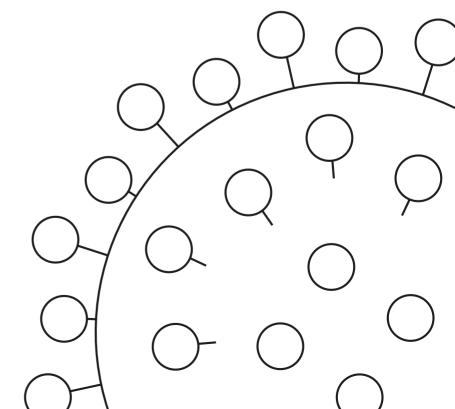
Annual Report 2020

Ways Out of the Coronavirus Pandemic – How the ifo Institute Is Helping Resolve the Crisis





THE YEAR IN REVIEW

PAGE 48

60%

of Germans want the federal government to make the most important education policy decisions, not the Länder as is currently the case. This is a finding from the ifo Education Survey for 2020, which polled more than 10,000 German citizens.

PAGE 78

Rural Exodus

The share of Germany's population living in the countryside has reached its lowest level since 1871. This applies both to economically declining areas of the country and to growth regions.

PAGE 42

39%

is the increase in probability that migrant children will attend a university-track secondary school if they have German citizenship from birth.

PAGE 62

2,197

patents were filed in the US by inventors from eastern and southeastern EU member states in 2017. Migrants play a key role in knowledge transfer and innovation.

PAGE 74

€ 1,600,000,000

in tax revenue is lost to the treasury every year, because large German companies shift part of their profits to tax havens.

PAGE 80

772

CESifo Working Papers were published in 2020.

PAGE 46

Renationalization

Bringing back production would have enormously negative consequences: in a deglobalized Germany, real income would fall by 19.4 percent.

PAGE 90

1.7

was the rating – signifying "very good" – that ifo staff gave working conditions at the Institute during the Covid-19 period from March to August.

PAGE 58

23%

less traffic would occur with an anti-congestion charge of EUR 6 per day in Munich.

PAGE 70

Sustainability Gap

For sustainable public finances, the government should permanently increase its budget surplus to 1.5–4.1% of GDP, starting immediately.

PAGE 48

84%

of Germans are in favor of a school exit exam in which some tasks in the core subjects (math, German, English) are standardized across Germany.

PAGE 67

ifoCAST

Under this brand, the ifo Institute is now applying a fully automated model to estimate and forecast Germany's gross domestic product.

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FOCUS: CORONAVIRUS

20 Ways Out of the Coronavirus Pandemic – How the ifo Institute Is Helping Resolve the Crisis

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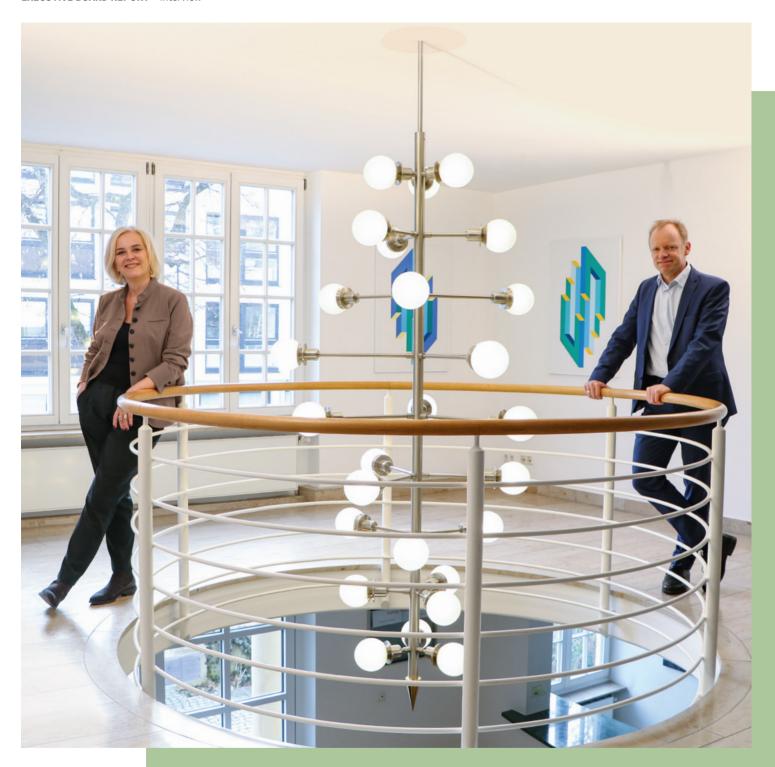
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Dr. Stephanie Dittmer

A member of the ifo Institute Executive Board since September 2017, Dr. Dittmer was previously Head of Strategy and the Initiative and Networking Fund at the Helmholtz Leadership Academy, Helmholtz Association of German Research Centres e.V.

Prof. Clemens Fuest

Before becoming president of the ifo Institute in April 2016, Prof. Fuest was president and CEO of the ZEW – Leibniz Centre for European Economic Research and Professor of Economics at the University of Mannheim.

"If we are to overcome the crisis, we need reliable information about the economy."

"The crisis has brought us even closer together."

Dr. Stephanie Dittmer

The year 2020 was a turbulent one for the ifo Institute. President *CLEMENS FUEST* and Executive Board member *STEPHANIE DITTMER* talk about how the coronavirus crisis thwarted plans – and how ifo rose to the challenge.

Within just a few weeks of the outbreak of the pandemic, public interest zeroed in on economic research alongside epidemiology. What did this mean for the organization, management, and strategy of the ifo Institute?

clemens fuest Our primary concern was to respond quickly to the new situation – both in terms of what our research focuses on and how we organize work at the Institute. In research, the task was to examine the impact of the pandemic on the economy and to develop concepts for stabilization measures we could recommend to policymakers. This meant shifting resources from ongoing research projects to these topics. In addition, we swiftly stepped up collaborations with scientists from other disciplines, especially those in epidemiology and medicine. Interdisciplinary collaboration is essential to understanding and addressing the impact of the pandemic. We also switched conferences and other events to digital formats. This has changed our research work considerably – in some ways making it more difficult, but also opening up new possibilities.

STEPHANIE DITTMER Like many other organizations, we had to restructure our work, implement working from home to an unprecedented extent, put virtual collaboration on a

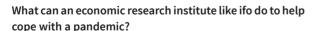
reliable footing, and of course ensure we had functioning technical infrastructure in place. At the same time, we wanted to support staff members who were working hard to analyze current events, present new research findings, and engage in debates about the pandemic.





"The crisis has shown that our work has high practical relevance. This awareness will remain."

Prof. Clemens Fuest ifo President



FUEST The pandemic has caused the most severe global economic crisis since World War II. To overcome it, we need objective information on the development of the economy. Reliable information is also necessary if policymakers are to take appropriate countermeasures, such as viable concepts for stabilizing the economy and feasible plans for reopening after lockdowns. Decision-makers in politics, business, and the public sphere have a strong need for information and advice in times like these. The ifo Institute was very active in policy advising last year and had a greater media presence than ever before.

DITTMER In this crisis, our many years of experience in participating in the public debate are proving a true advantage. We are able to prepare the results of our research in

such a way that they help inform political decisions and also so that different target groups understand them. The past year has shown that we are able to work very quickly across disciplines as well. This is a great benefit at a time when different scientific perspectives on the complex pandemic situation are so essential.

What new research questions have emerged as a result of the crisis?

FUEST There are new research questions about the interplay between the pandemic, economic development, and government intervention in both economic stimulus policy and infection control measures. Do the needs of public health conflict with economic development? Can economic recovery be achieved if lockdown measures are relaxed regardless of infection levels? How does having people work from home help curb infections? What are the consequences of school closures and distance learning for students – and what role does family background play? How can the government promote vaccine development and production? Does government bridging aid ultimately lead to zombie companies? Are the crisis measures threatening to overstretch the state's finances?

How prepared were you for an extreme situation like this?

DITTMER We were able to rely on extremely agile crisis management in our research areas. Now about a year into the pandemic, we can say that the ifo Institute recognized the positive potential of the crisis and, as an organization, adopted a professional response to the unexpected.

"I'm very pleased to see how courageously and creatively the people at ifo are moving the Institute forward during the pandemic. This also supports the Executive Board."

Dr. Stephanie Dittmer Member of the Executive Board



FUEST The Institute was as well prepared as an organization can be. In research, we can draw on broad expertise that allows us to analyze emerging economic problems at short notice, a task that our staff members are still fully engaged in. Because the pandemic is global, the ifo Institute can benefit greatly from its excellent networks – primarily in international research, but also in politics and business. Our decades of experience in collecting and processing economic data have also proven vital and helpful.

What lessons can you take from the crisis for the future?

FUEST Agility plays a key role in the ability to respond to crises, both in research and in how we organize the Institute's work...

DITTMER I completely agree. Agility means greater flexibility, the ability to act quickly, and also the willingness to leave familiar paths and processes behind. We have achieved a great deal in research and management during the pandemic and have also gained new experience. This makes us stronger and also gives us courage to develop ourselves further in the future.

What role does strategy play in a year like this?

FUEST Although the acute situation in society and the economy demands a lot of attention, we mustn't lose sight of our own medium- and long-term strategy and should continue to develop it. For example, we proceeded with our plan to expand research in big data this year. The pandemic situation has strengthened our conviction that this is the right path to

take. Decisions should be assessed according to whether or not they fit into the long-term strategy.

DITTMER A strategy that loses sight of its goals when a crisis hits would hardly be worthy of the name. We will continue to pursue our goals. In addition to the aforementioned big data or the digitalization of our infrastructure, these goals always put people at the center: for example, in our development of junior economists. In that area, gender balance is currently a particular focus.

What positive experiences from 2020 will have a lasting impact on ifo?

DITTMER Although the enforced distancing prevents or complicates many kinds of interactions, in some ways, the crisis has brought us even closer together. I am very pleased to see how courageously, creatively, and prudently the people at ifo are carrying the Institute through the crisis and beyond. This also supports the Executive Board.

FUEST Like me, many of my colleagues in science have set out to gain a better understanding of the world. We want to help solve problems. During the coronavirus crisis, every employee at the Institute was able to see just how much we contribute to society, the economy, and science. This awareness of the high practical relevance of our work will remain. And that gives us courage, strength, and stamina for the tasks ahead.

The interview was conducted by Dr. Cornelia Geißler, Head of Communications





Highlights of the ifo Institute's Work in 2020

he coronavirus crisis defined the ifo Institute's work in 2020. The output that the research areas generated on this topic within just a few months can be found in our focus section starting on page 20. The latest information is always available on the ifo website. Aside from this, the ifo Centers also continued their scientific work and other projects. A selection of the most important research papers and results can be found in the chapters starting on page 38.



One event of the past year that held significance for the Institute as a whole was the outcome of the evaluation the Leibniz Association conducted in 2019 as part of seven-year cycle. The findings were published in March 2020. Of the ifo Institute's nine research areas, two were rated "excellent," four were rated "very good," two were deemed "good to very good," and one "good." This secures joint funding of the ifo Institute by Germany's federal and state governments for the next seven years.

The Leibniz Senate praised our close cooperation with Ludwig-Maximilians-Universität München (LMU). ifo is also exceptionally well networked at the international level, in particular through EconPol and CESifo GmbH. In its evaluation, the Leibniz Association applauded the linking of research with scientific advice to politics and society. It found that the ifo Institute has achieved consistently high performance for a long time, and its research work is reflected in its superb publication track record. The Senate went on to point out that the Institute performs its tasks in political consulting with excellence and successfully implemented the Senate's recommendation from its previous evaluation, the continued promotion of gender equality. Nevertheless, the Senate feels that ifo needs to do significantly more to accomplish this in management positions.

RESEARCH

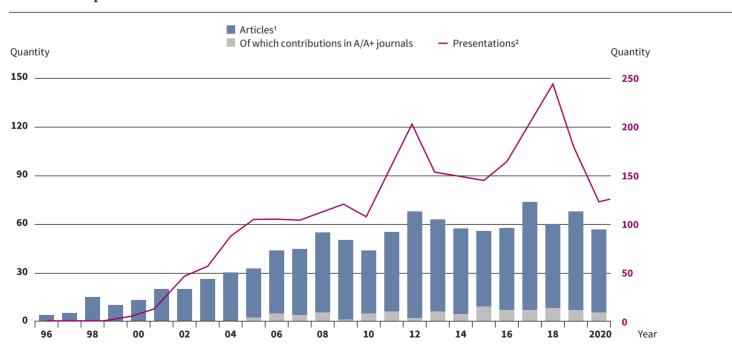
Research into Big Data

With its recommendation for special funding, the evaluation has provided an important stimulus for the future work of the ifo Institute: research areas are already tapping into innovative data sources and combining them with traditional approaches. The goal is to be able to respond more quickly to current political developments with economic research at the ifo Institute and to open up research topics for which no data was previously available. Formal approval for special funding has already been obtained from the Scientific Advisory Council, and the Institute submitted the formal application for investment funds and sustained support to the Joint Science Conference for the Free State of Bavaria on January 1, 2021.



the ifo Institute aims to establish itself as a center for big data research. The use of new data sources is particularly promising for issuing forecasts, analyzing regional inequality, and evaluating government policies, to name a few examples. It is also possible to provide snapshots of the crisis status.

Scientific Output from ifo Staff



© ifo Institute

¹ Articles in peer-reviewed journals ² Presentations at scientific conferences with call for papers (right-hand scale). As of: December 31, 2020.

Honors and Awards

ifo economists' publication success is reflected in numerous rankings, such as those of the Research Papers in Economics network (RePEc).

In addition, at its Annual Meeting the ifo Institute presented the award from the Society for the Promotion of Economic Research to **Dr. Christian Grimme** for his publication "Time-Varying Business Volatility and the Price Setting of Firms." Coauthors were R. Bachmann, B. Born, and S. Elstner. Their paper was published in the *Journal of Monetary Economics*.

The award for outstanding achievements in third-party funded research went to **Prof. Ludger Wößmann** and







Dr. Marc Piopiunik for the project "Acquisition and Utilisation of Adult Skills – A Network for Analysing, Developing, and Disseminating PIAAC." The study was conducted from 2015 to 2019 in partnership with other Leibniz Institutes.

In 2020, 57 papers submitted by ifo authors to internationally recognized refereed journals were accepted for publication. Deserving of special mention are six articles in A journals from the Centers for the Economics of Education, Labor and Demographic Economics, Industrial Organization and New Technologies, and ifo Dresden.

PUBLICATIONS IN A JOURNALS

The Separation and Reunification of Germany: Rethinking a Natural Experiment Interpretation of the Enduring Effects of Communism.

AUTHORS: Sascha O. Becker, Lukas Mergele, and Ludger Wößmann PUBLICATION: Journal of Economic Perspectives 34(2)

Why Birthright Citizenship Matters for Immigrant Children: Short- and Long-Run Impacts on Educational Integration.
AUTHORS: Christina Felfe, Helmut Rainer, and Judith Saurer.
PUBLICATION: Journal of Labor Economics 38(1)

Weak Markets, Strong Teachers: Recession at Career Start and Teacher Effectiveness

AUTHORS: Markus Nagler, Marc Piopiunik, Martin R. West. PUBLICATION: Journal of Labor Economics 38(2)

The Demographic Dividend Is More Than an Education Dividend AUTHORS: Rainer Kotschy, Patricio Suarez Urtaza, and Uwe Sunde. PUBLICATION: Proceedings of the National Academy of Sciences 117(42)

How Antitrust Enforcement Can Spur Innovation: Bell Labs and the 1956 Consent Decree

AUTHORS: Thomas Fackler, Markus Nagler, Monika Schnitzer, and Martin Watzinger.

PUBLICATION: American Economic Journal: Economic Policy 12(4)

Migrating Extremists

AUTHORS: Christian Ochsner and Felix Rösel. PUBLICATION: The Economic Journal 130(628)

Publication Performance – ifo Institute among the Top 10 in Europe

RANK	INSTITUTION	SCORE
1	London School of Economics	1.8
2	University of Zurich	2.4
3	University College London (UCL)	3.8
4	Paris School of Economics	4.8
5	Università Commerciale Luigi Bocconi	5.0
6	Barcelona Graduate School of Economics (GSE)	5.4
7	University of Groningen	5.8
8	ifo Institute, Munich	10.0
9	CEPR, London	11.5
10	German Institute for Economic Research (DIW Berlin)	11.6

RePEc ranking of the top 10 most successful business schools and research institutes in Europe (as of December 2020). The ranking looks at the publications that an institution's top ten authors have published over the last ten years. When calculating the institutions' scores, RePEc considers only researchers registered in its system. As of: December 2020

Source: https://ideas.repec.org/top/old/2012/top.europe.html.

POLICY ADVICE

A Voice in the Economic Policy Debate

Selected highlights in 2020 where ifo succeeded in using scientific findings to help shape the policy debate:

New Resources for Financing the EU Budget

Proposal outlined in an EconPol study by Clemens Fuest (ifo) and Jean Pisani-Ferry (Bruegel), press release, presentation, and discussion of the proposals with the European Council.

Sustainable Finance Study for the Chamber of Industry and Commerce for Munich and Upper Bavaria, event with high-ranking representatives of the German Federal Minis-

try of Finance, the Bundestag, and the European Parliament, Munich Economic Debate with a representative of the Banque de France, Hayek Lecture at the University of Freiburg and guest commentary by the ifo President in the Frankfurter Allgemeine Zeitung.

Effects of an Anti-Congestion Charge for Munich

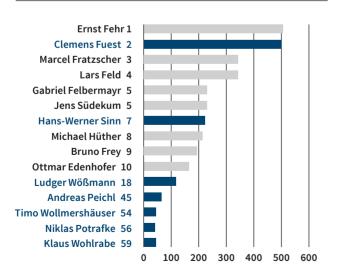
Study for the Chamber of Industry and Commerce for Munich and Upper Bavaria, press conference, numerous press inquiries, including from national outlets. Government response: the economic department of the City of Munich called for creative proposals for an effective "anti-congestion charge" as part of a competition for climate innovations ideas in November 2020. That same month, the CSU political party introduced a proposal for an anti-congestion charge for Munich in the Bavarian state parliament.

Clemens Fuest: A Leading Name in Policy Advice and Media Presence

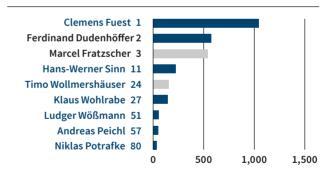
FAZ Economist Ranking 2020, evaluation period: August 2019 to July 2020

Other ifo

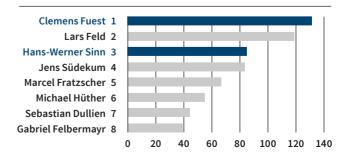
Overall Ranking (Media, Politics, Social Media, Science)



Citations in the Media



Politics Score



Source: FAZ Economist Ranking 2020. © ifo Institute

SELECTED IFO EMPLOYEES WITH MEMBERSHIPS IN POLITICAL BODIES

Prof. Clemens Fuest Member of the Advisory Board to the German Federal Ministry of Finance (BMF)

Prof. Andreas Peichl Member of the Advisory Board to the BMF

Prof. Marcel Thum Member of the Advisory Board to the BMF

Prof. Panu Poutvaara, PhD Member of the Expert Council of German Foundations on Integration and Migration

Prof. Ludger Wößmann Member of the Board of Academic Advisors for the German Federal Ministry

for Economic Affairs and Energy (BMWi)

Prof. Karen Pittel Co-Chair of the German Advisory Council on Global Change

The ifo Institute in the Public Debate

According to analyses the ifo Institute commissioned from Media Tenor, the Institute successfully defended its position as the most frequently cited institute in 2020 and even strengthened its media presence. Clemens Fuest still tops the list of economists mentioned in Germany's leading media. The ifo Institute is also a prominent voice among economic research institutes at the European level. In addition, it is also increasing its reach through its own channels:

MUNICH ECONOMIC DEBATES



In 2020, ifo introduced a new event format with high-level speakers such as Peter Altmaier, German Federal Minister for Economic Affairs and Energy, and Sylvie Goulard, the vice president of the French central bank.

IFO ANNUAL MEETING



Guests at the ifo Annual Meeting included **Siemens CEO Joe Kaeser** and Delo Managing Partner **Sabine Herold**. Events were usually streamed via the website and Twitter to make the content available to as many viewers as possible.

19,800

people follow ifo on Twitter.

19,500 people follow the president's account.

6,000

people per event are addressed in this way by the ifo Institute.

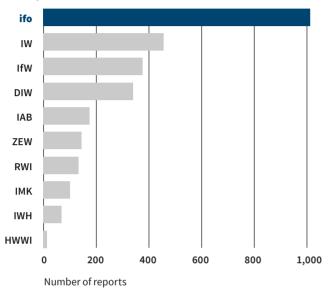
5,000x

the top ifo Schnelldienst article was downloaded.

The ifo Institute Is Rapidly Taking the Lead on Coronavirus Topics

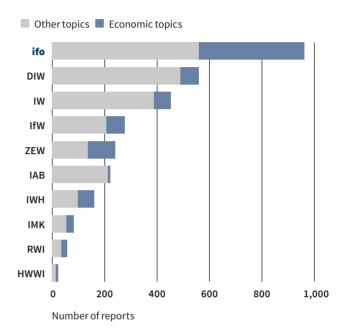
Communication success thanks to speedy topic management: the media analysis of important issues related to the coronavirus pandemic shows the ifo Institute emerging as a predominant opinion leader. The success of the topic management program launched in March is plain to see over time.

January to June 2020



Economic Topics Are an Important Factor in Opinion Leadership

Their respective indices and indicators give ifo and ZEW a strong presence in leading media. The ifo Institute was also able to raise its profile regarding foreign trade, taxes, budgetary issues, short-time work, as well as developments in eastern Germany.



Source: Media Tenor. © ifo Institute

Top Downloads from the ifo Website

5,758

In the Common Interest of Health and the Economy: A Scenario Calculation for Containing the Coronavirus Pandemic Florian Dorn, Sahamoddin Khailaie, Marc Stöckli, Sebastian Binder, Berit Lange, Andreas Peichl, Patrizio Vanella, Timo Wollmershäuser, Clemens Fuest, and Michael Meyer-Hermann A joint study of the ifo Institute (ifo) and the Helmholtz Centre for Infection Research (HZI)

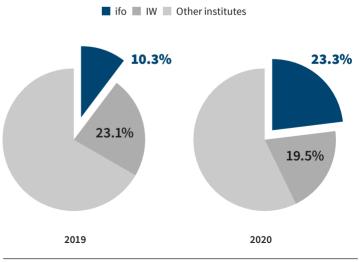
Making the Fight against the Coronavirus Pandemic Sustainable. Recommendations for a Flexible, Risk-Adapted Strategy Coordination: Clemens Fuest and Martin Lohse

4,415 3,429

The Economic Costs of the Coronavirus **Shutdown for Germany A Scenario** Calculation Florian Dorn, Clemens Fuest, Marcell Göttert, Carla Krolage, Stefan Lautenbacher, Sebastian Link, Andreas Peichl, Magnus Reif, Stefan Sauer, Marc Stöckli, Klaus Wohlrabe, and Timo Wollmershäuser

ifo Established a Strong Position on Digitalization in 2020

Compared to other institutes, ifo was able to raise its visibility on digitalization topics to an all-time high in 2020.



Source: Media Tenor.

© ifo Institute

THE IFO INSTITUTE AT A GLANCE

ifo Institute – Leibniz Institute for Economic Research at the University of Munich

1949

Founded in Munich Member of the Leibniz Association

Since 2002

Status as "Institute at the University of Munich"

Committees

Annual Meeting, Administrative Council, Board of Trustees, Scientific Advisory Council, User Advisory Council



www.ifo.de/en/about-ifo

"Shaping the economic debate." As its motto indicates, the ifo Institute shapes the debate on economic and economic policy issues with its activities as one of the leading economic research institutes in Europe. ifo economists work on economically and politically relevant issues at the highest scientific level, developing research-based recommendations for action by government, business, and society in Germany, Europe, and around the world. They systematically collect data over long periods of time and provide input for political and public debates. This exchange, in turn, gives rise to new research tasks. In this way, ifo plays an important role in the development of appropriate economic policy decisions as a basis for innovation and social development.

PARTNERS AND NETWORKS OF THE IFO INSTITUTE

The ifo Institute cooperates closely with Ludwig-Maximilians-Universität (LMU) in Munich, especially in the promotion of junior researchers and through the joint Economics and Business Data Center (EBDC). In addition, each ifo Center Director is part of the LMU and holds a chair at the Department of Economics.

