the costs that would arise were the EEG to be abolished. The first column states the respective scenario pairs for which the difference in costs was calculated. The values in column 2 give the extra costs that result from the differences in electricity prices and the supporting of renewable energy in the scenarios of column 1. Electricity prices are always lower in the scenarios with EEG due to the merit-order effect that results from the feed-in

of renewables with marginal costs close to zero. This effect is, however, more than compensated for by the higher renewable support payments should the EEG be continued. As a result, the extra costs in column 2 are always positive, i.e. costs are always higher in the status quo scenarios. Accounting for additional grid costs of 48 billion euros (present value of investments from 2014 to 2030) further, aggravates this effect as column 3 shows. Finally, the last column reflects the lower prices of CO₂ certificates were the EEG to be continued. This is simply due to weaker demand for certificates if more energy is generated from renewable sources. While the net costs of the EEG fall accordingly, the effect is relatively small compared to the effects of supporting renewables and grid expansion. All in all, the study estimates the present value of the additional CO₂ mitigation costs that result from the perpetuation of the EEG to be in the range of 114 to 187 billion euros.

Present Value of EEG-Related Extra Costs of CO₂ Mitigation, Accumulated for the Time Period 2014–2030, in mio euros.

	Extra costs wrt electricity prices and EEG support payments (SQ – NE)	SQ – NE + additional grid costs	SQ – NE + addi- tional grid costs – avoided ETS-costs
SQ1a, NE1a	111,372	160,062	158,599
SQ1b, NE1b	127,271	175,960	171,882
SQ1c, NE1c	126,735	175,425	173,962
SQ1d, NE1d	142,634	191,323	187,245
SQ2a, NE2a	67,145	115,835	114,372
SQ2b, NE2b	79,651	128,341	124,263
SQ2c, NE2c	77,168	125,858	124,395
SQ2d, NE2d	89,675	138,364	134,286

Source: Calculation of the Ifo Institute.

Water Demand Forecast for Hamburg

J. Wackerbauer, J. Lippelt in cooperation with the Institute for Social Ecological Research ISOE, Frankfurt am Main, for Hamburg Water Utilities Ltd., September 2012 to February 2014, publication in preparation.

In the framework of this project the Ifo Institute has updated the water demand forecast for 2030 for the sectors of industry, small and medium-sized enterprises, trading companies and service providers in the supply area of Hamburg Water Utilities. While the cooperation partner ISOE predicted the water consumption of private households, the Ifo Institute was

responsible for the forecast of water demand by the industrial and commercial sector. The values for specific water use and the number of employees in the different branches in Hamburg formed the starting point of the water consumption forecast. To predict future water consumption, it was also necessary to make assumptions about the economic development of Hamburg. For this purpose, the sectoral employment forecast for Hamburg of the Prognos Germany report 2035 was used. The Prognos forecast predicts employment, as well as gross value added, for fourteen different branches in Hamburg up to the year 2035. This forecast was used as the basis for predicting water consumption by aggregating the data of the Hamburg Chamber of Commerce company database up to the corresponding fourteen branches, calculating specific water use per employee for each branch and multiplying the specific values by the predicted employment figures. As the task was to forecast industrial and commercial water use up to the year 2045, the results of the PROGNOS forecast were extrapolated by making plausible assumptions about the further economic development of Hamburg.

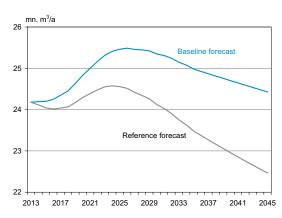
Total industrial and commercial drinking water demand was predicted by determining the specific water demand for each sector and developing assumptions about efficiency improvements in drinking water consumption. The corresponding estimates were secured through written and oral inquiries by major customers of the Hamburg Waterworks and experts from the water sector.

Two scenarios were distinguished: a baseline fore-cast with constant specific water demand in each branch and a reference forecast with divergent development of specific water demand in the different branches. The result of the drinking water consumption forecast is that, despite increasingly efficient water use in most sectors of the Hamburg economy, the resulting water savings are largely offset by economic growth. In the baseline forecast, drinking water consumption in 2045 is only 0.5% higher than in the base year 2011. In the reference forecast, drinking water consumption in 2045 is 2 million cubic meters or 8.0% lower compared with the baseline forecast (see figure).

Water consumption forecast

Water demand by sector

Industrial and Commercial Drinking Water Consumption at Hamburg: Baseline and Reference Forecast



Source: Ifo Institute based on Prognose, HAMBURG WASSER, Handels-kammer Hamburg.

Current Projects

Assessing the Green Paradox

L. Röpke, J. Pfeiffer, W. Marz, N. Jaakkola, K. Pittel for the German Federal Ministry of Education and Research, October 2011 to March 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. However, experiences with international negotiations like those in Kyoto, Copenhagen or Cancun, for example, have shown that only second-best policies seem realistically attainable. The Green Paradox is an important argument in the debate about these second-best climate policies. 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 at a rate that increases over time, as is often discussed in literature on this topic, creates incentives for resource owners to increase emissions (resp. the supply of fossil resources that cause emissions) in the short run. Second-best climate policies have to take this effect into account and should be designed accordingly.

The derivation of the Green Paradox, at least in its currently discussed form, is based on a number of simplifying assumptions. The costs of fossil fuel extraction and its dynamics, international trade of resources and substitution possibilities, for example, remain largely unconsidered. Improved incorporation of these aspects might alter the quantitative significance of the Green Paradox.

The main goal of the project is to assess the significance of the Green Paradox in an extended modelling framework and its effects on the benefits and costs of second-best climate policies. The insights gained will prove useful in the development and implementation of effective second-best measures on the way to a global climate policy framework. In order to achieve this goal, the project will conduct theoretical analyses that will be enhanced by numerical simulations of the policy impacts in the framework of the integrated assessement model REMIND.

The project aims to provide decision-makers with information on the implications and effectiveness of different climate protection strategies. It especially focuses on the evaluation of existing demand side policies and on providing the foundations 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, Mannheim, for the German Federal Ministry of Education and Research, January 2014 to December 2015.

The goal of the accompanying activities to the BMBF funding priority "Economics of Climate Change" is to strengthen the practical application and utilisation of the scientific work being done within the framework of this research programme. The projects that are supported by the funding priority "Economics of Climate Change" generate a variety of results to various climate-economic re-

Second-best climate policies

search questions. The Center seeks to communicate these results beyond the boundaries of the professional community. Together with the Centre for European Economic Research, the Ifo Institute coordinates one of four focus areas, which has the title "Energy resources and climate-friendly energy supply".

This includes, inter alia, the organisation of scientific workshops and events related to the focus area "Energy resources and climate-friendly energy supply". These conferences address topical issues of climate and energy policy debate and provide an insight into current research and a platform for discussion and informal exchange between science and practice. The findings and recommendations of the current economic climate research are presented as 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, October 2011 to April 2015.

Literature on the effects and the effectiveness of (unilateral) climate policy measures has to date relied heavily on work based on computable general equilibrium models (CGEs) and integrated assessment models building on the latter. While these models are strongly inspired by theoretical economic work and do an excellent job of integrating 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 microfounded, but used in a reduced form format. This is, amongst other things, true of the modelling of 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. As a result, there is substantial uncertainty over the results of CGE simulations.

In other fields of applied economic work, for example, in the area of international trade, 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 the 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 microfounded relationships into a CGE climate policy framework. The researchers with theoretical, empirical, and simulation-related backgrounds brought together by the project, ensured the development of an integrated, internally consistent approach and generated and improved our models used in applied policy work. One key prerequisite was the generation of comparable data on the various policies that regulate, tax, or subsidise 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 lied in 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 uses 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 key tasks of the project are: 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 users and providers of fossil fuels. The project also aims to identify substitution effects among differComputable general equilibrium models

Comparable data – a key prerequisite

Substitution effects and policy implications

ent energy sources and to derive policy implications from the status quo analysis of policy measures, as well as to assess the national and global welfare effects of potential policy scenarios with a focus on their long-term consequences.

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

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, September 2013 to August 2016.

In the course of the turnaround in energy policy the German federal government has set targets for reductions in greenhouse gas emissions, increases in the share of renewable energies and reductions in energy consumption. The implementation of the measures necessary to achieve this usually requires an agreement between the federal states and municipalities, as well as a local implementation of the measures. Closely linked to the need for regional implementation and for 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 regionalisation of energy policy and a centralised approach a potential area of tension arises 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 decentralised 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 the targets of the energy turnaround 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 the 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.

The aim of this project is to shed empirical light on regional aspects of the planning and implementation of the energy turnaround in Germany; 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. The project 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 then be drafted with the help of theory-based criteria. The 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 project experts and the organisation of workshops.

Development of a New European Electric Sector Model

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

After the political decision to phase out nuclear energy in Germany, politicians as well as the public were optimistic about the so-called "Energiewende". Yet, after a burst of initial enthusiasm, it has become increasingly apparent that matters are much more complex and potentially much more expensive than initially assumed. The current debate is almost exclusively focused on the transformation of the electricity

Reaching a consensus between federal states and municipalities

system, which can partially be justified by the role of electricity in the future energy system. If the long-run goals of reducing greenhouse gas emissions are to be reached, 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 about 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 liberalised, the European states still 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 bear potential for cost reductions, but the geography and meteorological diversity of Europe may also reduce both generation and storage costs.

This project aims to develop a dynamic model of the European electricity sector that is sufficiently decentralized to provide 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 longterm planning often omit key system features, while the more detailed system models often 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 countries of EU 28 plus Norway and Switzerland into 12 regions and is solved by intertemporal optimisation through 2050 with 5-year time steps with the intention of simulating a competitive equilibrium under alternative scenarios. It also disaggregates generators and intraannual time segments with sufficient resolution to capture dispatch, power flow 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 it to simu-

late hourly renewable resource profiles at country level, disaggregated by quality class. In a second step, a static model was developed and calibrated for the year 2012. Phase one was concluded by an expert workshop attended by renowned researchers from the energy modelling field, which offered the opportunity to discuss model structure, data requirements and scenario development in a constructive environment.

Energy modelling workshop

Phase two of the project will focus on the development of the dynamic model of the European electricity sector. The model will be the basis for first scenario runs on the topics mentioned above. In March 2015, the Ifo Center for Energy, Climate and Exhaustible Resources will host a workshop bringing together experts from the electricity sector and politics. The main purpose will be to present and discuss first model results and further scenario development.

INOLA – Innovations in Sustainable Land and Energy Management at the Regional Level

J. Lippelt, A.M. Montoya, K. Pittel, M. v. Schickfus und M. Zimmer in cooperation with C. Binder and W. Mauser, University of Munich, W. Mayer, Kempten University, and communal civil society and utility company partners, for the German Federal Ministry of Education and Research, October 2014 to September 2019.

The objective of the INOLA project is 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 project's central question is which social and technical innovations are necessary to establish sustainable regional land use accompanied by 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 project's primary contribution 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.

System solutions for sustainable land use

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

Ifo Center for International Economics

There were no major changes to the department structure of the Ifo Center for International Economics in 2014, which is expected to remain in its present form in the future. Two doctoral students successfully completed their theses, one of whom was awarded the highest mark of "summa cum laude" by the board of examiners. While one of the students will move on to the University of Bayreuth, Sebastian Benz will remain at the Ifo Institute. In January 2014 one doctoral student, Inga Heiland, began a 12-month research stay at the University of Stanford, which was partly financed by grants. Michele Battisti spent six months at the University College of London and six weeks researching at the University of Davis. The center employed four post-docs and four doctoral students at the end of 2014.

The Center for International Economics also made use of and expanded its international networks in 2014. As in 2013, these networks were drawn upon to organise conferences. The most important of these events was the annual meeting of the European Trade Study Group (ETSG) in Munich, which was held on 11 and 13 September 2014 and jointly organised with the chair of Carsten Eckel at the University of Munich. With around 400 participants, this is the biggest conference of trade economists worldwide. The evening reception took place in the BMW Welt and was generously supported by the City of Munich and the Bertelsmann Foundation. The WTO prize for the best research in trade economics was awarded at the conference. The event was rounded off by several speeches given by leading experts in the field, including Humboldt prize winner Wolfgang Keller, who spent the second half of 2014 at the Ifo Institute. The annual conference of the Economic Geography and International Trade Group took place on 7 and 8 March in Munich. The keynote speaker was David Dorn, University of Zurich. The conference series organised with Ifo's cooperation partners GEP, Nottingham, and CEPII, Paris, also continued in 2014. For scheduling reasons, however, the event that was supposed to take place in 2014 was not held until January 2015 in Paris. Finally, a widely acclaimed conference on the topic of export financing was held at the Ifo Institute on 14 and 15 February 2014. Representatives from academia, business and politics met to exchange views at the conference, which was organised and supervised by the center's Deputy Director, Erdal Yalcin.

The Center for International Economics also used its international network in its project work and continued to make new strides in this area. In conjunction with the CEPII partners, the center drafted a study on the effects of the Transatlantic Trade and Investment Partnership (TTIP) on the agricultural and food sector for the European Parliament and presented its results at a public hearing in Brussels. A major study on the effects of the so-called "Alianza del Pacifico" was also conducted with partner institutes from Peru, Chile and Columbia on behalf of the Konrad-Adenauer-Stiftung. The center participated in a proposal submitted by an international consortium in the framework of the EU Horizon 2020-Strategy and will further expand this commitment in the future. In concrete terms, it is involved in an interdisciplinary, innovative training network on TTIP and in a research proposal related to the EU's Turkey strategy. The center's Director, his Deputy, together with the Ifo research professor Mario Larch and a former Ifo doctoral student, also produced a study on TTIP for the journal Economic Policy that will be published in 2015.

Cooperation with national partners was also expanded in the center's project work. A study, which was presented in Berlin in January 2015, was produced in cooperation with the Institut für Angewandte Wirtschaftsforschung (IAW), Tübingen, on behalf of the German Federal Ministry for Economic Cooperation and Development. The center also continued its cooperation with the Bertelsmann Foundation. External partners like Daniel Baumgarten from the University of Munich are involved in this cooperation under the supervision of the Ifo Center for International Economics. In 2014 the center's Director was involved in preparing a research proposal in a special research area together with colleagues from the universities of Munich and Berlin.

The Center for International Economics hosted a total of 13 guest researchers from abroad in 2014. Although the center's Director continued to travel extensively, the number of guests that he received was far higher than in previous years. This was partly due to the fact that foreign researchers are cooperating in several of the department's projects and in the department's acquisition of additional projects.

Study on effects of TTIP

Cooperation expanded

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

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

The analysis of the effects of globalization 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. To this end, a project financed by the Fritz Thyssen Foundation was completed in 2013. The basic research looks at the integration of the so-called search-and-matching-approach in open economy models. 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 adjustment costs and nominal wage rigidity. Key insights from this research were presented at a meeting of the Nordic Council of Ministers; while a summary was published in the Nordic Economic Policy Review.

In another piece of research the department head, together with Ifo research professor Mario Larch, University of Bayreuth, and Wolfgang Lechthaler, Institut für Weltwirtschaft at the University of Kiel, focused on the theoretical investigation of an empirical riddle: why are theoretical models so poorly placed to map the empirically measured transnational effects of domestic labour market policy? The key insight of this joint research is that a higher degree of wage rigidity must be assumed than is typically the case in standard approaches.

In 2014 the Ifo Center for International Economics completed a project for the Bertelsmann Foundation that empirically investigated the relationship between international trade and wage inequality in Germany. In this project, which also involves Daniel Baumgarten, University of Munich, detailed data on wages and the socio-economic characteristics of employees are

taken from German Federal Employment Agency statistics and pooled with firm characteristics in order to determine the contribution to wage inequality in Germany made by corporate internationalisation.

The department continued to look at the topics of trade costs and trade potential. 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 realized in this manner.

Like 2013, 2014 was dominated by the analysis of a potential free trade agreement between the EU and the USA. There was a great deal of media interest in this topic over the course of the entire year and the center's Director gave a series of interviews in the national and international press and presentations on the economic effects of the agreement at a wide range of conferences including, for example, at the Global Economic Symposium in Kuala Lumpur, at the Munich Economic Summit and at a TTIP Conference organised by the Johns Hopkins University in Washington DC. He also gave speeches on this topic on a lecture tour with stops in Dallas, Houston, Atlanta and New York, as well as at conferences in Lisbon and Rome. In addition, Prof. Felbermayr talked about free trade agreements at a number of public appearances in Germany. During his hearing before the German parliament he also presented an expert report on the agreement with Canada (CETA). He advised the German Bishops' Conference and political parties and is involved in political foundations that deal with the topic of free trade agreements.

