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July/August 2022



Research Findings

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Q&A

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COVID-19 in Sub-Saharan Africa: Profound and Lasting Negative Effects on Education

The pandemic has struck sub-Saharan Africa with particular intensity. In 2020 – the first year of the pandemic – GDP per capita in the region fell an unprecedented 4.5 per cent. But while agriculture, industry and trade are slowly recovering, lost teaching days will exert an acute impact over the long term.

A new ZEW study quantifies the impact of COVID-19 on education in eight sub-Saharan countries, i.e. Ethiopia, Ghana, Kenya, Liberia, Malawi, Nigeria, South Africa, and Tanzania. Using pre-pandemic nationally representative household surveys that include information on educational attainment of individuals and their parents' educational background as well as data on the duration of school closures and government mitigation policies, the study identifies a large discrepancy in terms of lost teaching

days: Young people from educationally disadvantaged households lost between 31 and 118 days of instruction in 2020 and 2021. By contrast, amongst young people whose parents have at least a primary school diploma, comparatively few instruction days were lost, ranging from 10 to 33.

Significant decline in graduation rates expected

The team of researchers from ZEW Mannheim and Tulane University in New Orleans, then simulated the effects of school closures and education policies on three indicators: secondary school completion rates; social mobility; and projected long-term income inequality. The study finds that the pandemic is likely to have a significant and persistent negative effect on edu-

cational inequality and its intergenerational persistence in sub-Saharan Africa. According to the findings, secondary school completion rates could drop by an average of 12 per cent due to COVID-19. According to the study, young people whose parents do not have a school-leaving certificate have been hit particularly hard; amongst this group, a 16 per cent decline in the completion rate is anticipated. Overall, men are more strongly affected by these educational losses than women. However, women's educational attainment is also affected by the fact that in some of the countries studied, teenagers became pregnant more frequently during the pandemic.

Another effect of the pandemic is declining social mobility – that is, the chance that children from educationally disadvantaged households will achieve better educational attainment than their parents. On average, intergenerational mobility is expected to fall by ten per cent.

The researchers expect the income differences between children from households with divergent levels of educational attainment to grow even wider in future. This is in part because

online education cannot curb the negative effects of the pandemic on educational inequality, for access to the internet is too closely tied to socio-economic status in the examined countries.

Internet access cannot make up for structural problems

However, the study also finds that even universal access to the internet would not have been able to close the pandemic-related gap. Overall, an unrealistically large and costly effort on the part of countries would have been required to fully mitigate the impact of school closures through distance education. These findings highlight the importance of effective and extensive interventions to catch up on pandemic-related learning deficits and to prevent the prospected unprecedented decrease in human capital that could potentially offset years of favourable development in creating opportunities.

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Technological Change Promoted Equal Opportunities in the Labour Market

With increasing digitalisation in Germany, the importance of one's social background for professional success has diminished. In the 1990s, the increasing computerisation of the work environment made it easier for employees whose parents did not have a German high school diploma ("Abitur") to access jobs that were subject to major technological change. Moreover, their wages in these occupations converged with those of workers whose parents had a high school diploma, as a recent study by ZEW shows.

The reason for these developments is that technological change has altered professional requirements. As a result, the knowledge and networks of parents, which can be advantageous in career advancement, lose importance. In turn, the focus is shifting to the individual skills and qualifications of each worker.

In the 1990s, the computerisation of workplaces in Germany advanced rapidly. Whereas in 1992 only 16 per cent of all employees used mainly computer-based devices for their work, in 1999 this figure had more than doubled to 38 per cent. This had a positive effect on equal opportunities: In occupations where employees increasingly use computer-based devices in their work, the share of workers from educationally disadvantaged families rose significantly. This is especially true for higher qualified workers who themselves have a high school diploma: If computerisation in an occupation increases by ten percentage points – that is, ten percentage points more employees in that occupation use mainly computer-based devices in their work –

the proportion of those among the higher-skilled employees whose parents do not have a high school diploma increases by about four percentage points.

Wage disadvantages due to parental background diminished steadily from the mid-90s onwards

But the educational background of the parents not only influenced job opportunities, but also wages: Until the early 1990s, the wages of employees from educationally disadvantaged families were between five and ten per cent lower compared to employees whose parents had a high school diploma, depending on their own level of education. The ZEW study shows that this wage disadvantage steadily decreased from the mid-1990s onwards, driven by occupations that underwent strong technological change. For people with a high school diploma, the wage disadvantage even disappeared completely from the early 2000s onwards. It is remarkable that the wage disadvantage did not increase again in the following years, although the use of computers has become standard practice in many professions, the researchers find.

The study can be downloaded at: www.zew.de/PU83357-1

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End of Net Asset Purchases to Be Welcomed

The ECB discontinued its net asset purchase programmes at the end of June. A new study by ZEW Mannheim with the support of the Brigitte Strube Stiftung has examined how the bond purchases have been allocated across the various euro countries.