CESifo, the second largest economics research network worldwide, also has a close relationship with the ifo Institute. CESifo organizes numerous conferences, workshops, and seminars for economists worldwide. Such events enable scientific exchange among the members of the CESifo research network, while offering ifo economists an opportunity to establish contacts and discuss their scientific work with other network members.

OTHER COLLABORATIONS

- → CIRET (the Centre for International Research on Economic Tendency Surveys), the EENEE (European Expert Network of Educational Economists), and EUROCONSTRUCT
- → 53 research professors and ten research affiliates, research associates, and senior research associates
- → Despite the pandemic, 17 guest researchers from all over the world came to work on joint projects with ifo economists in 2020
- → The European Economic Advisory Group (EEAG) researches key European policy areas. Its goal is to furnish decision-makers and the public with research-based insights.
- → EconPol Europe the European Network for Economic and Fiscal Policy Research is a network of 14 policy-oriented university and non-university institutions across twelve countries. They contribute scientific expertise to the discussion on the future of the European Union.



www.econpol.eu/

www.cesifo.org/en/eeag

RESEARCH

The ifo Institute's economic policy model is the social market economy, i.e. the combination of economic success with social balance as championed by Ludwig Erhard, who was one of ifo's founders. The ifo Institute analyzes the role of government action with the aim of maintaining economic prosperity and social cohesion over the long term. Government action should secure wealth, support the stability and sustainability of economic development, safeguard social security, and ensure that as many people as possible can take advantage of the opportunities available to them in a free and open society, ifo economists apply the Leibniz Association's "Rules of Good Scientific Practice" to their work.

The ifo Institute focuses on the following main research topics

- 1 Economic growth and sustainability
- 2 Equal opportunities and integration
- 3 Public tasks, taxation, and political economy
- 4 Digitalization of the economy
- **5** European integration, globalization, and "the third type of intersystem competition"

These are the eight ifo Centers

- 1 Labor and Demographic Economics
- 2 International Economics
- 3 Economics of Education
- 4 Energy, Climate, and Resources
- 5 Industrial Organization and New Technologies
- 6 International Institutional Comparisons and Migration Research
- Macroeconomics and Surveys
- 8 Public Finance and Political Economy

In addition, specific topics are dealt with in the ifo Dresden Branch and the Research Group Tax and Fiscal Policy.

ifo Has Five Fields of Action

PROMOTION OF JUNIOR ECONOMISTS

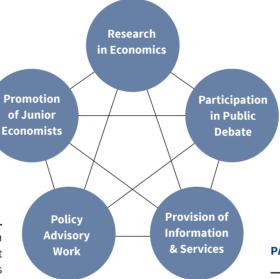
At any given time, there are usually more than 40 doctoral students conducting research at the ifo Institute. The Institute offers scientists an ideal environment for top performance in research and policy advising and bases its work with junior economists on international standards. Most of these doctoral students are studying at LMU's Munich Graduate School of Economics (MGSE). With this dual connection to University and Institute, the junior economists can combine academic research with practical work in policy advising right from the start. The ifo Institute is fully dedicated to systematically recruiting more women at all hierarchical levels.

LINKS

European Charter for Researchers (EURAXESS) www.ifo.de/en/euraxess

Code of Conduct for Recruitment

https://euraxess.ec.europa.eu/jobs/charter/code



PROVISION OF INFORMATION & SERVICES

Any organization interested in economic issues can use data, information, and other services provided by the ifo Institute. Its best-known offering is the ifo Business Climate Index, which is published each month. Based on the ifo Business Surveys, the Index is an early indicator of economic development in Germany that has been respected worldwide for decades. DICE (Database for Institutional Comparisons in Europe) has also significantly expanded and enriched the range of services provided by the ifo Institute to the scientific community. The database was established in 1999 and overhauled in 2019, both technically and in terms of content.

PARTICIPATION IN PUBLIC DEBATE

The ifo Institute expertly prepares its research results for a wide variety of target groups. Its website serves as a central communication tool, and offers all information in German and English. ifo communicates with its target groups through various other channels as well: active PR work, digital formats such as social media or e-newsletters, and events and publications as a platform for expert exchange. Two of the Institute's key publications are ifo Schnelldienst and CESifo Forum.

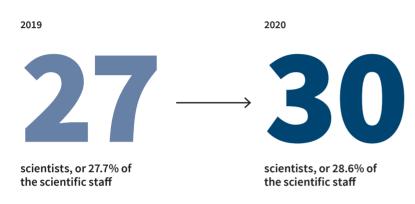
POLICY ADVISORY WORK

The ifo Institute produces a large number of expert reports for public and private, national and international clients on current economic policy issues. In addition, ifo economists contribute their expertise to a wide range of committees and advisory boards.

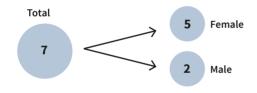
PERSONNEL DEVELOPMENT AND JUNIOR ECONOMISTS

International Orientation of the ifo Institute

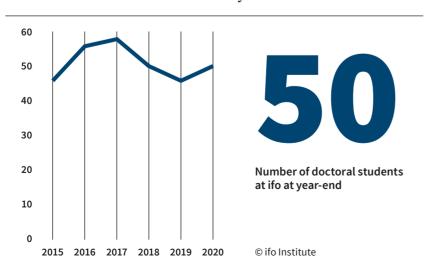
Scientific staff with non-German citizenship or Germans who have previously done scientific work abroad



Completed doctorates, 2020



Number of doctoral students at ifo at year-end



Focus on Equal Opportunities

An important part of the further development of the Institute's personnel structure – besides building up expertise – is to continue to promote equality between men and women. The ifo Institute has already planned the specific next steps and set clear targets, which it aims to achieve gradually by 2025 through a cascade model. ifo will consistently pursue these targets both in recruitment and in supporting the professional development of female scientists. In addition, the Institute has launched various initiatives to raise awareness of the issue.

- → To improve work-life balance, postdocs and PhD students are no longer required to book their time or adhere to afternoon core working hours.
- → The ifo Institute has developed a guide on how to use gender-sensitive language.
- → It plans to offer training to employees and managers to further strengthen a culture of gender equality.
- → ifo is intentionally increasing the proportion of women among visiting researchers and speakers at Institute events. It is also specifically looking to fill vacancies on boards and committees with women. For example, a new member of the Scientific Advisory Council is Prof. Kimberley Scharf (University of Birmingham), and its new designated chair is Prof. Abigail Payne (University of Melbourne). On the Administrative Council, Nina Hugendubel (H. Hugendubel GmbH & Co KG) was appointed deputy chairperson, and Dr. Christine Bortenlänger (Deutsches Aktieninstitut) is a new member.
- → The newly established third-party funding team is seeking out donors to fund projects by female scientists.

Career Boost for Scientists

One special element of the ifo Institute's support for junior economists is the Junior Development Program, which supports scientists in planning their own careers, developing leadership skills, and communicating their research findings to the public. As part of this program, a number of activities took place in 2020: leadership training was offered, selected employees participated in the Junior Development ProgramRetreat, and a regular survey collected data on gender issues and the support system.



NEW LEADERSHIP AT THE IFO CENTER FOR INTER-NATIONAL ECONOMICS

In July 2020, the Institute welcomed renowned economist Prof. Lisandra Flach as Director of the Center for International Economics. She also took over the "Economics of Globalization" professorship at LMU Munich.

Number of Active Staff at Year-End, 2019 and 2020

	ТОТА	TOTAL STAFF		WOMEN	
	2020	2019	2020	2019	
Research and Services					
Scientific staff	55	56	19	14	
Doctoral students ¹	50	44	25	22	
Specialists	21	22	13	16	
Technical staff/assistants	21	22	20	21	
Infrastructure					
Non-scientific staff	59	56	38	36	
of which staff with management responsibilities ²	16	14	9	8	
Trainees	1	1	1	1	
TOTAL	207	201	116	110	
		PART-TIME WORKERS		FIXED-TERM CONTRACTS	
	2020	2019	2020	2019	
Research and Services					
Scientific staff	15	12	31	33	
Doctoral students ¹	45	38	50	44	
Specialists	6	11	4	1	
Technical staff/assistants	12	12	0	0	
Infrastructure					
Non-scientific staff	25	20	3	1	
of which staff with management responsibilities ²	7	4	1	1	
Trainees	0	0	1	1	
TOTAL	103	93	89	80	
	HABILIT	POSTDOCS/ HABILITATIONS, WOMEN PROFESSORS			
	2020	2019	2020	2019	



¹ Without guest doctoral students

² Non-scientific staff compensated according to TV-L E13 and upward

FINANCIAL DEVELOPMENT

Financial Statement for 2020

The Institute's financial statement for 2020 shows a surplus of EUR 242,090¹. This increased the Institute's assets to a total of EUR 2,936,224¹ as of December 31, 2020. ifo made key investments in the digitalization of internal processes; for example, in the areas of finance and human resources. It also optimized its IT infrastructure, especially in prepa-

ration for the specially funded big data research. To maintain its exchange with science and the public during the crisis, ifo has invested in conference technology, digital event platforms, and related equipment.

¹ Rounded to the nearest euro

Balance Sheet of the ifo Institute for 2020 (abridged version)

In EUR thousands

ASSETS	Dec. 31, 2020	Dec. 31, 2019
Fixed assets	73	76
Current assets		
Inventory	1,865	1,369
Receivables and accruals	1,050	2,068
Liquid funds	9,494	5,548
TOTAL ASSETS	12,482	9,061

LIABILITIES	Dec. 31, 2020	Dec. 31, 2019
Net worth		
Earmarked funds	850	839
withdrawals/	0	0
additions	11	11
Research reserves	2 ,086	1,855
withdrawals/	0	0
additions	231	184
Short-term debt		
Reserves	3 ,794	3,536
Liabilities vis-à-vis banks	0	0
Down payments received	3,515	2,292
Other liabilities	2,237	539
TOTAL LIABILITIES	12,482	9,061

Institutional Support*

2019 2020

€10,863,000 €11,079,000

*The ifo Institute receives public funds as part of joint research funding based on Art. 91b of the Basic Law (German constitution).

Profit and Loss Statement of the ifo Institute for 2020

In EUR thousands

	Dec. 31, 2020	Dec. 31, 2019
Public grants	11,829	11,860
Earmarked financial support	2,812	3,004
Obligatory membership fees	112	113
Voluntary membership fees	11	11
Income from publications and database services, conferences	294	240
Income from commissioned activities	3,281	3,400
Other revenue	122	124
Change in stocks of non-invoiced services	502	-156
Operating income	18,963	18,597
Expenditure for material and purchased services	1,753	1,705
Personnel expenditure	14,123	13,662
Regular depreciation	3	5
Unplanned depreciation	231	165
Other operating expenses minus income	2,571	2,918
Operating expenses	18,681	18,455
Operating profit	282	142
Financial profit	-17	-16
Taxes on income and profit	-26	-26
Neutral income and income unrelated to the accounting period	3	94
Annual profit	242	195
Withdrawals from research reserves	0	0
Additions to research reserves	231	184
Withdrawals from statutory reserves	0	0
Additions to statutory reserves	11	11
Profit brought forward	0	0

Ways Out of the Coronavirus Pandemic

How the ifo Institute is Helping Resolve the Crisis

OVERVIEW OF IFO
RESEARCH FOCUS
DURING THE
CORONAVIRUS CRISIS

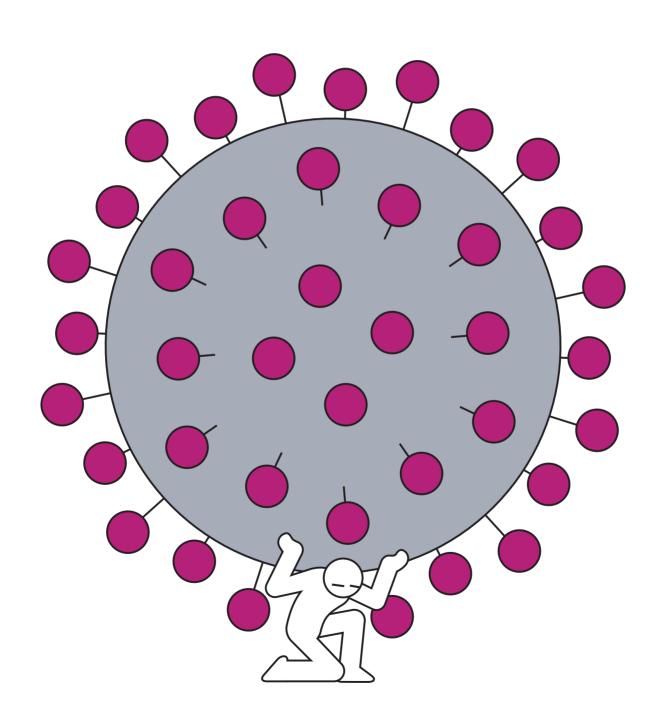
Crisis Management

The Economy

The Education System

European Politics

Globalization



In 2020, Covid-19 presented our economy and our society with a monumental challenge. The repercussions continue to dominate 2021 – and will likely be felt for a long time to come. Since the crisis came out of nowhere, policymakers and the public were not prepared and were forced to contend with a great many unknowns. Science took on a fundamental importance because times of uncertainty are an ideal breeding ground for misinformation and conspiracy theories, which can spread like wildfire.

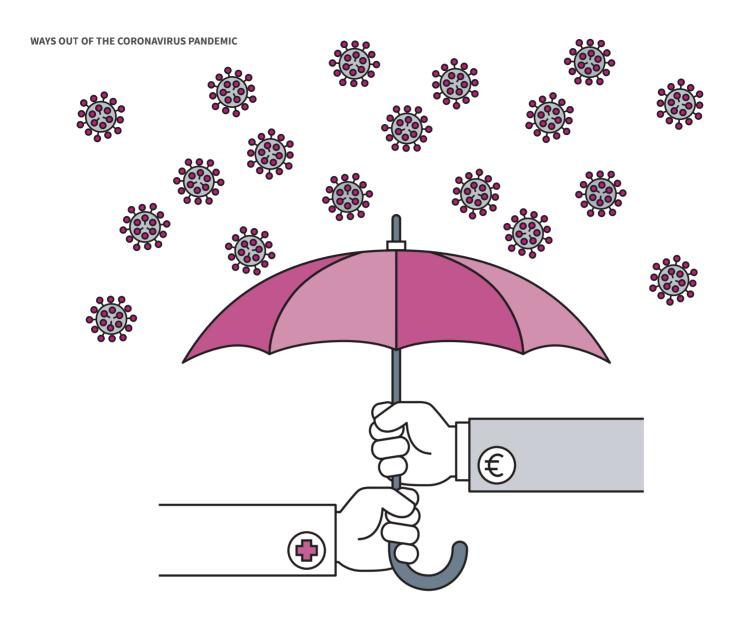
The ifo Institute began early on to gather information about the pandemic and its effects, successfully channeling its findings into the public debate. It quickly became clear that the situation called for an interdisciplinary approach. Among the Institute's research partners were the German National Academy of Sciences Leopoldina, the Helmholtz Centre for Infection Research, Charité Universitäts-

medizin Berlin, the Max Planck Institute for Dynamics and Self-Organization, and the forsa opinion research institute. A close collaboration was formed among colleagues working in the fields of medicine, sociology, educational research, ethics, and economic research. Together, the institutions involved quickly generated new insights and published scenarios, forecasts, and recommendations. These offered policymakers a foundation on which to develop concepts for how the economy and society could respond to the virus.

In 2020, the ifo Institute's scientific work focused on five major topics: the balance between preventive measures to protect people's health and safeguarding against the potential economic ramifications; economic development; the effects on the education system; political and economic cohesion within the EU; and the effects on globalization and related supply chains.

"The interdisciplinary collaboration that emerged in response to this crisis was something special: at ifo, we quickly teamed up with doctors, ethicists, and epidemiologists."

Prof. Clemens Fuest ifo President



Crisis Management

Safeguarding Health While Simultaneously Monitoring Economic Ramifications

people's health while also keeping the economy running.

Since the pandemic began, the ifo Institute has been drawing attention to the complex relationship between medical, social, and economic well-being. Instead of seeing the economy and health as adversaries, it was crucial to examine how they interact and design measures that would safeguard

n 2020, the coronavirus pandemic put a strain on the entire world, affecting every aspect of human coexistence. The ifo Institute began very early on to examine the relationship between medicine and the economy. Already at the end of March, a diverse body of experts coordinated by Clemens Fuest and Martin Lohse from the Institute of Pharmacology and Toxicology at the University of Würzburg drafted a catalog of recommendations for dealing with the crisis. On April 2, 2020, this was published with the title "Making the Fight against the Coronavirus Pandemic Sustainable."

SOLIDARITY BETWEEN ECONOMIC AND HEALTH POLICYMAKERS

In May 2020, the ifo Institute published "In the Common Interest of Health and the Economy," a scenario calculation compiled in collaboration with the Helmholtz Centre for Infection Research (HZI). It featured scenarios showing that the only way forward was for economic and health policymakers to stand shoulder to shoulder as they develop measures to fight the pandemic. Clemens Fuest, President of the ifo Institute, and Michael Meyer-Hermann, Head of the Systems Immunology Department at the HZI, stated that "the strategy of prudent, step-by-step relaxation is preferable to a wholesale lifting of restrictions – not only in terms of health policy but also economically."

HARDEST HIT BY LOCKDOWN

In June and October 2020, the "Corona-BUND study" commissioned by the German Federal Ministry of Health (BMG) revealed the extent to which lockdown measures had already put a strain on the population – especially the self-employed, single mothers, and low earners (see infobox, right).

Published in July, the study entitled "Public Attention and Policy Responses to Covid-19 Pandemic" highlighted the importance of communication and the role played by public awareness during the crisis. According to this study, lively public interest forced governments to quickly implement measures that saved people's lives – at least in countries with reputable institutions.

84%

of all citizens consider the policy measures adopted in October to combat the coronavirus pandemic to be correct; in March, the figure was approximately two-thirds (65%). Despite the restrictions, the government's measures were met with a high degree of acceptance.

Coronavirus Crisis Hits Self-Employed Hard

The self-employed are having a particularly hard time as a result of the pandemic: two-thirds of them recorded declines in sales during the crisis. This is according to partial findings of a study in which the ifo Institute is involved.

Since February, professional activity has (%)1

	ceased	reduced	not changed continued²
Total	22	39	39
East	18	42	40
West	23	39	39
Men	17	38	45
Women	27	40	32
Net household income (EUR)			
below 2,000	33	40	26
2,000 to 2,999	28	35	37
3,000 to 3,999	23	38	39
4,000 and above	13	39	47
High school diploma	18	39	43
Intermediate diploma	20	38	43
Exit exam (Abitur), degree	23	39	38
Children at home			
yes	21	42	37
no	21	38	41
Single mothers	43	42	15
Farmers	4	10	87
Freelancers	26	40	87
Self-employed	18	40	42

¹ Basis: Farmers, freelancers, and self-employed.

Note: Data based on a Germany-wide, population-representative survey conducted in May 2020 (N = 30,000).

BMG "Corona-BUND study" by forsa Gesellschaft für Sozialforschung und statistische Analysen mbH and ifo Institute – Leibniz Institute for Economic Research at the University of Munich.

Source: ifo Institute and forsa (2020), initial results of the survey component of the BMG "Corona-BUND study", ifo Institute, Munich.

© ifo Institute

 $^{^{\}rm 2}$ Totals that fall short of 100 % reflect non-responses.



Making the Fight against the Coronavirus Pandemic Sustainable www.ifo.de/en/jb20/ bekaempfung-pandemie-202004

In the Common Interest of Health and the Economy: A Scenario Calculation for Containing the Coronavirus Pandemic

www.ifo.de/en/ jb20/gesundheitund-wirtschaft-2020

Public Attention and Policy Responses to Covid-19 Pandemic www.cesifo.org/en/ jb20/public-attention

Germans and the Coronavirus in October 2020 www.ifo.de/en/jb20/ deutsche-und-corona-okt-2020

When People Meet (No) People: A Simulation of the Effects of Policy Measures to Contain the Second Wave of Covid-19

www.ifo.de/en/jb20/ keine-menschen-treffen

Initial Results of the Survey Component of the BMG "Corona-BUND Study"

www.ifo.de/en/jb20/ deutsche-und-corona-juni-2020

THE INVENTION OF "LOCKDOWN LIGHT"

Policymakers responded to these experiences and tried to combine the economic, social, and health-policy interests during the second wave of the pandemic in fall 2020: in November, the German government imposed "lockdown light:" sectors of the economy related to social consumption, such as restaurants and the entertainment industry, were closed because they generated too small a proportion of total value to justify the risk of infection. This was an attempt to achieve a tentative balance between health, the economy, and education. In November, the ifo Institute published an article entitled "When People Meet (No) People," which profiled a new model for simulating the effects of courses of political action designed to prevent a second hard lockdown. The idea was to pave the way for an analytical strategy, based on reliable numbers, for the next stage of addressing the crisis. In mid-December 2020, however, the steady rise in cases gave policymakers no alternative other than to once again massively limit social contact. The effects on society and the economy continue to be felt. •

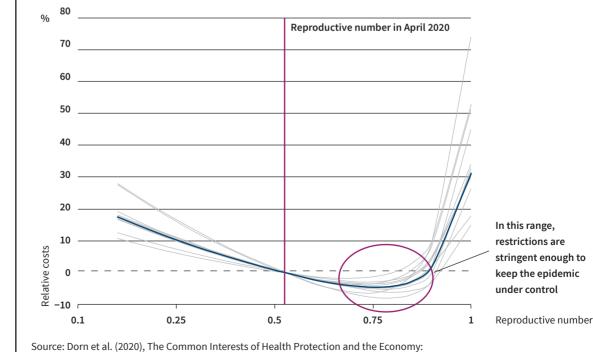
"Policymakers must reach a consensus on which strategy they intend to pursue over the coming weeks to contain the second wave. It's about finding the strategy that best reflects the needs of education, health, and the economy."

© ifo Institute

Prof. Clemens Fuest ifo President

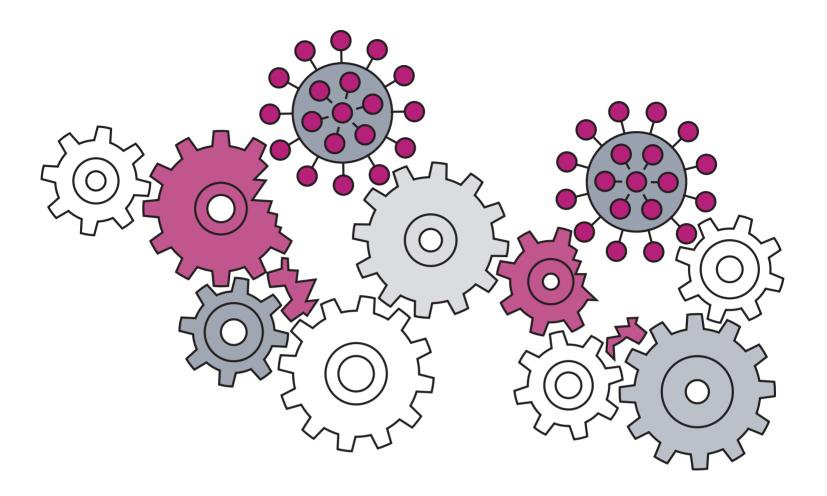
The Interplay of Economics and Epidemiology

Greater economic activity, lower costs: a smart reopening/lockdown strategy reduces the long-term economic damage. The ifo simulation places the balance at a reproductive value of around 0.8.



Evidence from Scenario Calculations of COVID-19 Containment Policies, Working Paper (medRxiv).

24



The Economy

Supporting the Economy While Keeping the Impact Under Control

By mid-March 2020, the largest economic slump in the history of the German Federal Republic was on the horizon. The global economy experienced a shock that far exceeded the upheaval caused by the financial crisis. To ascertain the extent of the crisis, the ifo Institute identified alternative indicators, formulated countermeasures, and evaluated their effects.