A project launched in autumn 2013 on the effects of TTIP on the agriculture and food industry commissioned by the EU Parliament was completed in the first half of 2014. A study for the Austrian Ministry of the Economy was also completed in spring 2014. The results of the study were presented to the public in a large number of presentations made in Germany and abroad; and a summary was published in the ifo Schnelldienst and the CESifo Forum. The Center for International Economics was also able to raise its media profile thanks to this research and its cooperation with the Bertelsmann Foundation.

Integrating search-and-matching approach

International trade and wage inequality

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 "Dynamíc Aspects of Offshoring". One of 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, a workshop with leading researchers has already been scheduled for this year. The keynote speakers will be 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. Together with a former doctoral student, Prof. Felbemayr published an article in the Journal of Development Economics, in which a new database is presented based on millions of geophysical and meteorological events that can be used to empirically analyse the topic outlined above. It emerged that the results of analyses to date, which are mainly based on data on natural disasters from insurance companies, are largely distorted be since this data only covers a certain share of all events.

Projects Completed in 2014

Global Trade and Economic Wage Inequality: New Facts, New Challenges

G. Felbermayr, S. Lehwald in cooperation with D. Baumgarten, University of Munich, for the Bertelsmann Foundation, September 2013 to February 2014.

This analysis was based on a 2% sample from the data set of the employment biographies of the Institute for Employment Research (IAB) Nuremberg, and another related data set provided by the IAB, which correlates all of the employees liable to pay social security contributions in a sample of business premises. A steady increase in inequality emerged that has particularly gained impetus since the mid-1990s. Further analysis of wage dispersion also indicated that a large share of the increase in wage inequality cannot be explained by characteristics, like, for example, education, experience or age, but that corporate characteristics are increasingly playing a key role. The main aim of the study was to quantify the contribution made by individual components to the development of inequality and to observe, in particular the role played by international trade. According to its results, corporate characteristics like the export activity of a company only make a limited contribution to the increase in wage inequality. The return to tariff commitment in Germany is a far more crucial factor in the increase in wage dispersion. Moreover, the analysis provided initial evidence that this institutional transformation cannot be considered in isolation from the rising degree of international linkages between markets. The relationship between rising internationalization and the change in tariff structures in Germany was analysed in detail as part of a doctoral project.

TTIP as Part of a New European Foreign Trade Strategy

G. Felbermayr, E. Yalcin, B. Heid in cooperation with Ifo research professor M. Larch, University of Bayreuth, for the Austrian Federal Ministry for Economics, Family and Youth, October 2013 to February 2014.

In this study the Ifo Center for International Economics was commissioned to quantify the economic effects of the proposed Transatlantic Trade and Investment Partnership (TTIP) with a focus on Austria.

Steady increase in wage inequality

Tariff structures in Germany

Intra-industrial reallocation effects

A structurally estimated model was once again employed that can be used to simulate various contrafactual scenarios. A special feature of the study was its presentation of intra-industrial reallocation effects. The study also showed how the economic effects of TTIP can be conditioned by the signature of other major free trade agreements by the EU.

The Market Opportunities for the EU Agri-Food Sector in a Possible EU-US Trade Agreement

G. Felbermayr, cooperation with A.-C. Disdier, L. Fontagné, S. Jean, J.-C. Bureau, C. Emlinger, J. Gourdon, Centre d'Études Prospectives et d'Informations Internationales (CEPII), Paris, J. Gröschl for the European Parliament, October 2013 to April 2014.

The project consisted of four parts: the first part presented the structure of the agri-food sector of the EU member states as a whole and the relative importance of trade with the US. In the second part non-tariff barriers in the agri-food sector are calculated. A suitable empirical trade flow model was used to this end. In the third part information was incorporated into a model of global equilibrium (Mirage). The fourth part of the project featured both a discussion of particularly problematic areas and recommendations as to how these areas should be dealt with in negotiations.

Effects and Implications of a New World Trade Order with a Focus on Developing Countries

G. Felbermayr, R. Aichele, I. Heiland for the Bertelsmann Foundation, May 2014 to July 2014.

The Doha Round of the WTO has reached an impasse. Since there is no multi-lateral trade liberalisation in sight, there has been a surge in negotiations of bilateral and regional trade agreements. This project analysed the new world trade order with its regional megadeals, including the trade and welfare effects of TTIP, the Trans-Pacific Partnership (TPP), the Regional Comprehensive Economic Partnership (RCEP) agreement and the Free Trade Area of the Asian Pacific (FTAAP). A structurally estimated trade model was used to this end. Compared to previous studies conducted by the Ifo Center for International Eco-

nomics, sectoral effects and national and international links in production chains were taken into account, and the trade agreements discussed were differentiated according to their anticipated depth. In the first part of the study the trade and prosperity effects of TTIP were reassessed. The second part of the study looked at the effects that free trade agreements in the Asian Pacific area would have on EU countries and asked whether the EU will lose international importance as a result. In the third part of the project the effects of TTIP on developing countries were presented and there was a discussion of the extent to which TTIP can be designed to minimize its negative effects on developing countries.

Economic Dimensions and Effects of the Alianza del Pacifico

G. Felbermayr, R. Aichele together with R. Abusada-Salah Instituto Peruano de Economía, Lima, for the Konrad-Adenauer-Stiftung, June 2014 to December 2014.

This study aimed to estimate the expected gains in real income from a free trade agreement between the Alianza del Pacifico (AdP) states of Chile, Columbia, Costa Rica, Mexico and Peru. It differentiated between various degrees of trade liberalisation from the mere abolition of customs and excise duties to additional reductions in non-tariff trade barriers. The trade creation and trade diversion effects were quantified and their effects on the sector-based value creation of AdP states were analysed. In addition, alternative trade policy strategies for regions (trade liberalisation between the Alianza del Pacifico and MERCOSUR, as well as a Latin America free trade area), were discussed.

Analysis of world trade order

Current Projects

Integrated Evaluation of Instruments and the Fiscal and Market-Based Incentives of International Climate Policy and its Implications (IACCP)

G. Felbermayr, R. Aichele, I. Heiland, M. Zimmer, K. Pittel, A. Ciesielski, J. Dieler in cooperation with R. Tol, University of Sussex, and D. Anthoff, University of Michigan, for the German Federal Ministry of Education and Research, October 2011 to April 2015.

This project is a consistent, integrated, micro-founded assessment of the effects of unilateral environmental policy. Research is being jointly conducted with the Ifo Center for Energy, Environment and Exhaustible Resources Department. The latter's contribution consists of an assessment of international competitiveness effects. To this end, it models international trade flows using a structural gravity model. Relevant model parameters are estimated using structural econometric methods. This allows us to simulate different climate policy scenarios and their impact on trade flows, as well as the resulting carbon leakage effect, while taking into account general equilibrium effects.

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

M. Battisti for the Leibniz-Gemeinschaft, January 2012 to June 2016.

The Ifo Center of Excellence for Migration and Integration Research (CEMIR) was established in January 2012. This center combines expertise from different institutions, different countries, and separate fields in economics. It was set up as 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. CEMIR aims to have a lasting impact on the German and European policy debates on migration, and in particular on the effects of migration on labour market outcomes and redistribution, on the effectiveness of policies aimed at attracting highly skilled immigrants, on the integra-

tion of migrants into the economy and society, and on the relationship between migration, trade and capital flows.

Observing the economic environment in Germany and in Europe, it is clear that rapid population ageing in Western European countries and a youth bulge in the Southern and Eastern countries of the Mediterranean basin create a potential for huge mutual gains from migration. Conservative calculations show that the increase in world GDP from the elimination of political migration barriers would be at least 10%. These aggregate gains are affected by the local labour market and might not benefit everybody equally. Firstly, wages need to adjust for these gains to emerge. If wages do not adjust then immigration can create unemployment and no economic growth. Secondly, even when wages adjust and aggregate gains are created, the distribution of these gains among the native and immigrant population is crucial, and it may be that immigration creates benefits for some and losses for others.

Both the extent of the gains and their distribution depend crucially on the institutions of the country in question. For continental and Northern European countries with large welfare systems, the potential for redistribution is large and therefore models that look at wages alone only give a partial picture of the possible consequences of the migration phenomenon. The Center for International Economics will look at optimal immigration policy. With the help of a model in which labour market frictions exist and which assumes balanced unemployment, as well as state redistribution via taxes, unemployment benefits and public goods, the effects of migration policy on the labour market and public finances are analysed.

In 2014 Michele Battisti spent six weeks doing research at the University of California in Davis with the support of the Fritz-Thyssen Stiftung. This gave him the opportunity to work directly with Giovanni Peri on a sub-project for CEMIR. The results of this work have already been published as a working paper (Battisti, Peri, Poutvaara and Felbermayr) and are currently in the peer-review process of a refereed journal. This work is relevant to the migration debate in Germany

Eliminating political migration barriers

Optimal immigration policy

CEMIR workshop in 2015

because it combines labour market and financial effects. Michele Battisti has already presented these results at a conference in Aix-en-Provence (I3ème Journées Louis-André Gérard-Varet in June 2014). CEMIR is now preparing a workshop that will take place in Davis in May 2015 at which researchers from Ifo and other institutes will exchange ideas on new projects and on migration. Michele Battisti also spent six months at UCL in London in 2014. He used his stay to further develop the cooperation between CEMIR and CReAM, primarily with Christian Dustmann.

Dynamic Aspects of Offshoring

E. Yalcin, S. Benz 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. As part of this project Sebastian Benz visited Princeton University, where two of the world's leading offshoring experts are based from September 2013 to February 2014. Initial research results were published at the Conference of the Royal Economic Society and the European Trade Study Group in 2014. The organisation of a conference as part of the project also began last year. This conference will take place in July 2015 in the "CESifo Venice Summer Institute" conference series in Venice.

Optimal economic policy in trade and FDI

Potential Impact of TTIP on Developing and Emerging Countries

G. Felbermayr, R. Aichele, E. Yalcin together with ifo Research Professor W. Kohler, University of Tübingen, G. Klee for the German Federal Ministry for Economic Cooperation and Development (BMZ), October 2014 to January 2015.

TTIP represents a traditional free trade agreement on the one hand, and contributes to shaping the rules for world trade in the 21st century on the other, especially in the area of regulatory cooperation. TTIP directly affects around 45% of value creation and 30% of world trade. Current estimates indicate a long-term increase in real per capita income of 1.0 to 3.5% thanks to TTIP. However, third countries will also be impacted by TTIP. With the exception of energy raw materials, the EU states import more from developing countries than the USA, Canada, Japan and China put together. However, the USA is also an important market for developing countries. 30% of all third countries account for over 50% of the export revenues of TTIP partners.

The negotiating mandate of the EU Commission repeatedly underlines sustainable development as one of the partners' key goals and basically commits itself to designing TTIP in a development policy-friendly manner. An ongoing dialogue with civil society should also promote the agreement's sustainability from a development policy point of view. The project will investigate whether and how TTIP can become the core of a fair, new multilateral world trade system. The conditions required to achieve this goal should be taken into consideration in the negotiations.

The study draws on analyses of literature, expert interviews and case studies. It proceeds in five steps: firstly existing theoretical literature on the trade diversion and trade creation effects of preferential trade agreements is presented and examined in relation to TTIP. This is 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 are evaluated. Finally, nine detailed case studies are made of coun-

tries that are interesting from a development policy point of view. Based on this work, the study ends with ten policy recommendations.

Update of the Study: Global Trade and Economic Wage Inequality: New Facts, New Challenges

G. Felbermayr, S. Lehwald for the Bertelsmann Foundation.

The study analyses the development of wage inequality in Germany based on social security data. In this update certain analyses conducted by the authors in a joint research paper with D. Baumgarten, University of Munich, were made accessible for the study and graphically presented. The update mainly focused on the question of which factors can best explain the inequality dynamic over time.

Assessment of the Net Employment Effect Given a Change in the Rules in Foreign Supplies in the German Federal Government's Export Credit Guarantees ("Hermes Cover")

E. Yalcin, G. Felbermayr, A.-N. Sandkamp for the German Federal Ministry for Economic Affairs and Energy, October 2014 to March 2015.

As part of a scientific evaluation conducted by the Ifo Institute from 2011/12 the employment effects of Hermes cover for the Federal Republic of Germany were quantified for the first time using a causal analysis. The employment effects of Hermes instruments were identified using the newest econometric measurement methods. In the calculation of employment effects induced by Hermes, the Ifo study took into account the average share of domestic and/or foreign value creation in industry-specific exports. Moreover, the previous study did not take into account how the employment effect of Hermes cover changes within an industry if the share of foreign value creation varies. It also neglected to analyse whether allowing a higher share of foreign value creation above the maximum threshold of 50 % to date could have a positive or negative effect on domestic employment. These very questions have become highly interesting recently from the viewpoint of both exporters and the German federal government.

This follow-up study addresses three economic policy questions, which are important for German international trade policy in the framework of the growing international value creation links of German companies: I. What are the consequences of making current rules on issuing Hermes cover more flexible with regard to foreign supplies for the employment effects of Hermes cover? 2. How do these effects vary across individual branches? 3. How could German SMEs be affected by making the rules more flexible?



Ifo Center for International Institutional Comparisons and Migration Research

The Ifo Center for International Institutional Comparisons and Migration Research (IICM) carries out research on various topics that deal with institutions and international comparisons, with a special focus on questions related to international migration, political economy and banking. It 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

Government regulations are of primary relevance for economic growth and are becoming an increasingly important criterion for investment decisions as European countries grow closer together. Country-specific regulatory systems are highly complex and change rapidly. Deficiencies in comparable EU data on institutional regulations are significant. Ifo's **D**atabase for Institutional Comparisons in Europe (DICE) seeks to fill this information gap.

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 OECD 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 4,000 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

Institutional research focuses on the effects of institutional regulations on economic development. Recent work has analysed pocketbook voting. The first paper on this topic asks whether voters react to electoral promises or wait until policies are implemented, using data on well-defined and precisely targeted electoral promises that were subsequently implemented. The second paper analyses voting in referenda, and especially to what extent voting is driven by a) financial self-interest and b) various social preferences. A further research focus analyses the links between political institutions and migration. One project tests whether naturalisations are used strategically by incumbent governments to increase their chances of re-election. Another project deals with the relationship between elections, party ideologies and migration. With respect to banking, a project studies how the removal of government guarantees influences bank risk-taking incentives. Another research question is whether better protected property rights decrease lending rates and how this effect depends on bank competition. Moreover, one of the department projects explores how foreign aid payments impact the quality of the institutional system in receiving countries. Finally, another project analyses the rules underlying the monetary policy decisions taken by the European Central Bank.

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 in the context of development and transformation questions. The focus is on economic risk assessment and analysis, as well as on crisis management in emerging economies. At present a key project is the development of a reform agenda for Croatia.

DICE: Ifo's Database for Institutional Comparisons in Europa

Projects Completed in 2014

DICE: Database for Institutional Comparisons in Europe

M. Drometer, C. Hainz, A. Hohenadl, 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 DICE database was significantly enlarged and updated in 2014. It now comprises nearly 4,000 entries (tables, graphs and short reports). DICE is used by economists for research and teaching purposes, but is also visited by economic policy-makers and journalists. Free access to DICE is provided at www.cesifo-group. de/DICE. Some data are available as Excel files, facilitating econometric research. The Visual Storytelling, tool 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 Stroytelling



CESifo DICE Report

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

In 2014 the topics in the "Forum" category of the CESifo DICE Report were: political institutions and fiscal policies, labour market adjustments to large immigration inflows, public-private partnerships and profit shifting. The "Research Reports" and "Reform Models" rubrics are not thematically fixed, but constantly provide national comparisons of the set-up of economic and economic

policy relevant institutions. 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 2014 the following "Focus" themes were discussed: Responsibility of States and Central Banks in the Euro Crisis, Ireland's Recovery from Crisis, State Export Credit Guarantees in a Globalised World, as well as Free Trade and Prosperity. The CESifo Forum can also be downloaded from the CESifo homepage

Current Projects

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

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

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

P. Poutvaara, G. Felbermayr, H. Rainer, L. Wößmann, M. Drometer, S. Enzinger, I. Kauppinen, A. Kulka, 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 established in January 2012. It combines expertise from four Ifo Centers, integrating 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 aims to achieve a lasting impact on the German and European policy debates on migration. On 29 June – 3 July CEMIR junior researchers Till Nikolka and Judith Saurer attended the Barcelona Labor Economics Summer School and presented their research at this event. Additionally, CEMIR participants visited a number of renowned conferences, nationally and internationally, like the Annual Congress of the European Economic Association in August and the Jahrestagung des Vereins für Socialpolitik in September. They were also invited to present their work at seminars in Oxford, at the UCL, and many other places. On 30 September CEMIR organised a workshop for all participants to discuss their current work and future research ideas. Mr Poutvaara also participated as an invited expert in the CEPS Ideas Lab "Does Europe Matter?" in Brussels.