The results show that since the beginning of the pandemic, the share of government bond purchases, especially from Cyprus and Italy, under its PSPP and PEPP programmes, has significantly exceeded the ECB’s capital key. The public sector purchase programme (PSPP) has already been active since 2015, while the pandemic emergency purchase programme (PEPP) was launched in March 2020 to cushion the effects of the COVID-19 crisis. In both programmes combined, the Eurosystem’s purchases of Italian government bonds since March 2020 exceeded the country’s actual share of the ECB capital key by 7.5 per cent. In total, the Eurosystem’s cumulated net purchases of public sector securities reached 4,340 billion euros by the end of March 2022. The purchase shares have fluctuated greatly over time. After Italy and Spain were initially strongly overweighted in spring 2020, their shares had fallen back to a normal level by

autumn 2021. Since then, however, the overweighting of these two countries has increased significantly again.

ECB owns almost one third of euro government debt

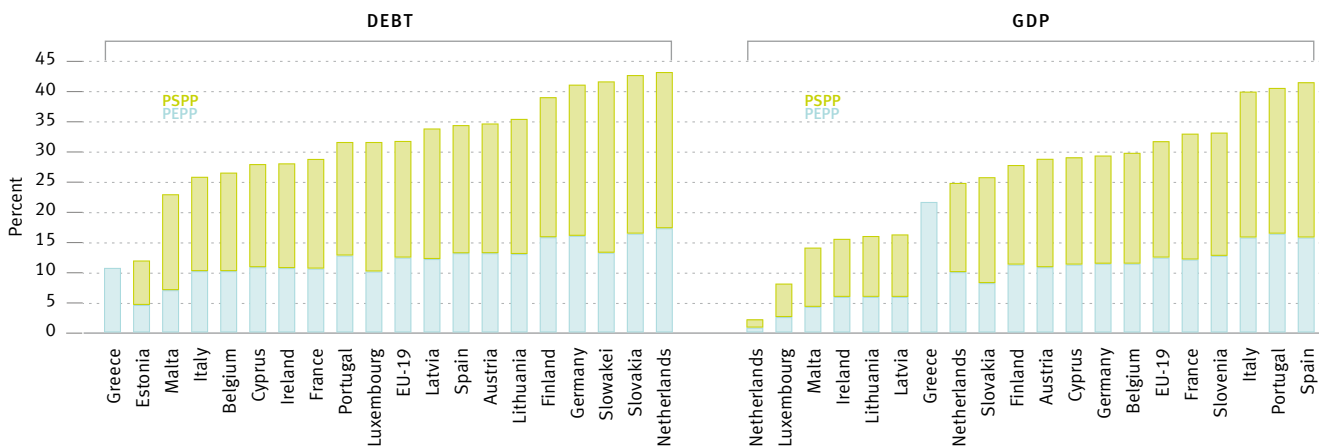
Overall, the ZEW calculations prove that the ECB has tried to oppose the spread increase on Southern European bonds. According to the authors of the study, in future, the ECB may indeed continue to reinvest principal payments from maturing bonds for repurchasing those of distressed states. But it is uncertain whether this will be enough to calm the markets.

The researchers welcome the withdrawal from bond purchases, since it is a good thing that net purchases have come to an end now, before holdings exceed the critical threshold of 33 per cent of euro government debt. This is an important signal that the ECB does not want to become the ultimate financier of European budgets.

The study can be downloaded at: www.zew.de/PU83410-1

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PEPP AND PSPP STOCKS (MARCH 2022) AS A SHARE OF GOVERNMENT DEBT AND GDP 2021



Data on debt and GDP are taken from the AMECO database by the European Commission. The underlying GDP variable is defined as GDP at current prices. The variable debt is defined as general government gross debt. All data on PSPP and PEPP purchases are taken from the ECB website. Source: ZEW

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German Firms Take Precautions Against Increasing Threat of Cyberattacks

The war in Ukraine poses major challenges for German firms. High energy prices, as well as restricted access to intermediate inputs and products impacts business activities, especially in the manufacturing industry. Larger firms in the information economy and manufacturing industry are preparing for the increasing threat of cyberattacks and have taken precautionary measures.

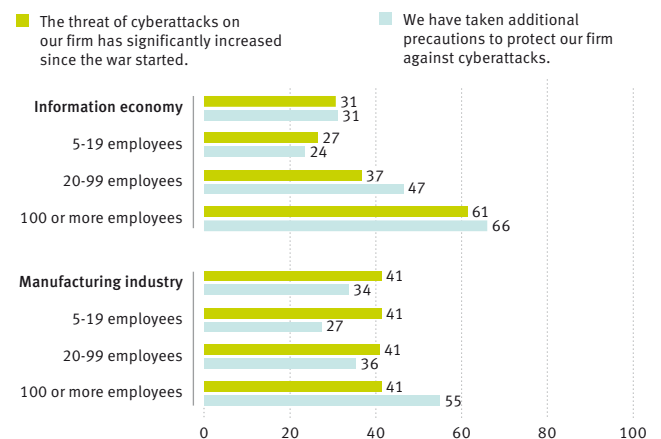
These are the findings of a representative survey conducted by ZEW Mannheim between 17 March and 14 April 2022 among approximately 700 firms in the manufacturing industry and information economy, including the ICT sector, media service providers and knowledge-intensive service providers.