Economic Implications of the Coronavirus
Crisis and Economic
Policy Measures

www.ifo.de/en/jb20/ implikationen-corona

The Economic Costs of the Coronavirus Shutdown for Selected European Countries: A Scenario Calculation www.ifo.de/en/jb20/ kosten-shutdown

After the Massive Collapse: A Stimulus Package to Support and Heal the Economy www.ifo.de/en/jb20/ konjunkturprogramm

How Do Economists Assess the Economic Policy Responses to the Coronavirus Crisis? www.ifo.de/en/jb20/ bewertung-oe-

konominnen-2

An Undesirable Side Effect of Coronavirus Measures: Zombies? www.ifo.de/en/jb20/ nebenwirkungen-corona-massnahmen

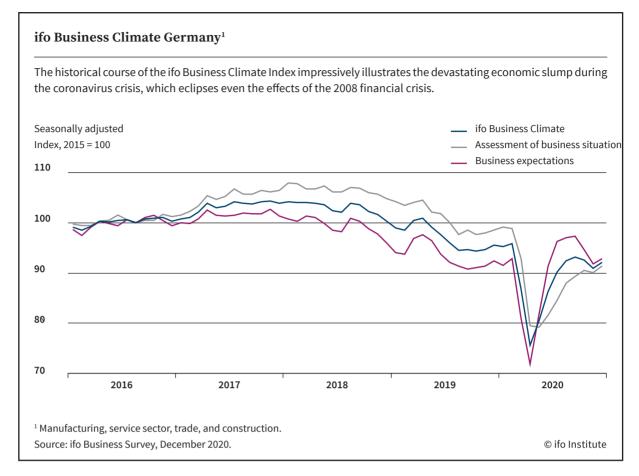
Ifo Viewpoint 218: What Does the Temporary Reduction in VAT Achieve?

www.ifo.de/en/jb20/ viewpoint218-vatreduction

Record Debt after Coronavirus – What about the Burden on German Länder Budgets? www.ifo.de/en/jb20/ rekordverschuldung

Long-term Economic Impact of the Coronavirus Pandemic

www.ifo.de/en/jb20/ langfristige-auswirkungen



■ he first early Business Climate Index compiled by the ifo Institute in March documented the unparalleled economic slump caused by the pandemic. All signs pointed toward a deep recession. As part of the monthly Business Survey, 56 percent of participating companies reported experiencing negative effects of the pandemic already in March. In April, almost 30 percent of the companies surveyed felt a prolonged lockdown would threaten their survival. The ifo Institute also factored in such indicators as energy consumption and mobility data to its assessment of the crisis. In terms of economic policy, a suitable response involved a combination of massive support measures that had to be targeted precisely and enacted quickly. One key method that policymakers quickly introduced was short-time work. The ifo Institute tracked its development very closely from the very beginning, both within various sectors and in terms of regional distribution.

In response to the German government's package of measures of March 8, 2020, a group of leading economists led by Clemens Fuest and Peter Bofinger, University of Würzburg, quickly released a study on March 11 entitled "Economic Implications of the Coronavirus Crisis and Economic Policy Measures," in which they pointed out that if the government wished to cushion the impact of the crisis, it would have to abandon its goal of a "black zero." The

study diagnosed a supply and demand shock and concluded that the effect on Germany would be particularly pronounced given the country's strong degree of international economic integration.

THE COST OF THE CRISIS

To achieve a realistic estimate of what the pandemic will cost, in March the ifo Institute compiled the study "The Economic Costs of the Coronavirus Shutdown for Selected European Countries: A Scenario Calculation." The weekly cost to Germany was estimated to be between 0.7 and 1.6 percentage points of its annual GDP.

The ifo Institute put the total economic damage caused by the first lockdown between 6 and 9 percent of the country's GDP for 2020. In June, the German government unveiled another economic stimulus package. This had only a limited impact on economic growth, however, as the authors of the study "After the Massive Collapse: A Stimulus Package to Support and Heal the Economy" noted. An estimated stimulus in 2020 of EUR 30 billion pales in comparison to the related costs of EUR 88 billion. Nonetheless, the authors believe it is sensible for fiscal policy to support the economy in this critical situation. In the ifo-FAZ Economists Panel on "How Do Economists Assess the Economic Policy Responses to the Coronavirus Crisis?" 77 percent of respondents said they were in favor of the aid package.

"Germany's federal states have this room to maneuver because of the past few years of successful budgetary consolidation, which can no longer be taken for granted in the future. The debt brake should be applied again – as soon as it becomes responsible to do so."

Prof. Niklas Potrafke Director of the ifo Center for Public Finance and Political Economy

AID PACKAGES AND THEIR CONSEQUENCES

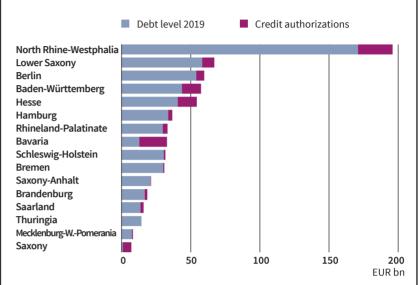
At the ifo Annual Meeting in June, high-ranking representatives from industry (Joe Kaeser, Siemens), SMEs (Sabine Herold, DELO Klebstoffe), and financial information (Elga Bartsch, Blackrock Investment Institute) discussed the topic "Covid-19 and the Economy – How Threatened is Germany's Prosperity?". The overriding sentiment was that the German economy is resilient and must – with the help of policymakers – take matters into its own hands to overcome the crisis.

The ifo Institute was very clear in pointing out the potential consequences of the enormous aid packages. In the article "An Undesirable Side Effect of Coronavirus Measures: Zombies?" the authors described the problem in terms of a growing number of "zombie companies." What they were alluding to was that using short-time allowance to put off declaring bankruptcy and waiving the obligation to file for insolvency would only delay the inevitable while also impeding any sensible market renewal.

The ifo fall forecast in October confirmed positive economic development. As things stood, the expectation was that the German economy would dip by "only" 5.2 percent year over year and the economic situation appeared to be taking a more positive turn. But at that time, nobody was counting on a second lockdown. Ultimately, the ifo Economic Forecast for winter 2020 indicated that a second lock-

North Rhine-Westphalia Takes Out Biggest Loan

The pandemic is forcing Germany's federal states to respond with fiscal policy on a historic scale. In total, they authorized more than EUR 105 billion in new debt. Standardized to one year, the new credit authorizations correspond to up to 30 percent of the 2019 budget volume.



Source: Calculations by the ifo Institute, based on legislative texts from the federal states; German Federal Statistical Office, 2020.

down would mean further setbacks for the economy. But it also stated that while GDP would be down 5.1 percent for 2020, it was expected to grow by 4.2 percent in 2021.

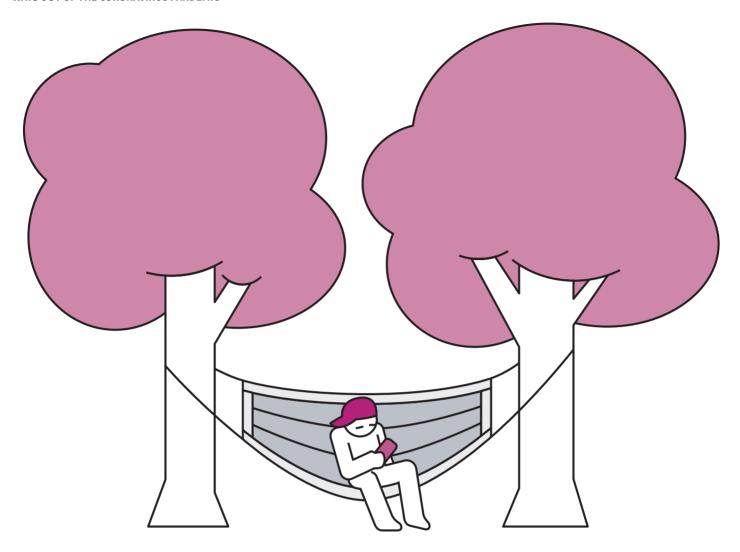
Form the very beginning, the ifo Institute viewed the temporary reduction in VAT as problematic. A study in December concluded that the moderate increase in consumer spending by no means made up for the resulting tax shortfall.

2

ifo Annual Meeting www.ifo.de/en/jb20/ ifoam2020

THE BURDEN RESULTING FROM RECORD DEBT

Another focus for ifo Institute researchers was the phenomenon of rising national debt. In November, the authors of "Record Debt after Coronavirus – What about the Burden on German Länder Budgets?" warned of the effects of budgetary policy on the German federal states. This topic was also addressed by Joachim Ragnitz in his article "Long-Term Economic Effects of the Coronavirus Pandemic." He asserted that a fall-off in the willingness to invest and a shortfall in production capacity in manufacturing could cause long-term damage.



The Education System

Improving Opportunities for Children and Young People During the Crisis

The first lockdown in spring 2020 came out of the blue and caught educational institutions off-guard. Daycare centers, schools, and universities were forced to close – mostly without a plan in place for online teaching. As 2020 turned to 2021, these institutions were closed again. The ifo Institute documented the delayed economic effects of these radical measures.

"For the children and young people affected, 2020 must not be allowed to go down in education history as the lost year."

Prof. Ludger Wößmann Director of the ifo Center for the Economics of Education

ducation is a key factor in a society's well-being. This is why in March 2020, as the first school closures were ordered, the ifo Institute was already campaigning for access to education to be reestablished as soon as possible. The majority of educational institutions were inadequately prepared for distance learning, partly because of a lack of digital concepts, but also because many children did not have regular access to suitable communication media.

A shortfall in lessons carries with it grave economic consequences. To call attention to this issue, in May the ifo Institute joined 90 economists to take part in the "Bildung ermöglichen!" appeal. This laid out specific measures from optimizing distance learning to revising the curriculum - to address the education crisis.

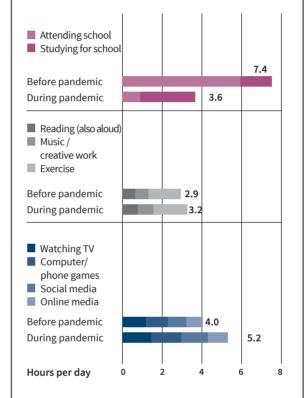
EDUCATION GAPS WILL LEAD TO INCOME LOSSES

There is a direct correlation between the loss of learning and later income. It has been shown by evaluations of strike-related school closures, pre-planned shorter school years, and long school vacations. In June, the ifo Institute therefore warned of loss of income in the working life of students whose schools were closed for an extended period during the Coronavirus crisis.

ifo researchers asked parents about their children's learning time in spring 2020 and wrote their study "Education in the Coronavirus Crisis: How Did Schoolchildren Spend Their Time When Schools Were Closed, and What Educational Measures Do the Germans Advocate?". During the school closures, the amount of time children devoted to schoolwork each day halved, falling from 7.4 hours to 3.6 hours a day, with 38 percent of students studying for a

The Pandemic Means That Children are Spending Only Half as Much Time in School

The results are alarming: the time children are spending on school-related activities has halved. The rise in watching TV, playing computer games, and using mobile phones is significant.



Parents were asked which activities their youngest school-age child engaged in on a typical school day before and during the several weeks of Coronavirus-related school closures.

Source: ifo Education Survey 2020. © ifo Institute

maximum of two hours and 74 percent for a maximum of four hours a day. Meanwhile, the time spent watching television, playing computer games, and using a mobile phone increased from 4.0 to 5.2 hours.

LEARNING DESPITE LOCKDOWN

In August, the ifo Institute reiterated the demand for a continuous learning concept to avoid jeopardizing the development opportunities of children and young people. Drafted by Leopoldina, the statement presented detailed recommendations for education services that incorporated both classroom and distance learning. In the fall, policymakers responded with "lockdown light" and tried to avoid closing schools if possible.



School Closures Must Not Lead to a Learning Hiatus

www.ifo.de/en/jb20/ pm-school-closures

Enable Education! www.ifo.de/en/jb20/ pm-bildung-ermoeglichen

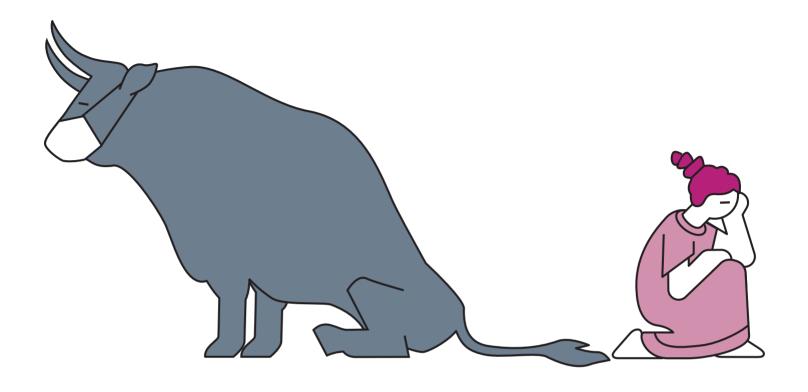
Follow-up Costs of Not Learning: What We Can Learn from Research on Coronavirus-Related School Closures www.ifo.de/jb20/pm-

income-loss

Education in the Coronavirus Crisis: How Did Schoolchildren Spend Their Time When Schools Were Closed. and What Educational Measures Do the Germans Advocate?

www.ifo.de/jb20/ schulkinder

Coronavirus Pandemic: An Appeal for a More Crisis-Resistant Education System www.ifo.de/en/jb20/ krisenresistentes-bildungssystem



European Politics

Solidarity over Nationalism as a Way Out of the Crisis

When the pandemic hit in spring 2020, it found the European Union in a vulnerable condition. It had not yet entirely recovered from the aftermath of the financial crisis, Brexit was almost complete, and the EU was struggling to establish its future role in the global economy.

"Establishing a European fund to promote economic recovery is an important sign of Europe's solidarity and its ability to take action "

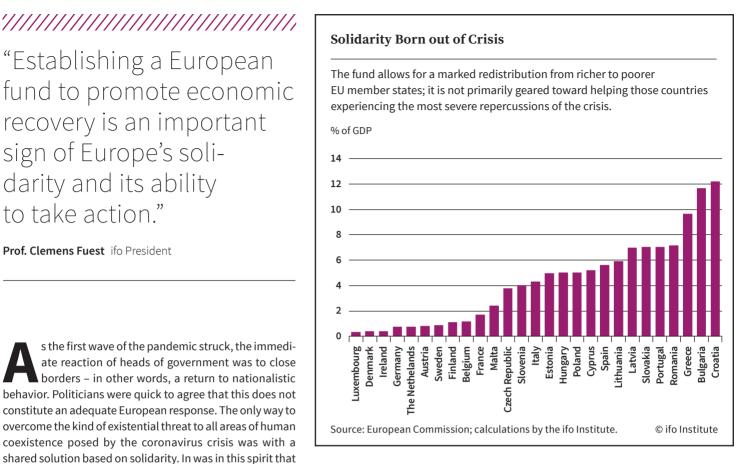
Prof. Clemens Fuest ifo President

s the first wave of the pandemic struck, the immediate reaction of heads of government was to close borders - in other words, a return to nationalistic behavior. Politicians were quick to agree that this does not constitute an adequate European response. The only way to overcome the kind of existential threat to all areas of human coexistence posed by the coronavirus crisis was with a shared solution based on solidarity. In was in this spirit that Clemens Fuest welcomed the Franco-German aid initiative in May. He pointed out that the fund offered genuine value in the form of greater certainty and stability.

"NEXT GENERATION EU" AID PACKAGE: **CUSHIONING THE ECONOMIC CONSEQUENCES**

The ifo Institute lent its support to the suggestion made by European economists to take advantage of the credit line offered by the European Stability Mechanism as a European aid tool. In the study "EEAG Corona Policy Brief July 2020: Europe's Pandemic Politics," economists belonging to the European Economic Advisory Group pointed out that the new NextGenerationEU aid fund helps soften the economic consequences of the pandemic in Europe. The study also stated that since the fund in some ways resembles an insurance policy, it can accommodate the reality that the crisis has affected the various member states to different degrees. For this reason, the economists welcomed the measures that guaranteed EU member states access to the financial markets while also showing faith in the countries themselves - a lesson learned from the financial crisis. After extensive negotiations, the EU member states ultimately agreed on the aid package, thus demonstrating their solidarity and ability to take action even when times are hard.

Addressing the question of how the EU's vast aid programs could ever finance the reforms necessary in the hardest hit member states, ifo President Clemens Fuest and



Jean Pisani-Ferry published the working paper "Financing the EU: New Context, New Responses" in which they floated the idea that the EU should receive more funding from the European emissions trading system (ETS). In November, under the umbrella of the EconPol research network, ifo organized a digital conference entitled "How to Safeguard Sustainable Financing for the EU?". At the event, high-ranking representatives from international politics - including Johannes Hahn, European Commissioner, Agnès Bénassy-Quéré, chief economist at the FFrench Ministry for the Economy and Finance, and Jörg Kukies, State Secretary at the German Federal Ministry of Finance - discussed with journalists and scientists how to overcome the crisis.

UNEVEN DISTRIBUTION

The Next Generation EU aid package is worth a total of EUR 750 billion, EUR 390 billion of which represent direct subsidies for member states. These funds are to be channeled into national development programs. The ifo Institute has calculated the distribution: although for Luxembourg, Denmark, Ireland, Germany, the Netherlands, Austria, and Sweden the payments represent less than 1 percent of GDP, for countries such as Bulgaria, Greece, and Croatia they correspond to almost 10-12 percent of national GDP. For Italy, Spain, Poland, and Hungary, that figure is between 4 and 6 percent, while for France it is just under 2 percent of GDP.



EEAG Corona Policy Brief July 2020: Europe's Pandemic Politics

www.cesifo.org/en/jb20/ eeag-corona-policy

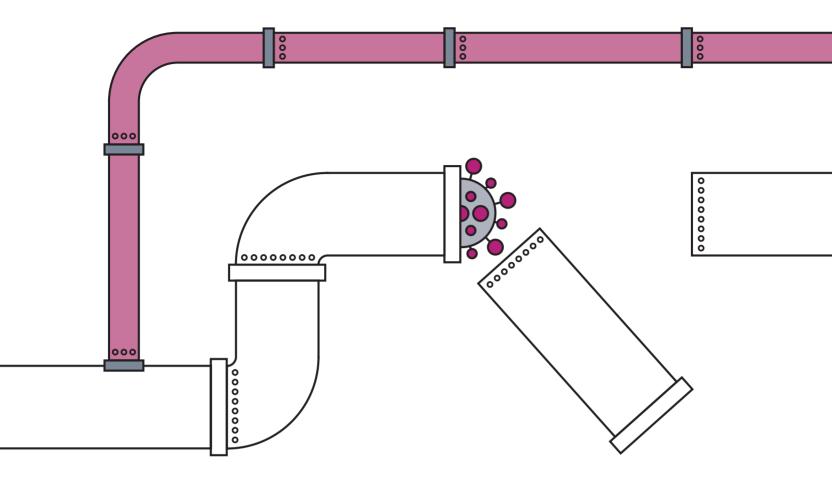
Financing the EU: New Context, New Responses

www.econpol.eu/publications/policy_report_24



EconPol Annual Conference: How to Safeguard Sustainable Financing for the EU?

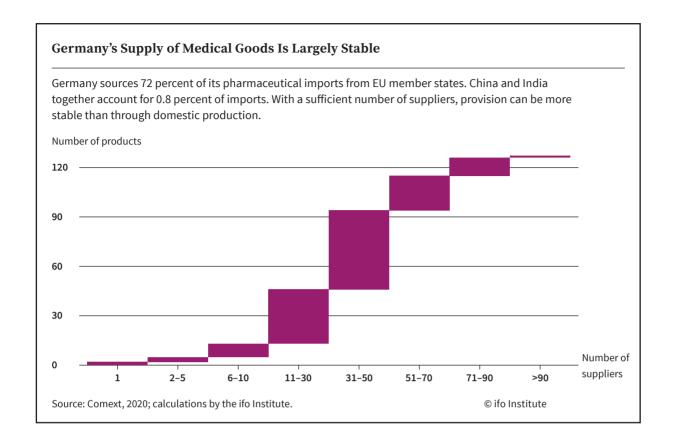
www.econpol.eu/annual_conference_2020



Globalization

The Significance of Supply Chains for the German Economy

The pandemic brought international supply chains to a standstill and highlighted the drawbacks of the worldwide intertwining of the global economy: the dependency of individual markets and their vulnerability. The ifo Institute examined the question of how international networks could become more resilient.



"Rolling back globalization, for example by bringing production back to Germany on a larger scale, is not a solution to the current crisis."

Prof. Lisandra Flach Director of the ifo Center for International Economics

s early as May, the ifo Institute was researching the massive effects the coronavirus crisis already had on global trade. The article "Covid-19: The World Economy in Intensive Care" used data from a survey of more than 1,000 economists from around the world to lay out the pandemic's key consequences for the global economy: investment cutbacks, rising budget deficits, lower consumer spending, company closures, and ultimately problems with international supply chains.

WHAT GLOBALIZATION MEANS FOR THE GERMAN ECONOMY

A short time later, the study "Restart of Industry under the Influence of Covid-19 – How Ready is the Global Supply Chain?" examined how significant these supply chains are for the German economy. For its part, the ifo Center for In-

ternational Economics evaluated the OECD's Inter-Country-Input-Output Tables. The study showed that the German economy was generally well prepared for breakdowns in supply chains. Just under 89 percent of all goods imported by Germany came from at least eleven or more producing countries, and the majority of those were EU member states. Global supply chains account for 12 percent of international and 17 percent of value created in Germany. It follows that the European production network is of paramount importance to Germany: free movement of goods, especially within Europe, is essential for the German economy. Lisandra Flach, who was appointed Director of the ifo Center for International Economics in July 2020, took an opposing stance to those using the coronavirus crisis as a pretext to call loudly for production to be shifted back to Germany.



Covid-19: The World Economy in Intensive Care: Findings from a Worldwide Expert Survey www.ifo.de/jb20/weltwirtschaft-intensivstation

Pharmacy of the World or at the Mercy of the World Economy? Germany's Foreign Trade in the Market for Drugs and Medical Equipment www.ifo.de/jb20/ apotheke-der-welt

Foreign Trade and Global Supply Chains www.ifo.de/jb20/ globale-lieferkette

THE CORONAVIRUS CRISIS TIMELINE

After the first cases were recorded in China, Covid-19 quickly became a global issue, infecting millions and killing hundreds of thousands of people worldwide.

An overview of the timeline of the crisis – and the ways in which the ifo Institute helped.

DECEMBER 2019

12/31

China reports cases of the respiratory disease to the World Health Organization (WHO).



Outbreak: A market in Wuhan is the suspected source of the coronavirus.

JANUARY 2020

1/27

Germany's first case of coronavirus is reported in Starnberg.

1/30

The WHO declares a "Public Health Emergency of International Concern."

FEBRUARY

2/6

First ifo press release on coronavirus

Consequences of the Coronavirus Could Cost Germany Growth.

MARCH

3/3

Black Monday

DAX records highest losses since the terrorist attacks on 9/11/2001. Italy declares the entire country an exclusion zone.

3/10

"Coronavirus" topic page set up on ifo website.

3/11

The WHO declares
Covid-19 a pandemic.

3/12

ifo Survey

A survey of approximately 3,400 manufacturing, trade, and service sector companies marks the start of a long series of coronavirus-specific ifo surveys.

56.2%

of German companies suffering from the consequences of the Covid-19 epidemic.

→ www.ifo.de/en/jb20/pm12032020

3/18

First lockdown begins in Germany

"The costs will probably exceed everything we have seen from economic crises or natural disasters in Germany in recent decades."

Prof. Clemens Fuest ifo President

3/19

First early Business Climate Index

Sentiment among German managers has worsened drastically.

3/23

Calculations by the ifo Institute on the cost of Coronavirus

Corona Will Cost Germany Hundreds of Billions of Euros. 3/23

German government announces economic aid package amounting to **EUR 156 bn**.

APRIL

4/2 Expert group appeals for step-by-step plan for after lockdown.

First online press conference
At the presentation of the Joint
Economic Forecast "Economy in
Shock – Fiscal Policy to Counteract," ifo is lead institute; top
economic forecasters are

patched in.



New format: In April 2020, ifo held its first fully digital press conference.

4/24 ifo Business Climate Index plunges to historic low

-74.3%

→ www.ifo.de/en/jb20/pm-business-climate-apr-2020

4/30 In April 2020, according to data from the German Federal Employment Agency, approx.
6 million people are on short-time work. In January 2020 that figure was around 135,000.

MAY

5/5 ifo Institute: Short-Time Work
Reaches Almost All Sectors
Frontrunners are restaurants

with 99% and hotels with 97%.

5/18 Education economics appeal

More than 90 renowned German economists working in educational research call for "comprehensive measures."

3-4%

Ludger Wößmann warns of loss of income in the working life of students whose schools were closed for an extended period during the Coronavirus crisis.

5/18 ifo/Helmholtz study

ifo Institute and Helmholtz Centre for Infection Research appeal for "prudent, step-by-step opening process."

→ www.ifo.de/en/jb20/pm13052020

5/20

ifo Industry Atlas goes online

With the coronavirus industry atlas, the ifo Institute provides important information on the state of affairs in individual industries.

JUNE

6/3

EUR 130 bn

economic stimulus package from the German government. Provisions include a **temporary reduction in VAT and a child bonus**.

6/18

71st ifo Annual Meeting

Topic: "Covid-19 and the Economy – How Threatened is Germany's Prosperity?"