Short- and long-term policy requirements to strengthen sustainable growth and employment in Croatia

O. Falck, S. Schönherr, J. Ragnitz, J. Saavedra, N. Fabritz, M. Reischmann, M. Riem, E. Yalcin, T. Wollmershäuser, T. Buchen, M. Drometer, D. M. Bach, R. Osterkamp (extern), M. Werding (Ifo Research Professor), as well as a group of Croatian Scientists, on assignment of the Croatian Statehood Foundation, Zagreb, September 2014 to July 2015.

The main purpose of the project is to develop appropriate recommendations for improving the international economic competitiveness of Croatia. 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. The economy's international competitiveness has been decreasing for quite some time, and has now fallen 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.

Commissioned by the Croatian Statehood Foundation, the Ifo Institute is searching for ways out of the reform crisis. The analyses focus 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, especially energy. Policy papers are being prepared on these topics by working groups and will be discussed in joint workshops, in which Croatian academics will participate, and a consensus on policy issues will be reached. The policy papers dealing with the individual topics mentioned above will be condensed into a final reform agenda document.

CEMIR workshops

Improving Croatia's economic competitiveness

Ifo Center for Business Cycle Analysis and Surveys

The 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 the 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 form 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 2014. 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 poll 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 such as 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.

Development trends in the 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 of 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 about 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

Business survey born in 1949

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 the 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 the quarterly questions on capacity utilisation and order stocks, provide a reliable picture of the current business situation and short-term developments. A key advantage of the Ifo economic indicators vis-à-vis the official statistics is their early availability. The 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.

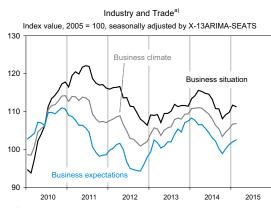
External individuals interested in the time series of the Ifo Business Survey can obtain data from the Ifo Institute's database service. The data offered also include time series from other sources.

Ifo Business Climate Index in German Trade and Industry

The Ifo Business Climate Index, 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 produc-

tion 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 Index can be seen in the reactions of the financial markets to the publication of the new forecast, which is eagerly awaited 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



^{a)} Manufacturing, construction, wholesaling and retailing.

Source: Ifo Business Climate.

At the beginning of 2014 the Ifo Business Climate Index increased considerably. As of May 2014 the index declined six times in a row, mirroring the weak development of the German economy in the second and third quarters. Thanks to the rise in the business climate index in November and December, the outlook for economic developments was slightly more optimistic at the beginning of 2015.

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 regular 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 dis-

Ifo Business Survey aims to trace business cycle

tribution 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 analogous to those of the Ifo Business Survey of industry and trade (manufacturing, construction, wholesaling and retailing).

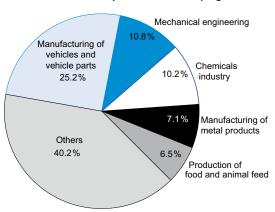
The Ifo Business Survey of the Service Sector meets the current standards of harmonised business surveys in EU member states. The results are published monthly together with the Ifo Business Survey of manufacturing, construction, as well as wholesaling and retailing.

Ifo Investment Survey

The Ifo Investment Survey was the forerunner of all of the investment surveys of the Federal Statistical Office. Today it supplements the official ex-post data for the most recent period using estimates based on firms' plans. This is the only source for quantified estimates of current investment development up to the publication of official ex-post data. As a voluntary survey - like all non-official surveys, participation in the Ifo Investment Survey is not mandatory - it cannot, of course, replace an exhaustive sampling. This is especially true with regard to the industry sub-divisions. Responses to the Ifo Investment Survey in 2014 came from manufacturing, mining, construction, wholesaling and retailing, and leasing (leasing companies and producer leasing). The forecast horizon is about one year. The surveys are conducted once a year in most of the above-mentioned sectors; only firms in manufacturing and mining are polled twice a year.

As part of the Investment Survey in manufacturing and mining, the Ifo Institute gathers data on past investment and plans for the current or coming year, the goal of investment activity and relevant driving factors. According to the most recently published results, investments in the manufacturing industry increased in 2014 by 4%.

Investment by Industrial Groupings



Quelle: Federal Statistics Office; Ifo Institute.

Ifo Leasing Business Survey

With its Investment Survey of the leasing sector the Ifo Institute closes a statistical gap. Unlike other segments of the investment survey, the survey of the leasing sector is comprehensive, since no official statistics exist for the extrapolation of sample survey results. According to the results of business surveys conducted by the Ifo Institute in the leasing sector, the negative trend in overall investments of the past two years was reversed in 2014, giving way to a sharp rise in investments, which also stimulated business activities in the leasing branch. With new business worth a total of 50.2 billion euros, the previous year's level was exceeded by 6.1%; with growth seen in both movables (+6.0%) and real-estate (+10.7%). This means that leasing firms outperformed overall investments in 2014, which translated into further growth from 14.8% to 15.0%; and from 22.3 to 22.7% in movables.

The Ifo Institute and the German Federation of Leasing Companies (BDL) have jointly conducted a regular business cycle test for the German leasing companies for over a decade. The survey started at the quarterly level and firms have been surveyed on a monthly basis since 2003. The assessment of firms concerning their current situation is especially useful for forecasting investment in equipment.

The results of the Ifo Institute's business surveys in the leasing sector show that the economic development of leasing companies in 2014 progressed smoothly in

Ifo Investment Survey of the leasing sector closes a statistical gap 2014. While assessments of the business situation as of April were at a high level of at least +35%, they were slightly less optimistic from October to December. At +22% on balance most recently, the current business situation remains, however, at a comfortable level. Business expectations, by contrast, followed a clearly downwards trend as of August. In October the optimists were only +6% ahead, but this figure rose back up to +15% in November and dipped only slightly below that level to +12% in December.

The investment indicator, which is based on assessments of the current business situation by leasing companies and jointly published by the Ifo Institute and the BDL, signals a rise in equipment investment, including other assets, of around 3.5% in 2014. After a dynamic start to the first quarter (+5.8%), growth was weaker in both of the subsequent quarters. The figures for 2015 point to little change in developments.

Ifo Insurance Survey

In close collaboration with the Federation of the German Insurance Industry, the Ifo Institute has been conducting a quarterly business survey for 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

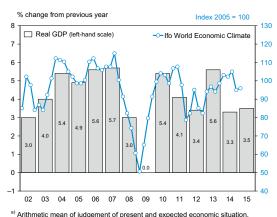
The Ifo Institute has conducted the Ifo Innovation Survey since 1979. The innovation surveys in other OECD countries are carried out on the same conceptual basis. For details see chapter Ifo Center for Industrial Organisation and New Technologies.

Ifo World Economic Survey (WES)

For over 30 years the objective of the Ifo World Economic Survey (WES) has been to draw as accurate a picture as possible of the current economic situation and outlook in numerous industrial and transformation countries. The survey results are characterised by their timely information and international comparability. Especially in countries where the official statistics are still unreliable, the assessments and expectations

of on-site experts are particularly valuable. The figure below shows the high correlation of the survey results with actual growth in the world economy. Once again in 2013, 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, the participants received detailed survey results. WES results are also published quarterly in the English language journal CESifo World Economic Survey and in a condensed form in German in ifo Schnelldienst. In Latin America the Ifo Institute has cooperated with Fundacao Getulio Vargas/Instituto Brasilerio de Economia (FGB/IBRE) since 2007. They publish the WES results for this region.

World Economic Outlook and Ifo World Economic Climate



Source: IMF, World Economic Outlook Database October 2014; Ifo World Economic Survey (WES) 1/2015.

Ifo Architects Survey

The Ifo Architects Survey, which began in 1980 in only four federal states, has been conducted nationwide in Germany since 1996. Every quarter, some 1,800 free-lance architects in all 16 German states are surveyed. The survey results produce the following indicators: business climate, new contracts — and hence an 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 the architect chambers in the various German

The investment indicator signals a rise in equipment investment

Since 1979 Ifo Innovation Survey states. Survey participants receive the results along with the next quarterly survey questionnaire. The results for Germany are published every three months in *ifo Schnelldienst*.

According to the results of the survey, the business climate among freelance architects has developed exceedingly positively during the past ten years. The housing sector in particular should be highlighted in this context. The estimated new construction volume of planned housing projects in particular increased massively as of 2011, when multi-family building construction experienced a considerable recovery. The dependence of commercial construction on general economic developments can also be seen in the results of the Ifo Architects Survey. Economic weakness in 2012 and 2013 left corresponding marks on the survey outcomes. There was no permanent upswing visible in 2014 either. In the area of public-sector construction, willingness to invest in new building projects has declined continuously since the beginning of 2012 (cf. previous high demand for new surfaces for the child care for those under three years of age). Generally, the planning volume is still at a satisfactory level.

Business Climate of Self-employed Architects

Assessments of current and anticipated order situation 30 20 10 0 -20 -30 - Uniusted figures -40 - Smoothed figures 1996 2005 2008 2011 2014 Source: Ifo Architects Survey

Ifo Manager Survey

The Ifo Managers Survey was introduced in 1988 as a supplement to the other surveys of the Ifo Institute. In 2013 this survey again proved to be

an important instrument for exploring particularly sensitive topics. The results of the survey, conducted in co-operation with the business weekly, WirtschaftsWoche, of managers in manufacturing, construction, wholesaling and retailing, as well as the service sector are published in Wirtschafts-Woche and on the Ifo Website. The topics that aroused the public's special attention included employment plans and firms' expectations concerning future economic activity.

Ifo Economic Forecasts

At mid-year and the 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 the quantification of the acceleration or deceleration of economic activity, and to the identification of business-cycle turning points. As of 2010, the department has also providied yearly sector accounts for institutional sectors, the economy as a whole, non-financial and financial corporations, private households (including non-profit organisations), the public 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 comments in the media on the economic outlook and on economic policy issues. The impact on economic activity of fiscal-policy decisions are also analysed and discussed. The euro crisis was once again of special interest, particularly with respect to its impact on the German business cycle. Overall, the department received a great deal of media coverage in 2014.

Joint Economic Forecast

In the spring and autumn the department together with the department for business cycle research of the ETH (Swiss Federal Institute of Technology) Zurich (KOF) as consortium partner participates in the joint economic forecast (*Gemeinschaftsdiagnose*), commissioned by the Federal Ministry of Economics and Technology.

Key instrument for exploring sensitive topics

Comments on the economic outlook

The other three consortia are the German Institute for Economic Research (DIW), together with the Austrian Institute of Economic Research (WIFO), the Halle 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 the economic policies that affect Germany's economic activity. It is presented at the facilities of the federal press conference (Bundespressekonferenz) in Berlin and then 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 the following quarters) of real GDP, private consumption, industrial output and inflation in the eurozone. Forecasting is conducted primarily by applying econometric forecasting methods. The projections are then rounded off using the personal appraisals of the project team. The Euro-zone 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 six well-known economists from five countries and currently chaired by Ákos Valentinyi, Cardiff Business School. It was launched in 2001 by CESifo. The group writes detailed reports on specific economic policy issues. The department of 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 chapter: "Economic Outlook".

Economic Analyses, Preparation of Indicators and Forecasts

The project aims to compute monthly survey-based electricity indicators to forecast 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 will be 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.

Service Projects in Detail

Ifo Business Survey

K. Wohlrabe, H. Blau, 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. Plenk, quarterly publication in CESifo World Economic Survey and ifo Schnelldienst.

Ifo Leasing Business Survey

A. Städtler, S. Sauer regular publication in: *ifo Schnell-dienst*.

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.

Cooperation with Insee, Paris, and Istat, Rome

Ifo Business Survey for Baden-Württemberg

W. Ruppert for Landeskreditbank 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 *Handelsb-latt*, *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-Konsum-report*.

Ifo Export Expectations

K. Wohlrabe, monthly publication in: 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. Plenk 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.

Email Survey

M. Bohachova from September 2013, ongoing project.

In this project a new technology is made available that is intended to supplement the survey methods used to date. It involves sending interactive questionnaires in a PDF format to survey participants by email. The participants answer by clicking in fields or writing in text. The responses are fed into the local mail system and sent to us, where they are loaded into a databank via a computer program and can then be evaluated. To date the email survey is available for the service sector, the World Economic Survey and the system building construction. It is currently being extended to the remaining building construction questionnaires and there are plans to include further sectors.

Joint Economic Analysis

T. Wollmershäuser, T.O. Berg, C. Breuer, T. Buchen, C. Grimme, S. Henzel, A. Hristov, N. Hristov, M. Kleemann, W. Meister, W. Nierhaus, J. Plenk, 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*, 67(8), 2014; 67(20), 2014.

The joint economic analysis took place at IWH in Halle in spring 2014, and in autumn was hosted by the DIW in Berlin.

Ifo Economic Forecasts

T. Wollmershäuser, T.O. Berg, C. Breuer, C. Grimme, S. Henzel, A. Hristov, N. Hristov, M. Kleemann, W. Meister, W. Nierhaus, J. Plenk, E. Wieland, A. Wolf, K. Wohlrabe, published in *ifo Schnelldienst* 67(13), 2014; 67(24), 2014

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

Eurozone Economic Outlook

T.O. Berg, N. Hristov in co-operation with Insee, Paris, and Istat, Rome.

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)

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

Economic Analyses, Preparation of Indicators and Forecasts

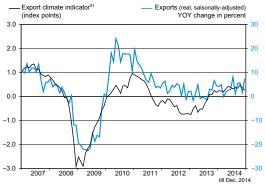
T.O. Berg, M. Kleemann for EnBW Trading GmbH.

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: Destatis, Deutsche Bundesbank; 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* (I), 2008; *ifo Dresden berichtet* 20(I), 2014; 20(3), 2014; 20 (4), 2014; 20(6), 2014.

The working group "National Income Accounting (NIA) of the German States" regularly publishes annual regional statistics on the 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 are 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 higherfrequency reference indicators. As of 2013 the quarterly results are presented according to the new breakdown of the branches of the economy (WZ 2008).

Research Projects

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

Projects of the Survey Methods Research Group

In the area of survey methods, efforts are made to safe-guard the high quality of surveys on the one hand, and to improve surveying techniques on the other. The results of the research projects are directly incorporated in 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 the response behaviour of the companies participating in the business survey.

One research project is currently looking at the influence of non-response on survey results. The quality and meaningfulness of empirical surveys like the Ifo Business Survey depends heavily on the response behaviour of participants. Deficits due to non-response can influence data stability and lead to a distortion of the results. This project analyses structural differences in response behaviour from companies participating in the Ifo Business Survey. The insights gained can be used to improve the quality of the survey and reveal the potential presence of selectivities and influences on the aggregated results. Moreover, the project also analyses the extent to which non-responses impact the forecasting quality of survey indicators.

Projects of the Forecasting Methods Research Group

In view of the huge quantities of data available to the forecasters, which partly stem 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, 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 (S. Henzel, T.O Berg, "Point and Density Forecasts for the Euro Area Using Bayesian VARs", CESifo Working Paper No. 471, 2014).

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.

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. In the first part of the project the effects of fiscal measures on the German economy are identified and quantified. Moreover, the importance of corporate confidence as a transmission channel for fiscal policy measures is analysed. The second part of the project analyses the effectiveness of financial support to boost investments for the future by municipalities and Länder, taking into account institutional framework Influence of financial market frictions and uncertainties

Cooperation with other Ifo Centers

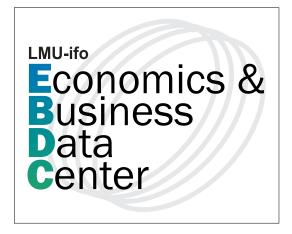
conditions in Germany. The project also examines the growth effects of the expenditure policy on the Länder ("Economic Effectiveness of the Financial Policy Economic Stimulus Measures of 2008 and 2009", N. Potrafke, T. Wollmershäuser, T.O. Berg, C. Breuer, C. Grimme, A. Hristov, B. Kauder, M. Reischmann, M. Riem, C. Schinke, July 2013 to July 2015).