Almost one in three firms in the information economy confirms that the threat of cyberattacks has significantly increased since the war started. Accordingly, the same number of firms has taken additional precautionary measures to protect themselves against these attacks. Whether firms expect an increasing risk of cyberattacks and how often they take additional precautionary measures also depends on their size, the ZEW researchers find. The larger the firm, the higher the expected risk of cyberattacks. Among the smaller firms with 5 to 19 employees, about one in four expects an increase in the threat of cyberattacks and therefore takes additional precautionary measures. By comparison, at least two out of three large firms with 100 or more employees agree with the statement that the threat of cyberattacks on their firm has increased significantly since the start of the war or that they have taken additional precautions since then.

Many suffer from high energy prices and supply chain disruptions

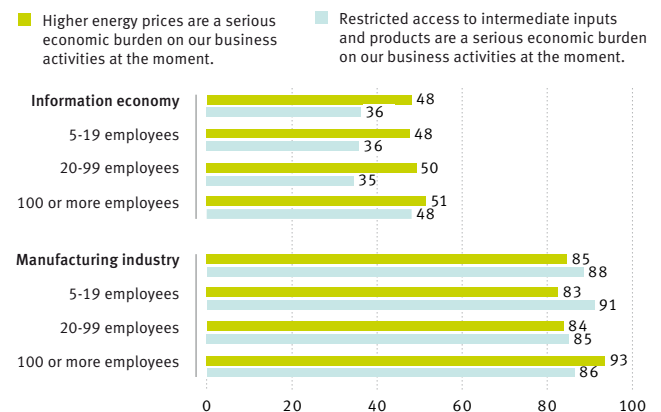
Around 41 per cent of firms in the manufacturing industry report a higher perceived risk of cyberattacks since the beginning of the war. So far, one in three firms in the manufacturing industry has taken additional precautions to protect themselves against cyberattacks. Again, the likelihood of taking additional precautionary measures depends on the firm size: Among small-

THREAT OF CYBERATTACKS



31 per cent of firms in the information economy agree with the statement that the threat of cyberattacks on their firm has significantly increased since the war started.
Source: ZEW Business Survey in the Information Economy, 2022. Survey period: 17 March – 14 April 2022.

FIRMS IMPACTED BY HIGHER ENERGY PRICES AND SUPPLY CHAIN BOTTLENECKS



48 per cent of firms in the information economy agree with the statement that higher energy prices are a serious burden on their business activities at the moment.
Source: ZEW Business Survey in the Information Economy, 2022. Survey period: 17 March – 14 April 2022.

er firms with 5 to 19 employees, 27 per cent have taken additional precautionary measures. At 55 per cent, this figure is twice as high for firms with 100 or more employees.

The vast majority of firms in the manufacturing industry faces negative consequences resulting from higher energy prices or limited access to intermediate inputs and products. In the manufacturing industry, 85 per cent of firms agree with the statement that higher energy prices are a serious economic burden on their business activities at the moment. Firms with 100 or more employees were more likely to agree with this statement (93 per cent) than firms with 5 to 19 employees (83 per cent) and 20 to 99 employees (84 per cent). In terms of supply chain disruptions, 88 per cent of firms in the manufacturing industry confirmed that restricted access to intermediate inputs and products currently poses a serious economic burden on their operations. Smaller firms with 5 to 19 employees agree with this

statement most often (91 per cent), compared to medium-sized and large firms (around 85 per cent).

Firms in the information economy, which primarily includes the services sector, also report to be negatively affected by higher energy prices or supply chain disruptions. Almost one in two firms in the information economy states that higher energy prices are currently a serious burden on their business activities. This figure is consistent among all firm sizes. In the survey, 36 per cent of all firms report that restricted access to intermediate inputs and products is currently severely affecting their business activities. However, about every second large company with 100 or more employees agrees that limited access to intermediate inputs and products is currently a serious burden on their business activities.

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Voters of All Ages Should Start Caring More About Future-Oriented Policies

Due to demographic change, Germany is increasingly developing into a so-called 'gerontocracy'. A reform lowering the voting age to 16 is supposed to counteract this. A recent ZEW study examines the question of whether such a reform is ambitious enough to anchor future-oriented interests more strongly in current politics. The study suggests that lowering the voting age does little to change a central limitation of democracy: If voters care only about their narrow interests, then policies will tend to be strongly shaped by the present and, in this case, an ageing society.

Germany is getting older and so are its voters: The most recent federal elections, for example, were dominated by people over 50, who made up 60 per cent of the electorate, while only 14 per cent of voters were under 30, compared to 19 per cent in 1961. This demographic change may have serious implications for the political system in Germany. Based on data from the Eurobarometer and the German Internet Panel (GIP), a recent ZEW study has examined the extent to which old people have different policy preferences than young people. Using past state-level reforms of the voting age in Germany, the study then investigates the potential implications of these age gradients for democratically adopted policies.