→ www.ifo.de/en/jb20/ifojv2020



Appropriate distance: The 71st Ifo Annual Meeting observed the hygiene rules. Many attendees participated online.

JULY

1.2 m

people were estimated to be on short-time work in **Bavaria** in July. That is 21% of those subject to social insurance contributions. This makes Bavaria the **German federal state with the most short-time workers.**

7/13

Press release

on the initial results of the interdisciplinary BUND study including Charité and forsa

→ www.ifo.de/en/jb20/pm13052020

7/15

Press release

on the release of the book "How to Save Our Economy: The Way Out of the Coronavirus Crisis" by Clemens Fuest.

→ www.ifo.de/en/jb20/pk15072020



The way out of the crisis: ifo President Clemens Fuest presents his book "How to Save Our Economy" 7/21

EUR 750 bn

make up the "NGEU" aid package, including EUR 390 bn in direct subsidies for member states. These funds to be channeled into national development programs.

7/23

ifo President Fuest in favor of European fund for economic recovery.

→ www.ifo.de/en/jb20/pm23072020

AUGUST

8/3

Coronavirus digitalizes the German economy.

55%

of German companies have made great strides in digital change during the coronavirus pandemic.

8/19

Bavaria is the state with the most short-time workers

This is according to exclusive survey figures from the ifo Institute.

8/20

Bicycle retailers winners of the Coronavirus crisis

→ www.ifo.de/en/jb20/pm20082020

OCTOBER

10/8

The number of Covid-19 infections in Germany rises significantly.

10/12

Munich Economic Debates

Guest speak is Jens Spahn, Germany's Federal Minister of Health. Topic: "New Normality with Covid-19 – What Must Health Policy Achieve?"



Virtual guest at ifo: Jens Spahn, German Federal Minister of Health

10/12

ifo study: More Covid-19 Cases Due to More Infections and More Testing.

→ www.ifo.de/en/jb20/pm12102020

Companies Expect 11-Month Wait for Business to Return to Normal

This finding is based on the **ifo Business Survey for July**. The Coronavirus is having a particularly lasting effect on service providers. They do not expect to see a return to business as usual until after 11.7 months. In construction, it is expected to take 11.1 months; in trade, 10.3 months; and in manufacturing, 10.1 months.

"We need restrictions that facilitate economic activity, not prevent it."

Prof. Clemens Fuest ifo President

NOVEMBER

11/2

"Lockdown Light": Cultural and leisure facilities, restaurants, and hotels must close until at least the end of November.
Stricter rules for private events are also imposed.

11/25 & 26

EconPol Europe Annual Conference 2020: "How to
Safeguard Sustainable Financing
for the EU?" with Clemens Fuest
and Johannes Hahn, European

and Administration

→ www.econpol.eu/annual_conference_2020

Commissioner, Budget

DECEMBER

12/2

"Lockdown light" extended until January 10, 2021

12/7

Munich Economic Debates:

with Hildegard Müller, VDA; topic: "European Champion in E-mobility — how the Automotive Industry Combines Climate Policy and Structural Change"

→ www.ifo.de/en/jb20/med-covid-structural-change

12/10

ifo study in collaboration with IAB

→ www.ifo.de/en/jb20/einkommensungleichheit

"No increase in income inequality is expected in Germany in 2020."

Prof. Andreas Peichl Director of the ifo Center for Macroeconomics and Surveys

11/25

"Lockdown Light" not enough

An extension of Germany's current "lockdown light" restrictions would reduce the seven-day infection rate only gradually in the coming weeks, to 75 per 100,000 inhabitants by Christmas. This is according to the latest calculations conducted by the ifo Institute together with researchers from the University of Bonn and the IZA.

75

12/13

Germany's government and federal states agree on a hard lockdown from December 16 until January 10.

12/16

Press conference on ifo Economic Forecast Winter 2020

12/21

European Commission approves BioNTech/Pfizer vaccine. In the US, people begin to receive the Moderna vaccine.

12/27

Germany begins n ationwide rollout of Coronavirus vaccinations

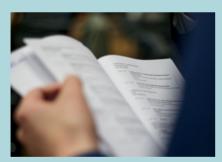
Other EU member states also begin their vaccination programs. Among the first recipients across Europe are residents of retirement and nursing homes as #well as medical personnel.



A sign of hope: The start of vaccinations to protect against the Coronavirus rounds off a nerve-racking year.



ifo economist Dr. Felix Rösel (Dresden Branch, left) in discussion with scientists from TU Dresden



Research is the heart of the ifo Institute



Doctoral student Luisa Dörr (ifo Center for Public Finance and Political Economy)



From left: Eberhard Beck (Communications), Franca Fogli-Götz (Executive Department), Annette Marquardt and Jasmin La Marca (both Communications), Deirdre Weber (CESifo), Dr. Stephanie Dittmer (Executive Board), and Christiane Nowack (Communications)



Prof. Niklas Potrafke (ifo Center for Public Finance and Political Economy)



Prof. Karen Pittel (ifo Center for Energy, Climate, and Resources) in conversation with Prof. Helmut Rainer (ifo Center for Labor and Demographic Economics, left), and Prof. Andreas Peichl (ifo Center for Macroeconomics and Surveys)

Selected Projects, Publications, and Personal Profile

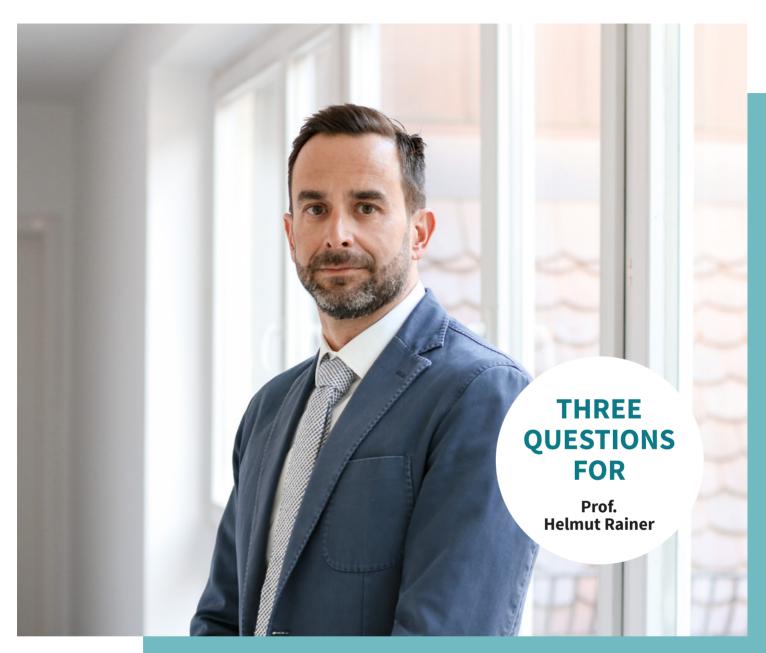
esides its activities regarding the coronavirus crisis, the ifo Institute continued to conduct intensive research in 2020. Research is the heart of the Institute. It combines academic excellence with economic policy relevance. The results provide decision-makers in politics and business with a basis for fact-based policy measures. There are eight centers at the ifo Institute, each of which has its own positioning, pursues a characteristic research program, and offers specific services. However, ifo economists also work on a wide array of cross-disciplinary topics. The ifo Institute's Dresden Branch and the Research Group Taxation and Fiscal Policy cover several subject areas as well. Another important partner in the field of research is the CESifo network, which organizes numerous international conferences. These events produce a large number of working papers, many of which later appear in prestigious journals. It is thanks to the ideas of junior economists in particular that the teams in the various units achieve excellent research results. Based on its research, the ifo Institute also provides the public with data, information, and other services; for example, through its surveys of German and international companies or through its economic forecasts.



www.ifo.de/en/research

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Prof. Helmut Rainer, Director of the ifo Center for Labor and Demographic Economics Does the incidence of domestic violence increase during lockdown?

To counteract the spread of the coronavirus, most countries introduced lockdowns and placed severe limits on social contact. It's possible that this has unwittingly led to social, health, and economic costs, because these restrictions have been accompanied by an increase in domestic violence.

How can the scale of the problem be measured?

Figures based on the number of offences reported to the police won't provide us with a reliable picture of the scale of domestic violence. During lockdown, victims have few opportunities to contact the police in person and a great many shelters are currently closed. So we have to tap alternative data sources that record searches for how to get help.

What alternative data can be used?

Together with Dan Anderberg from the University of London, we developed an index for determining the scale of domestic violence based on the frequency of internet searches for how to get help. This enabled us to demonstrate an increase of 40 percent in Greater London during lockdown—a figure 7 to 8 times higher than the increase in offences reported to the police.

ifo Center for Labor and Demographic Economics

RESEARCH FOCUS

Economic Uncertainty and Family

Economics of Violence against Women

Integration of Immigrants

Social Impact of Environmental Pollution

Changes in the labor market and in society always have consequences for the economy. The ifo Center for Labor and Demographic Economics investigates these correlations and the most pressing social problems of our time.

ith the help of theoretical analyses, state-of-theart econometrics, and specific data sources, the Center is getting closer to resolving as yet unanswered questions. The goal is to inform policymakers and the general public about the cause-and-effect relationships behind the most pressing social problems of our time.

ECONOMIC UNCERTAINTY AND FAMILY

To better understand the correlation between the macroeconomic situation and family-related decisions in Europe, ifo established a (junior) working group called Economic Uncertainty and the Family (EcUFam). This group is investigating the scope and significance of difficult economic situations and uncertainty and how these affect families and the decisions they make.

THE ECONOMICS OF VIOLENCE AGAINST WOMEN

Violence against women is widespread the world over. It most commonly takes the form of domestic violence. Within the European Union, an estimated 22 percent of women will be victims of domestic violence at some point in their lives. In many developing countries, that figure far exceeds 30 percent. Another of the Center's research departments investigates the causes of domestic violence. Do cultural factors, historical backgrounds, and economic conditions play a role? What measures could help reduce or prevent violence against women? The research department poses these questions from the perspective of industrialized and developing countries.

INTEGRATION OF IMMIGRANTS

In many European countries, the descendants of immigrants are among the fastest growing population groups and will be instrumental in shaping these societies in the future. Ensuring that the children of immigrants integrate successfully is therefore a top priority. The Center is investigating the effectiveness of the German government's integration measures for this group.



Environmental pollution is one of the world's most pressing problems. The scale and significance of its effects on health, productivity, and all human interaction remains largely unclear. The research department analyzes the effect of air, soil, and noise pollution on people's health and education, early childhood development, productivity, and behavior.



www.ifo.de/en/center-ab

COLLECTING DATA ON INTEGRATION

In 2015, ifo collaborated with external research partners to collect data on around 4,500 15-year-old pupils at more than 60 schools in Germany. The evaluation of this data provides a picture of integration among the children of immigrants in Germany. One of the uses for the data was to investigate how the birthplace principle affects boys and girls as well as cooperation among children of immigrants.

ECONOMIC UNCERTAINTY

Family Planning

Do couples base their family planning decisions on their current opportunities in the labor market? Are people more likely to get married in a recession or during an economic boom? Does youth unemployment affect how different generations relate to one another? By applying econometric methods and evaluating a variety of datasets, the Economic Uncertainty and the Family (EcU-Fam) working group investigated the scope and significance of difficult economic situations and uncertainty and how these affect families and the decisions they make. To what extent does economic uncertainty affect aspects such as couples' family planning decisions, individual behavior as regards marriage and divorce, inter-

Fabian Siuda Doctroal student at the ifo Center for Labor and Demographic Economics



PUBLICATION IN THE JOURNAL OF ECONOMIC GROWTH

As part of the project, Fabian Siuda teamed up with Uwe Sunde of Ludwig-Maximilians-Universität Munich to investigate the effect of incidents of population shock—such as recurring outbreaks of plague—on the timing of demographic transition. Their study shows that demographic change happens earlier in regions with a higher incidence of disease outbreaks than it does in' less affected regions. The publication "Disease and Demographic Development: The Legacy of the Plague" will be released in 2021.

generational relationships, attitudes to gender roles, and children's health? Funded by the Leibniz Association, the project was completed in June 2020 and the first publication of its findings will appear in 2021.



CHILDREN OF IMMIGRANTS

Citizenship By Birth Increases Educational Opportunities

▶ hildren with an immigration background are the fastest growing population group in many industrialized countries and will shape societies in the future. Successful integration of the children of immigrants is therefore essential for receiving countries. Can the birthplace principle—which, since its introduction in Germany on January 1, 2000, grants every child born in that country a conditional right to German citizenship—be a catalyst for integration? In a study by Helmut Rainer and Judith Saurer, in collaboration with Christina Felfe of the University of Würzburg, the authors show that Germany's introduction of the birthplace principle has had a massive influence on the academic performance of children of immigrants as they move through the first three levels of the education system: preschool, primary, and secondary education. Their work is based on school entry examinations and school registers covering these three levels. All children born to immigrants in Germany after the country reformed its citizenship law attended preschool. At the end of the preschool period, the children exhibited better German language skills and displayed considerably higher socioemotional maturity than children who did not automatically receive citizenship. They also

transfer earlier from preschool to primary school and are less often kept back a year. This makes it much more likely that these children will attend a university-track secondary school—which is of particular importance for their labor market prospects later on. In fact, birthright citizenship almost halves the difference in enrollment rates at such secondary schools between children with and without an immigration background.

However, the positive effects of citizenship by birth are more pronounced for boys. For them, birthright citizenship almost closed the considerable pre-existing educational gap in core subjects such as German and mathematics between children with and without an immigration background. Male pupils with an immigration background completely caught up with their peers without an immigration background. No such effects were observed among female pupils. The study was published in the Journal of Labor Economics in 2020.



39%

In Germany, birthright citizenship for children of immigrants increases the probability that they will attend a university-track secondary school by 39 percent.

PUBLICATION IN PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES

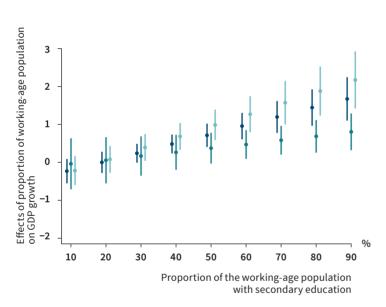
How Age Structure and Level of Education Determine a Society's Success

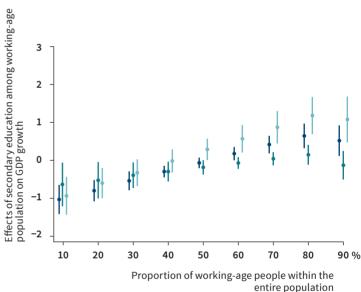
A lonside human capital, the demographic dividend has long been considered a key factor in economic development. It provides a foundation for policy measures designed to bring about a more balanced age structure

through birth control and family planning. In a joint study conducted in collaboration with Rainer Kotschy and Uwe Sunde of Ludwig-Maximilians-Universität Munich, Patricio Suarez Urtaza investigated the correlations between age structure and human capital endowment in 159 countries for the period from 1950 to 2015. They show that an increase in the proportion of working-age people in a population strongly enhances growth, while an increase in human capital positively affects growth only when combined with a suitable age structure. What's more, a rising proportion of the most productive age groups has an additional positive effects on economic output. The study did not show a dominance of improving education over age structure. Successful policy for sustainable development should take this into account to avoid a one-dimensional focus on human capital that does not consider the demographics involved.

Positive Growth Effects through Suitable Age Structure

• All Countries • OECD Countries • Non-OECD Countries





R. Kotschy, P. Suarez Urtaza und U. Sunde, The Demographic Dividend Is More than an Education Dividend, *Proceedings of the National Academy of Science* 117(42), 2020, S. 25982–25984.

© ifo Institute

e b

"The demographic dividend is more than an educational dividend: it is the result of correlation between the change in a population's age structure

and level of education."

Patricio Suarez Urtaza Doctroal student at the ifo Center for Labor and Demographic Economics

RESEARCH FOCUS

Trade Costs and Trade Policy

Globalization and Innovation

Trade and Environmental Policies

ifo Center for International Economics

How can economic globalization and technological change be combined, and how can international dialogue bring about welfare gains?

The ifo Center for International Economics investigates these questions.

■ he global economic arena is characterized by increasing tensions over trade policy. This is leading to a noticeable slowing of growth in global trade, which poses challenges particularly for an open economy such as Germany's. What's more, pandemics, natural disasters, and the effects of climate change can subject the global economy to an increasing number of unexpected shocks. The ifo Center for International Economics investigates the role that trade agreements, climate change, and pandemics play in welfare and employment in countries directly and indirectly affected. The total of welfare gains is of central importance here, but so is their distribution. This includes the questions of whether structural change driven by globalization results in losers as well as how to compensate for this change if necessary. In this way, the Center and its new Director are a cornerstone for the ifo research topics of "sustainable growth" and "European integration and globalization". This work employs structural estimation models of general equilibrium.

The Center also explores the correlation between innovation and globalization as well as how globalization affects the labor market and income distribution. Center employees analyze these factors using models of new international trade theory, which allow them to investigate reallocation effects even within narrowly defined sectors.



www.ifo.de/en/ center-aw

NEW LEADERSHIP AT THE IFO CENTER FOR INTERNATIONAL ECONOMICS

Lisandra Flach was appointed Director of the ifo Center for International Economics on July 1, 2020. She embodies a continuation of top research paired with policy-oriented work in the field of international economics at the ifo Institute. One focus of the Center's work will be on expanding the ifo trade model, while research will increasingly draw on microdata. Flach is also adding new focal points to the agenda, including investigations into the relationship between globalization and innovation, and how international tax policy affects corporate decision-making.

17%

of value created in Germany relies on global value chains. The international average is 12%.



- In 2014, the EU and US imposed sanctions on Russia. What did these comprise?
- They comprised economic and financial sanctions as well as sanctions against listed persons and institutions. The Düsseldorf Chamber of Industry and Commerce commissioned ifo to conduct a study quantifying the sanctions' economic costs.

Would Germany benefit from a lifting of these sanctions?

In the first place, Russia would benefit the most. Germany's GDP would also increase, but the effects vary among the federal states. States in eastern Germany would benefit most because of their proximity to and stronger trade links with Russia.

Are we already seeing changes to trade relations:

Yes. Russia's imports and exports have dropped significantly since sanctions were imposed. Russian trade with Germany and the rest of the EU declined more strongly than Russia's trade relations with other countries.

Prof. Lisandra Flach, Director of the ifo Center for International Economics **GERMAN VALUE CHAINS**

How a Globalized Economy Is Braving the Coronavirus Crisis

lobal supply chains mean that disruptions to production caused by Covid-19 and lockdowns are felt across borders. Calls to bring global production networks back home are getting louder in the policy debate. According to a study conducted by Marina Steininger (ifo Institute) and Alessandro Sforza (University of Bologna), Germany cannot compensate for the negative effects of the Covid-19 pandemic by bringing production back to its federal states. The coronavirus shock is leading to a significant drop in real GDP in all countries; an average decline of 12.9 percent is expected. Germany is experiencing a 9 percent drop in real income. The effects of the crisis vary among the country's individual federal states and from sector to sector. Based on the study by Sforza and Steininger, Flach and Steininger are analyzing the pandemic's effects on the federal states and the individual sectors. The coronavirus crisis is affecting the individual Länder in very different ways. Hardest hit is North Rhine-Westphalia, where real income dropped by EUR 59

"The crisis is affecting the various sectors very unevenly.
In percentage terms, manufacturing has been bit the bardest

facturing has been hit the hardest, especially the automotive and pharmaceutical industries."

Marina Steininger Doctoral student at the ifo Center for International Economics

billion, followed by Bavaria, with a drop of EUR 49 billion. The variations among the federal states are mainly due to structural differences in industry. Sectors and Länder that play a larger role in global value creation are exposed to greater shocks. Manufacturing has been affected the most. It's true that the Covid-19 shock affects globalized countries more than closed economies. However, globalization had already lifted the countries involved to a level they would never have reached without worldwide value creation.



FOREIGN TRADE

Germany Hardly Dependent on NonEuropean Countries for Medical Goods

A n ifo study conducted by Martin Braml, Feodora Teti, and Rahel Aichele evaluated data on imports and exports for 2019 recorded in Comext, the EU's trade database. Contrary to popular local belief, Germany hardly depended on non-European countries at all for trade in medical goods last year. Germany generated a trade surplus of EUR 37 billion in this area. There is a surplus in the trade of pharmaceuticals and of medical equipment. The fact is that Germany continues to play an important role in global medical goods trade. For imports, the number of sources of supply is more important than the question of whether a product

0.8%

of Germany's total pharmaceutical imports come from China and India. They amount to EUR 409 million.

is produced domestically or imported. As the number of suppliers increases, dependency decreases. With a sufficiently high number, supply can be more stable than through domestic production alone. Germany sources 72 percent of its pharmaceutical imports from EU member states. Outside the EU, the major exporters of medical goods to Germany are the US, Switzerland, and the UK. Imports from China and India together amount to EUR 409 million, which is only 0.8 percent of Germany's total pharmaceutical imports.



www.ifo.de/en/jb20/ apotheke-der-welt TRADE POLICY

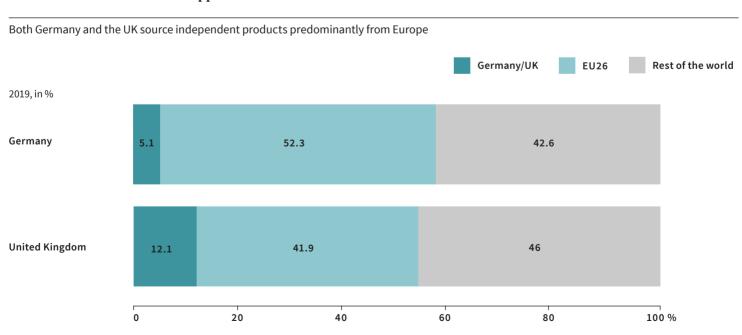
Brexit Will Have a Marginal Effect on the EU

he ifo Center for International Economics investigated the ramifications of Brexit. The United Kingdom's decision to leave the EU presents a major challenge in trade relations. The increase in trade costs due to Brexit will have larger effect for the UK in comparison to the EU27: the EU27 nations are the UK's biggest trading partner, accounting for 50 percent of all UK imports and 47 percent of exports in 2019. When it comes to end products manufactured in the UK that depend on few suppliers, the relationship with the EU27 countries becomes even more important: 64 percent of goods that depend on five or fewer suppliers come from EU countries. More than half the goods that depend on five or fewer suppliers (54 percent) are intermediate products that UK companies need to manufacture their end products. While most EU27 countries source less than 10 percent of strongly dependent goods from the UK, the UK imports the majority of its strongly dependent goods from EU27 countries. With the exception of Ireland, Malta, and Cyprus, the remaining 24 EU countries import less than 10 percent of strongly dependent goods (with five or fewer suppliers) from the UK. For the majority of companies in these countries, it should be relatively easy to find alternative suppliers within the EU. It has been pointed out that although EU member states' dependence on imports from the UK is much lower than the other way around, countries such as Germany, France, and Italy are dependent to a certain degree on intermediate products from the UK; in a post-Brexit world, this will have a negative effect on manufacturing supply chains. For these goods, the uncertainty and rising costs resulting from Brexit could put supply chains under additional strain.

A look at Germany's bilateral trade relations reveals that Brexit will also have an effect on the German economy. Of goods for which there are five or fewer suppliers, the majority coming from the UK are intermediate products. Examples include special types of drive motors or chemical substances, which count as manufacturing inputs. All in all, there are only a few products for which the EU is currently dependent on supplies from the UK. In principle, producers within the EU may find it easier to replace suppliers. Overall, the effects of Brexit will have less of an impact on the EU27 countries than on the UK. The findings highlight the need to achieve a trade agreement between the EU27 countries and the UK that minimizes the cost of Brexit and reduces uncertainty in international relations.



Products with Five or Fewer Suppliers



Source: Comext (2019), ifo Institute presentation.

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Prof. Ludger Wößmann, Director of the ifo Center for the Economics of Education



How would the general public like education responsibilities to be shared between Germany's federal and state governments?

According to the ifo Education Survey 2020, 60 percent of Germans support the idea that the most important educational policy decisions should be made by the federal government. A majority of 88 percent consider the comparability of student performance among

the states to be important, while 84 percent advocate a standard core Abitur, or exit exam.

Is there also a compelling case for a federal structure?

State politicians can develop targeted solutions for regional challenges in their respective Länder. Moreover, it is hoped that a competition of ideas will offer politicians an incentive to implement effective education policies in their Länder.

Are greater uniformity and comparability advisable nonetheless?