LMU-ifo Economics & Business Data Center (EBDC)

Following the general revision of the EBDC panel, the foundation for setting up an EBDC archive was laid in 2014. The archive will offer researchers from the EBDC, the Ifo Institute and the economics faculties of the University of Munich a facility for the long-term storage of their results in the future. To ensure that research is comprehensible and to support secondary analysis, it is essential to preserve not only the primary data themselves, but also specific procedures, as well as the analysis panel drawn up by the researcher in question for a longer period of time, thus guaranteeing the implementation of "good scientific practice". This is also important given that the publication of research results in top journals is increasingly conditional to public access to the complete research results. In 2014 we began to create both the contractual framework conditions and to analyse the technical requirements for such data storage in terms of hardware and software. Moreover, digital object identifiers (DOIs) will also be available for this data in the long-term, so that they can be accurately identified.

In addition to the EBDC's offering, the offering of the statistical offices of the German Länder was also accessed comprehensively for the first time this year in the branch of the Bavarian Statistics Office in the EBDC.

In addition, the EBDC was also present with stands at the 6th Conference for Social and Economic Data and at the Bavarian Micro Day.



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 134,500 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 2014.

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.

Ifo Library is accessible



Press, Publications, Conferences

Knowledge transfer

The Ifo Institute is a European think-tank that forms a bridge between academic research and political and social practices. The applied, scientific economic research carried out by the Ifo Institute aims to intensively contribute to policy advice and the economic policy debate, and provide services to researchers and the general public. The successful transfer of this knowledge to the public realm is the task of the Press, Publications and 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, the provision of information to improve the knowledge of a broader public in the field of economics has become more important. The department also offers services for Ifo's Executive Board and its research departments and supports them in their publications, organises major events and is responsible 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.

One of the Press, Publications, Conferences department's key tasks is to improve the conceptual and methodological foundations of the transfer of the knowledge available within the institute and the results of its work to relevant social groups. A special focus of 2014 was the drafting of an application to the federal Ministry for Education and Research for funding of a project that will span several years and aims to further professionalise the results of the Ifo Institute's work and take the latter to a new level.

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. Over 170 press releases in 2014 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.

With its extensive press relations, the Ifo Institute is also the economic research institute with the highest media profile in Germany. This is not only due to the monthly publication of the Ifo Business Climate Index, the Credit Constraint Indicator and other Ifo survey results, but also to the monthly press presentation of the Ifo Export Expectations and the Ifo Employment Barometer as of 2014. 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, Prof. 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 "The Euro Trap" received a great deal of media attention. Several press conferences related to the book launch were held in Germany and abroad, including events in Zurich, Paris, London, Washington and New York.

To support the media in reporting on the Ifo Institute's results, Ifo's press releases were more strongly oriented towards journalists' information needs and an additional service for the media was introduced offering regular notice of forthcoming regular press releases. Ifo's press distribution list was expanded by around 50% in 2014 and separate press distribution lists were set up to facilitate more targeted communication of information to the media.

At the end of November 2014 the Ifo Institute, in cooperation with the Deutschen Journalistenschule in Munich and the Bayerische Rundfunk, organised a well-attended weekend conference for junior journalists and editors. A total of 25 young journalists, I5 of which were from the Deutsche Journalistenschule and ten from the Bayerische Rundfunk – came to the Ifo Institute to participate in the workshop,

Communicating in jargon-free language

which was chaired by the BR journalist Jürgen Seitz und Ifo's press officer Harald Schultz. The aim of the event was to deepen the participants' understanding of economic correlations through the practically-oriented communication of economic and journalistic knowledge. Ifo researchers from its eight research departments and the Dresden Branch of the Ifo Institute presented their work and their research results. In addition to an explanation of the Ifo Business Climate Index, a presentation by Gabriel Felbermayr on TTIP and a report by Helmut Rainer on the dark recesses of policy advisory work were particularly well-received. A highlight of the workshop was Hans-Werner Sinn's remarks on the euro crisis. The event ended with an interview training session that was mutually beneficial for both academics and journalists. All three parties (Ifo, DJS and BR) aim to turn the journalists' workshop into a regular event as of 2015.



Participants in the workshop for junior journalists

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 countrycomparative approach;
- CESifo Economic Studies: a quarterly, refereed academic journal in English. Articles present the results of economic research and address policyrelevant 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.

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. Interested individuals can subscribe to these newsletters via the website.

Ifo's electronic information services were expanded in 2014. The CESifo Group provides information on news via **Twitter** in German (@ifo_Institut) and English (@CESifoGroup). Ifo President Hans-Werner 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 and 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 2014 were the symposium on energy policy turnaround in January, the Ifo General Meeting in June, the Ifo Industry Colloquium (ifo

Branchen-Dialog) in November and the university lecture given by Hans-Werner Sinn on the demographical deficit in December. Public events are mostly livestreamed on the internet via the Ifo website to make them accessible to members of the public who are unable to attend in person.

On 28 January 2014 the Ifo Institute and the Bavarian Chamber of Commerce and Industry jointly organised a symposium entitled "Energy turnaround 2.0 - what needs to be done to place our energy supply on a sure footing once again!" The event chaired by Ursula Heller, Bayerischer Rundfunk, gave several proven experts from politics and academia the opportunity to state their views on the implications of the energy turnaround in Germany. After a welcome speech and introductory words from Heinrich Traublinger, President of the Bavarian Chamber of Commerce, Franz Josef Pschierer, State Secretary in the Bavarian State Ministry for Business and Media, Energy and Technology, stated the special challenges of the energy turnaround for the Free State of Bavaria and offered an overview of the policy measures that the state of Bavaria plans to implement in order to rise to these challenges. Ifo President Hans-Werner Sinn critically analysed the energy turnaround in his speech and looked at the problems created for companies and consumers. His presentation was followed by a discussion featuring Sinn, Traublinger, Bernhard Schwab, Ministerial Director of the Bavarian State Ministry for Business and Media, Energy and Technology, Ingo Luge, Chairman of the Board of E.ON Germany, and Gunther Friedl, head of the Ludwig Fröhler Institut, Munich. The discussion centered on the question of which political choices are needed to ensure that the energy turnaround can be made a success for citizens, companies and the state after all. The speeches were published in ifo Schnelldienst 67(4), 2014.

The 65th General Meeting of the Ifo Institute took place in the Große Aula of the University of Munich (LMU) on 26 June 2014. At a press conference prior to the meeting, Timo Wollmershäuser, the interim director of the Ifo Center for Business Cycle Analysis and Surveys presented Ifo's latest economic forecast.

Ifo's latest research results via email

Ifo uses Twitter

In the members' meeting in the morning Hans-Werner Sinn reported on the institute's activities in 2013. The annual statement of accounts up to 31 December 2013 presented by Ifo Executive Board Member Meinhard Knoche was unanimously approved and the Executive Board was unanimously discharged.

The member's meeting was followed by the awards ceremony for prizes for outstanding academic achievement, outstanding success in the management of contract studies and a special Ifo Institute prize. More detailed information on the prize awards is available in the Personnel Developments section and in *ifo Schnelldienst* 67(13), 2014.



Hans-Werner Sinn, Niklas Potrafke and Aldo Belloni



Hans-Werner Sinn and Ludger Wößmann

LMU President Bernd Huber welcomed the large number of guests to the public part of the Ifo General Meeting, for which the motto was: "Securing prosperity with energy – how can the magic triangle of security supply, cheap energy prices and a reduction in greenhouse gases be successfully achieved". In his speech Ifo President Hans-Werner Sinn subsequently raised the question of whether the double phase-out – of coal and nuclear power – can be realistically achieved. He primarily focused on the problem of the volatility of "green power", due to the inconstancy of wind and solar power. Both sources of power require a technology to smooth out electricity production over the course of the year, which would prove hugely expensive to provide. Christoph Buchal from the Forschungszentrum Jülich, the second keynote speaker, described the energy turnaround as a "centennial project that would span many years".



Christoph Buchal, Jochen Homann, Ulrich Schäfer, Aldo Belloni and Hans-Werner Sinn

In a discussion chaired by Ulrich Schäfer, Süddeutsche Zeitung, and involving Aldo Belloni, executive board member of Linde AG, as well as Jochen Homann, President of the German Federal Network Agency for Electricity, Gas, Telecommunications, Posts and Railway, the speakers enlarged upon the arguments presented and discussed potential approaches to solutions. An event report was published in *ifo Schnell-dienst* 67(13), 2014.

There was a break in the conference series "Ifo-CoR Brussels International Economic Forum (Ifo-CoR BrIEF)" in 2014. The next event in this series is scheduled for 5 November 2015.

On 5 November 2014 the Ifo Institute, in cooperation with the Chamber for Commerce and Industry for Munich and Upper Bavaria and sponsored by the Bavarian State Ministry for Business and the

In-depth panel discussion of green power

Detailed analysis of branch developments

Media, Energy and Technology, organised the 14th Ifo Branchen-Dialog (Ifo Industry Colloquium). The aim of this working conference is to analyse economic and business cycle developments in manufacturing, construction, wholesaling and retailing, as well as in selected service sectors. A more detailed report on the conference is available in the chapter on the Center for Industrial Organisation and New Technologies in this report and in the *ifo Schnell-dienst* 67(23), 2014.



Public university lecture on demographic change

On 15 December 2014 Ifo President Hans-Werner Sinn explained the dramatic implications of demographic developments in his public university lecture entitled: "Generational (un-)fairness: the causes, consequences and policy implications of the demographic deficit". The lecture was attended by audience of 750 packed into the Große Aula. It was also livestreamed via the internet and subsequently made available in the media library. The event was supported by the Wirtschaftsbeirat der Union.

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 itself, its services, its research topics, its economic-policy advice 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.

Hans-Werner Sinn on the demographic deficit

The range of services for the transfer of knowledge is being continuously expanded, especially via the conversion of already existing services for the internet. In internet databases, publications can be easily searched and ordered and some can be retrieved in full-text form. Several Ifo journals are also available as downloads in the .epub format as of 2014. This format 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 provide a comprehensive graphic representation of data, was also expanded in 2014. The Ifo Prussian Economic History Database (iPEHD) represents a systematic collection and digitalisation of Prussian data that can be accessed via the website.

In 2014 the newly developed Ifo Resources Database was integrated into the CESifo Group's website under the supervision of the Ifo Center for Energy, Climate and Exhaustible Resources. This database features tables and documents that provide a comprehensive overview of energy reserves and resources.

Numerous lectures given by guest researchers at the Center for Economic Studies (CES), as well as selected lectures at Ifo events, are available in a video format to an international audience. The internet platform is also used to conduct Ifo's business surveys and to provide the media with information. CESifo GmbH and CES provide broad information on their work in the joint internet portal, especially with regard to the CESifo Research Network and the scientific conferences organised by CESifo.

Firms that take part in Ifo's surveys can call up and fill out their questionnaires online; and their data flow directly into an Ifo database where they are analysed. Members of the CESifo Research Network can also submit their work for CESifo Working Papers online.

On the home page the news rubric features short articles on recent research results and forthcoming events organised by the CESifo Group. Clearer, more user-friendly website navigation enables users to access pages with information on members of the CESifo Group and their diverse activities like publishing media and series of events more swiftly.

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 acquired historical importance. Users have central access to its entire offering of videos via the user-friendly CESifo media library. A more recent 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.

A significant share of CESifo events is now livestreamed by the video team. In addition to the public part of the Ifo Annual Meeting on 26 June 2014, Ifo's press conferences and nearly all of the Munich Seminars were livestreamed. The press conference on the presentation of the book, "The Euro trap" in Berlin and Hans-Werner Sinn's public lecture entitled: "Generation (un)fairness: the causes, consequences and policy implications of the demographic deficit" were also broadcast live via the internet. Other examples include recordings of the presentations given at the 2nd Energy Policy Workshop on the topic of "Bioenergy – how much of the energy turnaround is growing on trees and in fields?" that took place on I April 2014, the 3rd Energy Policy Workshop on the topic of "Energy storage - the stepchild of the German energy turnaround" that took place on 16 September 2014, jointly organised with the University of Applied Sciences Weihenstephan-Triesdorf, as well as the conference entitled "State Export Credit Ifo offers online video archive

Guarantees in a Globalized World" that was held on 14 und 15 February 2014 and co-organised with the German Federal Ministry for Economic Affairs and Energy.

Listening to lectures online

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 2014 the lecture series: "Tax Evasion and Audit Strategy," given by Gareth D. Myles and "The Law and Economics of Sovereign Debt and Default" by Mitu Gulati and Lee C. Buchheit were just a few of the lectures recorded.

Media Library

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The CESifo Group's Media Library

Live-streams of key events

Alongside live streaming via the internet, the number of in-house productions also grew in 2014. The key results of Ifo Institute conferences are now presented in brief event reports. Recordings of selected events were complemented by short interviews with speakers in 2014 briefly summarising the contents of their speech. This initiative began in November 2014 with the "Interview on the Phasing out of Paper Money" at the "Munich Lecture in Economics" given by Kenneth Rogoff.

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.



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, especially in the Free State of Saxony. Ifo Dresden 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.

The Dresden researchers have strongly 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 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.

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

members and a number of student research assistants. Ifo Dresden closely **cooperates** with the Dresden University of Technology and the Statistical Office of the Free State of Saxony. Co-operation agreements cover in particular visiting fellowships of researchers, joint activities and presentations. The Ifo Dresden branch also extends 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 broad readership in politics, business and academia. Furthermore, every issue contains two short reports on the current state of the business cycle and the labour market in the new Länder and the Free State of Saxony. In 2014, the design of these reports received a major revision. They now offer readers information on an extended set of business cycle and labour market indicators. The results of more comprehensive research projects are published in the series, *ifo Dresden Studien*. In 2014, five volumes in the series were published (Nr. 69, 70, 71, 73 and 74).

Conferences and workshops, such as the working group for the monitoring of economic activity, regularly take place on the premises of Ifo Dresden. Workshops in 2014 included the 9th workshop on "Macroeconomics and the Business Cycle" in co-operation with the Helmut-Schmidt-Universität Hamburg (20/21 November 2014) and the 8th workshop on "Political Economy" (28/29 November 2014) together with CESifo and the TU Dresden. The workshop on "Labour Markets and Social Policy" in co-operation with the TU Dresden (6/7 March 2014) and the workshop on "Regional Economics and Structural Change" together with the TU Dresden and the TU Braunschweig (11/12 September 2014) were hosted by Ifo Dresden for the fourth time.

Close cooperation agreements

ifo Dresden berichtet gets redesign

Prominent economists present latest research

In the series Dresdner Vorträge zur Wirtschaftspolitik, prominent economists present their latest research findings in economics and finance. In 2014 five lectures were held in this series. Conny Wunsch, professor of Labour Economics at the University of Basel, Gabriel Felbermayr, Professor of International Economics at the University of Munich, and Director of the Ifo Center for International Economics at the Ifo Institute, Erik Gawel, Deputy Head of the Department of Economics at Helmholtz Centre for Environmental Research (UFZ) in Leipzig and Franz Josef Benedikt, President of the Hauptverwaltung Sachsen und Thüringen der Deutschen Bundesbank discussed their views on current policy issues with audience members from academia, politcs and public administration.

Economic Activity and Growth in Saxony and the New Länder

Ifo Dresden attracts a lot of media attention with the regular provision of its business cycle indicators. Ifo Dresden publishes the Ifo Business Survey for the new Länder 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 each year at a press conference and at the Workshop "Ifo Working Group on the Business Outlook for Saxony". The workshop takes place at Ifo's Dresden Branch and brings together representatives of Ifo Munich, Ifo Dresden, 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 and others. In 2014, the 33rd and the 34th workshops took place.

The quality of forecasts of the regional GDP of both the new Länder and Saxony has improved over time, as forecasting methods are continuously refined. This is the main result of the 2014 assessment of the Ifo Dresden forecasts by Robert Lehmann und Michael Weber. Their analysis is documented in the article "Der Blick in die Glaskugel wird schärfer" which was published in issue 3/2014 of the journal *ifo Dresden berichtet*.

The article "Möglichkeiten und zeitliche Horizonte regionaler Wirtschaftsprognosen Grundlage von Flächenbedarfsprognosen" by Robert Lehmann and Wolfgang Nagl analyses whether regional growth projections are suitable for predicting future land use. There is a positive correlation between the growth of land use and real gross domestic product. Therefore, growth projections can be used to forecast future land use in a certain area. The article is included in the volume IÖR Schriften, Band 65, "Flächennutzungsmonitoring VI: Innenentwicklung – Prognose – Datenschutz".