Preferences do vary by age. For example, the expansion of renewable energy or the relevance of digital technologies are areas that mainly younger voters tend to care about. The older generation, on the other hand, is more in favour of the debt brake and tax increases to support the pension system. Higher public spending on education, typically thought of as a policy targeting the youth, is widely supported across all age groups. Tax-financed redistribution policies and further European integra-

tion also appeal to old and young age groups, while middle-aged voters tend to reject these. According to the author of the ZEW expert brief, overall, these political preferences are not always linear and sometimes go in unexpected directions, in contrast to a view that sees voters as simple, self-interested actors.

Intergenerational altruism among voters should be encouraged

The study suggests that lowering the voting age would have little impact on shaping future policies. A voting age of 16 would bring about 1.5 million new voters aged 16 and 17, but they make up only 2.5 per cent of the electorate. Important policy goals of the future, such as climate change, cannot be left to only a small group of young voters. At the same time, the German population continues to age, while the voting age cannot be lowered much further than 16. So, if democratic participation is strictly limited to voting for policies that only benefit the narrowly defined self-interest, then this is a recipe for disaster in the long-term. However, the study's findings suggest that people's preferences are much more nuanced compared to a view that sees voters as selfish and unsophisticated. In particular, intergenerational altruism is important to people, and the data shows that this has improved in Germany and Europe in recent decades. Improving voter education on long-term issues combined with further promotion of intergenerational altruism may be the more promising path forward, the researcher concludes.

The ZEW expert brief can be downloaded at:

www.zew.de/PU83323-1

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Failed Founders More Likely to Fail Again

Failing with a start-up is usually considered as a valuable experience whose insights will help the founders to be more successful in their next start-up. However, this is a false conclusion, as a recent study by ZEW Mannheim and the Institute for SME Research (ifm) at the University of Mannheim shows. On the contrary, there is an above-average probability that those founders will fail again with future start-ups.

The probability that a start-up of founders who had previously failed will survive the first year is 3.8 percentage points lower than that of first-time founders. It is even 6.5 percentage points lower if founders did not voluntarily give up their previous business but had to file for bankruptcy. In that case, they are also 3.9 percentage points more likely to file for bankruptcy again with their new business.

The findings suggest that a failed start-up reflects the below-average entrepreneurial skills of the founders. Failed founders differ from first-time founders in many characteristics, such as their age, educational background, managerial experience, as well as in the sector of the start-up. In the empirical analysis, the researchers controlled for all these variables and showed that they are not decisive for the fact that start-ups of failed founders survive less often than those of first-time founders. Rather, the reason seems to be that failed founders on average

lack entrepreneurial skills. According to the study, funding programmes that make it easier for all failed founders to start a new business without making any further distinctions should therefore be viewed critically. With the goal formulated in the coalition agreement to establish a “culture of second chances”, the federal government wants to make it easier for founders to receive support with start-up financing.

The study indicates that a differentiated approach would make more sense. It would be advisable to filter out promising entrepreneurs from the group of failed founders and provide them with targeted support. Supporting the entire group of failed founders in further start-ups would consume resources without creating value. These resources could be used more sensibly elsewhere. Such an approach harms both the individual entrepreneurs and society as a whole.

The ZEW study is based on data from the IAB/ZEW Start-up Panel, which tracks the development of newly founded enterprises over several years and provides extensive firm-specific information. For this purpose, about 6,000 enterprises are interviewed by telephone every year on behalf of ZEW and the Institute for Employment Research (IAB).

The study can be downloaded at: www.zew.de/PU82891-1

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Minimum Standards Can Speed Up the Expansion of Renewables in Heat Supply

Minimum standards can be effective in motivating homeowners to replace gas and oil heating systems. This is the result of a recent study by ZEW Mannheim and the Leibniz Institute of Ecological Urban and Regional Development (IOER) Dresden.

The heat transition is essential for Germany to achieve its climate goals. In view of the war in Ukraine and related sanctions, the heat transition has now become an even more urgent matter

than before. Heating the high existing building stock in Germany with renewable energies is a Herculean task. Unfortunately, this has gone unnoticed for too long, according to the study authors. Heating systems based on renewable energies are often more expensive for consumers than fossil-based systems. For example, gas boilers still accounted for around 70 per cent of the 900,000 newly installed heating systems in 2021. Heat pumps utilizing environmental heat accounted for only 17 per

cent. On average, heating is responsible for one third of energy consumption and 40 per cent of carbon dioxide emissions in the European Union.

With its energy price relief package, the German government coalition also wants to drive forward the heating transition. For example, every newly installed heating system is to be powered by 65 per cent renewable energies from 2024. The federal government’s goal is ambitious. However, the question is whether such minimum targets will have a successful impact on the market. That’s what the researchers wanted to examine in the study.

Baden-Württemberg’s special regulatory path

For the analyses, the researchers take a closer look at the special regulation that Baden-Württemberg opted for at the end of the 2000s. At that time, the nationwide focus of energy policy was on new buildings. For example, the federal government has required the use of renewable heating technologies in new buildings since 2009.

However, the Renewable Energies Heat Act (Erneuerbare-Wärme-Gesetz; EWärmeG) introduced in Baden-Württemberg also obliged owners of existing buildings to cover at least ten per cent of their heating demand with renewable energies when replacing the heating system from 2010 onwards. In addition to the use of renewable energies, homeowners could also resort to a number of alternative options to meet this obligation. These included, for example, choosing a biogas tariff or purchasing bio-oil.