Yes. After all, competition is effective only if we can compare the results it achieves. That is why initiatives currently under debate, such as a state treaty to help bring about more uniformity and comparability as part of educational federalism, are so crucial.

ifo Center for the Economics of Education

RESEARCH FOCUS

Education and Individual Outcomes

Education and Long-Term Development

Determinants of Education

Governance of Education

Changes in the level of education may be attributed to a number of factors and can, in some cases, have a significant impact on the economy.

The ifo Center for the Economics of Education looks at equal starting opportunities, compares student performance, and evaluates vocational training to ensure that prosperity benefits more people.

ducation should enable people to take part in the opportunities of an open society, hold their own against international competition, and exploit their opportunities for greater prosperity. Based on scientific findings, the staff write articles and draw up policy recommendations.

EDUCATION AND INDIVIDUAL OUTCOMES

Education plays a vital role in equipping individuals for participation in their professional and daily lives. The Center studies the extent to which skills are a factor for labor market and social participation in a rapidly evolving society. The dual system of vocational education and training peculiar to German-speaking countries is instrumental in creating German human capital. In addition, the Center explores the possibilities and limits of further education and training, and of lifelong learning.

EDUCATION AND LONG-TERM DEVELOPMENT

Education also determines a society's economic development over the long term. The Center researches how the test scores achieved in international student assessments affect economic growth and social cohesion. Moreover, the Center traces how the diffusion of education before and after industrialization has changed historical development, considering the impact of the long-term persistence of historical events on today's economic development.

DETERMINANTS OF EDUCATION

The Center also focuses on the factors influencing high academic achievement. These include cultural factors, such as family, values and standards, the resources expended, and the institutional framework of the education system. To analyze these, ifo researchers often refer to the extensive microdata sets compiled by different international comparisons of student performance. Some of the topics covered are the integration of children with an immigration background, the effectiveness of teaching staff, the compensatory effect of mentoring programs, and the strengths and weaknesses of digital teaching methods.

GOVERNANCE OF EDUCATION

This area analyses the central elements of governance for education systems, such as qualification systems, autonomy, competition, and tracking systems. The Center researches how governance structures are implemented and how readily the general public accepts them. In doing so, it frequently draws on the findings of its own education policy survey.

Furthermore, together with the Centre for European Policy Studies in Brussels, the Center coordinates the European Expert Network on Economics of Education (EENEE), an EU think tank for policy advice sponsored by the European Commission.



www.ifo.de/en/ center-bi COMPARING EDUCATION

Patience Enhances Academic Performance

The cultural traits on which long-term decisions are based are vital for investments in education. To understand how they contribute to the international differences in students' capabilities, a new study by Eric Hanushek of Stanford University and Lavinia Kinne, Philipp Lergetporer, and Ludger Wößmann of the ifo Center for the Economics of Education combines the PISA tests with the Global Preference Survey. The results show that the opposite effects of patience (positive) and risk-taking (negative) together account for two-thirds of the international variation in student achievement. Models in which students with an immigration background are assigned the cultural traits of



"Our analysis of preferences and skills offers greater insight into

the deeper forces influencing the development of human capital."

Lavinia Kinne Doctoral student at the ifo Center for the Economics of Education

their countries of origin produce similar results. Overall, a culture of patience and risk aversion appears to encourage students' learning efforts.



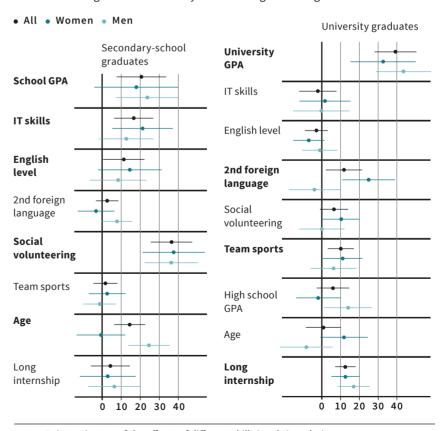
EQUAL STARTING OPPORTUNITIES

Who Gets the Invite?

hat skills are key to successfully starting out on a career? And how can graduates call potential employers' attention to these skills on their CVs when submitting their application? As part of a BMBF project, the ifo Institute studied the importance of different CV elements for hiring decisions at companies in Germany. Staff at the ifo Center for the Economics of Education conducted an experiment with nearly 600 personnel managers at German companies, who were asked to choose between CVs with randomized credentials. The results showed that both cognitive skills and social skills have a significant impact on deciding which candidates to invite for interview. They also showed that the setting - for instance, whether the candidates are secondary-school graduates or university graduates - determines which specific skill signals are relevant, expected, and credible. While school and university grades and social skills are significant for both genders, women are particularly rewarded for IT and language skills.

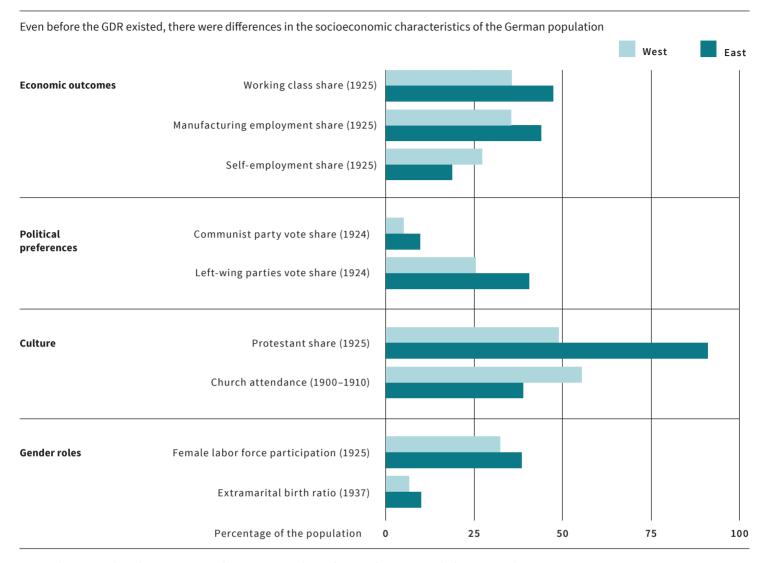
The Effects of CV Skill Signals on Job Interview Invitations

Personnel Managers React Positively to Various Signals of Cognitive and Social Skills



Notes: Point estimates of the effects of different skill signals in a choice experiment among personnel managers. Source: ifo Institute survey (2020) © ifo Institute

The East-West Divide before the Second World War



S. O. Becker, L. Mergele und L. Woessmann, »The Separation and Reunification of Germany: Rethinking a Natural Experiment linterpretation of the Enduring Effects of Communism«, *Journal of Economic Perspectives* 34(2), 2020.

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30 YEARS OF GERMAN REUNIFICATION

The East-West Divide Existed in Germany Even before the GDR

The 1949 division of Germany into a communist East and a capitalist West and its reunification in 1990 are often described as a "natural experiment" from which to learn about the enduring effects of communism. In three steps, our research shows that the populations of East and West Germany were very far from being randomly selected treatment and control groups. First, data from before the Second World War reveals that the later border was already discernible along numerous socioeconomic dimen-

sions. Second, the effects of the Second World War and of the subsequent occupying powers were different in East and West. Third, a selective fifth of the population fled from East to West Germany before the Berlin Wall was built in 1961. In light of our findings, we recommend a more cautious interpretation of the extensive literature on the enduring effects of the communist experience on economic outcomes, political attitudes, cultural traits, and gender roles.



Climate and

Energy

Environment

ifo Center for Energy, Climate, and Resources

Climate change and resource scarcity pose major challenges for our society.

The ifo Center for Energy, Climate, and Resources examines fundamental questions of climate research and advocates sustainability and climate action.

hat is the key to sustainable economic development? This is one of the questions that the ifo Center for Energy, Climate, and Resources addresses. Its research in this area focuses primarily on the effectiveness of climate action from a global and regional perspective, including the transition from fossil energy systems to alternative energy sources. Other topics the Center researches are the political, economic, and social challenges that arise from the use of natural resources. Its findings provide policymakers with objective information on the effectiveness of climate, energy, and environmental policy instruments.

CLIMATE AND RESOURCES

Research at the Center focuses on theoretical and empirical analyses of climate policy instrument effectiveness and the use of energy resources. This includes incentives to prevent emissions and to encourage companies to develop climate-friendly technologies. Its analyses increasingly cover strategic and political economy factors. The Center also examines the issue of stranded assets: risks that arise when the value of assets and facilities plummets as a result of the transition to a green energy economy. It has also built and continuously updates an international database for topics pertaining to resources and energy.

ENERGY

Another area of the Center's work is investigating the transformation of energy systems, energy markets, and the energy industry, as well as the design of efficient energy policy. The focus here is on German energy markets but also on the interplay between German and international policy and CO₂ reduction targets at the European level. A further key area of activity is the analysis of electricity markets, including cross-sectoral aspects – how to reduce emissions in the transport sector, for instance. Using its own model, the Center analyzes European electricity market scenarios. This serves to develop a deeper understanding of transformation processes in the energy sector, in turn providing valuable input for policy advice.

ENVIRONMENT

The Center also addresses the environmental-economic implications of climate change and energy policy. In the year under review, the focus here was on the impact that extreme weather events have on citizens and the economy, and on the development of methods and indicators to improve monitoring of the biobased economy. In other activities, the Center played an active role in the current debate on (green) economic stimulus and investment packages and sustainable finance, and provided extensive input for the report on "Rethinking Land in the Anthropocene" by the German Advisory Council on Global Change (WBGU).







That really depends on how the Green Deal is actually implemented. Imposing a large number of complex and technology-specific regulations can result in high additional costs for companies and undermine not only global competitiveness but also the willingness to accept climate targets in the first place.

What are the alternatives?

With its European Emissions Trading Scheme, the EU has' an established instrument in place, which, if expanded, would be a cost-effective way to ensure that climate targets are met.

So carbon pricing and' nothing else?

No, carbon pricing alone won't be enough. Emissions trading needs to go hand in hand with strategic measures such as the development of infrastructure and promotion of technology. However, this mustn't lead to a perpetual culture of subsidies.

Prof. Karen Pittel, Director of the ifo Center for Energy, Climate, and Resources

STRANDED ASSETS

Fixed Assets Hinder Climate Policy

A radical transformation of the energy system is needed in order to achieve the Paris Agreement goal, which is to limit global warming to 1.5°C by the year 2100. Action to achieve this target can cause the value of assets in the form of fossil energy resources and existing infrastructure along the fossil fuel value chain to plummet, leading them to become what are known as stranded assets. How does this risk hinder the effectiveness of climate policy – and how do

financial markets deal with it? The Center is investigating this question as part of a three-year project by the German Federal Ministry of Education and Research (BMBF) in cooperation with the German Institute for Economic Research (DIW Berlin) and Humboldt-Universität zu Berlin. In 2020, a paper was published examining the stock markets' response to the announced phase-out of lignite. The study revealed that investors didn't react to the announcement at first because they were expecting to receive financial compensation. It was only when the compensation payment came under threat following EU competition proceedings that the market valuation fell. On the basis of these findings, it is important for policymakers to provide clarity as to whether investors can expect to receive compensation, and if so, how much.

EMISSIONS TRADING

How to Minimize the Risk of Carbon Leakage

The Center, in collaboration with DIW Berlin, investigated the industries for which the risk of shifting carbon emissions abroad (carbon leakage) will be highest if national emissions trading is introduced in Germany. The work also covered how policymakers can identify these industries and prevent that from happening. In principle, there are different ways to measure the risk of carbon leakage. Due to the data situation, the study focused on CO₂ costs relative to gross value added. As the analysis shows, the risk of the national emissions trading scheme causing carbon leakage is initially limited to a few sectors. This is because the most energy-intensive industries are already participating in the EU Emissions Trading System, and their emissions won't be subject to double pricing. Industries such as coal mining and the production of plaster products will be hit especially

0.1%

of gross value added is the highest additional cost that most industrial companies covered by Germany's new emissions trading system will have to bear at a carbon price of EUR 30 per metric ton.

hard; even at a carbon price of EUR 30 per metric ton, they will already be facing appreciable additional costs. The investment subsidies provided for in Germany's Fuel Emissions Trading Act should be determined according to the additional costs incurred by the individual companies affected. In most of the sectors in question here, the investments are considerably higher than the cost increases. A seemingly viable solution would be to offset the additional costs with moderate investment subsidies – for introducing efficiency measures, for instance.



"The risk of a German emissions trading scheme causing carbon leakage is limited to a few sectors, as most energy-intensive industries are already part of the EU Emissions Trading System."

Marie-Theres von Schickfus Doctoral student at the ifo Center for Energy, Climate, and Resources

CLIMATE CHANGE IN AFRICA

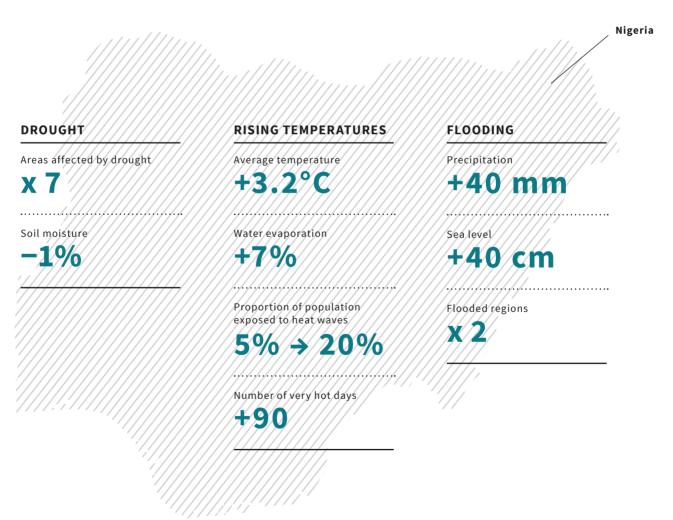
Flooding, Drought, and Famine

igh-risk countries such as Nigeria are suffering particularly badly from the effects of rising temperatures. For the local population, the consequences are dramatic. Extreme weather, such as flooding, tropical cyclones, heat waves, and drought, causes significant damage; this, in turn, can harm people's long-term socioeconomic prospects. The ifo Center for Energy, Climate, and Resources is researching the connection between extreme weather and socioeconomic development as part of a joint project with Climate Analytics and the Potsdam Institute for Climate Impact Research. Together, the project partners identify high-

risk countries that have particularly fragile economies and are especially vulnerable to extreme weather – such as Nigeria. As part of their investigations, they also compare short- and long-term climate-related damage, as would be expected at a relatively low level of warming consistent with the Paris Agreement (1.5–2°C). The Center investigates the effectiveness of various adaptive measures and how these can be integrated. To this end, it works in close cooperation with stakeholders from international institutions such as the World Bank, the International Fund for Agricultural Development, and the reinsurance provider Swiss Re.

Climate Change and Extreme Weather Events

This infographic shows how climate change could affect Nigeria by the year 2080





Prof. Oliver Falck,
Director of the ifo
Center for Industrial
Organization and New
Technologies, in front
Prof. Karen Pittel,
Director of the ifo Center for Energy, Climate,
and Resources

You are increasingly using data sources that are relatively new to economic research. Why is that?

Official statistics for areas such as innovation and digitalization are insufficient and are released with a long time lag. This makes it difficult to measure developments in these areas.

What sources do you use instead?

We use cellular network data to measure mobility or job ads on LinkedIn to see how the job market is changing in the pandemic. And financial transaction data lets us measure the extent to which individual industries are being affected by the coronavirus crisis.

What role will big data play in your field in the future?

It will become more important: speed was key during the crisis, and we want to be able to react more quickly to developments in the future as well. There are many other potential sources of data: text analysis, web scraping, or image analysis for innovation and digitalization.

RESEARCH FOCUS

Sectors, Institutions, and Regulation

Innovation

Digital Transformation

ifo Center for Industrial Organization and New Technologies

The ifo Center for Industrial Organization and New Technologies analyzes how policy can promote competitiveness and innovation and examines how technological progress affects society.

he Center explores these areas using empirical methods of counterfactual impact analysis. It aims to derive policy measures from these findings that will enable companies and individuals to benefit more from technological progress within the social market economy system.

SECTORS, INSTITUTIONS, AND REGULATION

Many economic analyses are based on assessing each industry's competitiveness and productivity. The Center defines influencing factors and long-term prospects for German and European industry, and identifies and evaluates measures to strengthen competitiveness. It also observes how new technologies are changing the structures of the various sectors. Furthermore, the Center researches the impact of regulation, for example on innovation and supply chains.

INNOVATION

Economists at the Center study the development of new and existing companies, especially with regard to how innovative they are. This work has a strong focus on practical application; it poses new and relevant questions and taps into institutional knowledge. The Center's research also addresses determinants of innovation and entrepreneurship and draws conclusions relevant for policymaking. In turn, the Center advises policymakers and can draw on an extensive network of relevant stakeholders in politics and business. One issue that gained particular relevance in 2020 was the impact of R&D tax incentives.

DIGITAL TRANSFORMATION

The smooth, easy, and instantaneous exchange of information is driving change in the world economy. It is a key aspect of the digital transformation, which is fundamentally changing how people behave, how production and business processes are organized, and how market participants interact. As it observes this transformation, the Center asks: Who is losing, and who is winning? The Center also examines which industrial, innovation, and digital infrastructure policies help companies and people harness the potential of digitalization. One specific question is whether German federal funding for infrastructure has played a significant role in broadband expansion.



www.ifo.de/en/center-int

INDUSTRY ANALYSES

2x150

The industry experts at ifo have a particularly good connection to the real economy because they can combine quantitative studies with qualitative evidence. Their detailed knowledge of the competitive situation and institutional framework of numerous sectors is a key skill set at the Center. Since 1993, it has produced reports on developments in 150 industries twice a year on behalf of DG-Verlag. To deepen the dialogue with companies and associations, the Center organizes an annual conference: the ifo Industry Colloquium.

NEW MOBILITY CONCEPTS

Congestion Charge Helps Combat Traffic Chaos

unich is one of the most congested cities in Europe. Its congestion is caused not only by flowing traffic, but also by vehicles searching for parking. A study entitled "Traffic Effects of a Congestion Charge in Munich" empirically investigates the extent to which such a charge can reduce traffic problems. The authors conclude that a fee of EUR 6 per day could reduce traffic within the Middle Ring motorway by 23 percent on average and by 33 percent during rush hour. At EUR 10 per day, the reduction would be as much as 30 percent. This would help to get the congestion problems in the city center under control, because people would switch to other modes of transportation, especially public transport. It may be possible to apply the results to other congested cities. According to another study, "Effects of a Congestion Charge on Retail Trade and Tourism in Munich," there could be additional positive effects on downtown areas: less traffic means that customers, tourists, and delivery traffic would get where they're going faster. Productivity would improve and Munich's city center would become even more attractive, since the congestion charge would reduce stress, noise, and exhaust fumes.



www.ifo.de/en/jb20/anti-stau-gebuehr



Traffic Impact of Charging All Vehicles a Daily Flat Rate of €6 inside the Middle Ring*



Passenger kilometers



Vehicle hours in commercial traffic

*Including an increase in the price of required parking permits from €6 to €10 (per day) OpenStreetMap CC-BY-SA

Source: ifo Forschungsbericht 115, ifo Institut, München 2020; OpenStreetMap CC-BY-SA.

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COMPETITION POLICY

Center Published in the American **Economic Journal**

t present, there is growing concern that dominant com-Apanies are using patents strategically to prevent competitors from entering the market. In their article "How Antitrust Enforcement Can Spur Innovation: Bell Labs and the 1956 Consent Decree," published in the prestigious American Economic Journal: Economic Policy, 12 (4), (pp. 328–359), researchers examined the landmark 1956 decision against monopolist Bell Labs. The decree settled an antitrust suit against the company, which then had to license all its



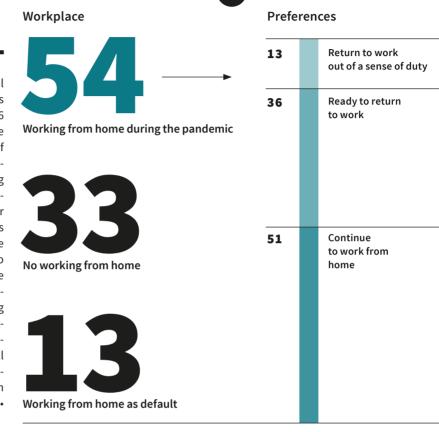
Thomas Fackler Coauthor of the study and postdoctoral researcher at the ifo Institute

existing patents free of charge. As a result, innovations increased over the long term - but only outside the telecommunications sector. What does this mean for the market today? The conclusion is that patents are indeed used as a barrier to entry for start-up companies, and that compulsory licensing of patents can promote market entry and innovation. This finding takes on added significance as calls grow louder for an investigation into the practices of US digital giants.

DIGITAL WORKING WORLD

Trend toward Working from Home Will Outlast the Coronavirus

■ arious studies conducted by the ifo Institute reveal that the number of employees working from home has risen massively. The Institute calculates that around 56 percent of all employees in Germany have access to a home office in principle, but prior to the pandemic, less than half were taking advantage of this option. "The coronavirus crisis could give working from home arrangements a lasting boost," says Oliver Falck, Director of the ifo Center for Industrial Organization and New Technologies and coauthor of the study. However, low-wage and low-skilled workers are much less likely to be able to work from home. After the pandemic, more work activities will probably continue to be performed from home permanently, but a complete shift will happen only in rare cases. After all, the lack of social contact when working from home can put a lasting strain on employees. In addition, if employees are restricted to digital channels for creative collaboration, the quality of their work will suffer. Hybrid models of working will likely prevail, as they combine the advantages of autonomy and flexibility afforded by working from home with those of social contact in the workplace.



ifo LinkedIn Survey Shows Extensive Switch

to Home Office Due to Pandemic

www.ifo.de/en/jb20/homeoffice

Source: Authors' evaluation based on a LinkedIn survey conducted June 1–14, 2020, among the network's members in Germany. © ifo Institute

"The ability to move the workplace into one's own home during the crisis had a significant impact on sustaining economic activity. Companies that relied more on working from home had to apply for short-time work significantly less often."

Jean-Victor Alipour Doctoral student, ifo Center for Industrial Organization and New Technologies



Prof. Panu Poutvaara, Director of the ifo Center for International Institutional Comparisons and Migration Research



In a study with King's College
London and DIW Berlin, we
showed that high local unemployment at the time of the refugees' arrival negatively affects their economic and social integration. A positive attitude toward immigrants on the part of the local population has a positive effect on integration.

How can integration be improved?

Although there is a strong argument for distributing refugees across all of Germany, integration is worse in regions with high unemployment. For this reason, more weight should be given to the different integration capacities of the various Länder. For example, one could consider the number of job vacancies in a state.

Your Center handles important service tasks for the Institute. Do you have any news to share?

To meet the needs of our readers, we merged our two English-language journals. The newly designed CESifo Forum debuted in July 2020. It covers the activities of ifo and CESifo, from academic research to the latest economic data.

ifo Center for International Institutional Comparisons and Migration Research

RESEARCH FOCUS

Migration and Institutions

Migration and Political Economy

Institutions and Financial Intermediation

Institutions and Society

Institutions play a key role in economic growth. The ifo Center for International Institutional Comparisons and Migration Research examines the societal challenges that arise from this relationship.

nstitutions are of great importance for the long-term growth of an economy and for equal opportunities. The ifo Center for International Institutional Comparisons and Migration Research analyzes the causes and economic impacts of institutions, with a particular focus on migration, financial intermediation, and the interaction of institutions with beliefs and preferences.

MIGRATION AND INSTITUTIONS

The very first question to ask is why people decide to migrate at all. This opens up many areas for research, such as what role economic incentives and institutional factors play. The ifo researchers also investigate ways to integrate refugees and to what extent integration depends on the economic and social environment in the destination country.

MIGRATION AND POLITICAL ECONOMY

This research area examines the interaction between politics and migration. The Center analyzes the relationship between intra-European migration and the economic and social challenges in the regions of origin. Both factors influence residents' voting behavior.

INSTITUTIONS AND FINANCIAL INTERMEDIATION

Another focus of the Center is the institutional underpinnings of financial markets. It explores how institutions, such as those protecting property rights, influence the credit market and how the removal of a government guarantee affects banks. In addition, the Center studies crowdfunding as a new form of finance.