In addition to its biannual business cycle forecasts, Ifo Dresden provides monthly reports featuring regional results of the Ifo Business Survey for the new Länder and the Free State of Saxony. Results for the new Länder as a whole are published as monthly press releases and also as articles in the journal Wirtschaft + Markt as of 2014. Six print issues of the journal are published per a year and, as of 2015, there will be an additional six online issues. The outcomes of the Ifo Business Survey for the Free State of Saxony are published monthly as the so-called "Sachsenbarometer" in the daily newspaper Sächsische Zeitung. The results for both the new Länder and the Free State of Saxony are also published as short reports in each issue of the journal ifo Dresden berichtet. In 2014, these short reports were revised and expanded to include additional indicators like the Ifo Export Expectations or the capacity utilisation in the manufacturing sector.

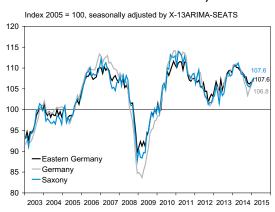
The regional results of the Ifo Business Survey provide useful information on the current state of the business cycle. Short-term revenue forecasts are improved when the Ifo Business Climate or its components are added to a model that is otherwise based on revenues from the past. This is the conclusion of the article "Der Erklärungsgehalt der regionalen ifo-Indikatoren am Beispiel der Industrie- und Bauumsätze" by Robert Lehmann, Andreas Sharik and Michael Weber, which was published in issue 4/2014 of the journal ifo Dresden berichtet.

Lastly, Ifo Dresden also provides regular analyses of central labour market developments in the new Länder and the Free State of Saxony. These analyses are published as short reports in each issue of the journal *ifo Dresden*

Steady improvement in forecasting quality

berichtet. The labour market reports were also revised in 2014. The new reports comment on recent developments in stocks of employed and unemployed persons, as well as vacancies, worker flows between unemployment and employment, and the Ifo Employment Barometer. The revision of both the short report on the regional results of Ifo Business Survey and the short report on regional labour market figures was implemented in issue 3/2014 of the journal ifo Dresden berichtet.

Ifo Business Climate Index for Industry and Trade



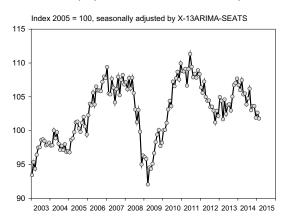
Quelle: Ifo Business Survey.

In addition to its usual reporting on the business cycle and the labour market, the employees of the division Economic Activity and Growth department also published articles in peer reviewed journals. The paper "Forecasting Gross Value-added at the Regional Level: Are Sectoral Disaggregated Predictions Superior to Direct Ones?" by Robert Lehmann and Klaus Wohlrabe was published in the first issue 2014 of the journal Review of Regional Research. The article asks whether sectoral disaggregated gross value added forecasts are able to beat the direct approach of forecasting total gross value added. In the short run (one quarter ahead), disaggregated forecasts are superior to direct approaches. This result vanishes with longer forecast horizons; thus, direct approaches lead to lower forecast errors for forecasting horizons longer than one quarter.

Robert Lehmann and Klaus Wohlrabe also contributed to the topic of regional economic forecasting with their survey "Regional Economic Forecasting: State-of-the-Art Methodology and Future Challenges," which has been

accepted for publication in a special issue of the journal *Economics and Business Letters* on the topic "Advances in Regional Forecasting". The scope of the article is to provide an overview of existing studies with a focus on regional economic forecasting. One major contribution to literature on this topic is the discussion on the superiority of different methods or models for different combinations of forecasting horizons and data frequency. The article closes with an identification of future research activities in the field of regional economic forecasting.

Ifo Employment Barometer for Saxony



Quelle: Ifo Business Survey.

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 the predictive power to forecast employment growth. They examine this question for 15 European states separately. For most of the states, survey results are a powerful tool in predicting employment. The article is available as *Ifo Working Paper* No. 182 and is currently under review in a peer-reviewed journal.

Human Capital, Structural Change and the Position of Saxony and the New Länder in Locational Competition

Research in this field deals with determinants of long-term growth processes. It focuses on analysing regional disparities, as well as eastern Germany's catching-up process. To this end, regionally and sec-

Focus on regional economic forecasting

Using survey results to predict employment

torally disaggregated analyses are carried out and active regional policies are evaluated. Furthermore, researchers at Ifo Dresden monitor the development of regional indicators concerning locational advantages for firms and households.

On behalf of the Verband der Chemischen Industrie (VCI), Landesverband Nordost and the Arbeitgeberverband Nordostchemie e. V., Ifo Dresden prepared an expert report entitled: "A structural analysis of the chemical industry in eastern Germany". The research project includes both a survey of the chemical and pharmaceutical industry for the eastern German Länder, as well as a comparison of these industries between eastern and western Germany. The results were published and reported as ifo Dresden Studie 74 and in an article in the issue 6/2014 of ifo Dresden berichtet. The article focuses on a comparison of the relative strength in exports and the innovation activities of western and eastern German companies in the chemical and pharmaceutical industry.

Furthermore, the study "The Industrial and Economic Region of Lausitz: Review of Current Situation and Outlook" was published in 2014. Besides a comprehensive review of the initial economic situation of the Lausitz, this study identifies the future prospects of this region and discusses avenues for future policy interventions. Its results were published as *ifo Dresden Studie* 71 and in two articles in the series *ifo Dresden berichtet* (2/2014 and 3/2014). The results were also presented at several events in the Lausitz.

Issue 5/2014 of ifo Dresden berichtet contains an article on the potential benefits of an innovation allowance for establishments in Saxony. The article is mainly based on the ifo Dresden Studie 69 from 2013. A calculation of the expected founding costs and imposed private research and development activities is made. In addition, the article offers an overview of the diverse R&D founding systems in Europe. The shortcomings of current R&D policies and the scope for a more innovation guided R&D funding system with a special focus on launching new products also is discussed.

Ifo Dresden also investigated the influence of knowledge spillovers on regional innovation performance.

Against the background of modern communication channels like e-mail or social networks, the research project aims to re-examine the impact of knowledge spillovers on the innovative ability of regions. The empirical analysis confirms an increasing innovation performance through an intensive exchange of information and extensive interdependencies between firms.

Another article in ifo Dresden berichtet focuses on the small average establishment units in eastern Germany. The smaller average establishment size is one of the most convincing explanations for the persistent income and productivity gap between eastern and western Germany. The article deals in a first step with establishment size and employment share differences between eastern and western Germany. In a second step, a cohort of establishments newly founded between 1995 and 1998 is analysed during their first ten years of existence. Newly founded establishments in eastern Germany face a higher risk of market exit than newly founded establishments in western Germany. However, the surviving eastern German establishments have a superior growth record (in terms of employment) than their western counterparts.

Carolin Fritzsche and Jan Kluge analysed the determinants of rents for dwellings in eastern and western Germany. In issue 6/2014 of the series ifo Dresden berichtet, the authors conclude that there are structural differences between these two parts of the country. For example, there is a positive correlation between disposable income and rents in western Germany, however, this relationship cannot be found in eastern German data. Further significant differences prevail with respect to vacancy rates and the population's age structure.

An additional article written by Joachim Ragnitz in issue 6/2014, ifo Dresden berichtet, focuses on entrepreneurial activity. As far as the founding of new firms and establishments is concerned, eastern Germany is still lagging behind western Germany. One possible explanation is the lower risktaking behaviour in eastern Germany. This can be explained by the lower wealth and capital basis in eastern Germany.

Analysis of eastern
German chemical industry

Potential benefits of innovation allowance

Labour Markets and Social Policy in Saxony and the New Länder

In the research field "labour markets and social policy", Ifo Dresden regularly publishes reports on the developments of the Saxon and eastern German labour markets. These analyses are based on data from the Federal Employment Agency. In 2014, additional reports and journal contributions focused particularly on current political topics like the statutory minimum wage, which was introduced in Germany on January I, 2015, and the pension reform.

Ifo Dresden assessed the potential employment effects of the statutory minimum wage in joint work with the Chair for International Public Economics at the Freie Universität Berlin and the Chair for Public Economics at the Otto-von-Guericke Universität Magdeburg. For Germany as a whole, Andreas Knabe, Ronnie Schöb and Marcel Thum estimate that a total number of 900,000 full-time and part-time jobs is threatened by the minimum wage. Their results were published as "Der flächendeckende Mindestlohn" in the journal Perspektiven der Wirtschaftspolitik, Volume 15 Issue 2.

On behalf of the Saxon State Ministry for Economic Affairs, Employment and Transport, the cooperation partners also calculated the potential employment effects of the statutory minimum wage at the district level for the Free State of Saxony. Their calculations indicate higher job losses for Saxony compared to the nation-wide average and stronger effects in those districts that already suffer from an unfavorable labour market situation. The results were published in the article "Regionale Beschäftigungseffekte des Mindestlohns im Freistaat Sachsen" by Andreas Knabe, Christine Lücke, Ronnie Schöb, Marcel Thum, Lars Vandrei and Michael Weber in issue 5/2014 of the journal ifo Dresden berichtet.

The simulation results for Germany and Saxony differ from international experiences with national minimum wages in countries like the United Kingdom or the US. This is because the new statutory minimum wage in Germany affects more workers than the minimum wage in Anglo-Saxon countries. Andreas Knabe, Ronnie Schöb and Marcel Thum stress this point in their joint work "Internationale Vergleiche beim Mindestlohn", published in issue 4/2014 of ifo Dresden berichtet.

The project "Effects of the demographic change in Germany as an immigration country" analyses the impact of persons with a migration background on demographic developments, as well as on the labour market and the social security systems in Germany. The study is conducted on behalf of the Friedrich-Ebert-Stiftung. Besides economic aspects, the study analyses the consequences of a growing share of people with a migration background on the provision of social, health and education services by municipalities. The change in urban society with its increasingly multiethnic communities is also addressed. The project is being conducted in cooperation with Alexander Kemnitz (Chair of Economic Policy and Economic Research) of TU Dresden, as well as with Gesine Marquardt, who is head of the DFG-funded Emmy-Noether research group "Architektur im demographischen Wandel" at the TU Dresden.

The article "Die Rente für besonders langjährig Versicherte" by Wolfgang Nagl, Joachim Ragnitz and Lars Vandrei addresses the pension for long-term contributors as part of the pension reform of 2014. The authors show the relative stronger position of people who enter the labor market early because the present value of their pensions is higher. Additionally, they point out that existing pensioners are affected negatively by the reform, since the contribution rate is not being reduced. A lower contribution rate would have led to higher pensions.

The paper "Better Safe than Sorry? The effects of income risk and unemployment risk on wages" by Wolfgang Nagl analyses the effects of income risk and unemployment risk on individual wages. Using German panel data he shows that worker are compensated for a higher income risk. However, this compensation decreases as the unemployment risk increases. The paper was published in *Labour. Review of Labour Economics and Industrial Relations* 28(3), 2014.

Using a large German administrative data set, Wolfgang Nagl and Michael Weber analyse the impact of the German Hartz-IV-Reform on the transition probability out of unemployment into employment. They find an average increase in the daily transition probability of 24% after the reform. The effect is lower for job seekers who have previously earned particularly

Demographic change and immigration

Income risk, unemployment risk and wages low or high wages. It is also lower for women and in Western Germany. The results were published as the *Ifo Working Paper* No 186 "Unemployment compensation and unemployment duration before and after the German Hartz IV reform".

Integration of Saxony and Eastern Germany in the International Division of Labour

EU enlargement has intensified the competitive pressure on Saxon firms, especially due to firms from Czech Republic and Poland – but has simultaneously also created new opportunities for Saxon firms. The regional integration and cross border relations between Saxony, the Czech Republic and Poland are topical themes.

In 2014, the Ifo Institute started a major project on Croatia as a new member country of the EU. Together with Ifo Munich, researchers will develop a reform programme for this country. Ifo Dresden is analysing necessary infrastructure projects and labour market reforms.

The article "Comparison of predicted and actual migration to Germany after EU-enlargement" written by Ingmar Rövekamp (ifo Dresden berichtet 6/2014) shows that migration from the EU member states that joined in 2004 was actually lower than many forecasts had suggested around the turn of the millenium. This was mostly due to the fact that Germany hesitated to grant free movement of labour in the first years after the enlargement and macroeconomic development was different than expected as a result. The delay in granting full free movement of labour led to a postponement of migration flows to more recent years, without affecting the total number of migrants coming to Germany over the whole time period.

Public Finance and the Promotion of Economic Development in Saxony

Public finance has a special relevancy for the Dresden branch of the Ifo Institute. In 2014, a variety of projects were carried out in this research area.

As in previous years, Ifo Dresden provided the Saxon State Ministry of Finance with a long-term projection of Saxon public revenues. Even although the diminishing population will lead to a substantial decline in tax revenues, this development can at least partly

be offset by economic growth. However, due to the reduction in transfers associated with the solidary agreement II (Solidarpakt II), total revenues will significantly decline up to the year 2020. The results of the projection enter the medium-term financial planning of the Free State of Saxony. They are presented in further detail in the publications of the Dresden branch of the Ifo Institute.

Further aspects of the fiscal relations between the Federal Government and the Länder were quantified on behalf of the Friedrich-Ebert-Foundation. The research project includes calculations on the fiscal effects of reform proposals by Wolfang Schäuble and Olaf Scholz. The results indicate that a realization of these proposals may worsen the fiscal position of some Länder, even in the presence of a substantial increase in payments by the Federal Government. Moreover, the results of a previous study on the fiscal relations between the Federal Government and the Länder, processed in 2013 on behalf of the Friedrich-Ebert-Foundation, were published in 2014. The study analyses extent to which the fiscal situation of the Länder can be improved if the federal government reimburses the Länder for their social expenditure. The results are published as ifo Dresden Studien (No. 73) and as an article in issue 4/2014 of ifo Dresden berichtet.

On behalf of the Court of Audit Mecklenburg-Western Pomerania (Landesrechnungshof Mecklenburg-Vorpommern), a research project concerned with the problems of higher education funding was conducted by the Dresden branch of the Ifo Institute. The financing, as well as the quality of teaching and research of higher education are analysed both in comparison with other Länder, as well as with selected institutions of higher education. Colleges (Fachhochschulen) in Mecklenburg-Western Pomerania are fairly successful in rankings with respect to the quality of education and research. At the same time, they receive more funding than comparable institutions in other Länder. By contrast, universities in Mecklenburg-Western Pomerania generate relatively low output with relatively low expenditure per student.

Another research project conducted on behalf of the Saxon State Ministry of Finance and the Thuringian Ministry of Finance, investigated whether the de-

The impact of EU enlargement on Saxon firms

Public revenue projection

mographic development may justify additional fiscal transfers for particularly heavily affected Länder. Additionally, the reasons for the relatively low economic and tax revenue performance compared to the national average were analysed. The project will be completed in 2015.

The Dresden branch of the Ifo Institute advises politicians who are involved in the negotiations concerning the reform of the federal fiscal equalization system. Alongside the development of individual reform approaches (e.g. concerning the valuation of the population of the city states, the weighting of municipal taxes or the introduction of a "demographic factor"), the role of the outstanding liabilities of the Länder was discussed. Joachim Ragnitz published an article on this topic in the journal *Wirtschaftsdienst* (issue 9/2014).

Projects Completed in 2014

Problems of Higher Education Funding in Mecklenburg-Western Pomerania

A. Eck, J. Ragnitz, S. Gralka, J. Heller, W. Nagl for the Court of Audit Mecklenburg-Western Pomerania (Landesrechnungshof Mecklenburg-Vorpommern), April 2014 to September 2014, publication in the series *ifo Dresden Studien*, as well as in three articles for *ifo Dresden berichtet* are planned.

Mecklenburg-Western Pomerania has two state (full) universities, three state colleges (Fachhochschulen) and one state university for music and theater. Due to special agreement "Hochschulkorridor", the granted budgets for these universities and colleges increase relative to the total revenues of the state. This research project investigates the financial resources and the performance of public higher education institutions in Mecklenburg-Western Pomerania. The financing of higher education in general, the distribution of financial resources and the quality of teaching and research are analysed in comparison with institutions for higher education in other German states (Länder).

The analysis starts with detailed and comprehensive descriptive statistics of non-monetary indicators. In a next step, monetary indicators are used in order to compare higher education institutions in Mecklenburg-Western Pomerania with those in other German states at the state level and with selected benchmark institutions at the institutional level. The universities in Mecklenburg-Western Pomerania feature a relatively low quality of education and research; the colleges are ranked higher in their comparison group. As far as funding is concerned, the results reflect these findings: the funding of colleges has been comparatively high; while the funding of universities has been relatively low. The importance of university medical centers to the funding of the higher education sector in Mecklenburg-West Pomerania is relatively high.