Using data on applications for federal subsidies for renewable heating systems, the team of researchers analysed how often these were approved in Baden-Württemberg before and after the legal obligation came into force, compared to neighbouring federal states that have not passed a comparable regulation. For the period from 2007 to 2014, the researchers find a positive

and statistically significant effect of an average of two additional approved applications per 1,000 eligible buildings. Assuming a retrofitting rate of one per cent per year, this would correspond to an increase in the adoption of renewable heating technologies of about 20 per cent after the introduction of the EWärmeG.

The EWärmeG in Baden-Württemberg aims to encourage homeowners to invest in renewable heating systems in existing buildings who would not otherwise have considered such an investment despite the availability of state subsidies. The combination of mandatory and subsidised renewable heating thus leads to an increase in the use of renewable heating technologies in existing residential buildings.

Alternative options and higher replacement costs can run counter to the positive effect of the subsidy

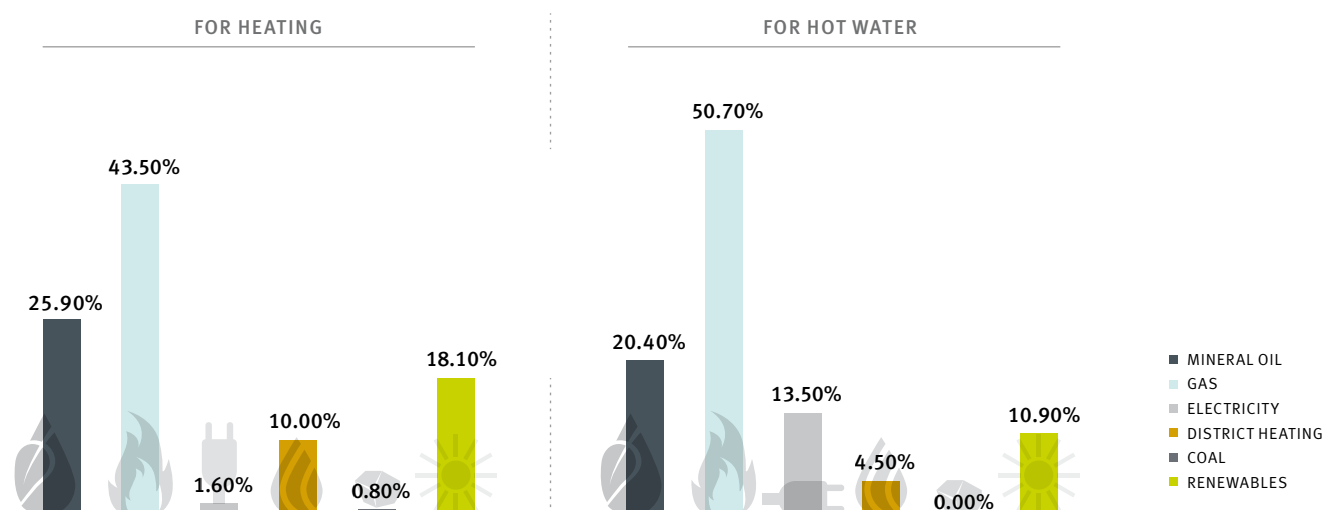
The scheme is particularly effective in municipalities where renewable heat supply was particularly scarce. There, the obligation led to an above-average number of investments in heat pumps and other renewable heating systems, with six approved applications per 1,000 eligible buildings.

In view of the results, the study authors conclude that the carrot-and-stick policy seems to have a complementary effect. However, they also observe that the positive effects of the regulation could be mitigated by alternative compliance options, such as choosing a biogas tariff, or even partially counteracted by delaying the replacement of heating systems. This underlines the importance of taking a close look at the details when designing such regulations.

The study can be downloaded at: www.sciencedirect.com/science/article/pii/S0166046221001137?via%3Dihub

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ENERGY SOURCES USED BY HOUSEHOLDS IN GERMANY



Energy sources by application – 2020, shares in per cent.

Source: Arbeitsgemeinschaft Energiebilanzen, RWI and ZEW



Photo: © Erich Dichiser EDM

“Climate Protection Must Be Worthwhile” – #ZEWBookTalk with Achim Wambach

What contribution must municipalities, the federal government and the EU make in order to achieve the climate targets? Which instruments are effective and which are counterproductive? And what can each and every one of us do to make a difference? These are some of the questions ZEW President Professor Achim Wambach addresses in his latest book “Klima muss sich lohnen” (“Climate Protection Must Be Worthwhile”). At the #ZEWBookTalk on 4 July 2022, the economist gave a preview of his book and presented its core theses. In his presentation, Wambach provided the around 55 participants with an overview of the various dimensions of climate policy. Furthermore, he pleaded for more economic rationality in the choice of appropriate instruments, as markets and mechanisms operating in the background determine the effectiveness of individual climate policy measures. The way they operate, however, is less obvious than often assumed.