INSTITUTIONS AND SOCIETY

The Center's research in this area has shown that a country's current institutions are shaped by history, such as whether it belonged to a long-gone former empire. Further topics include the role individual trust and beliefs play in the private sector, in household decision-making, and in public policy, as well as how beliefs affect redistributive preferences.



www.ifo.de/en/center-ivm

DICE - DATABASE FOR INSTITUTIONAL COMPARISONS OF ECONOMIES

With the DICE database, the ifo Institute provides information on institutional regulations. DICE contains comparative data on major industrialized and emerging economies worldwide and covers a wide range of topics: banking and financial markets, energy, resources and the environment, labor markets, education, social policy, and migration. The database allows users to search for cross-country comparisons on institutions and regulations as well as economic indicators and indices. The data can be visualized in tables, graphs, and maps, and can be combined into a separate dataset.

https://dice.ifo.de

IFO PUBLICATION IN RESEARCH POLICY

Countries of Origin Benefit from Emigration

nventors from eastern and southeastern EU member states filed nearly 2,200 patents in the United States in the space of one year. Does the emigration of skilled individuals lead to a brain drain? Combining patent and migration data at the industry level from 32 European countries, the ifo Institute study "Knowledge Remittances: Does Emigration Foster Innovation?" (Research Policy 49 (9), (2020) shows that emigration has positive effects on innovation in the countries of origin. Countries that experience high levels of emigration also have a greater level of

patenting. In addition, emigration leads to a technological catch-up process, which brings the countries of origin closer to the level of countries on the technological frontier. These effects are triggered by knowledge transfer. Specific channels that facilitate this knowledge transfer are the flow of tacit knowledge, an improved network of inventors, and return migration. Even though skilled migrants no longer patent in their home countries, they contribute to cross-border knowledge and technology' diffusion.

"The EU could benefit from facilitating migration within Europe by giving greater recognition to foreign qualifications. It would let the bloc harness the full potential of migrants both for destination and origin countries."

Dr. Yvonne Giesing Economist at the ifo Center for International Institutional Comparisons and Migration Research

SUSTAINABLE FINANCE

EU Action Plan Burdens SMEs

n a study for the Chamber of Industry and Commerce for Munich and Upper Bavaria, the ifo Institute examines the impact that the EU Sustainable Finance Action Plan and the German Sustainable Finance Strategy have on SMEs and financial markets. Defining the concept of sustainability, which is central to the classification of economic activities, is difficult. The proposed measures affect financing neutrality and lead to evasive responses that reduce their effectiveness. It is therefore preferable to enact regulations that are appropriate to the root problem in the form of environmental policy measures. Looking at SMEs, the study shows that the additional information requirements

are a major burden. Introducing thresholds for reporting and disclosure requirements as well as providing subsidies could relieve SMEs of these additional costs. Public provision of relevant information would aim at this as well. The results of the study were presented at a panel discussion in November. Clemens Fuest discussed the possible consequences of the EU regulation for SMEs with the panelists, who included Sven Giegold, European Parliament; Jörg Kukies, State Secretary at the German Federal Ministry of Finance; and Hubert Johannes Winklhofer, Vice President of the Chamber of Industry and Commerce for Munich and Upper Bavaria.

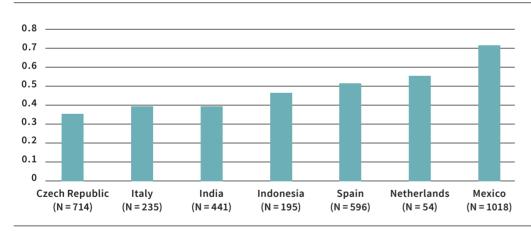


LANGUAGE SKILLS AND MIGRATION

Who Wants to Emigrate and Why?

hat is the relationship between learning a foreign language and migration intentions? In the multi-year project "Language-Skill Investments and Migration Decisions," funded by the German Research Foundation (DFG) and conducted in cooperation with ifo research professor Silke Übelmesser of the University of Jena, researchers Till Nikolka and Panu Poutvaara collected survey data from 6,000 students in the Czech Republic, India, Indonesia, Italy, Mexico, the Netherlands, and Spain. Students were asked about language acquisition and their intentions to emigrate. In addition, the survey participants provided information about their personal background and their views on society. The project team from Jena conducted surveys among language course participants at various Goethe-Instituts. Overall, the project examined three sets of issues: the first focused on the motives of language learning, the second on migration intentions, and the third on the role of internationally applicable qualifications compared to country-specific ones for migration and migration intentions. The results show that, among students who are either citizens or were born in the country in which they studied, the proportion of those willing to emigrate varies widely: from 36 percent in the Czech Republic to 72 percent in Mexico. Looking at the role of internationally applicable qualifications for migration and migration intentions, the study showed that the desire to migrate depends heavily on the field of study: those who study law are less likely to want to migrate because law is much more country-specific. The subjective assessment of the international applicability of one's degree is also important. Students who believe their education is internationally applicable are more likely to want to migrate than students who are more likely to acquire country-specific qualifications. The results will contribute to a better understanding of the characteristics and motives of potential immigrants and support decision-makers in designing immigration and integration policies.

Proportion of Students Willing to Emigrate by Country



Only students who are either citizens or were born in the country in which they studied.

Source: ifo Institute, 2020.

IFO CENTER OF EXCELLENCE FOR MIGRATION AND INTEGRATION RESEARCH - CEMIR

CEMIR analyzes migration and integration from different perspectives. It pools expertise from different research institutions and countries, and hitherto often separate fields of economics, by combining labor economics, finance, political economy, economics of education, and globalization research. In doing so, the Center helps answer questions about the optimum design of immigration policy. Diverging demographic trends in Europe and in developing countries create

potential for promising mutual opportunities. At the same time, the immigration of low-skilled workers and the emigration of highly skilled professionals pose a challenge to the European social model. How can destination countries ensure that immigrants are net contributors to public finances? How can social systems, the labor market, and immigration policies be designed so that both the destination countries and the immigrants benefit?

RESEARCH FOCUS

Economic Policy Analyses

Macroeconomic Research

Inequality and Redistribution

ifo Center for Macroeconomics and Surveys

Business cycles, economic policy analysis, and the topics of inequality and redistribution are the focus of research at the ifo Center for Macroeconomics and Surveys. The Center collects, prepares, and interprets microdata, and counts the ifo Business Climate Index as one of its most important analyses.

acroeconomic research, economic policy analysis, and questions of inequality and redistribution are focal points of the Center for Macroeconomics and Surveys. Its economists collect, process, and interpret microdata on economic developments in Germany, the European Union, and other countries. The Center's ifo Business Climate Index receives particular interest from the public; this leading business cycle indicator is based on some 9,000 monthly reports from companies.

ECONOMIC POLICY ANALYSES

One main area of focus for the Center is the analysis of reform proposals for the design of fiscal integration in Europe. This examines the efficiency, distribution, and stabilizing effects of the respective tax and transfer systems. The Center carries out these empirical analyses in part using the European tax and transfer microsimulation model EURO-MOD, which can evaluate the most recent changes to the respective tax and transfer legislation in the EU27 and simulate policy reforms. Another research topic in this area is the European Central Bank's monetary policy and its influence on the financial sector and the economy overall.

MACROECONOMIC RESEARCH

What are the causes and effects of macroeconomic shocks? In examining this question, the Center derives implications for applied business cycle analysis. Its work focuses on the influence of financial market frictions and the effects of

monetary and fiscal policy measures on real and financial variables. Regarding methodology, the Center applies theoretical approaches as well as empirical time series methods. Forecasters today have access to enormous amounts of data. That's why the Center is looking into how to condense and select information, including its own data from the company survey.



A third area of research is focused on the distribution of income and wealth, as well as other indicators of inclusion and equal opportunity. The Center examines trends and identifies the causal effects of tax and transfer systems. Particular attention is given to the analysis of regional differences in income and wealth distribution. The economists investigate possible drivers of the development of inequality, such as globalization or demographic change. Individual redistributive preferences as well as attitudes toward "fair" forms of taxation are further areas of inquiry.



www.ifo.de/en/center-mb

KEY SERVICES OFFERED BY THE CENTER

Economic forecasts:

- → See page 86-87
- → www.ifo.de/en/forecasts

ifo Business Climate and Surveys:

- → See page 84-85
- → www.ifo.de/en/survey-results



- Why is it so difficult to assess whether EU regional and structural policies are working?
- We currently don't have any variables on economic activity at the municipal level, so to date we haven't been able to analyze the economic development of these communities.

 But new data sources are now helping us do just that.

What are these new sources?

A collaboration with the German Aerospace Center (DLR) gives us access to satellite data. We look at nighttime light emissions in particular. In addition, for the first time we're using subsidy data at the municipal level through a collaboration with the Austrian Institute of Economic Research in Vienna.

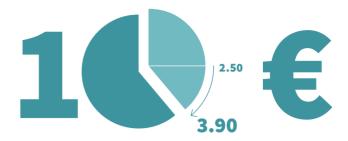
What insights has this

For a pilot region in the border area shared by Germany, Poland, and the Czech Republic, we show that subsidies generate significantly higher growth rates. The results indicate that remote sensing data can be used to quantify small-scale impacts of regional economic development in a pan-European context.

Prof. Andreas Peichl, Director of the ifo Center for Macroeconomics and Surveys **SOCIAL BENEFITS**

Low Earners Have Too Little Incentive to Work

o assess the incentive effects of taxes and transfers, researchers typically ask how much a person's disposable income increases if they expand their labor supply. In this study on Germany for the Bertelsmann Stiftung, we explore the question of which main elements of the German tax, contribution, and transfer system are key to determining the level of burden to participation; i.e., the burden that arises during the transition from unemployment to employment. One core finding was that for single people on low incomes, there is little financial incentive to work full time. The cause is an unfavorable combination of taxes, contributions, and the withdrawal of social benefits. The numbers add up in a similar way for single parents - mostly mothers - with two children. Even a small job that pays EUR 100 a month is barely worthwhile. In the case of coupled households, secondary earners also face the burden of high taxes and contributions if they work part-time or full-time jobs



If a single person on a low wage earns EUR 10 more per hour, they will see only EUR 2.50 to 3.90 of this in their net income.

due to the German system of tax splitting for married couples. For example, if partner one earns EUR 48,000 gross a year and partner two (as the secondary earner) has a minijob (10 hours a week) that pays EUR 10 an hour, this brings in an additional EUR 5,400 a year. A second income from a part-time job of 20 hours a week with a gross wage of EUR 10 an hour provides the family with an additional EUR 6,293 a year. This regulation provides no incentive – especially for women – to work more, even though baby boomers are now gradually starting to retire. Of 7.6 million married women of working age, 6 million have a lower income than their husbands and are therefore classified as secondary earners.



JUSTICE RESEARCH

How Fair Is Inequality?

mpirical evidence shows that people do not find inequality inherently unfair. This changes, however, when they factor income sources into the assessment. Current measures of inequality do not adequately reflect this normative component. The Center has thus developed a new measure of inequality and presented it in an ifo Working Paper. It integrates two widely used fairness principles: equality of opportunity and freedom from poverty. Using this toolkit, the authors analyze the evolution of inequality in the United States from 1969 to 2014 from a normative perspective. They also carry out a corresponding international comparison between the US and 31 European countries in 2010. The authors observed an increase in inequity in the US over time. This trend is driven by a sharp decline in social mobility, making the "land of opportunity" one of the most inequitable countries in 2010.



of the European debt crisis, in the US it is driven by disadvantages being passed down over multiple generations."

Paul Hufe Doctoral student at the ifo Center for Macroeconomics and Surveys

FORECAST MODEL

Clear the Stage for the ifoCAST

The Center continuously adapts its forecast architecture to meet modern requirements in the economic policy landscape and reflect the latest methodological developments. Back in 2009, the ifo Institute presented a tool for assessing economic development at the current point in time. It refined this approach in 2020. Starting now, the ifo Institute will apply a fully automated model to estimate and forecast Germany's gross domestic product. Its findings will be published regularly, including as part of its economic forecasts, under the brand ifoCAST. ifoCAST uses significant-

ly more economic indicators (currently around 300 variables) to take into account as many different signals as possible. ifo researchers then choose the most suitable indicators using a machine-learning selection mechanism. Then, using this group of indicators, they specify a dynamic factor model to estimate or forecast GDP under current conditions. The model can take into account indicators that are published at different intervals. All this distinguishes ifo-CAST from the previous approach, which was based on a large number of individual models.

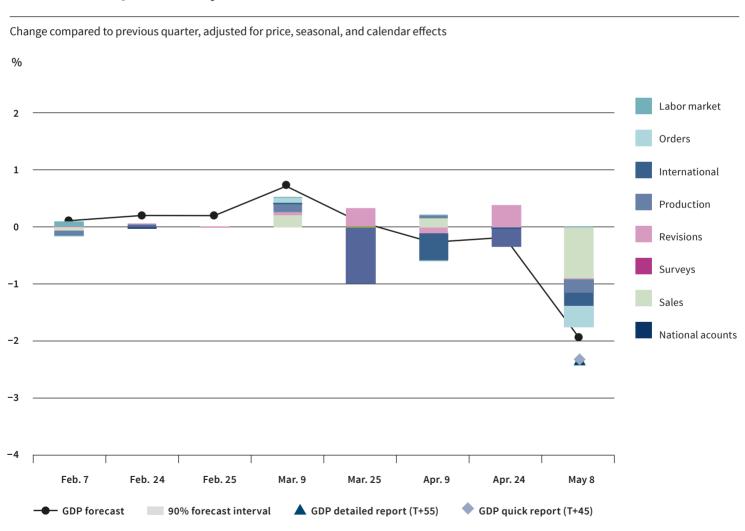


www.ifo.de/en/ifoCAST



www.ifo.de/en/ jb20/ifocast-prognosestandard

GDP Forecast for Q1 2020 and Adjustment with New Data



R. Lehmann, M. Reif and T. Wollmershäuser, ifo CAST: Der neue Prognosestandard des ifo Instituts, ifo Schnelldienst 73(11), 2020, p. 31–39.

ifo Center for Public Finance and Political Economy

RESEARCH FOCUS

Fiscal Federalism and Local Public Finances

Evaluation of Fiscal and Tax Policy

Public Debt in Germany and Europe

Political Economy

How should we evaluate the fiscal and financial policy instruments used in Germany, the European Union, and internationally? How do policymakers and institutions influence economic policy? The ifo Center for Public Finance and Political Economy addresses these topics.

he Center analyzes fiscal policy decisions at different levels of government in a decentralized system. Fundamental issues concern horizontal and vertical relationships in the field of taxation and fiscal competition, as well as the provision of local public services.

EVALUATION OF FISCAL AND TAX POLICY

The ifo Center evaluates fiscal policy, in particular the relations within and between the various levels of government in the context of fiscal equalization and the generation and distribution of tax revenue.

PUBLIC DEBT IN GERMANY AND EUROPE

Against the backdrop of demographic change, this area of research examines the causes of high national debt and its effects, and develops possible ways out of the debt crisis. The short-term perspective complements business cycle research, while the long-term analysis provides insights into intergenerational distribution issues and the relationship between growth and social cohesion.

POLITICAL ECONOMY

How do government ideology and policymakers' motives for re-election affect individual economic policies? What influence do electoral systems have on turnout at elections and the share of votes that individual parties receive? The Center examines these political economy questions. Another focus is the impact that political institutions have on factors like economic growth, which the Center is currently studying using new empirical methods such as machine learning.



Dr. Klaus Gründler Deputy Director of the ifo Center for Public Finance and Political Economy

USE OF NEW METHODOLOGY

Another area of the Center's work focuses on the appraisal of institutions and the effect they have on the level and distribution of welfare. How do institutions affect growth and inequality? To be able to quantify the real economic effects of institutions, it is first necessary to make their quality measurable. Klaus Gründler is doing this using new methods from the field of machine learning and artificial intelligence, which avoid the major data aggregation problems that traditional methodologies pose. His research shows that strong institutions are associated with better welfare and lower levels of inequality.



- Can the German government afford a national debt of EUR 2.1 trillion which is where it stood at the end of the first half of 2020?
- The coronavirus crisis called for expansionary fiscal policy
 a strategy that paid off. Now, policymakers have the following predicament to consider: to avoid further impeding growth, the German government should adopt a countercyclical approach and maintain spending during the recession. But if it does, it will have to service this debt into the future.

What is the limit for new debt?

Germany's public finances could hardly be described as sustainable even before the coronavirus crisis. Just before the outbreak of the pandemic, we calculated on behalf of the German Federal Ministry of Finance that the sustainability gap had actually widened. This is primarily attributable to demographic change.

How can public debt be reduced to a reasonable level when the crisis is over?

A first step is to balance budgets through fiscal policy such as the German debt brake. Further, the findings of an ifo Institute study show that economic growth in countries with fiscal rules permanently enshrined in their constitution is consistently higher over time than in countries without such rules in place.

Prof. Niklas Potrafke, Director of the ifo Center for Public Finance and Political Economy GERMAN FEDERAL MINISTRY OF FINANCE'S FIFTH SUSTAINABILITY REPORT

Consolidation Measures Required

o mitigate the consequences of the coronavirus crisis and stabilize the economy, the German government has adopted extensive economic stimulus packages. All in all, this will appreciably increase the general government debt ratio, lifting it from its previous level of just under 60 percent to just under 80 percent of GDP in 2020. Against this backdrop, the findings of the Fifth Sustainability Report, which indicate a steadily increasing burden on public finances due to the ongoing demographic aging process in the period up to 2060, are highly significant. To prepare the report, the German Federal Ministry of Finance commissioned the ifo Institute to estimate the effects of demographic change and to identify resulting risks to the sustainability of public finances in Germany. The study was conducted in partnership with Ruhr-Universität Bochum. In a simulation of the long-term development of German social finances and the general government budget, the project takes into account public spending for old-age pensions, health and care-giving, unemployment, and education and families. It incorporates forecasts for population development, expected employment rates, and potential economic growth scenarios. To account for the numerous uncertainties, the study considers variants in which the

assumptions are either more optimistic or more pessimistic. According to the calculations, demographic change will lead to a continuous increase in the primary expenditure ratio. In 2017, general government spending amounted to 25.5 percent of GDP. By 2060, this ratio is set to rise to 29.2 or 32.8 percent of GDP depending on the underlying assumptions. This corresponds to an increase of either 3.6 percentage points (optimistic assumptions) or 7.2 percentage points (pessimistic assumptions). Accordingly, it will be necessary to generate significantly higher budget surpluses – namely 1.5 percent or 4.1 percent of GDP annually – in the coming years in order to pursue sustainable fiscal policy in the long term.

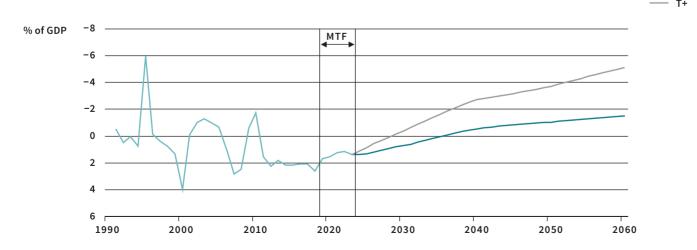
The analyses for the Fifth Sustainability Report show a need for further consolidation. Suitable measures to achieve this include an increase in taxes or social contributions, or spending cuts. However, a significant rise in contributions should be avoided. There is broad consensus that investment spending should not be cut. Instead, it would be prudent to save on transfer spending, including subsidies for companies and social spending. The challenge will be to meet the existing system's security goals, but to limit the spending required to achieve them to a level that is sustainable in the long term. Niklas Potrafke referred to the results of these calculations in his statement at a hearing on the second economic stimulus package in the Parliament of the German Federal Republic budget committee, which took place at the end of June 2020, and at a hearing in the State Parliament of Brandenburg in October 2020.



www.ifo.de/en/jb20/ modellrechnungen-tragfaehigkeitsbericht

General Government Primary Debt (Germany, 1991–2060)

The diagram shows the possible trajectories of the sustainability gaps resulting from the increase in debt-to-GDP ratios until 2060 – based on pessimistic assumptions (T-) and optimistic assumptions (T+)



Source: German Federal Statistical Office (National Accounts); German government medium-term forecast (MTF, spring 2019); SIM 17.

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CORPORATE INCOME TAX

Family Businesses Bear the Brunt of the Tax Burden

ow much do family businesses contribute to corporate income tax revenue in Germany? On behalf of The Foundation for Family Businesses in Germany and Europe and in cooperation with ifo research professor Thiess Büttner (Friedrich-Alexander Universität Erlangen-Nürnberg), the Center used data from the balance sheet and income statement as a basis for examining the payments of corporate income tax made by German family businesses in order to estimate the economic significance of these pay-

ments. For the 500 family businesses with the largest workforces, corporate income tax payments were calculated using the available data; for the remaining, they were estimated. These calculations showed that family businesses bear a significant share of the macroeconomic tax burden in Germany. The 500 family businesses with the largest workforces paid an average of EUR 22 billion in corporate taxes each year in the period 2010–2018. The average tax burden of the 500 largest German family businesses is already around 28 percent if only the taxes paid at company level (corporation income tax, trade tax, capital gains tax) are considered. Taking into account the income taxes paid by partners in a business partnership and tax withheld on dividends paid out by listed corporations, the average tax burden is almost 38 percent. By contrast, the tax burden on income generated by non-family corporations listed on the DAX, accounting for taxation of partners, is only 24–26 percent.



www.ifo.de/en/jb20/ family-businesses-taxes



"Family businesses bear a significant share of the macroeconomic tax burden. In Germany in the years 2010–2018, they paid about EUR 67 billion euros a year

in corporate taxes. That corresponds to approximately 48 percent of total business-related tax revenue."

Luisa Dörr Doctoral student at the ifo Center for Public Finance and Political Economy

EXPERT SYNOPSES FOR THE BMF

Child Bonus Relieves the Burden on Low-Income Families

The German Federal Ministry of Finance (BMF) relies on support from expert economists to help prepare the conceptual framework for political decision-making and implement priority areas of action in fiscal, tax, and economic policy. In partnership with the German Institute for Economic Research (DIW Berlin), the ifo Institute prepares analyses and short studies on policy-relevant research topics and issues on behalf of the BMF. Conducted under the auspices of the ifo Center for Public Finance and Political Economy, these studies involve time-critical research work and necessitate a thorough and systematic approach. They cover issues in the fields of fiscal, tax, and economic policy.

Other research fields such as climate and energy policy, capital and financial market regulation, behavioral economics, industrial economics, and structural policy are also relevant - as is the topic of digital transformation and the associated economic and legal considerations. Findings from these studies support flexible and evidence-based policymaking in the current political environment. In one of the nine expert synopses prepared so far, the ifo Center for Public Finance and Political Economy worked in cooperation with the ifo Center for Macroeconomics and Surveys to investigate the distributional effects of the child bonus and the reduction in VAT rates for the year 2020 (in Germany). They found that the disposable income of an average household rises by 0.2 percent, and consumption increases by up to 1.1 percent. Single parents, households in the lower income deciles, and households with several children benefit the most in relative terms. The child poverty risk rate decreases significantly. Essentially, the child bonus is an effective benefit that fulfills its purpose of providing financial relief for low-income families.



www.ifo.de/en/jb20/ fundamental-issues



Dr. Florian Neumeier, Head of the Research Group Taxation and Fiscal Policy Why is the international corporate taxation system in need of reform?

Currently, a country has the right to tax profits only if the company in question also has a registered office there. Internet giants (GAFA) in particular offer their services in countries where they have no physical presence, which makes it easier for them to shift their profits to low-tax countries.

What's your view on the OECD's current reform proposal?

I agree with the idea of aligning profit distribution for tax purposes more closely with real economic activity. However, the OECD proposal sets out numerous restrictions and exceptions, which mean the impact of the reform will actually be very limited.

What would the proposal mean for tax revenue in Germany?

We calculated the impact that the reform would have on German tax revenue on behalf of the German Federal Ministry of Finance. In the baseline scenario, we expect revenue to increase annually by EUR 600 million over the next five years. However, if the planned regulations are amended before they enter into force, the reform could leave Germany as one of the countries in a worse-off position.

RESEARCH FOCUS

International Taxation

Taxation, Fiscal Policy, and Inequality

Fiscal Policy Governance in the European Monetary Union

Research Group Taxation and Fiscal Policy

How can governments manage taxes, public spending, and public debt effectively and fairly? This is one of the questions the research group addresses – against the backdrop of rising budget deficits and growing international tax competition.

ax, public debt, and public spending are key aspects of policy. They play a key role in almost all areas of government activity and influence a number of factors, such as income distribution and the stability of economic development. This explains the research group's focus on the following topics:

INTERNATIONAL TAXATION

As economic activity becomes increasingly globalized, the international corporate taxation system faces major challenges. Time and again, reports of multinational companies reducing their tax burden by shifting profits to low-tax countries have triggered controversial debates. Questions the research group addresses include how widespread profit shifting has become, how international tax competition affects countries' shares of the profit tax base, and which reforms make the corporate taxation system fairer and more efficient.