Subsequently, the project investigates whether the universities in Mecklenburg-Western Pomerania provide their services efficiently. To this end, the non-parametric approach of the Data Envelopment Analysis (DEA) and the parametric approach of the Stochastic Frontier Analysis (SFA) are applied. Both methods show that the higher education institutions in Mecklenburg-Western Pomerania exhibit low or, at most, average efficiency scores. Therefore all universities and colleges have the potential for efficiency gains.

Finally, the possible development of the funding requirements of universities in relation to future public revenues is analysed. In view of declining public revenues, a further increase in university funding from public funds does not seem likely.

Effects of the Scheduled Minimum Wage Act on Employment and Unemployment in the Districts of Saxony

M. Thum, L. Vandrei, M. Weber in cooperation with A. Knabe and C. Lücke, University of Magdeburg, and Ifo research professor R. Schöb, Free University of Berlin, for the Saxon State Ministry of Economic Affairs, Labour and Transport, May 2014 to July 2014, publication in *ifo Dresden berichtet* 22(5), 2014.

On July 3rd, 2014, the German Bundestag enacted a nationwide statutory minimum wage of 8.50 euros per hour. The minimum wage became effective on 1 January, 2015. The German government argues that a general minimum wage protects workers from unreasonably low wages. Opponents of the regulation maintain

Colleges enjoy higher funding

University funding not set to rise

that such an intervention will reduce employment. In this project, researchers therefore seek to quantify the potential effects of the minimum wage act on employment in the districts of the Free State of Saxony.

In a first step the district-specific wage distributions for the year 2015 are determined. The primary data base is the Structure of Earnings Survey 2010. Since this data set does not provide information on enterprises with less than ten employees, the simulation of complete wage distributions is also based on the German Socio-Economic Panel, as well as the IAB Establishment History Panel. The wage data are then extrapolated to the year 2015. These extrapolated district-specific wage distributions, can subsequently be used to determine the fraction of employees for whom the minimum wage will be binding, and ultimately its potential employment effects.

The calculations show that employment losses in Saxony are larger than the national average, and that districts with unfavourable labour market conditions are particularly heavily affected.

Structure Analysis of the Eastern German Chemical Industry

J. Heller, J. Kluge, R. Lehmann, C. Ochsner, J. Ragnitz for the Verband der Chemischen Industrie e. V. (VCI), Landesverband Nordost and Arbeitgeberverband Nordostchemie e. V., April 2014, publication in ifo Dresden Studie 74; ifo Dresden berichtet 22(6), 2014.

This research project included both a survey of the chemical and pharmaceutical industry for Eastern Germany, as well as a comparison of these industries between Eastern and Western Germany. The two industries are important drivers of growth and key players in terms of domestic and international sales.

A comparison of the two industries for eastern and western Germany showed that eastern German firms are able to keep up with their western German competitors. They are at least comparable in terms of key indicators like employment growth, sales profitability and foreign trade. However, large differences can be found in research and development (R&D): the eastern German chemical industry in particular is lagging behind

in terms of R&D expenditure, as well as R&D employment. By contrast, the R&D activities of the eastern German pharmaceutical industry are only slightly weaker than those of its western German counterpart.

Risks and Opportunities Related to Climate Change in Saxony – Climate-Related Sensitivities, Adjustment Capacities and Existing Landscape Functions (Vulnerability Study for Saxony)

R. Lehmann, M. Thum, L. Vandrei, M. Weber in cooperation with Leibniz Institute of Ecological Urban and Regional Development (IÖR), for the Saxon State Agency for Environment, Agriculture and Geology, Dresden, January 2013 to October 2014.

The aim of the vulnerability study is to provide a comprehensive regional evaluation of climate change-induced risks and chances for the Free State of Saxony. The study was conducted in close cooperation with the Leibniz Institute of Ecological Urban and Regional Development (IÖR), as well as with the Institute of Hydrology and Meteorology at the Technische Universität Dresden. The Ifo Institute's Dresden Branch evaluated the economic consequences of climate change for different branches of the economy and examined the efficiency of existing funding instruments.

Water- and energy-intensive sectors are particularly vulnerable to changing climatic conditions. This project used administrative data (employment figures subject to social security provided by the Federal Employment Agency) to identify regional differences in economic structures and, therefore, in vulnerabilities to climate change.

The Free State of Saxony provides funding for adaptation measures through various funding instruments. Researchers on this project compiled a comprehensive catalogue of those funding instruments in a first step. In a second step, the funding instruments were evaluated from an efficiency point of view. Adaptive measures that are undertaken on an efficient level by the private sector should not be supported by the government. The project tried to identify those adaptive measures where market failure would lead to inefficient provision.

Wage distribution and its effect on employment

Comparing the chemical industry in eastern and western German

Calculating the Fiscal Effects of Reform Proposals by Schäuble and Scholz Considering the Fiscal Relations between the Federal Government and the Länder

A. Eck, X. Frei, J. Ragnitz, J. Steinbrecher for the Friedrich-Ebert-Foundation, November 2014 to December 2014.

On behalf of the Friedrich-Ebert-Foundation, the fiscal effects of reform proposals by Wolfgang Schäuble and Olaf Scholz – considering the fiscal relations between the Federal Government and the Länder – were quantified. The analysis dealt with the question of the extent to which the public revenues (of the federal government, the Länder, and their municipalities) are affected, if selected mechanisms of fiscal relations are altered (if, for example, the solidarity surcharge is integrated into the joint tax revenue). To this end, the fiscal effects of the principal proposals, as well as several refinancing possibilities were examined.

The implementation of the proposals would improve the fiscal position of all the Länder, except for Brandenburg and Thuringia. The federal city states would benefit most from this proposal (indicated by an expected additional revenue of 200 euros per capita). The group of significant beneficiaries also included all western German area states too, like North Rhine-Westphalia (132 euros per capita) or Schleswig-Holstein (97 euros per capita). However, a substantial payment by the Federal Government of roughly 5 billion euros annually would be needed to implement this reform.

Fiscal Capacity and Determining Structural Characteristics of the Eastern German Länder

A. Eck, C. Fritzsche, J. Kluge, J. Ragnitz, F. Rösel for the Saxon State Ministry of Finance and the Thuringian Ministry of Finance, August 2014 to October 2014.

The authors analysed the sources of the disproportionately low GDP per capita and the even lower fiscal capacity of the eastern German Länder. The study focused on the demographic trends and structural idiosyncrasies of eastern Germany that may influence the level of tax revenues. It showed how the economic development in eastern Germany has evolved and which structural characteristics may be causing the deadlocked GDP gap with the western German

economy. The authors examined the impact of German tax law on tax revenue in eastern Germany and analysed whether tax legislation contributes to the gap between economic and tax revenue performance. Finally, the study investigated whether the demographic development may justify additional fiscal transfers for particularly affected Länder.

Do demographics justify extra fiscal transfers?

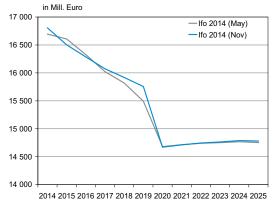
Current Projects

Long-term Projection of the Revenue Development of the Saxon State Budget until 2025 in the Year 2014 and 2015

A. Eck, C. Fritzsche, J. Ragnitz, J. Steinbrecher for the Saxon State Ministry of Finance, July 2014 to November 2015.

Since 2009, the Dresden Branch of the Ifo Institute has regularly provided projections for the public revenues of the Free State of Saxony up to the year 2025. The forecast will contribute to the design of a sustainable fiscal policy in Saxony.

Long-term Projection of the Revenue Development of the Saxon State Budget until 2025



Sources: Saxon State Ministry of Finance; calculations of the ifo Institute.

As transfers specially designed to benefit the eastern German Länder will cease, Saxon state revenues will significantly decline until the year 2020. Moreover, the shrinking population in Saxony will significantly reduce revenues from the financial equalization scheme between the federal government and the Länder (Länder) (Länder).

Saxon state revenues set to decline

Rising state revenues will not offset drop in tax revenues

derfinanzausgleich). From the year 2021 onwards, increasing tax revenues will raise total revenues in the state budget. Even in the most optimistic scenarios, the drop in revenues until 2019 will not be offset by increasing tax revenues.

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] and up to date in the journal ifo Dresden berichtet.

Effects of the Demographic Change in Germany as an Immigration Country

W. Nagl, M. Thum for the Friedrich-Ebert-Stiftung, December 2014 to May 2015.

Demographic change comprises the ageing and decline of the population, as well as the increase in the ethnic diversity of society and the change in household size (singularisation). Both past and future migration affect demographic change in all these dimensions. In this project, the demographic development will be analysed up to 2050 with special reference to people with a migration background and potential future immigration.

In addition, the labour market and social security systems are addressed. The project studies which sectors, regions and skill levels are particularly affected by demographic change. Furthermore, the labour incomes of Germans and foreigners living in Germany are compared and the different levels of labour force participation are analysed.

The municipal social, health and education services and the urban societies of large cities are also discussed. The changing demographic situation and the higher proportion of people with a migration background in society is creating new challenges for municipal social, health and education services. Potential changes in demand for elderly care is investigated by a survey. Best practice examples of the successful handling of greater social heterogeneity (multi-minority communities) are analysed.

Migration and demographic change

Migrants create new challenges for municipal welfare services

Economic Reform Agenda for Sustainable Growth and Employment in Croatia

J. Ragnitz together with the Ifo Institute Munich for the Croatian Statehood Foundation, Zagreb, September 2014 to September 2015.

The main purpose of the project is to develop appropriate recommendations for improving the international economic competitiveness of Croatia. Secondary data on the current economic situation in Croatia will be analysed and institutional performance will be evaluated. Based on this analysis, the report will be discussed in German-Croatian expert workshops and subsequently further developed into policy advice papers.

Industry Reports

C. Boede, U. Mandalka for the Volks- und Raiffeisenbanken, since 2006 on-going.

As part of Ifo Industry Research, Ifo Dresden produces reports for I5 selected industry branches twice a year ("Branchen special"). In a standardised form, analyses and forecasts are prepared on the structure of the industry branch, its business prospects, profits and competitiveness. The information in these special reports can indicate intermediate-term prospects for respective 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 the prospects and risk profiles of individual branches of industry.



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 closely watched 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 LMU and the Ifo Institute) provides a platform for the Group's joint activities, promoting the internationalisation of research and coordinating an international research network.

The main tasks of CESifo GmbH, all actively pursued in 2014, include:

- 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.

Cooperation 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.

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 2014 the CESifo Research Network grew to a total of 1,166 members, most of whom have been guest researchers at CES or 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 2014, the CESifo Research Network numbered 235 affiliates and 931 fellows.

Most of the fellows come from Europe and North America. However, the network also has members from a large number of ather 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, it has a strict quota for German members, who account for a maximum of 20%.

CESifo Research Network members by region:

Region	in %	Number
North America	29.5	344
Germany	19.8	231
Rest of Europe – total	46.6	543
– Western and Southern Europe	36.3	423
– Scandinavia	10.3	120
Others	4.1	48

To guarantee an intensive flow of ideas between its members and strengthen cooperation between the CESifo Research Network and the corresponding Ifo Centers, the network is subdivided into several areas. These are headed by the "Area Directors", internationally renowned scholars who

CESifo Research Network grew to 1,166 members

Members span wide range of countries and research backgrounds

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 Economics of Education
- Kai A. Konrad, Max Planck Institute for Tax Law and Public Finance, Area Director of Employment and Social Protection
- Michael Hoel, University of Oslo, Area Director of 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 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 further increased the attractiveness of the CESifo Research Network, which is reflected in its growing number of members.

CESifo Research Network members by research area:

Research area	in %	Number
Applied Microeconomics	14.9	174
Behavioural Economics	6.5	76
Economics of Education	6.2	72
Employment and Social Protection	10.6	123
Energy and Climate Economics	6.3	73
Global Economy	11.5	134
Macro, Money and International Finance	18.0	210
Public Sector Economics	26.0	304

CESifo GmbH provides members of the network 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 been awarded to a young economist on an annual basis since 2008. The aim of this prize is to identify promising young researchers and establish early links to them via the CESifo Network.

CESifo Distinguished Affiliates of 2014 are:

- Applied Microeconomics:
 Mar Reguant, Stanford University, USA
- Behavioural Economics:
 Alex Imas, Carnegie Mellon University, USA
- Economics of Education:
 Andrew Christopher Barr, University of Virginia, USA
- Employment and Social Protection:
 Beatrix Eugster, University of St.Gallen, Switzerland
- Energy and Climate Economics:
 Paolo Giovanni Piacquadio, University of Oslo,
 Norway
- Global Economy:
 Anna Gumpert, LMU, Germany
- Macro, Money and International Finance:
 Ezra Oberfield, Princeton University, USA
- Public Sector Economics:
 Jarkko Harju, Government Institute for Economic Research (VATT), Finland, and Justin Mattias Valasek, WZB, Germany

Since cooperation benefits both the network areas and the corresponding Ifo research departments, it is being continuously expanded. To promote this process, intermediaries have been appointed to promote cooperation between the areas and at the Ifo center directors.

The close links between the members of the CESifo Group and external researchers are further strengthened by the CESifo Visitor Programme. In 2014, 42 international researchers were welcomed to Munich in order to initiate or to continue joint projects with members of the CESifo Group, and especially with Ifo Institute staff. Among them were

James R. Hines, University of Michigan; Thomas F. Rutherford, University of Wisconsin; Wilhelm Kohler, Eberhard Karls University Tübingen; Philip Sauré, Swiss National Bank; Essi Eerola, Government Institute for Economic Research (VATT); Michael G. Arghyrou, Cardiff Business School; Eric A. Hanushek, Stanford University – Hoover Institution; Marc Auboin, World Trade Organization; and Heinrich W. Ursprung, University of Constance.

The Visitor Programme is closely linked to the evolution of the research network, as a successful visit is a prerequisite for any invitation to join the network typically.

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 money and leads to fiscal redistribution in Europe. CESifo GmbH was founded to provide economic-policy impulses at the European level. Its founding documents, which justified the granting of state subsidies, place European goals in the foreground, and the latters' 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 well-grounded perspective on current economic developments in the EU. The EEAG is unique in both its composi-

tion and its focus. The council consists of outstanding economists from several European countries and from the USA and its members in 2014 were:

- Giuseppe Bertola, EDHEC Business School, University of Turin
- John Driffill, Birkbeck College, University of London
- Harold James, Princeton University
- Hans-Werner Sinn, LMU Munich Ifo Institute
- Jan-Egbert Sturm, KOF, ETH Zurich
- Akos Valentinyi, University of Cardiff

The EEAG releases an annual report in which it not only analyses the current state of the European economy, but also examines in depth a number of other economic-policy issues of topical importance for Europe.

The overarching theme of the 2015 EEAG report was "Blurring the Borders". Published in February 2015, it cast a critical look at the European energy conundrum, at regional disparities within the EU, and migration, in addition to providing a detailed analysis of, and forecast for, the major economies around the world.

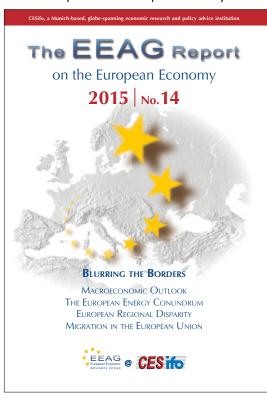
As in previous years, the current report was presented at press conferences in a number of European capitals. Lengthy articles in leading newspapers and coverage by major television newscasts demonstrate the European media's interest in well-substantiated economic analysis. The report was also made available 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 type-setting. 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. This database and the CESifo DICE Report, a quarterly publication of the Ifo Institute, make institutional comparisons on important economic issues in Europe available to journalists, economists and decision-makers, providing a wealth of data for well-founded economic policy discussion.

EEAG report 2015: "Blurring the Borders"

EEAG draws on DICE and input from Ifo Centers

EEAG Report of the European Economy 2015



Summit brings together wide cross-section of experts

The **Munich Economic Summit** is a joint initiative of the BMW the CESifo Group Munich and Foundation Herbert Quandt. It is held in partnership with two leading European newspapers – *The Times* and *Handelsblatt* – and with the support of leading European institutions and businesses. The Summit aims to bring together academic scholars, decision-makers in politics, industry and finance and media representatives to discuss vital European topics, and is now a widely acknowledged forum for the discussion of European policy issues.

In view of the encouraging, albeit limited, success of the Doha Round in Bali and the negotiation of mega-deals like the Trans-Pacific Partnership and the Transatlantic Trade and Investment Partnership, the 2014 Summit was devoted to free trade. Speakers included Karel de Gucht, European Commissioner for Trade, Karl-Ernst Brauner, Deputy Director-General of the World Trade Organisation, and Mukhisa Kituyi, Secretary-General of UNCTAD, amongst others.