“In no other area of politics does the public discourse differ so much from the views of economists as in the debates on climate policy,” said Wambach, opening his talk. This observation prompted him to write a book that argues for an economic perspective, evaluating measures based on their climate policy impacts and taking into account the economic interdependencies of the various instruments.

Wambach supports expansion of the EU ETS as a key instrument

Wambach demonstrated his standpoint regarding several measures currently under discussion, including the proposal to install solar panels on all buildings in a city. “Equipping roofs with solar panels alone has no positive effect on climate protection in Europe,” said Wambach. This is because electricity generation is part of the European emissions trading scheme. If the city uses less conventional electricity after installing solar panels, the electricity producer needs fewer emission certificates, which would then be bought by another European elec-

tricity producer or industrial company, because the total amount of certificates is capped. Nevertheless, according to Wambach, solar panels can be economically beneficial when other energy sources are more expensive. However, the decision should be based on economic considerations rather than on climate policy reasons.

The same mechanism can be observed for Germany’s coal phase-out: “From a climate policy perspective, the planned delay of the coal phase-out is not a problem, as coal-fired power is covered by certificate trading,” Wambach explained. “If we use more certificates, the cap ensures that others will use less.”

Wambach supports the expansion of the EU Emissions Trading Scheme as a key instrument. “Not introducing a second EU emissions trading scheme for the buildings and transport sectors would be a step backwards in climate policy.” The European Parliament and the Council still have to agree on the final version of the planned reform. At the same time, Wambach stressed that Europe is responsible for less than ten per cent of global CO₂ emissions and that climate policy must be treated as a global issue. He considers the establishment of a climate club and the implementation of replicable climate policy measures to be the most important levers for solving climate policy problems. These measures also require additional investment in innovation at the federal level.

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COMING SOON

The book “Klima muss sich lohnen – Ökonomische Vernunft für ein gutes Gewissen” will be published (in German only) on 15 August 2022 by Herder Verlag.

Q&A: Research as the Foundation of a Corporate Spin-Off?

“Products Need to Be Developed Quickly and in a Market-Oriented Way”

ZEW researcher Dr. Jan Kinne founded the start-up *istari.ai* together with Dr. David Lenz from Giessen University while completing their doctorate. *Istari.ai* uses artificial intelligence to analyse corporate information based on text-based web data. In this interview, the economist looks back on the time when the company was founded, gives researchers advice on founding a start-up and explains how his company *istari.ai* provides added value to companies and decision-makers in politics.

You founded the start-up *istari.ai* in March 2019. How did it all start?

I already worked a lot with company data during my studies and wrote my bachelor's and master's thesis based on the Mannheim Enterprise Panel and the Mannheim Innovation Panel. Our start-up ultimately resulted from a research project on web-based innovation indicators by ZEW and Giessen University. This is also where I met my co-founder David Lenz.

The idea of the project was to determine whether companies are innovative by analysing their websites and to use artificial intelligence to generate market and corporate information in real time from company websites. The internet is full of information about companies, but only a small fraction of it can be found in traditional business databases. Traditional data sources, e.g. patent data or company surveys, often include obsolete information or do not consider specific aspects. Soon we realised, web-based data on companies has the potential to be used outside of innovation research as well. Then, in early 2019, we registered an entrepreneurial company.

Who is interested in your data? What are your main target groups?

At first we sold our data to universities and research institutions. Last year, we primarily focused on sponsors of regional economic development, associations and ministries. This is where policymakers come into play. There are many reasons why they need an up-to-date overview of the regional economy or their sector to make good decisions. For instance, *istari.ai* was able to show the impact that COVID-related measures had on companies in spring 2020. Instead of relying on rigid and often obsolete data in traditional business databases, they can use our data to see the situation as it was e.g. one week ago.

Another example: Let's say I want to know which companies in my region are active in the field of AI or who I can contact if I want to organise a workshop or pursue a digitalisation agenda in my region or field. In these cases, we can provide the necessary information.

A further increasingly important target group is what we call 'professional services and consulting'. This includes all analysts and consultants who carry out market or sector analyses and

also rely on up-to-date information, for example on the topics of sustainability and artificial intelligence.

What advice would you give to other researchers who are planning a start-up?

I would recommend taking the next step and venturing into founding a start-up if you have a good idea. I quickly learned that researchers always feel the need to explain everything in detail. This is not necessary in business. You have to be convincing, show that there is a market need for your product and that someone will really benefit from it and is willing to pay for it. This aspect is very important and perhaps not so appealing to some scientists. You need to try to develop market-oriented products, to develop them quickly and sometimes leave your inner perfectionist at the door.

You know both the role of a scientist and that of a CEO of a start-up. Which one do you prefer?

They are really two very different roles. What I miss a bit in my role as an entrepreneur is the opportunity you have as a researcher to work very intensively on a certain topic. It's great to have the opportunity to fully immerse yourself in a topic and take time for it.

As an entrepreneur, on the other hand, this is hardly possible. You have to work in a very practice-oriented manner and everything needs to happen much faster. What I like about the business side is the broad spectrum of tasks. Every few days something new comes along and you have to adapt and find quick solutions. In a team as small as ours, you can't just pass the job on to someone else. You are responsible for everything yourself, from personnel and tax issues to technical matters. Despite the many challenges, it is still a lot of fun, and I have to say: Over the last year, I have learned more than in many years before.