TAXATION, FISCAL POLICY, AND INEQUALITY

The issue of inequality of income and wealth and how it develops receives a lot of attention. In addition, the rise in public debt in the wake of the financial and economic crisis and the coronavirus crisis has raised the question of how the costs of economic crises should be distributed. The research group analyzes the development of income and

wealth distribution and uncovers the factors that determine this development. Another area of focus investigates which population groups are hit by the consequences of economic crises and to what extent. The research group analyzes the development of the income, wage, and wealth distribution as well as its determinants. For instance, they investigate the effect of the tax and transfers system or economic policy reforms on inequality. Another area of focus evaluates which population groups are affected most severly by the consequences of economic crises and how its costs can be distributed more fairly.

FISCAL POLICY GOVERNANCE IN THE EUROPEAN (ECONOMIC AND MONETARY) UNION

Together with the 2007/2008 financial and economic crisis, the consequences of the coronavirus crisis put the public budgets of many EU member states under enormous strain and severely restricted their fiscal leeway. In turn, this development gave rise to controversial debates about the institutional design of the EU and the eurozone. The research group analyzes the evolution of fiscal policy within the EU and beyond, providing input for the debate around EU governance reform. In addition, the group evaluates the development of the EU budget and puts forward proposals for reform.



VAT REDUCTION

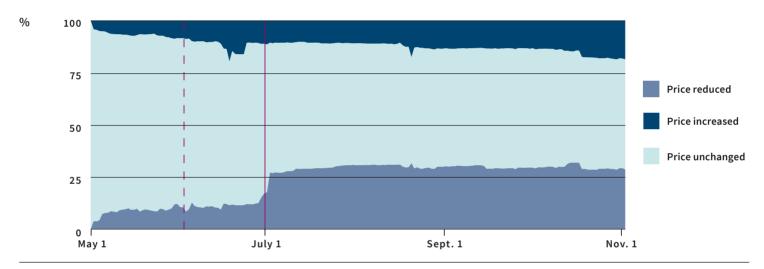
German Supermarket Shopping is Becoming Cheaper

n terms of its cost, the reduction in value-added tax (VAT) from July 1 to December 31, 2020 is the most important measure in the economic stimulus package adopted in June of that year. The standard rate was reduced from 19 percent to 16 percent and the reduced rate from 7

percent to 5 percent. The effectiveness of the measure, however, depends on crucially on whether the reduction was passed on to consumers in the form of lower prices. Studies on previous temporaryVAT reductions show that this happened only partially. The ifo Institute analyzed the price development of more than 60,000 products in the online store of German retail chain Rewe, revealing that the tax reduction led to an average price drop of 2 percent. Accordingly, German supermarkets passed almost all of the VAT reduction on to their customers. For product groups where competition is stronger, the VAT reduction caused even greater price reductions. It remains to be seen how prices will develop following the return of VAT to its normal rate on January 1, 2021.



Proportion of Products for which Prices Have Changed since May 1



Source: Calculations by the ifo Institute.

© ifo Institute

TAX HAVENS

Multinationals Deprive German Tax Authorities of EUR 1.6 Billion

The ifo Institute has researched how much tax revenue the German state misses out on every year as a result of multinational companies shifting their profits to tax havens. The study is based on data from country-by-country reports pertaining to German companies for the years 2016 and 2017. On a country-by-country level, these reports comprehensively cover the international economic activity and global profit distribution of multinational

companies that meet a certain minimum sales threshold. The results show that 82 percent of the reporting German multinationals have subsidiaries in tax havens. These subsidiaries are significantly more profitable than the branches in high-tax countries. Nevertheless, only 9 percent of the global profits generated by large German multinationals are reported in tax havens. According to estimates by the ifo Institute, around 40 percent of these reported profits are the result of tax-motivated profit shifting. Overall, profit shifting by large German multinationals reduces the German treasury's annual tax take by EUR 1.6 billion. This sum does not include losses incurred as a result of profit shifting by German multinationals whose sales are less than EUR 750 million or by subsidiaries of foreign multinationals. If these figures were factored into the calculations, the ifo Institute estimates that the tax loss would be EUR 5.7 billion a year.

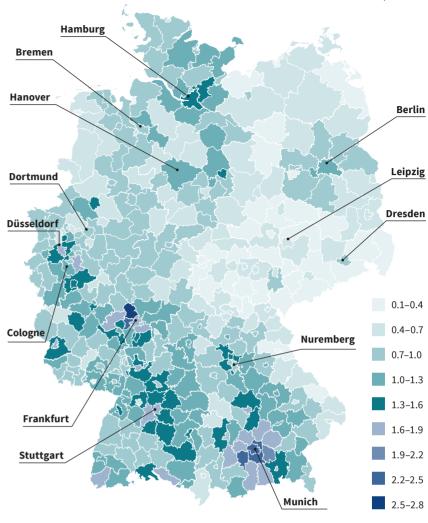
REGIONAL INEQUALITY

More Rich, Fewer Poor Richest 10 Percent Live in Southern and Western Germany

large proportion of the richest 10 percent of German households live in the south and in the large cities of western Germany. In contrast, the majority of the poorest 40 percent live in eastern German districts. Nevertheless, a convergence of the regions has been discernible over the past ten years, driven in part by the catching-up process of eastern Germany. This is the finding of an analysis by the ifo Research Group Taxation and Fiscal Policy, conducted in collaboration with the ifo Center for Macroeconomics and Surveys using data from the microcensus from 2007 and 2017. Many households in the top 10 percent of the national income distribution live in the big cities - Hamburg, Düsseldorf, Cologne, Frankfurt, Stuttgart, and Munich - and their surrounding regions. There is also a north-south divide in western Germany. As a proportion of the population, there are more rich households and fewer poor ones in the south than in the north. Eastern Germany is home to a disproportionate number of households with incomes in the lowest 40 percent of the national income distribution. Yet, the gap between regions is narrowing: in the east, the richest 10 percent make up a greater proportion of the population on average, while the poorest 40 percent make up a smaller proportion on average. Just 4.9 percent of households in eastern German districts numbered among the top 10 percent in 2007, but this figure had risen to 6.2 percent by 2017. The opposite happened to the bottom 40 percent: the share of households in eastern German districts that belonged to this group fell from 53.2 percent to 47.1 percent.



www.ifo.de/en/jb20/regionale-ungleichheit



Spatial Distribution of German Households in the Top 10 Percent Income Bracket

This diagram shows the spatial distribution of German households in the top 10 percent of the national income distribution. The darker the shade, the higher the proportion of households in the top 10 income bracket.

Source: Microcensus; calculations by the ifo Institute.

© ifo Institute

"It is highly probable that we are overestimating the regional differences because the rising cost of housing in metropolitan areas has likely increased the significance of regional prices in recent years. This is especially true for major cities, but also for eastern Germany."

Lea Immel Doctoral student in the Research Group Taxation and Fiscal Policy

Dresden Branch

How is systemic change taking place in eastern Germany – and how is Saxony's economy faring? ifo Dresden puts the spotlight on the eastern Länder.

RESEARCH FOCUS

Economy and Growth

Human Capital and Structural Change

Labor Market and Social Policy

International Division of Labor

Public Finance and Economic Development

axony's state government was instrumental in founding the ifo Institute's Dresden Branch in 1993. The goal was to establish a think tank for economic policy in Saxony that would study the specific aspects of economic development in the state and in eastern Germany, providing sound scientific recommendations for political decision-making. Like its parent institute, ifo Dresden is a meeting place for scientists, politicians, and entrepreneurs.

ECONOMY AND GROWTH

The branch monitors and forecasts economic development in Saxony and the eastern Länder. Staff prepare monthly evaluations for ifo Business Surveys, along with half-yearly economic forecasts for Saxony and the eastern Länder. Moreover, the branch reviews the effectiveness of economic and growth policies on its own initiative and in projects with third-party funding.

HUMAN CAPITAL AND STRUCTURAL CHANGE

This research area looks at growth processes in the region, seeking to ascertain the causes of the regional disparity and pinpoint possible ways of aligning living standards. One key aspect is analyzing the convergence process in eastern Germany in comparison with the western Länder.

LABOR MARKET AND SOCIAL POLICY

Research here focuses on the labor market and social policy. In particular, ifo Dresden examines the institutional framework of social and labor market policies to identify constructive courses of action. The fact that eastern Germany is particularly affected by a declining and ageing population plays a central role. Given changing demographic patterns, the future viability of social security systems also merits special attention.

PUBLIC FINANCE AND ECONOMIC DEVELOPMENT

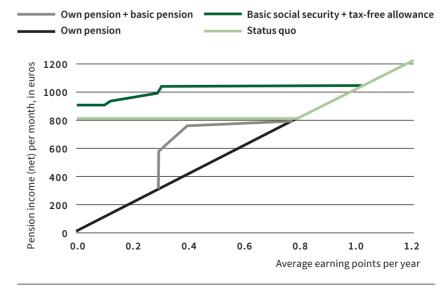
The focus here is on state and municipal finances, spatial disparities, and political economy issues. Against the backdrop of global political polarization, it is now more important than ever to understand ballot box choices and political processes.



Basic Pension and Basic Social Security after 35 Years of Contributions*

After 35 years of contributions, the basic pension does not benefit pensioners dependent on basic social security – including the tax-free allowance (the dark green line), basic oldage provision is then more than the pension supplement (the gray line).

Single persons



Source: ifo Institute presentation.

© ifo Institute



- Germany's basic pension comes into force in 2021. The model is highly controversial.
 Where do you stand?
- The basic pension was originally conceived as a way to combat poverty in old age. After all, low-wage earners, or those who have not been paying into the system for long, don't get a large pension. The basic pension was intended to compensate this. However, because of the way it is structured, many of those affected won't be able to claim the payout.

Will the basic pension help reduce poverty in old age?

No. Because pensioners with fewer than 33 contribution years aren't entitled to the basic pension. In many cases, despite being topped up with a basic pension, their retirement income is still less than basic old-age provision. The income assessment that has been adopted is no help either. Now many pensioners who are otherwise financially secure will receive a basic pension.

What solution would you prefer?

Poverty among the elderly could be eliminated in the short term if the pension fund checked who can claim basic old-age provision. Basic social benefits must be increased, for instance by offsetting other income to a lesser extent. It is imperative that we improve education and training in the medium to long term to ensure that people are entitled to higher pensions.

Prof. Joachim Ragnitz, Managing Director of the ifo Institute's Dresden Branch, in conversation with Management Assistant Evelin Süßenbach LABOR MARKET

The Statutory Minimum Wage Is Costing Jobs

S ince 2015, a statutory minimum wage has been in force throughout Germany. The regulation's impact on employment is still disputed. ifo Dresden has compiled economic evaluations in a meta-study that seeks to answer the question of what the minimum wage has achieved over the

past five years. Most ex post evaluations found negative employment effects, particularly among the marginally employed. In other words, the minimum wage has led to a slight deceleration in job growth. If you add these results to the findings on the reductions in working hours and convert the loss in the volume of work into jobs, the job losses run into hundreds of thousands. Admittedly, the losses are below that estimated by ex ante simulations prior to the introduction of the minimum wage. However, this is largely because employers often circumvent the minimum wage, as shown by the Minimum Wage Commission's report.



www.ifo.de/en/jb20/ gesetzlicher-mindest-

URBANIZATION

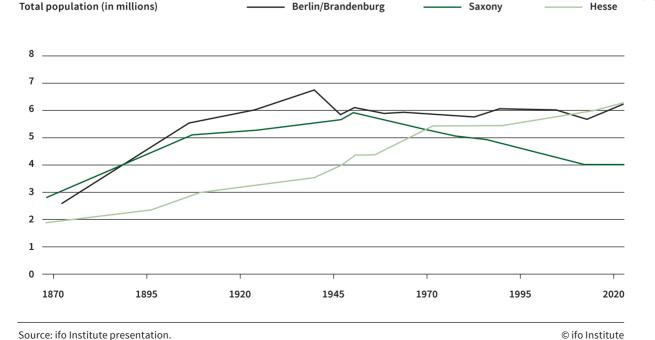
Germans Prefer City Life

A s Germany's cities become increasingly popular, rural communities are losing their cohesive power. This is the conclusion ifo Dresden reached with the help of new historical data on the urbanization of Germany in the past 150 years. Since 1870, the percentage of people choosing

to live in cities has grown steadily, with the share of urban population now at a record high. At no point in the postwar period has Germany's population been so concentrated in the cities as it is today. This trend is equally marked in eastern and western German regions. ifo has observed a declining percentage in the rural population in dynamic regions such as Hesse, in rapidly shrinking regions such as Saxony, and in stagnating regions such as the Berlin/Brandenburg area.

Since the war, Hesse has gained approximately 2 million inhabitants, while Saxony has lost roughly the same number, while the population of Berlin/Brandenburg has hardly changed since 1945.

www.ifo.de/en/jb20/ urbanisierung



PUBLIC FINANCE

ifo Dresden Investigates the Sustainability of Saxony's Budget

instruments barely relieve the strain on the budget as they have mainly been financed by third party funding to date. To avoid a decline in the provision of public services due to job cuts, it is advisable to first reduce overstaffing and take advantage of digital solutions to increase efficiency.



Researchers at the Dresden Branch were commissioned by Saxony's State Ministry of Finance to evaluate the sustainability of the state budget until 2030. They prepared three scenarios of how expenditure could develop over time. The aim was to determine Saxony's budgetary constraints during this period. One key finding was that spending is expected to increase, especially in the areas of personnel costs and pensions as well as statutory benefits. At the same time, personnel expenses offer the greatest savings potential. Cutbacks in investment expenditure or funding

10,800

public sector jobs could be phased out in Saxony by 2030 through age-related retirement

MUNICIPAL POLICY

People Are Losing Their Sense of Belonging in the Wake of Regional Reforms

ander hope to achieve cost savings and efficiency gains by merging neighboring municipalities on a large scale. This is why, time and again, numerous governments have introduced area reforms over the past decades, at both the municipal and administrative district level. ifo Dresden examined the impact of these regional reforms on people's ties to their home. They found that, on average, respondents' identification with their local area fell by almost 10

percent when districts and municipalities were merged, compared to Länder without area reforms. According to the study, this means one in four citizens loses their local identity as a result of regional reforms. The conclusion is of high political relevance, as an emotional connection to your roots is a major driver of voluntary work and social activities. Furthermore, many studies indicate a decline in turnout at local elections after area reforms.



www.ifo.de/en/jb20/ gebietsreformen

"If regional reforms undermine people's local identity, there are concerns that these reforms also have a negative impact on social activities, volunteering, and political stability."

Mona Förtsch Doctoral student at the Dresden Branch

Economics Events

Guest Program

Publications

Policy Debate

CESifo Network

With conferences, seminars, and workshops for 1,600 members from 44 countries, CESifo is one of the world's largest networks for economists.

ESifo is a global, independent research network operated by ifo and LMU Munich. It receives institutional support from the Bavarian State Ministry of Economic Affairs, Regional Development, and Energy. The network brings together researchers with professional interests in common. Events and publications foster collaboration among members and economists based in Munich. Its members are predominantly economists who attended the Faculty of Economics at LMU Munich or spent time at the ifo Institute as a guest researcher. Founded in 1999, CESifo is now one of the largest networks for economic research, with more than 1,600 economists from 44 countries (as of December 31, 2020). CESifo organizes conferences, seminars, and workshops and publishes some 700 Working Papers a year.

ECONOMICS EVENTS

Each year, CESifo organizes conferences, workshops, and seminars that offer opportunities for participants to get together and exchange ideas. Regular conferences assemble economists who are at the top of their various fields to discuss the latest economic research. Researchers from North America and Europe enrich the debate by providing the different perspectives from both sides of the Atlantic. Other events include the CESifo Summer Institute in Venice, the Norwegian-German Seminar, and the CESifo-Delphi Conference.

GUEST PROGRAM

Through the Guest Program, researchers—including junior economists – from all over world come to Munich and exchange ideas with their local counterparts. Shared ideas often lead to collaborative projects. In this way, outstanding researchers from the world's top universities establish ties with Munich as a research location. Reciprocal visits forge

useful contacts, especially for junior researchers. This was the basic idea behind the Young Ambassador Program, established in 2020, which sends junior economists from the ifo Institute as CESifo ambassadors to renowned research institutions all across the world.



www.cesifo.org/en

PUBLICATIONS

CESifo is responsible for a range of publications. The CESifo Working Paper series ranks among the most important economic publications. It broadcasts findings from the early stages of network members' research and has a phenomenal download record. The series also served as a publishing fast track for economic research into Covid-19. The first CESifo Working Paper on the coronavirus was published in March 2020. More than 80 other Working Papers that deal with Covid-19 have been published to date. In total, CESifo has published 772 Working Papers. In addition, CESifo maintains two book series with MIT Press, one of the most renowned publishers of scientific books in the US.

POLICY DEBATE

The European Economic Advisory Group (EEAG) at CESifo could be described as a council of experts. Its annual report aims to provide policymakers and the general public with a guide to the European Union's economic development. Six times a year, CESifo Forum reports from both a European and an international perspective on the economic policy debate. Together with ifo and Süddeutsche Zeitung, CESifo hosts the Munich Economic Debates series. Organized jointly by CESifo and the ifo Institute, the Munich Economic Summit takes place every two years. This event identifies the challenges facing the EU and offers up potential solutions. Guests include government representatives, international researchers, and decision-makers from business, media, and society.



www.munich-economicsummit.com



- How would you describe your experience of virtual events in 2020?
- Online conferences clearly call for adjustments on the part of speakers, but the employees on the conference team behind the scenes had to adapt as well they've become creative directors for the events. We all had to master the technology and platforms and learn, for instance, that sound quality is more important than the visuals.

What opportunities do online conferences offer, and what are the format's disadvantages?

Virtual events can be more interactive. Participants who would never ask a question at 'an in-person event will actively join in online. But there's really no substitute for the personal contact that happens on the sidelines of an in-person conference. This is a drawback for those who have yet to establish a network.

What will economics conferences for the CESifo network look like after the pandemic?

I expect there will be a mix of virtual, in-person, and hybrid formats. Virtual events can be organized more quickly and they can reach more people. They also allow us to attract keynote speakers who can't or don't want to come to Munich. But we would like to be able to meet in person more often.

Prof. Clemens Fuest,
President of the
ifo Institute and of
CESifo in conversation
with Daniel Gros,
member of the Board
and Distinguished
Fellow at the Centre
for European Policy
Studies (CEPS),
Brussels

PROGRAM AREAS

New Structures for the CESifo Areas

To enhance the synergies that the CESifo research network enjoys with the ifo Centers and with the Faculty of Economics at LMU Munich, the CESifo Areas have been restructured. The process began in 2017 with the founding of the Economics of Digitization Area, which investigates the economic effects of the transition toward an increasingly connected digital future. It also conducts research using new, unconventional datasets (big data) and new empirical methods (data science). In 2020, three new Area Directors took up their posts:







Gordon B. Dahl



Maximilian Auffhammer

Claus Thustrup Kreiner of the Center for Economic Behavior and Inequality (CEBI) at the University of Copenhagen was appointed Director of the Public Economics Area. He is bringing new focus to empirical finance research. The Area is to concentrate on investigating social inequality, a world characterized by increasing migration and aging populations, international tax competition, offshore tax evasion, and increased use of intangible capital.

Under the leadership of **Gordon B. Dahl** of the University of California, San Diego, the Labor Economics Area is focusing on the topics of employment and compensation, immigration and migration, family and gender issues, inequality and poverty, and health and crime. With this diverse portfolio, the Area accommodates state-of-the-art labor economics.

Maximilian Auffhammer of the University of California, Berkeley, was appointed Director of the Energy and Climate Economics Area. He is guiding the Area toward a greater emphasis on empirical research within this expanding field. Research topics include the design of climate policies and agreements, the promotion of renewable energy, the functioning of fossil fuel markets, and natural resource management more broadly.

The CESifo Network and its Eight Areas

BEHAVIORAL ECONOMICS

Directors: Ernst Fehr and Klaus Schmidt

University of Zurich / LMU Munich

ECONOMICS OF DIGITIZATION

Director: Stephen P. Ryan

Washington University in St. Louis

ECONOMICS OF EDUCATION

Director: Eric A. Hanushek

Stanford University

ENERGY AND CLIMATE ECONOMICS

Director: Maximilian Auffhammer

University of California, Berkeley

GLOBAL ECONOMY
Director: Peter H. Egger

ETH Zurich

LABOR ECONOMICS

Director: Gordon B. Dahl

University of California, San Diego

MACRO, MONEY, AND INTERNATIONAL FINANCE

Director: Markus K. Brunnermeier

Princeton University

PUBLIC ECONOMICS

Director: Claus Thustrup Kreiner

CEBI at the University of Copenhagen



DIGITAL TRANSFORMATION

Working With Big Data, AI, and Robotics

eptember 2020's issue of *CESifo Forum* was all about the effects of the digital transition on the workplace and the labor market. The key question in this research is whether the digital transformation will ultimately lead to more or fewer jobs. Prof. Oliver Falck and Prof. Florian Englmaier, of LMU Munich, were guest editors for that issue. Internationally renowned researchers presented their latest findings in this area – including on the question of how the Covid-19 crisis is affecting the global labor market. They discussed the challenges and the opportunities that digital transformation presents to the ways companies are organized, to the labor markets, and to the welfare state. In particular, the contributing authors presented insights into methods of measuring activities in the gig economy. They examined the benefits of working from home in Germany and forecast how this will develop in the future – even after the pandem-





Prof. Florian Englmaier (left), LMU Munich, and Prof. Oliver Falck, CESifo Program Director

ic. They also showed how barriers such as distance, national borders, and different languages remain in place even for online collaboration. And they described the use of gig work within the context of local services and transportation and discussed the effects of automation and technological change on workers and economies. In November 2019, the authors presented their initial findings at the CESifo-Delphi Conference on The Effects of the Digital Transformation on the Workplace and the Labor Market. This event also addressed the digital transformation triggered by advances in artificial intelligence, robotics, and the availability of big data.

www.cesifo.org/en/jb20/diqital-transformation

VIRTUAL EVENTS

Online Conferences Attract More Participants

he coronavirus crisis has also presented CESifo with its share of challenges. First, all conferences scheduled to take place by the end of July had to be canceled. Staff immediately started collaborating with external media consultants to find reliable tools for digital events. Their goal was to identify compatible, user-friendly platforms that would ensure no major drop in quality and satisfy all data protection requirements. Their efforts paid off: the second half of the year provided enough scope to hold all canceled events as well as those already scheduled for that period. The first virtual conference was the annual CESifo Area Conference on Macro, Money, and International Finance in July 2020. CESifo teamed up with external media consultants and an external film team to harness suitable platforms for hybrid elements, including Hopin, Zoom, Slido, and Wonder. Holding the conference online meant that far more people could participate, especially researchers from abroad.



Deirdre Weber, CESifo Conference Manager

More than

1,800

people watched the 2020 Richard Musgrave Lecture online on December 15. Claus Thustrup Kreiner, Professor of Economics and Director of the Center for Economic Behavior and Inequality at the University of Copenhagen, devoted his lecture to "Behavioral Heterogeneity, Inequality, and Public Policy"

BUSINESS SURVEYS

Finger on the Pulse of the Economy

Since 1949, the ifo Institute has been conducting monthly Business Surveys in which it asks companies from all over Germany about their current business situation and their plans and expectations for the following three to six months. The surveys often include special questions on current economic policy issues. Analyses of the survey results provide information on topics and scenarios that official statistics do not cover. They furnish a snapshot of the economic situation and highlight turning points in economic development.

The ifo Business Climate Germany is calculated using the survey results pertaining to companies' assessments of their current business situation and their business expectations for the next six months. This gives an important early indication as to how the German economy is developing.

An overview of the Institute's surveys as well as the resulting economic indicators and their use for forecasting macroeconomic indicators is provided in the ifo Manual of Business Surveys.



www.ifo.de/en/
ifo-business-climate

THE BUSINESS SURVEYS IN FIGURES

12 x

a year, the ifo Institute surveys companies in Germany.

approx. 9,000

statements are evaluated.



www.ifo.de/en/ survey-results 4

economic sectors are covered: manufacturing, construction, trade, and the service sector.

600

is the number of individual markets for which detailed information is prepared.

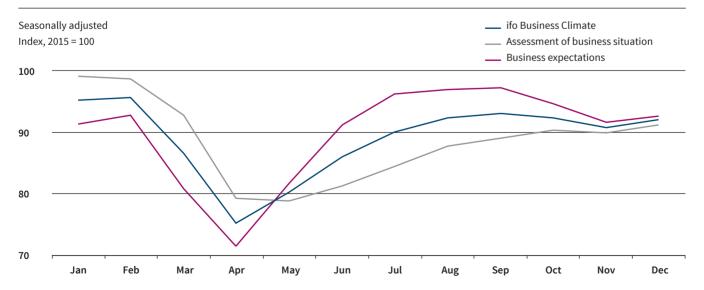
>50

countries use the ifo Institute's survey methods, which bears testimony to the ifo Institute's prominent position in the field of business surveys.