The 2014 Summit was made possible by the generous support of UBS Germany, Roland Berger Strategy Consultants, PWC, Swiss Re, Norton Rose Fulbright, KCG Krass Capital Group, and Brähler ICS.

A related event, the Summit Lecture, aims to provide a forum for discussion of the main theme of the year's Munich Economic Summit in a smaller circle. The 2014 Summit Lecture was devoted to answering the question of whether the WTO breakthrough in Bali was really a breakthrough for global Free Trade. The Lecture featured Karl-Ernst Brauner. WTO Deputy Director-General, Richard Senti, Former Director of the Institute for Economic Research, ETH Zurich, Heribert Dieter, Senior Fellow at the German Institute for International and Security Affairs, and Hans-Werner Sinn, President of the Ifo Institute, as speakers.

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 2014 a total of 14 Munich Seminars were organised. Highlights of the series in 2014 included seminars by Yves Mersch, Member of the European Central Bank's Executive Board, Andreas Dombret, Member of the Executive Board of the Deutsche Bundesbank, Carsten Linnemann, Member of the German Parliament, Clemens Fuest, President of the Center for European Economic Research, and Martin Hellwig, Director of the Max Planck Institute for Research on Collective Goods.

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 re-

2014 Summit focused on free trade

search location and supporting empirical and theoretical research in economics, CESifo organised 26 scientific conferences and events in 2014.

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 2014. 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). James R. Hines Jr., Richard A. Musgrave Collegiate Professor of Economics in the Department of Economics and L. Hart Wright Collegiate Professor of Law in the Law School at the University of Michigan was awarded the prize in 2014 and delivered a lecture on "International Taxation and National Interests".



Award of Richard Musgrave Visiting Professorships to James R. Hines Jr. (right) by Hans-Werner Sinn (President CESifo, left) and Helmuth Cremer (Member of the IIPF Board of Management, middle)

The CESifo **Venice Summer Institute** has become a tradition in the CESifo event calendar and has earned a sound reputation among international economists. In 2014, the Venice Summer Institute comprised of five workshops, dealing with the following topics:

- "Behavioural Political Economy", organised by Arye
 L. Hillman, Urs Fischbacher, and Heinrich Ursprung
- "The Economics and Political Economy of Energy Subsidies", organised by Jon Strand
- "Demographic Change and Long-Run Development", organised by Uwe Sunde and Matteo Cervellati
- "Regional Mega Deals New Trends, New Models, New Insights?", organised by Gabriel Felbermayr and Mario Larch
- "Reforming the Public Sector", organised by Apostolis Philippopoulos

In 2014, CESifo organised the following scientific conferences and events:

- CESifo Area Conference "Macro, Money and International Finance", February 2014
- Summit Lecture "WTO Breakthrough in Bali for World Free Trade?", February 2014
- CESifo Area Conference "Applied Microeconomics", February/March 2014
- CESifo Conference on Social Economics, March 2014
- Richard Musgrave Lecture, April 2014
- CESifo Area Conference "Public Sector Economics", April 2014
- CESifo Area Conference "Employment and Social Protection", May 2014
- Munich Economic Summit "Free Trade and Prosperity", May 2014
- CESifo Area Conference "Global Economy", May 2014
- CESifo Area Conference "Economics of Education", September 2014
- CESifo Area Conference "Energy and Climate Economics", October 2014
- CESifo Area Conference "Behavioural Economics", October 2014

In addition, CESifo cooperated with partnerinstitutions in organising several joint scientific events including:

- "Spanish-German Economic Dialogue", with ESADE Business School, Spain, February 2014
- "State Export Credit Guarantees in a Globalized World", with the Ifo Institute, February 2014
- "Economic Geography and International Trade Research Meeting", with the Ifo Institute, March 2014
- "Estimation of Gravity Models of Bilateral Trade", with ETH, Switzerland, May 2014
- European Trade Study Group (ETSG), 16th Annual Conference, with LMU, September 2014
- "Energy Tax and Regulatory Policy in Europe: Reform Priorities and Research Needs", with IMF and the Ifo Institute, November 2014
- "Ifo Dresden Political Economy Workshop", with TU Dresden and Ifo Dresden, November 2014
- "Ifo Survey Data", with the Ifo Institute December 2014
- "Migration and the Welfare State: Why is America Different from Europe", with the Ifo Institute, December 2014

These international conferences benefit the CESifo Group in two ways: firstly, they offer researchers of the CESifo Group an opportunity to interact with researchers from all over the world and establish cooperations; and secondly, the events enhance the international reputation of the CESifo Group.

Publications

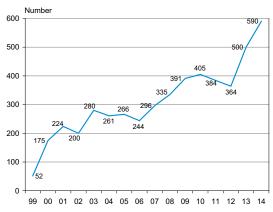
CESifo has developed a number of publications aimed at contributing to the discussion of economic issues in Europe. An important role is played by the CESifo Working Paper Series, which disseminates the early-phase findings of academic research conducted by network members, making them available for professional discussion.

590 CESifo Working
Papers published in 2014

In 2014, a total of 590 papers were published in this series. All papers are distributed electronically and as hard copies to a large number of libraries throughout the world. More importantly, they are disseminated worldwide via the CESifo Group's website and various online databases. In 2014, the CESifo Working Paper series registered about 178,000 downloads

through the CESifo website, 51,000 downloads through SSRN (Social Science Research Network), 39,000 downloads through RePEc, the world's largest online repository of economics publications, and nearly 160,000 downloads through Econstor, the Open Access server of the German National Library of Economics – Leibniz Information Centre for Economics.

CESifo Working Papers Output, 1999-2014



The **CESifo Newsletter**, distributed electronically, provides current information and commentary for a wide spectrum of readers, ranging from academics to members of the European Commission to the media. It also reports on CESifo events and provides articles on selected CESifo Working Papers in a form easily accessible to the non-specialist reader.

The CESifo Seminar Series with MIT Press publishes refereed contributions from selected CESifo conferences. In 2014, four new books were published on "The Economics of Conflict", "Climate Policy and Nonrenewable Resources", "The Mobility of Students and the Highly Skilled", and "Taxation and Regulation of the Financial Sector".

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 entitled: "The Knowledge Capital of Nations". It is a tandem project between Eric Hanushek, Stanford University, and Ludger Wößmann, Ifo Institute.

The CESifo Group website is a leading portal 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 section Press, Publications, Conferences.

In short, the research cooperation between the Ifo Institute, the LMU and the international scientific community continued to flourish very successfully in 2014. 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 202–219 (http://www.cesifo-group.de/Jahresbericht).

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 147–219 (http://www.cesifo-group.de/]ahresbericht).

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 2014. These included:

- Conference on "State Export Credit Guarantees in a Globalized World"
- Workshop on "Economics of Education and Innovation"
- Workshop on "Labour Market and Social Policy"
- EGIT Economic Geography and International Trade Research
- Workshop on "Regional Economics"
- Workshop on "Economic Reform Agenda for Sustainable Growth and Employment Generation Assessment of the Croatian Economic Situation"
- Workshop on "New Modelling Approaches for the European Electricity Sector"
- Conference on "Energy Tax and Regulatory Policy in Europe: Reform Priorities and Research Needs"
- Workshop on "Macroeconomics and Business Cycle"
- Workshop on "The Long Shadow of History Mechanisms of Persistence in Economics and the Social Sciences"
- Workshop on "Political Economy"
- Conference on "Macroeconomics and Survey Data"
- Conference on "Migration and Welfare State"

Lunchtime Seminars are held on a weekly basis. They serve the purpose of putting current research and new economic developments up for discussion. Participants are researchers from the Ifo Institute, CES, the University of Munich and CES visitors.

In 2014 a large number of Ifo staff members gave 148 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 detailed 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 2012:

Wolfgang Auer (University of Munich)

Christian Breuer (University of Munich)

Francesco Cinnirella (University of Mannheim)

Bernhard Enzi (University of Munich)

Oliver Falck (University of Munich)

Gabriel Felbermayr, (University of Munich)

Christa Hainz (University of Augsburg)

Alexandra Heimisch (University of Munich)

Julia Heller (Dresden University of Technology)

Timo Hener University of Munich)

Christian Holzner (University of Munich)

Nikola Jaakola (University of Munich)

Björn Kauder (University of Munich)

Jan Kluge (Dresden University of Technology)

Meinhard Knoche (University of Applied Sciences, Weihenstephan-Triesdorf)

Robert Lehmann (Dresden University of Technology)

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)

Christian Ochsner (Dresden University of Technology)

Marc Piopiunik (University of Munich and Harvard University)

Niklas Potrafke (University of Munich)

Joachim Ragnitz (Dresden University of Technology and University of Leipzig)

Helmut Rainer (University of Munich)

Hans-Werner Sinn (University of Munich)

Marcel Thum (Dresden University of Technology)

Justin Tumlinson (University of Munich)

Lars Vandrei (Dresden University of Technology)

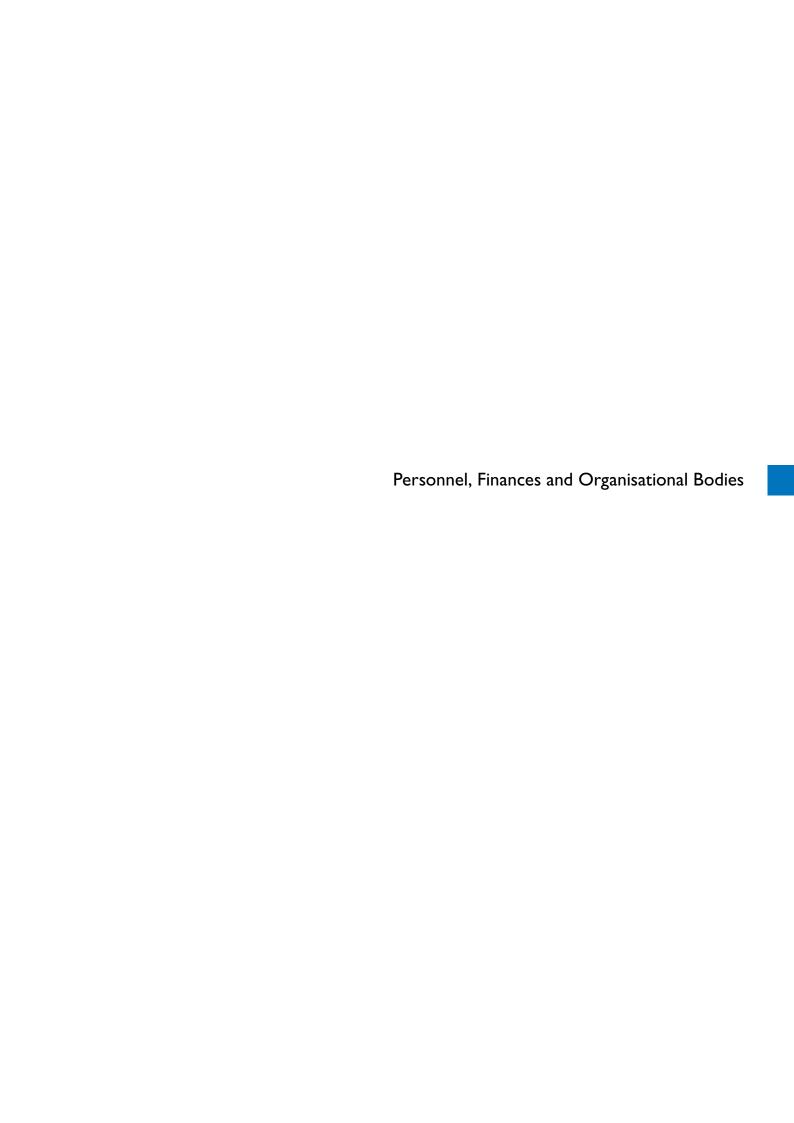
Michael Weber (Dresden University of Technology)

Katharina Werner (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. 76 students in Munich and in Dresden were able to gather initial experience in empirical economic research.



Personnel Development

The Ifo Institute has a very flat hierarchical structure. Below the Executive Board there is only one more management level constituted by the Center Directors. There will be a change in the Executive Board in 2016: Ifo President Prof. Hans-Werner Sinn's term of office will come to an end on 31 March 2016, just after he turns 68 years old. To fill this position with a first-rate candidate, the Ifo Institute's Administrative Council began its search for a new President back in spring 2014.

There were several changes at the Center director level in 2014. The Ifo Institute's eight research departments are, as a rule, headed by professors who are jointly appointed by the Ludwig Maximilian University of Munich (LMU) and have a chair at the University of Munich parallel to heading a department at the Ifo Institute. Two department heads left the Ifo Institute in 2014: Prof. Tobias Kretschmer negotiated with the University of Munich that he would retain and expand his Institute for Strategy, Technology and Organisation, and resigned as department head at Ifo in order to focus on his tasks at the Faculty for Business Administration. In addition, Prof. Kai Carstensen, who was director of the Ifo Center for Business Cycle Analysis and Surveys, accepted an offer from the University of Kiel, in order to focus more on academic research and left the Institute in spring 2014. With a view to the forthcoming change in President, the Executive Board has decided not to pre-empt the future President in key personnel decisions and to fill both positions on a temporary basis. Prof. Oliver Falck was appointed director of the Ifo Center for Industrial Organisation and New Technologies for a period of five years and will prepare this large research department for the evaluation by the Senate of the Leibniz Association that is scheduled to take place in 2019. Prof. Falck was previously jointly appointed by the LMU as deputy director of the Ifo Center for the Economics of Education and Innovation and was responsible for the research area "Innovation economics". This research focus was integrated into his move to the Ifo Center for Industrial Organisation and New Technologies. His previous department was renamed the Ifo Center for the Economics of Education and Prof. Ludger Wößmann will remain its director. The position left vacant by the departure of Prof. Carstensen

will be filled on an interim basis until September 2016 by Prof. Timo Wollmershäuser, who was previously deputy director of department. After the change in president the procedure to jointly appoint a director of the Ifo Center for Business Cycle Analysis and Surveys.

Leading researchers at the Ifo Institute receive offers from other national and international universities every year. In 2014 Prof. Niklas Potrafke rejected an offer from the Freie Universität Bozen. The principle of jointly giving leading Ifo researchers professorships that are inextricably linked to their management role at the Ifo Institute has proven very effective. It guarantees first-rate research and the intensive support of junior economists at the Ifo Institute and is increasingly being adopted by other non-university research institutes.

Trends in Employee Numbers

The total number of persons employed at the institute also remained almost stable in 2014: by the reference date of 31 December 2014 the number of staff employed at the Ifo Institute had only fallen by 3 to a total of 190 persons. This decline only applied to non-scientific staff; the number of employees in research (researchers/specialists, doctoral students and subject experts) remained unchanged.

Although the number of researchers in the research centers fell by three, one doctoral student and two specialists joined the centers. 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. The number of clerks and technical staff employed by the centers fell by one to twenty. On the reference date of 31 December 2014 a total of 51 persons were employed in infrastructure. The number of trainees remained stable at three.

The number of part-time staff fell by I person to 84 employees. While the number of part-time doctoral students rose by one, this figure fell by two among the non-scientific staff employed in infrastructure. In all other areas the number of part-time staff remained unchanged.

Professorship principle highly successful

Ifo staff totals 190 in 2014

Infrastructure has 51 employees

Docs and post-docs get fixed-term contracts

42.6% of Ifo staff had fixed-term contracts in 2014

37.5% of doctoral students were women in 2014

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. A contract of indefinite duration can only be given to a researcher in the Research and Service areas once s/he has achieved a certain level of scientific output and has satisfied other conditions. The exact nature of these conditions is set out by the Executive Board in its guidelines. This "career documentation" establishes exactly which conditions must be fulfilled to move into a higher salary class. The total number of fixed-term contracts increased by ten to 81. As expected, this increase took place almost exclusively in the research departments. Specialists are given fixed-term contracts in cases where they are recruited to cover for staff on temporary leave. The share of fixed-term contracts among scientific staff (including doctoral students) rose from 68% in 2013 to 77.9%. Like last year, there are also no longer any fixed-term contracts among clerks and assistants. In infrastructure there were only three fixed-term contracts, which is a very low figure due to the nature of the positions. Overall, the number of persons with fixed-term contracts as a percentage of the overall workforce rose from 36.8% in 2013 to 42.6% in 2014.