→ Find further information on this topic at:
www.zew.de/AM8210-1



Dr. Jan Kinne

is a researcher in ZEW's "Economics of Innovation and Industrial Dynamics" Department. His research interest lies in the use of text-based web data for innovation research. In March 2019, he founded the start-up *istari.ai* together with Dr. David Lenz. jan.kinne@zew.de



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Your ZEWnews team

Zareh Asatryan Appointed to Armenia’s Economic Policy Council

Dr. Zareh Asatryan, deputy head of the Research Department “Corporate Taxation and Public Finance” at ZEW Mannheim, has been appointed to the Economic Policy Council to the Prime Minister of Armenia. The independent council was established in May 2022. Together with eight other experts from academia, politics and business, Zareh Asatryan will provide policy advice to the Armenian government as input for the design of economic reforms. The ZEW economist will contribute with his expertise especially in the area of public finances. Dr. Asatryan explains:



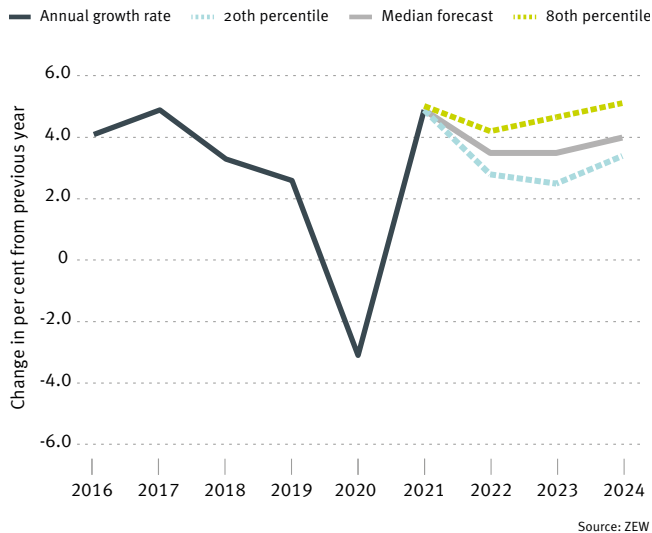
ZEW economist Zareh Asatryan has been appointed to Armenia’s Economic Policy Council.
Photo: ZEW

“Armenia is facing major economic challenges as a result of ongoing political and economic transformations in the world as well as due to major regional shocks. I look forward to contributing my knowledge – especially in the areas of fiscal and tax policy – in order to help the country make better informed economic policy decisions.”

ZEW research department head Professor Friedrich Heinemann adds: “The fact that Zareh Asatryan has been selected for this prestigious and important task is a testament to his outstanding work. It also shows the great economic policy relevance of ZEW research in the field of public finance, which is highly appreciated even beyond the borders of the EU.”

Zareh Asatryan studied economics at Humboldt University in Berlin and applied mathematics and statistics at the State University of New York at Stony Brook in the USA. In 2015, he obtained his PhD in economics from the University of Freiburg. His research focuses on public finance, political economy and development economics. His research has been published in journals such as the Journal of Public Economics and the Review of Economics and Statistics. According to RePEc, Dr. Asatryan is ranked among the top one per cent of young economists worldwide whose first publication was ten or fewer years ago. He has been a board member of the Armenian Economic Association for over ten years.

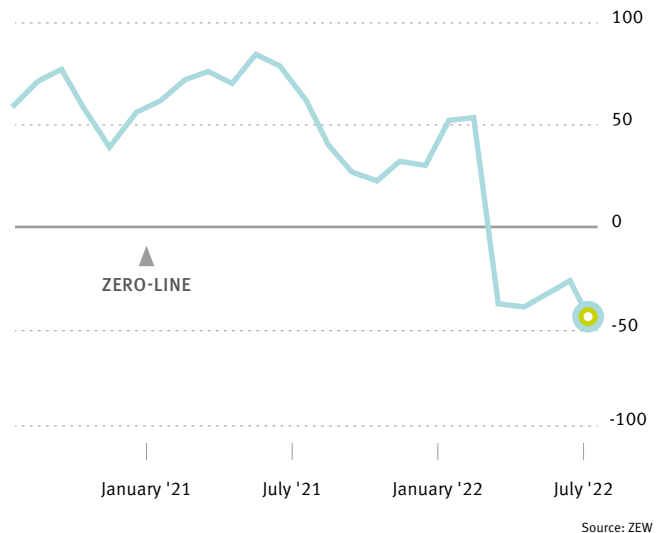
Energy Crisis, Raw Material Shortages and Supply Bottlenecks Lower Growth Forecasts



The German economy will grow only moderately by 1.5 per cent in 2022, according to the assessment of the financial market experts surveyed by ZEW Mannheim in July 2022. Compared to April 2022, the respondents have revised their forecast for 2023 downwards from 2.5 to 1.5 per cent. The experts do not expect the economy to accelerate before 2024, when growth is expected to reach 2.0 per cent. Rising inflation, raw material shortages and disrupted supply chains have the strongest negative impact on respondents' growth forecast. About 38 and 51 per cent of participants, respectively, say that energy prices had a negative or strongly negative impact on their forecast. 53 and 21 per cent of respondents, respectively, attribute a negative or strongly negative influence to inflation (excluding energy prices) on their forecast. The third and fourth strongest influencing factors are the shortage of raw materials and supply chain disruptions.