4

www.ifo.de/en/jb20/ handbuchkonjunkturumfragen

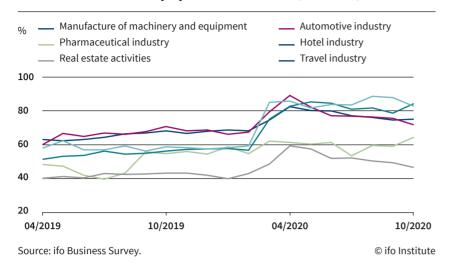
ifo Business Climate*, Germany's Leading Early Indicator of Economic Development



^{*} Manufacturing, service sector, trade, and construction. Source: ifo Business Survey, December 2020.

© ifo Institute

ifo Business Uncertainty by Economic Sector (Selection)





"ifo economic indicators are available faster than official statistics. Plus, our

surveys of companies' expectations and plans are a valuable addition to the quantitative information."

Dr. Klaus Wohlrabe Head of Surveys at the ifo Institute

Surveys Determine Economic Uncertainty

Uncertainty can have a negative impact on economic activity, but is it possible to determine economic uncertainty? The ifo Institute has developed a new indicator called "ifo Business Uncertainty" for establishing uncertainty as perceived by market participants. As part of the monthly ifo Business Surveys, participants are asked to rate, on a scale of zero to one hundred, how difficult or easy it is for them to predict the future course of their company's business development. The outcome is weighted by the number of answers. Initial results show that uncertainty among companies increased significantly in the early months of the coronavirus crisis. It has now fallen again somewhat, but remains elevated.

Analysis at the sector level shows that uncertainty has increased most significantly in the sectors that the coronavirus crisis has hit the hardest, such as the accommodation and travel industry. By contrast, the pharmaceutical industry is one of the few sectors in which uncertainty hardly increased at all in March and April. This new measure of uncertainty provides input for the assessment of current economic developments and is regularly documented with the ifo Business Climate Index.



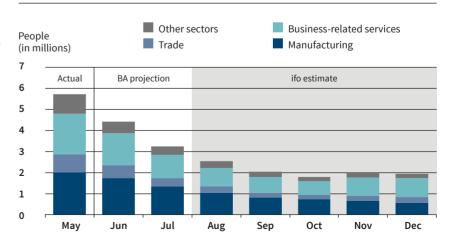
www.ifo.de/en/jb20/wirtschaftliche-unsicherheit

Monthly Nowcast Estimates Short-Time Work in Germany

To identify relevant data and make it available before the Federal Employment Agency publishes its information, ifo has developed a method for forecasting short-time work based on the monthly ifo Business Survey. Companies are asked about the proportion of their workforce on short-time work and the reduction in working hours. According to ifo estimates, short-time work was down slightly in December: 1.95 million people were on short-time work at the end of 2020, compared to 1.998 million in November. This nowcast is especially useful for estimating costs and the overall loss of working hours as a result of short-time work in the coronavirus crisis.



ifo Institute Estimates of Short-Time Work



Source: German Federal Employment Agency (BA; as at December 1, 2020); estimates by the ifo Institute

© ifo Institute

ECONOMIC FORECASTS

Relevant Since Day One

Since the day when the ifo Institute was established in 1949, it has been monitoring current economic developments and providing regular economic forecasts on the basis of expert knowledge in conjunction with statistical models. Such models are used to formalize past relationships, such as those between economic indicators and economic growth, and to extrapolate them into the future. Economic forecasters use several models for a large number of macroeconomic parameters, which means they have to combine the results with their expert knowledge and consolidate them into a forecast that is consistent in terms of its content and how it is calculated. The economic forecasts are relevant for policymakers, as they form the basis for many political decisions, including budget plans. Companies, too, use economic forecasts to support their production planning and investment decisions.



economic-forecast

Informed Analysis of the Economy

The ifo Economic Forecasts focus on predicting Germany's overall economic development over a period of up to two years. Due to the German economy's strong interdependence with the world economy and especially the European economy, ifo also forecasts economic development in the European Union and other key countries. The basis for such projections is an informed analysis of the economic situation. For its forecasts, the ifo Institute uses a variety of cutting-edge methods and takes the findings of its surveys into account.

EXTENSIVE METHODOLOGICAL EXPERTISE

An overview of the forecasting methodology and special characteristics of the ifo business cycle analyses and forecasts as well as of macroeconomic and monetary analyses is provided in the ifo Forschungsberichte (research reports):



- → ifo Business Surveys and Business Cycle Analyses, Volume II, ifo Forschungsbericht Vol. 72, 2016
- → ifo Manual of Business Surveys. ifo Beiträge zur Wirtschafsforschung Bd. 88, 2020



Economic Reporting

Four times a year, the ifo Institute publishes the ifo Economic Forecast for Germany, and publishes the ifo Economic Forecast for Eastern Germany and Saxony twice a year. Twice a month, ifoCAST issues forecasts of German gross domestic profit for the current and upcoming quarter using a statistical model based on historical correlations. For more details on this recently developed forecasting model, see the chapter on the ifo Center for Macroeconomics and Surveys (p. 67).

OTHER FORECASTS INVOLVING THE IFO INSTITUTE

Joint Economic Forecast

The Joint Economic Forecast analyzes and projects the economic situation in Germany. Forecasts are issued twice a year: in the spring and fall. Findings from the Joint Economic Forecast inform German government projections. The Joint Economic Forecast is a collaborative research project among several economic institutes.

Eurozone Economic Outlook

The Eurozone Economic Outlook is a joint project between the ifo Institute, Italy's Istat, and the KOF Swiss Economic Institute. Their joint forecasts focus on real gross domestic product, household consumption, gross fixed capital formation, industrial manufacturing, and the inflation rate in the euro area for the current quarter and the two following.

How the Pandemic Affects ifo's Estimates

Driven by the crisis, public interest in solid forecast figures was especially high in 2020. For policymakers, too, access to reliable data on economic development was vital. At the same time, however, forecasting became more difficult than ever before for several reasons:

- The coronavirus pandemic plunged the global economy into a crisis unlike anything seen in the past. Economists had no empirical data in relation to the economic shutdown to work with.
- 2 There was huge uncertainty surrounding how the pandemic would develop. Nobody knew how long the economic shutdown would last or what secondary effects the government measures would trigger.

3 Economic sectors that played a somewhat subordinate role in the economy in previous crises suddenly found themselves at the center of events and were pivotal to economic development, such as the hospitality industry. This sector generates just 2 percent of gross domestic product and thus accounts for only a small part of the German economy. But when its sales plummet from 100 to 10 percent, the macroeconomic effects are tangible.



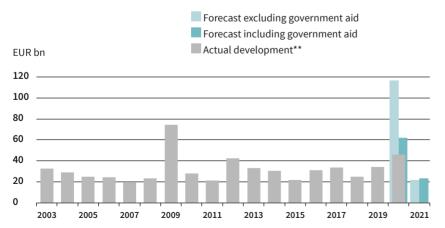
In the fall of 2020, infection rates in Germany began to rise again. Using the findings of its Business Surveys, the ifo Institute assessed the economic impact that the second wave of the coronavirus would have on individual sectors of the economy.

The results indicated that economic output was likely to drop only in consumer-related service sectors, where social contact is a key part of the business model. Accordingly, the macroeconomic impact was expected to be significantly lower than during the first wave in spring 2020.

"Although government aid and suspending the obligation to file don't address the true causes of insolvency, they should noticeably flatten the impending wave of insolvencies and accelerate the post-lockdown economic recovery."

Prof. Timo Wollmershäuser Head of Business Cycle Analysis and Forecasts

Estimated Claims from Corporate Insolvencies*



* Statistics on insolvency proceedings filed, total estimated claims (excluding consumers). ** For 2020, data available from January to October.

Source: German Federal Statistical Office; estimate and forecast by the ifo Institute. © ifo Institute

Still No Wave of Insolvencies in Sight

Insolvency rates usually increase in economic crises. But in 2020, the number of companies facing insolvency – with the exception of the filing by Wirecard AG – was unremarkable or actually declined. Using a time series model, the ifo Institute examined the insolvency rates that would have been expected as a result of the coronavirus crisis. According to the model estimates, the slump in corporate profits in 2020 should have resulted in outstanding claims amounting to almost EUR 120 billion. However, emergency aid and bridging aid from the German government and Länder cut the expected level of defaults in half to about EUR 60 billion. And due to the suspending of the obligation to file for insolvency, these have not yet come due.

Crisis! What Crisis?

he year 2020 posed a variety of challenges not only for the ifo Institute's economists, but also for its infrastructure areas - i.e., services and management. During the crisis, the Institute has played to its strengths: it quickly turned its attention to the current situation, made efficient and creative use of available sources and resources, and saw excellent interaction between the Institute's scientific staff and its management and services. This is what made it possible in the first place to produce the wealth of publications, analyses, and recommendations on the economic effects of the crisis, policy advice, and articles in the media. Three of the four supporting departments had just received new leadership in 2019: IT, Communications, and Finances and Centralized Services. The new managers barely had time to settle in before tackling an agenda that included crisis management, digitalization of central infrastructural processes, the topics of data protection and data security, as well as junior economist development and further training. All in all, the coronavirus crisis hampered efforts in some places, but at the same time injected momentum into initiatives such as digitalization.



Links to the Department Websites

www.ifo.de/en/ department-it www.ifo.de/en/ department-pur www.ifo.de/en/ department-fi www.ifo.de/en/ department-kom



Health first: From masks with the Institute logo to hand sanitizer – at the ifo Institute, hygiene regulations are strictly observed and supplemented with our own standards.





Working from Home

The ifo Institute's IT department played a key role in maintaining full academic operations despite all the restrictions. As a result, ifo was able to inform the public debate with an outpouring of publications, virtual events, and media releases on the coronavirus crisis. This output was disproportionately high, especially from March to June.

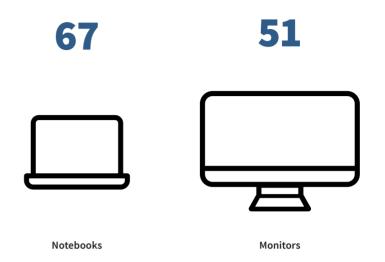
Creating the conditions for this was no small feat: within just a few weeks, almost all employees had to be equipped for working efficiently from home and provided with technical support there. Among other things, the office servers had to be upgraded at short notice so that they were reliably available and capable of high performance even with the increased load. IT staff have continued to professionalize their service desk, an initiative that started in 2019. It was important to be able to handle technical issues remotely as far as possible, so that the IT team itself could also work with little physical contact and largely from home. Maintenance windows were moved to times outside of main operations and many processes were automated.

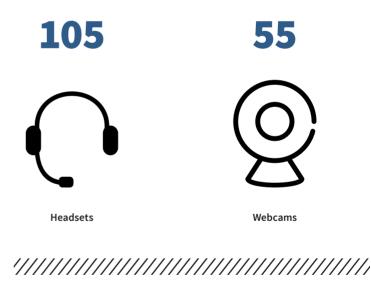
In the employee survey, respondents said they valued the IT department's work: they were especially pleased with the opportunities for virtual collaboration and with the newly established technical setup for working from home.

Implementing Protective Measures

ifo's Centralized Services staff had an important task in 2020: make the Institute a place of work where everyone enjoys the best possible protection against the coronavirus. This called for a lot of flexibility – the employees implemented the government's constantly changing requirements and developed their own standards.

These Purchases Enabled Employees to Work from Home





How ifo Protects Its Employees from Infection



New occupancy rules for all meeting rooms



Sanitizer dispensers at all entrances



Signage with distancing regulations and routes in all buildings

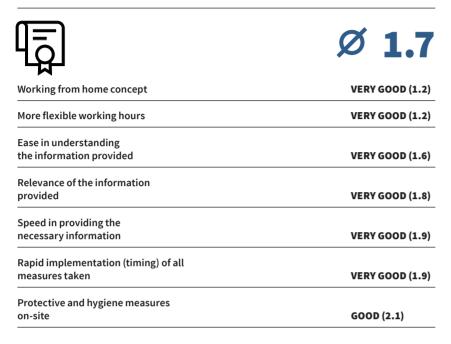


Cleaning service extended to include disinfection of offices twice a week (especially desks)



Staffing schedules for functions requiring a physical presence such as print shop, mailroom, reception

Very Good! Overall Employee Assessment of Working Conditions During the Covid-19 Period from March to August



Collaboration in Times of Covid-19

Since the beginning of the coronavirus crisis, the Human Resources and Law department has been the central point of contact for information on the new working conditions. The department saw to it that all amendments to the government's contact restrictions and rules of conduct were put into practice – from travel restrictions and temporary rules for working from home to mandatory masks at the Institute. As soon as any new rules were announced, the latest updates were sent to employees under the title CoronaNews and posted on the intranet.

In the context of the pandemic, the staff of "Human Resources and Law" also dealt with how to organize work at the ifo Institute in the future: together with the Executive Board and the Works Council, the department extensively surveyed employees on the topic of collaboration in times of Covid-19 and lessons for the future. Feedback on management during the pandemic has been very positive. Based on these findings, modern working models for the post-coronavirus period are now being developed in cooperation with the heads of the research and service areas. These models are intended to take into account the changed environment and lessons learned during the crisis.

Events Still Take Place - Online

Virtual and hybrid instead of on-site: from the CESifo scientific workshop to the ifo Annual Meeting, all events had to be reworked as of March 2020. In record time, employees transformed themselves into producers, experts in conference technology, coaches for digital formats, and project managers for complex live broadcasts. The ifo Institute and CESifo invested in skills and infrastructure for streaming, studio technology, and virtual conference software.

The Munich Economic Debates were established as a new series of events where high-ranking politicians and decision-makers from business and politics discuss with the ifo audience an umbrella topic that changes every six months. After two physical events, these also were immediately switched to a virtual format.

For the ifo Annual Meeting, the video and event experts converted the Ludwig Erhard Room into a television studio: moderator Cornelia Geißler, ifo President Clemens Fuest, Siemens CEO Joe Kaeser, and DELO Managing Partner Sabine Herold discussed the issue together in Munich, with Elga Bartsch from the Blackrock Institute joining in from London. More than 7,000 viewers watched the event on their screens via the ifo website, Twitter, or the embedded livestream on media websites.

Even the Institute's internal events had to be completely reinvented because of contact restrictions: instead of a summer party, the communications team set up the ifo Summertime Bar with staggered slots. Our Christmas party turned into a Zoom meeting (accompanied by a physical package of goodies) that featured music, stories, a slideshow, and opportunities to chat in various virtual "rooms."

New Lecture Series: Munich Economic Debates – The Topics in 2020



The New World (Dis)Order - How Business and Politics Can Build a New Normal after the Pandemic

Communicating through the Pandemic: What ifo Contributed to the Public Debate

250

13

300

2,000









press releases
of which over 160 on coronavirus topics

press conferences

interviews

articles in current media

Press Conferences Redirected to New Channels

In the months from March to June 2020, the ifo press team had more to cope with than ever before. In response, the team was strengthened in the course of reorganizing the communications department. From mid-March onward, the traditional press conferences in Munich and Berlin were also replaced by hybrid events, such as the Joint Economic Forecast with in-house experts on-site and external interviewees connected via video link.

As a special service, the team offered each event as a conference and as a simultaneous livestream on the ifo website and on Twitter (Periscope). Journalists could submit feedback and questions via e-mail, chat, or live in the virtual conference. This made it possible to maintain interaction with journalists regardless of their preferred platform and location.

Digitalization Advancing at Full Speed

Digitalization had already been declared a strategic topic for the ifo Institute at the beginning of the year. The crisis added urgency and momentum to initiatives – in academic areas, but also in Human Resources and Law, Communications, Finances and Centralized Services, and IT Ser-



Angela Wagner, Head of Human Resources and Law

vices. In 2020, the Human Resources and Law department at the ifo Institute took a decisive step forward in the digitalization of its activities. Its aim was to bring together all the information for ifo employees on a single platform.

After a thorough selection process, extensive preparatory work, and a pilot phase, the team migrated payroll to the new platform in the period from fall 2019 to February 2020. In March 2020, the employee portal also went live, and the previous time recording system moved to the new platform at the turn of 2021. All employees can now process their personal data, paychecks, certificates, vacation requests, and time bookings in one system and carry out the digital approval processes in coordination with the department heads. There are plans to add further features to this platform in the coming years: tools for further training and talent management as well as the migration of the existing digital business-travel system to the unified platform.

How Recruiting Has Developed at the ifo Institute

36



jobs were offered by the ifo Institute to scientists and non-scientists, roughly the same number as the previous year.





applications were received by the ifo HR department. This was about twice as many as the previous year.

63



interviews were conducted in 2020 at the ifo Institute, of which 35 were virtual – 70% more interviews than in 2019.



The **Careers website** has been revised for content and made more visually appealing and accessible.



Vacancy announcements were given a **new design** featuring a recruiting tool, integrated into the website, that maps the complete process from application to hiring.



Apprenticeships are **advertised** on the Azubio platform.
The section on the Institute has now been adapted to the target group.

More Development for Junior Economists, FurtherEducation, and Training

Graduate Program

48

students participated in the ifo Doctoral Program in 2020, which is integrated into the graduate program at the Munich Graduate School of Economics (MGSE), or at the Central-German Doctoral Program Economics CGDE at TU Dresden.

Junior Development Program

The ifo Institute offers a postdoctoral program together with Ludwig-Maximilians-Universität (LMU Munich). This program serves to support junior economists in, say, planning their own careers, developing leadership skills, and communicating their research findings to the public.

Training

The ifo Institute regularly trains an apprentice as anoffice management assistant, who rotates through both the research areas and the infrastructure departments.

Focus on Online Communication

Back in 2019, the comprehensive relaunch of the ifo website had already seen the Communications department place digital communications at the center of its activities. Since 2020, the website has undergone constant further development. The team has built up new skills, for example in the area of search engine optimization (SEO), and revised the website with an eye to visibility in search engines and to performance. A special coronavirus section on the ifo homepage collates all the Institute's publications on Covid-19 and illustrates the most important aspects with graphs. In addition, the Industry Atlas has been available since mid-2020. This outlines the impact of Covid-19 on more than 25 individual industries and provides vivid visualizations. The reports are updated regularly.

The Institute further expanded its media presence in 2020. To accurately and promptly track the extent of the media response to the steep increase in the number of ifo publications, the Institute's press department has revised the daily media review that it provides every workday for all staff. A new monitoring tool makes it easier to track radio, TV, and social media hits in addition to print and online media mentions, and provide analysis on individual mailings. This data will be used to develop a monthly dashboard for managing communications.

Selected Highlights of Digital Communication

19,000

is how many times the coronavirus topic was called up on the ifo website in 2020. This makes it the most viewed topic on the website.

15,500

is the number of views recorded for a joint study by the ifo Institute and the Helmholtz Centre for Infection Research (HZI) regarding the common interest of health and the economy, published in May.

4,700

accounts follow Clemens Fuest on LinkedIn, where he has been an influencer posting articles and exclusive videos on the ifo Index since 2020.

19,800

people follow the ifo Twitter account.

Internships

62

interns were given the opportunity in 2020 to gain insight into the work of the ifo Institute. Many of them later join the ifo Institute as doctoral students. Last year also marked the first time that a student from the technical high school had a chance to experience HR work at the Institute.

PR traineeship

For the first time, the ifo Institute is offering a PR traineeship: over the course of two years, candidates will rotate through the five areas of ifo Communications (digital communications, press, events, visual communication, publications) with a chance to actively participate.

Further training

Despite the contact restrictions and the resulting need to convert in-person events to online ones, training still took place, usually in the form of webinars. Offerings included training for IT tools, PC applications, or media, as well as opportunities for personal development and a day on health topics. There were also HR and Law options on the intranet, including on the Leibniz Association.

Reorganized Publications

We made our publications more digital and agile, too:

- → To continue responding quickly to the latest developments, in 2020 ifo began offering a new publication format, ifo Schnelldienst digital, in which one article is posted in advance on the ifo website as a PDF. Some of these articles will then be included in the regular issue of ifo Schnelldienst.
- → Since 2020, *ifo Schnelldienst*, the Institute's German-language publication, has been published monthly previously it was published twice a month. In addition, the ifo Economic Forecasts are published in two special issues. Each issue has a main topic that is examined from several perspectives one of which is always the ifo Institute's in short articles. The authors provide regular reports on research and survey findings as well as developments in selected sectors.



Dr. Cornelia Geißler, Head of Communications

→ The English-language publications *ifo DICE Report* and *CESifo Forum* have been merged into one journal, which is published six times a year. The focus on institutional comparisons familiar from the former *DICE Report* is now a section in the new *CESifo Forum*. To better exploit the synergies between *CESifo Forum* and *ifo Schnelldienst*, topics and scheduling are coordinated at regular editorial meetings.



www.ifo.de/en/publications

Payment Processes Now Digital

The department "Finances and Centralized Services" also drove the digitalization of key processes in 2020. Due to the contact restrictions, fewer ifo Institute staff came in to the office. It was necessary to ensure that payment processes ran smoothly in spite of this, so that all invoices could be paid on time.

To this end, the department "Finances and Centralized Services" digitalized the handling and processing of invoices. All suppliers had to be informed that in the future, they would have to submit all invoices digitally via a central address. From there, the department distributes the invoices to ifo's various divisions for approval. A standard procedure was introduced so that all authorized signatories can now approve and sign invoices digitally while working from home.

The digitalization project in the department also includes the introduction of e-billing for working with public authorities. This is an important project for the Institute, given that important partners such as federal and state authorities are gradually switching to this type of invoicing. Germany's federal agencies stopped accepting other formats in November 2020. With the support of an external service provider, the department established the technical setup to be able to exchange the required file formats with



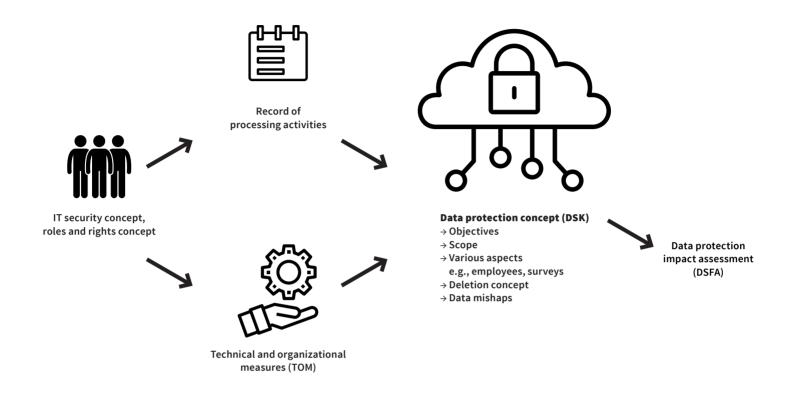
Thomas Walter, Head of Finances and Centralized Services

authorities for invoicing purposes. In November, the system went live for accounts receivable and accounts payable. The plan is to integrate this system with the resource planning system in 2021, and also introduce a full accounting workflow with our accounting software.

85%

of invoices is the proportion that the ifo Institute processes digitally. We intend to further increase this share in the future.

What Is Included in a Data Protection Concept?



Playing It Safe with Data Protection and IT Services

The acceleration of digitalization has brought new challenges, for example in the area of data protection and data security. For this reason, the department "Information Technology", data protection team, and the department "Human Resources and Law" jointly created a new and comprehensive data protection concept for the ifo Institute. This project comprised several initiatives. One was a data protection manual for ifo employees to help them better navigate this complex subject area. Another was the ifo website, which, including the cookie policies, has been brought into line with data protection requirements. Moreover, the team introduced mandatory webinars on data protection, IT security, and occupational safety at work. A core element of the project was updating the procedure directory for the entire Institute – for example, ensuring it contained data deletion concepts. In addition, the team



Kumar Subramani, Head of Information Technology

had to select platforms and tools that comply with data protection regulations, then roll them out for the purposes of internal communication and cooperation. At the same time, IT supported the shift of ifo, CESifo, and EconPol events into the virtual space by providing advice and purchasing licenses for suitable platforms and tools, such as Zoom and Microsoft Teams.

Research Achievements, Committees, Staff 2020

RESEARCH AND TEACHING

Projects

Publications

Presentations and Events

Honors and Awards

Doctorates and Appointments

Courses

Guest Stays

Visiting Researchers

COMMITTEES AND STAFF

ORGANIZATIONAL CHART

CESIFO ACTIVITIES



A comprehensive overview of the ifo Institute's research achievements, committees, and staff as well as CESifo's activities in 2020 can be found at:

www.ifo.de/sites/default/files/2021-06/JB_2020_b.pdf

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