The number of women employed at the institute remained at 93. Since the total number fell marginally, the number of women as a share of the overall staff rose slightly from 48.2% in 2013 to 48.9% and almost reached the 50% mark. The number of women employed in infrastructure, and as technical staff and clerks fell by one respectively. The number of scientific staff and specialists remained unchanged. The number of female doctoral students increased by two to 15. Since the total number of specialists rose, the share of women in this area fell from 63.2 percent to 57.1 percent, but still remains clearly above 50 percent. In terms of scientific staff, by contrast, the quota of women rose from 17.2% in 2013 to 18.2%; which is at least a small step in the right direction. The share of women among doctoral students (37.5%) was higher than in 2013 (34.1%). This improves the likelihood of boosting the share of female research staff at the institute, since female doctoral students are increasingly being recruited with a view to offering them a postdoc position once they have written their doctorate. This is an important staffing policy step towards boosting the share of female scientific staff with doctorates.

Another of the Ifo Institute's personnel policy goals is to gradually increase the number of researchers with a doctorate as a share of the total number of researchers to 100%. The Institute took a large step towards this goal in 2014: with this figure rising from 68.9% in 2013 to 81.8% in 2014. If doctoral students are included in this figure, a total of 89.5% of Ifo's research staff either held a doctorate or were working on their doctorate by the reference date of 31 December 2014. This figure was significantly lower (81.4%) in 2013. The number of professors and researchers with habilitations as a share of overall staff, by contrast, fell from 25.8 percent in 2013 to 21.8%.

Number of Staff at Year-End of 2014 and 2013

	Tota	l staff	Women	
	2014	2013	2014	2013
Research and service				
Scientific staff	55	58	10	10
Doctoral students	40	39	15	13
Specialists	21	19	12	12
Technical staff/assistants	20	21	19	20
Infrastructure				
Non-scientific staff	51	53	36	37
Of which staff with management respon-				
sibilities*	12	11	8	8
Trainees	3	3	1	- 1
Total	190	193	93	93
		-time kers	Limited duration contracts	
	2014	2013	2014	2013
Research and service				
Scientific staff	13	13	34	27
Doctoral students	40	39	40	39
Specialists	4	4	1	0
Technical staff/assistants	12	12	0	0
Infrastructure				
Non-scientific staff	15	17	3	2
Of which staff with management respon-				
sibilities*	3	3	1	0
Trainees	0	0	3	3
Total	84	85	81	71
	Post-docs/habilita- tions, professors women			
	2014	2013	2014	2013

 $^{^{\}ast}$ Non-scientific staff compensated according to TV-L E 13 and upwards.

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 2014 this was true of 21 Ifo researchers (2013: 22). 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 eight foreigners (2013: seven) and two "returnees" among Ifo's scientific staff (2013: three). Five doctoral students (2013: four) were foreign and two (2013: four) studied at foreign universities before accepting a doctoral position at Ifo. This means that almost 22.3% of the scientific staff were foreigners (2013: 22.7%), or Germans who worked or studied at a foreign university prior to joining Ifo, on the reference date mentioned above.

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 for the Ifo institute is the promotion of young academics, and especially of doctoral students. 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. For this reason Ifo's Executive Board offers intensive support for doctoral students who are completing their doctorate in taking the next step in their career.

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 in 2014, and 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.

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 situa-

Promoting junior economists

Support for doctoral students

Lunchtime and research seminars play key role

148 international presentations made by

doctoral students

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 148 precent

ternationally renowned refereed journals. Despite a limited travel budget, Ifo researchers gave 148 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.

Customised training measures like, for example, prep-

tion is similar at the Dresden branch of the Ifo Insti-

tute 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

aration of deep econometric work were also offered. Twelve male Ifo researchers and two female researchers are currently working on their habilitation.

Teaching helps researchers to expand their knowledge base

Several researchers at the Ifo Institute teach at universities with which Ifo cooperates closely, which gives them the opportunity to constantly revise and expand their own expert knowledge base. In the summer semester 2014 and in the winter semester 2014/2015, 83 university lectures were given by Ifo staff. This is particularly advantageous for subjects that are empirically oriented. Additionally, all researchers at the Institute are given the opportunity to keep abreast of research developments by attending 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 47 in 2014 (2013: 53). This decline compared to previous years was particularly due to the fact that three Ifo department heads took research leave at foreign universities in 2014 and were therefore not available to host guest researchers during these periods.

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 2014, which was a significantly higher figure than in 2013 (55). The share of female interns also increased slightly to 42.1 % (32 interns) versus 40 % in 2013. 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, 106 further training measures were approved in 2014, of which 139 were also conducted in that year. Some of the training measures had to be postponed until 2015 or were cancelled due to illness. The biggest share of the training measures requested are usually in the field of computers, whereby the focus lies on schooling for the specific IT require-

ments of individual employees. These measures were complemented by training for doctoral students and junior economists. Some of the post-doc students attended a seminar entitled: "Recruitment procedure, negotiation and presentation training". This programme was complemented by customised courses to deal with challenges encountered in individual roles.

The Institute also endeavours to promote young staff in the non-academic area. It regularly offers an Office Communication trainee programme. In 2014 a young staff member successfully completed her training. She left the Institute at the end of her programme to begin studies at university. In September 2014 a new trainee was recruited who is 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-refered journal. In 2014 this prize was awarded to Prof. Niklas Potrafke, Director of the Ifo Center for Public Finance and Political Economy, for his prolific and successful publications in 2013. He published a total of eight articles, mainly as their sole author, in peer-reviewed journals. This exceptionally high research output contributed to Niklas Potrafke's position of 16th in the Handels-blatt 2013 ranking of the economists with the highest research output over the last five years and made him the highest-ranking Ifo researcher in this category.

An annual prize is also awarded for outstanding achievement in third-party research. The prize can only be awarded for projects with high third-party volumes, recognised high-quality content, as well as international comparisons and that are completed within budget and to schedule. In 2014 this prize was awarded to the project team consisting of Dr. Marc Piopiunik, Prof. Guido Schwerdt and Prof. Ludger Wößmann, which, supported by Anita Fichtl and Franziska Kugler, successfully worked on the project entitled: "Central exit exams as a governance instrument in the school system: labour-market effects, transmission channels and effect heterogeneity".

Equal Opportunity at the Ifo Institute

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 2015, is primarily aimed at gradually reducing the underrepresentation 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 is 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 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 Deutsche 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 2014. The number of female doctoral students, by contrast, decreased slightly, but nevertheless remained above the targeted goal of a 30% share of females. Dr. Christa Hainz, an experienced researcher from the Ifo Center for International Institutional 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 is-

Ifo remains committed to equal opportunities

Ifo adopts flexible target quota for compensation

sues 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 fell less than the number of overall staff (part-time staff: –I, total staff: –3). The number of women as a share of part-time employees was 60%. If doctoral students are excluded from the number of part-time positions, then this figure was as high as 79.5% in 2014 (2013: 84.8%). 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 were newly established in 2013 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 female academics. Three of the nine members of the Ifo User Advisory Council are women and the share of women on Ifo's Board of Trustees also rose

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, the support from the Dual Career Office of the Technical University of Munich has already borne its first fruits.

60% of women at Ifo have part-time jobs

Ifo finances 3 nursery places

in 2014.

Financial Development

The Ifo Institute is a non-profit institution whose statutes stipulate that its work should benefit the general public. It also does not primarily pursue its own financial gain. 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, whose findings are also made public and which strengthens the material and immaterial foundations of all of the Institute's work. The Ifo Institute therefore directs its finances toward achieving a balanced long-term cost and earnings structure that permits a large service and research output. Sufficient financial reserves help offset income fluctuations and allow a flexible reaction to special demands.

Summary of Key Developments

The financial statement for 2014 shows a surplus of 18 thousand euros. This was channelled into the reserves, marginally increasing the Institute's assets to a total of 1,882 thousand euros as of 31 December 2014.

In 2014 the Ifo Institute received public funds total-ling I0,524 thousand euros as part of research promotion based on Art. 9Ib Basic Law (German constitution). Of this amount, 9,709 thousand euros was used for current operations and 3I5 thousand euros were used for investment. The funds for current operations include 45I thousand euros in special funding for a four year limited period to build up the Energy, Climate and Exhaustible Resources research area. The sum of 500 thousand euros in institutional funding granted to the Ifo Institute for 2014 by the German federal government and Länder was not used. This sum was accumulated in a cash balance that will of be carried forward to next year.

Assets and Finances

The balance sheet total fell by 1,055 thousand euros compared to the previous year (-13.6%) to 6,679 thousand euros. On the asset side, this was mainly due to the fact that liquid funds (cash and bank deposits) fell by 1,298 thousand euros. Short-term receivables including prepaid expenses rose by 73 thousand euros The inventory, by contrast – i.e. the value

of uncompleted multi-year research projects – fell by 143 thousand euros. Intangibles, as part of the Institute's assets, increased by 27 thousand euros.

On the liabilities side, the rise in the balance sum also resulted from an increase in several individual items. In addition to the Institute's assets (+18 thousand euros), provisions (+278 thousand euros), as well as liabilities vis-à-vis banks (+4 thousand euros) and other liabilities (+88 thousand euros) also increased. Down-payments received, by contrast, fell sharply (-1,443 thousand euros).

The sum of one thousand euros from the annual surplus of 18 thousand euros was channelled off into research reserves, bringing the latter to a level of 1,109 thousand euros on 31.12.2014. Voluntary payments beyond membership fees, which are managed by the Ifo Institute's Administrative Council, amounted to 17 thousand euros last year. This sum was added, in accordance with the Ifo statutes (Art. 4. Sec. 2), to the earmarked reserves, which totalled 773 thousand euros. This only marginally increased the Institute's assets to a total of 1,864 thousand euros.

Balance Sheet of the Ifo Institute for 2014 in Thousand Euros (abridged version)

	31.12.2014	31.12.2013
Assets		
Fixed assets	197	170
Current assets		
Inventory	967	824
Receivables and accruals	1,186	1,113
Liquid funds	4,329	5,627
Total assets	6,679	7,734
Liabilities		
Net worth		
Earmarked funds	773	756
withdrawals/	0	0
additions	17	17
Research reserves	1,109	1,108
withdrawals/	0	0
additions	l I	329
Short-term debt		
Reserves	2,336	2,058
Liabilities vis-à-vis banks	15	11
Down payments received	1,231	2,674
Other liabilities	1,215	1,127
Total liabilities	6,679	7,734

Liabilities rose in 2014

Voluntary payments totaled 17 thousand euros

Operating income

increased by 41 thousand

Liquid funds were available at all times throughout 2014. The stock of liquid assets fell compared to the preceding year by 1,302 thousand euros to 4,314 thousand euros. Both cash flow from current operations (–1,203 thousand euros) and cashflow from investment activity (–99 thousand euros) were negative in 2014.

Income

Operating income increased by 41 thousand euros compared to 2013 and totalled 16,149 thousand euros. This figure includes an increase in public financial support consisting of the institutional support of the Ifo Institute as part of the collective research support 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 431 thousand euros to 10,724 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, comprised of revenue from publications and database services, earmarked subsidies and contract research as well as the corresponding changes in inventory fell from 5,653 thousand euros in 2013 to 5,270 thousand euros in 2014.

The number of Association members declined somewhat versus the previous year (from 375 to 362). Income from membership fees (obligatory and voluntary) therefore decreased slightly from 162 thousand euros to 155 thousand euros.

The decline in third-party revenues was accompanied by a corresponding drop in the cost of materials and related services of 60 thousand euros compared to 2013.

Personnel costs increased by just +1.4%

Personnel expenses increased by just +1.4% (+158 thousand euros), which was far less than the increase in compensation negotiated as part of the collective wage agreement TV-L (3% as of 1 April 2014). As outlined in the Report of the Executive Board, this was partly due to several Ifo researchers taking research stays at foreign universities in 2014 that had been postponed during the Leibniz evaluation and

who were granted leave during these periods, and partly due to the fact that two academic management positions were filled by Ifo staff as an interim solution.

Regular depreciations (38 thousand euros) refer to fixed assets financed out of own funds, while unscheduled depreciations (295 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) rose by 104 thousand euros to 2,733 thousand euros. As in the case of the increase in unscheduled depreciations, this was primarily due to first year licences resulting from the purchase of new software. This is a one-off effect.

Profit and Loss Statement of the Ifo Institute for 2014 in Thousand Euros (abridged version)

	31. 12. 2014	31. 12. 2013
Institutional support	10.724	10,293
Earmarked financial support	1.831	2,023
Obligatory membership fees	138	145
Voluntary membership fees	17	17
Income from publications and data bank		
services, conferences	263	244
Income from commissioned activities	3.033	3,448
Change in stocks of non-invoiced services	143	-62
Operating income	16.149	16,108
Expenditure for material and purchased		
services	1.389	1,449
Personnel expenditure	11.683	11,525
Regular depreciation	36	38
Unplanned depreciation	295	136
Other operating expenses minus income	2.733	2,629
Operating expenses	16.131	15,777
Operating profit	13	331
Financial profit	I	3
Taxes on income and profit	-5	3
Neutral income and income unrelated to		
the accounting period	9	9
Profit for the year	18	346
Withdrawals from research reserves	0	0
Additions to research reserves	l I	329
Withdrawals from statutory reserves	0	0
Additions to statutory reserves	17	17
Profit brought forward	0	0

This means that income exceeded costs by 13 thousand euros in 2014 (income from on-going business). Taking into consideration the positive financial result of 1 thousand euros (income from interest), tax re-

funds (5 thousand euros) and the neutral and positive results totalling 9 thousand euros, the annual result totals 18 thousand euros.

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 10,524 thousand euros. Of this total 9,709 thousand euros was used for current operations, and 315 thousand euros for investment and upkeep. As already mentioned, the funds granted totalling 500 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 700 thousand euros in 2014.

The Institute's financial statements were audited by KPMG Deutsche Treuhand-Gesellschaft AG, Munich, and received unreserved certification.

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Organisation Chart



Ellian: no ellocato				at the children of married
Executive Board		Prof. Dr. Dr. h.c. mult. Hans-Werner Sinn (President) Prof. Meinhard Knoche	ent)	
lfo Centers for	Business Cycle Analysis and Surveys	Public Finance and Political Economy	Labour Market Research and Family Economics	The Economics of Education
	Prof. Dr. Timo Wollmershäuser (interim director) National and international economic	Prof. Dr. Niklas Potrafke Fiscal federalism and local finances	Prof. Helmut Rainer, Ph.D.	Prof. Dr. Ludger Wößmann Education and individual outcomes:
	activity forecasts Business surveys	 Evaluation of fiscal and taxation policy Government debt in Germany and Europe 	■ Family economics ■ Evaluation studies in the area of social,	labour markets and lifecycles Education and long-term development:
	■ Research in the areas of macroeconomics, forecast methods and survey methodology	■ Political economy	family and labour market policy and institutions	economic growth and prosperity Determinants of education: culture,
	Provision of survey data and methdological competence			resources and institutions Governance of Education: efficiency and equity
	Industrial Organisation and New Technologies	Energy, Climate and Exhaustible Resources	International Economics	International Institutional Comparisons and Migration Research
	Prof. Dr. Oliver Falck	Prof. Dr. Karen Pittel	Prof. Gabriel Felbermayr, Ph.D.	Prof. Panu Poutvaara, Ph.D.
	 Industrial organisation and industry-level analysis New technologies Collection of firm-level and industry-level data 	■ Climate and exhaustible resources ■ Environment ■ Energy	 Globalisation and labour markets Trade costs and trade policy Trade and environmental policy 	 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 lin Europe (DICE) Publication of the CESifo DICE Report and the CESifo Forum

and the CESifo Forum	Dresden Branch Prof. Dr. Marcel Thum (Director) Prof. Dr. Joachim Ragnitz (Managing Director)
	LMU-ifo Economics and Business Data Center (EBDC) Prof. Dr. Marcel Thum Prof. Dr. Ralf Elsas Prof. Dr. Timo Wollmershäuser (interim director) Prof. Dr. Joachim Ragnitz International Advisory Projects Prof. Dr. Siegfried Schönherr
	Quality Management Johanna Garnitz Stefan Sauer Controlling/Equal Opportunity AGG Dr. Dorothea Pohlmann Data Protection Angela Wagner
	Executive Departments Scientific Staff Wolfgang Meister Executive Support Staff Barbara Hebele Anja Rohwer Caroline Schiller Franca Fogli-Götz

Prof. Dr. Dres. h.c. Arnold Picot **Ombudsman**

Prof. Dr. Dr. h.c. mult. Hans-Werner Sinn Prof. Meinhard Knoche

Petra Braitacher Library

Information Technology

Finances and Centralised Services

Sabine Dehof

Prof. Meinhard Knoche Human Resources

Central Departments

Christian Pitsch

Press, Publications, Conferences