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ZEW Indicator of Economic Sentiment Collapses



The ZEW Indicator of Economic Sentiment for Germany slumped by 25.8 points to a value of minus 53.8 points in the July 2022 survey. The assessment of the economic situation in Germany has also decreased sharply and currently stands at minus 45.8 points, 18.2 points lower than in the previous month. Both the assessment of the economic situation and the expectations are thus even slightly below the values recorded in March 2020 at the beginning of the COVID-19 crisis. The current major concerns about the energy supply in Germany, the ECB's announced interest rate hike and further pandemic-related restrictions in China have led to a considerable deterioration in the economic outlook. The experts have further lowered their already unfavourable forecasts for the next six months, especially for the energy-intensive and export-oriented sectors of the economy. Private consumption is also assessed as significantly weaker.

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Economics of Public Procurement

ZEW, jointly with the University of Turku and the VATT Institute for Economic Research, is pleased to announce the 4th Economics of Public Procurement Workshop, which will take place in Mannheim on 27 and 28 October 2022. The workshop aims to provide an annual forum to discuss recent advances in the economic analysis of public procurement and to bring together economists active in the field. Both empirical and theoretical work is welcome. Interested authors are asked to submit an extended abstract or, preferably, a full paper in PDF format by 8 August 2022. More Information: www.zew.de/VA3871-1

14th ReCapNet Conference

ZEW is happy to host the 14th Conference of the Network on Real Estate Markets and Capital Markets (ReCapNet) to be held at the end of October 2022. The conference focuses on a broad range of topics related to real estate markets and their connected capital markets. Theoretical, empirical and policy-oriented contributions on this topic and on all areas of real estate finance and real estate economics are welcome. Interested researchers are asked to submit their full papers in PDF format no later than 15 August 2022. The conference is planned to be held in person. More information: www.zew.de/VA3906-1



Photo: Anna Logue

Embracing Free Trade

China.Table: Russia's invasion of Ukraine has shown once again the risks of having close ties with a country ruled by an authoritarian regime. Shouldn't Russia's actions teach us a lesson regarding China?

Wambach: A number of recent studies have looked into the poten-

tial consequences of us ending trade with China. Our GDP would drop between one and four per cent. The Chinese and the European economic area are closely intertwined.

China.Table: That doesn't sound so bad.

Wambach: But it would be. Around ten per cent of German exports go to China. Many trade and procurement channels would need to be adapted in case of a serious conflict. The companies affected by these changes would face considerable losses. Then there are the investments of German entrepreneurs in China itself. If local production is impaired, this would at least reduce the company value. Stopping business in China is feasible, still it would hurt the German economy a lot. However, I do not see a development in this direction at the moment. Large German companies continue to invest in China. It is rather small companies that are reconsidering their business in China because of the many security requirements.

China.Table: Which is understandable, isn't it?

Wambach: In the light of recent events, we should indeed analyse in which areas we have become too dependent on individual countries and where we can establish new supply chains. These are the lessons we are learning from the conflict with Russian. Every large company doing business in China is now confronted with this question. Most of them, however, aim to overcome dependencies, rather than to cut ties with China in general.

China.Table: Doesn't China already have certain companies under its thumb? VW and Daimler generate more than half of their business turnover in China.

Wambach: It would be wrong for VW to withdraw from China completely. Perhaps trade has not resulted in the change we once hoped for. Still, constant exchange has brought a certain degree of stability to our relations with China. I am convinced that Volkswagen and other companies will now closely examine

how vulnerable they are in case the West imposes comprehensive sanctions against China in the future.

China.Table: What should they do?

Wambach: I recommend carrying out stress tests. Every company should run through all possible risk scenarios. Hardly anyone had considered Russia as a potential risk factor. Otherwise we would not be as dependent on Russian gas as we are now. This is also true for other raw materials, e.g. rare earths or computer chips, where we are too dependent on single countries.

China.Table: What conclusions can we draw from this?

Wambach: German companies should put their focus on other geographical regions again, such as India and South America, but also North America, especially in the case of VW. This does not mean that VW should end all production in China. I recommend keeping up trade but constantly working to reduce dependencies. However, it is not enough for only companies to engage in risk management. As we have seen recently, there are systemic risks that companies cannot address alone. Policymakers can support companies in many ways, e.g. in the search for new sources of raw materials. Also, more trade agreements can give companies access to new sales markets.

China.Table: Do you recommend embracing free trade instead of renationalisation?

Wambach: I recommend that we should try to diversify trade at least. To avoid dependencies, it is necessary to have many trading partners, not just one. Many regions of the world still have a phase of high economic growth ahead of them. And not all of them are autocracies. German companies with a lot of experience in international trade would be very well positioned there.

President of ZEW, Prof. Achim Wambach, PhD

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